



 west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Monday, May 20, 2019
 WELL WORK PERMIT
 Vertical / New Drill

MOUNTAINEER STATE ENERGY, INC.
 1603 LBJ FREEWAY, SUITE 300

DALLAS, TX 75234

Re: Permit approval for APLIN-DUVALL 351
 47-035-03029-00-00

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: APLIN-DUVALL 351
 Farm Name: WILLIAM AND DENISE DUVALL
 U.S. WELL NUMBER: 47-035-03029-00-00
 Vertical New Drill
 Date Issued: 5/20/2019

05/24/2019



west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street SE, Charleston, WV 25304
304-926-0499 Ext 1274

Barry K. Lay, Chairman
dep.wv.gov

May 2, 2019

Department of Environmental Protection
Office of Oil and Gas
Charleston, WV 25304

RE: Application for Deep Well Permit – API #47-035-03029

COMPANY: Mountaineer State Energy, Inc.

FARM: William and Dennise Duvall

Aplin-Duvall #351

COUNTY: Jackson

DISTRICT: Grant

QUAD: Rockport

The deep well review of the application for the above company is Approved to drill to Oriskany for completion.

The applicant has complied with the provision of Chapter 22C-9, of the Code of West Virginia, nineteen hundred and thirty-one (1931), as amended, Oil and Gas Conservation Commission as follows:

1. Comments to Notice of Deviation filed? NA
2. Provided a certified copy of duly acknowledged and recorded consent and easement form from all surface owners? NA
3. Provided a tabulation of all deep wells within one mile of the proposed location, including the API number of all deep wells: None
4. Provided a plat showing that the proposed location is a distance of 400+ feet from the nearest lease line or unit boundary and showing the following wells drilled to or capable of producing from the objective formation within 3,000 feet of the proposed location.

Sincerely,

Susan Rose
Administrator

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.

Deep

4703503029

05/24/2019
ck#
\$900.00

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: Mountaineer State Energy, Inc. 45650 Jackson Grant Rockport
Operator ID County District Quadrangle

2) Operator's Well Number: # 351 3) Elevation: 983'

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

5) Proposed Target Formation(s): Oriskany Proposed Target Depth: 5200'

6) Proposed Total Depth: 5150' Feet Formation at Proposed Total Depth: Oriskany

7) Approximate fresh water strata depths: 200,400,500'

8) Approximate salt water depths: 1400-C1800'

9) Approximate coal seam depths: N/A RECEIVED Office of Oil and Gas

10) Approximate void depths,(coal, Karst, other): N/A FEB 12 2019

11) Does land contain coal seams tributary to active mine? N/A WV Department of Environmental Protection

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)

D Drill and complete vertical Oriskany well, if salt water encountered@1800' switch to fluid and mud pump to complete intermediate last 400'

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"	J55	45#		1 joint 42'	CTS
Fresh Water	9 5/8	J55	#36		550	CTS
Coal	N/A	-	-	-	-	-
Intermediate	7"	J55	23#	2700	2700	CTS 400 SX
Production	4 1/2	J55	11 1/2 #	5200	5200	3000 Fill Up 2 3/8
Tubing	2 3/8	J55	4.7#	5200		
Liners						

JD
11-8-18

Packers: Kind: _____
Sizes: _____
Depths Set _____

WW-2A
(Rev. 6-14)

1). Date: 2/12/19
2.) Operator's Well Number # 351
State County Permit
3.) API Well No.: 47- Jackson -

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 William and Dennise Duvall ✓
Address 724 Green Road
Kenna WV 25248
(b) Name _____
Address _____
(c) Name _____
Address _____
5) (a) Coal Operator
Name Mountaineer State Energy, Inc
Address _____
(b) Coal Owner(s) with Declaration
Name N/A
Address _____
Name N/A
Address _____
RECEIVED
Office of Oil and Gas
FEB 12 2019
5) Inspector JOE TAYLOR
1478 Claylick Road
Riplev, WV 25271 *JOE*
Telephone 304-380-7469
(c) Coal Lessee with Declaration
Name WV Department of
Environmental Protection
Address _____

TO THE PERSONS NAMED ABOVE TAKE NOTICE THAT:

OR Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas

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 Mountaineer State Energy Inc
By: John D. Keys
Its: B.M + V.P.
Address: Po Box 27 Sandyville WV 25275
Telephone: 304-273-9313
Email: jkent@mountaineerenergy.com
Subscribed and sworn before me this 12th day of November, 2018

My Commission Expires _____
Oil and Gas Privacy Notice

WW-2A Coal Waiver

COAL OPERATOR, OWNER, OR LESSEE WAIVER

County Jackson
Operator Mountaineer State Energy, Inc.

Operator's Well Number # 351

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 57th St. SE
Charleston, WV 25304
(304) 926-0499 extension 1654

RECEIVED
Office of Oil and Gas

FEB 12 2019

WV Department of
Environmental Protection

WAIVER

The undersigned coal operator N/A / owner N/A / lessee N/A / 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 Mountaineer State Energy, Inc.
By *John D. Kent*
Its *V.P. + GM* Date _____

John D. Kent
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
APLIN HEIKS	MOUNTAINEER STATE ENERGY, INC.	1/8	SEE ATTACHED DECLARATION NOTICE OF UNITIZATION

RECEIVED
Office of Oil and Gas
FEB 12 2019
WV Department of Environmental Protection

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

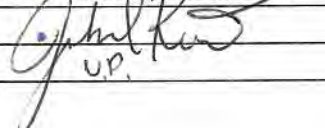
The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- 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:

Mountaineer State Operations, Inc.



U.P.

4703303029 05/24/2019

West Virginia Secretary of State — Online Data Services

Business and Licensing

Online Data Services Help

Business Organization Detail

NOTICE: The West Virginia Secretary of State's Office makes every reasonable effort to ensure the accuracy of information. However, we make no representation or warranty as to the correctness or completeness of the information. If information is missing from this page, it is not in the The West Virginia Secretary of State's database.

CARL E. SMITH PETROLEUM, INC.

Organization Information								
Org Type	Effective Date	Established Date	Filing Date	Charter	Class	Sec Type	Termination Date	Termination Reason
C | Corporation	4/14/1981		4/14/1981	Domestic	Profit		9/10/2008	Merger

Organization Information			
Business Purpose	2111 - Mining, Quarrying, Oil & Gas Extraction - Oil and Gas Extraction - Crude Oil and Natural Gas Extraction		Capital Stock 1000.0000
Charter County	Jackson	Control Number	0
Charter State	WV	Excess Acres	0
At Will Term		Member Managed	
At Will Term Years		Par Value	1.000000
Authorized Shares	1000	Young Entrepreneur	Not Specified

4703503029

Addresses	
Type	Address
Notice of Process Address	JAMES W. LANE, JR. 205 CAPITOL STREET, SUITE 400 CHARLESTON, WV, 25301 USA
Principal Office Address	INTESECTION ROUTES 21 & 53 SANDYVILLE, WV, 25275 USA
Type	Address

Officers	
Type	Name/Address
Incorporator	CARL E. SMITH, INC. P. O. BOX 4 SANDYVILLE, WV, 25275
President	GENE S. BERTCHER INTERSECTION RTS. 21 & 53 SANDYVILLE, WV, 25275 USA
Secretary	OSCAR SMITH INTERSECTION RTS. 21 & 53 SANDYVILLE, WV, 25275 USA
Treasurer	GENE S. BERTCHER INTERSECTION RTS. 21 & 53 SANDYVILLE, WV, 25275 USA
Vice-President	OSCAR SMITH INTERSECTION RTS. 21 & 53 SANDYVILLE, WV, 25275 USA
Type	Name/Address

Subsidiaries	
Name	Address

05/24/2019

4703503029

CARL E SMITH, INC
 PO BOX 4
 SANDYVILLE, WV, 25275
 USA

Name	Address
-------------	----------------

Date	Amendment
9/10/2008	MERGER: MERGIN WITH AND INTO CARL E. SMITH, INC., A QUALIFIED WV CORPORATION, THE SURVIVOR
Date	Amendment

Annual Reports	
Filed For	
2009	
2008	
2007	
2006	
2005	
2004	
2003	
2001	
2000	
1999	
Date filed	

For more information, please contact the Secretary of State's Office at 304-558-8000.

Wednesday, May 15, 2019 — 4:34 PM

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Business and Licensing

4703503029

Online Data Services Help

Business Organization Detail

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MOUNTAINEER STATE ENERGY, INC.

Organization Information								
Org Type	Effective Date	Established Date	Filing Date	Charter	Class	Sec Type	Termination Date	Termination Reason
C | Corporation	5/26/1954		5/26/1954	Domestic	Profit			

Organization Information			
Business Purpose	2111 - Mining, Quarrying, Oil & Gas Extraction - Oil and Gas Extraction - Crude Oil and Natural Gas Extraction		Capital Stock 100000.0000
Charter County			Control Number 0
Charter State	WV	Excess Acres 0	
At Will Term	Member Managed		
At Will Term Years			Par Value 100.000000
Authorized Shares	1000	Young Entrepreneur	Not Specified

05/24/2019

4703503029

Addresses	
Type	Address
Mailing Address	1603 LBJ FREEWAY, SUITE 300 DALLAS, TX, 75234 USA
Notice of Process Address	NATIONAL REGISTERED AGENTS, INC. 5400 D BIG TYLER ROAD CHARLESTON, WV, 25313
Principal Office Address	1603 LBJ FREEWAY, SUITE 300 DALLAS, TX, 75234 USA
Type	Address

Officers	
Type	Name/Address
Director	GENE S. BERTCHER 1603 LBJ FREEWAY, SUITE 300 DALLAS, TX, 75234
Incorporator	HARRY E. KENT SANDYVILLE, WV, 25275 USA
Incorporator	GLEN D. SMITH RAVENSWOOD, WV, 26164 USA
President	GENE BERTCHER 1603 LBJ FREEWAY SUITE 300 DALLAS, TX, 75234
Secretary	GENE S BERTCHER 1603 LBJ FREEWAY SUITE 300 DALLAS, TX, 75234
Treasurer	GENE S BERTCHER 1603 LBJ FREEWAY SUITE 300 DALLAS, TX, 75234
Vice-President	JOHN KENT 1755 WITTINGTON PLACE, SUITE 340 DALLAS, TX, 75234

Type	Name/Address
	4703503029

Name Changes	
Date	Old Name
9/10/2008	CARL E. SMITH, INC.
Date	Old Name

Mergers				
Merger Date	Merged	Merged State	Survived	Survived State
12/26/2001	ACQCO, INC.	WV	CARL E. SMITH, INC.	WV
9/10/2008	CARL E. SMITH PETROLEUM, INC.	WV	CARL E. SMITH, INC.	WV
9/10/2008	CARL E. SMITH REAL ESTATE, INC.	WV	CARL E. SMITH, INC.	WV
Merger Date	Merged	Merged State	Survived	Survived State

Date	Amendment
9/10/2008	MERGER: MERGING CARL E. SMITH PETROLEUM, INC., A QUALIFIED WV CORPORATION WITH AND INTO CARL E. SMITH, INC., A QUALIFIED WV CORPORATION, THE SURVIVOR
9/10/2008	MERGER: MERGING CARL E. SMITH REAL ESTATE, INC., A QUALIFIED WV CORPORATION WITH AND INTO CARL E. SMITH, INC., A QUALIFIED WV CORPORATION, THE SURVIVOR
9/10/2008	NAME CHANGE: FROM CARL E. SMITH, INC.
12/26/2001	MERGER: MERGING ACQCO, INC., A QUALIFIED WV CORPORATION WITH AND INTO CARL E. SMITH, INC., A QUALIFIED WV CORPORATION, THE SURVIVOR
12/12/2001	AMENDMENT FILED CHANGING THE ADDRESS OF THE PRINCIPAL OFFICE.
7/24/1992	ADD - DECREASE IN STOCK FROM 100 SHARES AT A PAR VALUE OF \$100 TO 5,000 SHARES AT A \$1.00 PAR VALUE - TOTAL AUTHORIZED CAPITAL STOCK \$5,000.
4/7/1986	DECREASE: TO 10,000 SHARES AT PAR VALUE \$100.00

3/9/1970	CHANGE OF NAME FROM SMITH COMPANY ROLL 33
12/9/1969	CHANGE OF NAME FROM CARL E. SMITH, INC. ROLL 30
12/1/1969	CHANGE OF NAME FROM C. E. SMITH AND SONS, INC. ROLL 30
7/10/1968	AMENDMENT
5/5/1955	DECREASE; TO \$25,000;
Date	Amendment

Annual Reports	
Filed For	
2018	
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Date filed	

4703503029 05/14/2019

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For more information, please contact the Secretary of State's Office at 304-558-8000.

Wednesday, May 15, 2019 — 4:36 PM

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470 350302 \$195.00

DECLARATION - NOTICE OF UNITIZATION

Notice is hereby given that CARL E. SMITH PETROLEUM, INC., a West Virginia corporation, has pooled and unitized the gas leasehold estates, in the formations below the top of the Ononadaga Limestone in the following described leases, on the waters of McGraw of Left Fork of Sandy Creek in Grant District, Jackson County, West Virginia to form a drilling unit of 244.5 acres, more or less, for the production of oil or gas below the top of the Ononadaga Limestone from the Oriskany Sandstone formation, to-wit:

05/24/2019

CARL E. SMITH PETROLEUM, INC. LEASES

CARL E. SMITH PETROLEUM, INC. P.O. BOX 4, SANDYVILLE, WEST VIRGINIA 25275

LEASE NO. 3649.1: (Net acres in unit - 3.20) That certain lease dated January 18, 1997, granted by PAUL J. J. HARBIN, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 96 acres, more or less, and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 403.

LEASE NO. 3649.2: (Net acres in unit - 3.20) That certain lease dated January 18, 1997, granted by DARRELL HARBIN AND JANE HARBIN, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 96 acres, more or less, and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 409.

LEASE NO. 3649.3: (Net acres in unit - 3.20) That certain lease dated January 18, 1997, granted by VIRGINIA JOAN RAKE, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 96 acres, more or less, and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 405.

LEASE NO. 3649.4: (Net acres in unit - 3.20) That certain lease dated January 18, 1997, granted by FRED L. MORNINGSTAR AND JEAN MORNINGSTAR, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 96 acres, more or less, and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 407.

LEASE NO. 3649.5: (Net acres in unit - 16.0) That certain lease dated January 27, 1997, granted by JAMES L. HARBIN AND NORMA JEAN HARBIN, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 96 acres, more or less, and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 524.

LEASE NO. 3649.6: (Net acres in unit - 3.20) That certain lease dated January 27, 1997, granted by WILLIAM HARRISON AND RAMONA HARRISON, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 96 acres, more or less, and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 470.

LEASE NO. 3649.7: (Net acres in unit - 1.00) That certain lease dated January 29, 1997, granted by TORY HARRIS, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 96 acres, more or less, and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 530.

LEASE NO. 3649.8: (Net acres in unit - 1.00) That certain lease dated February 22, 1997, granted by KEITH HARRIS AND TRACY HARRIS, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 96 acres, more or less, and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 674.

LEASE NO. 3649.9: (Net acres in unit - 48.0) That certain lease dated January 10, 1997, granted by ANNA JANE PICKENS, widow, to CABOT OIL & GAS CORPORATION, covering an undivided interest in a tract of land containing 96 acres, more or less, and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 357 and thereby assigned to CARL E. SMITH PETROLEUM, INC. dated May 28, 1999 from CABOT OIL & GAS CORPORATION as recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia in Lease Book 235 at Page 284.



LEASE NO. 3649.10: (Net acres in unit - 4.0) That certain lease dated January 16, 1997, granted by BERNADINE O. YOUNG AND AUSTIN V. YOUNG, her husband, to CABOT OIL & GAS CORPORATION covering an undivided interest in a tract of land containing 96 acres, more or less, and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 493 and thereby assigned to CARL E. SMITH PETROLEUM, INC. dated May 28, 1999 from CABOT OIL & GAS CORPORATION as recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia in Lease Book 235 at Page 284. 05/24/2019

LEASE NO. 3649.11: (Net acres in unit - 4.0) That certain lease dated January 16, 1997, granted by VIOLET HULBOY AND HENRY HULBOY, her husband, to CABOT OIL & GAS CORPORATION covering an undivided interest in a tract of land containing 96 acres, more or less, and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 532 and thereby assigned to CARL E. SMITH PETROLEUM, INC. dated May 28, 1999 from CABOT OIL & GAS CORPORATION as recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia in Lease Book 235 at Page 284.

LEASE NO. 3649.12: (Net acres in unit - 2.0) That certain lease dated January 16, 1997, granted by ROSANNA MADVAY to CABOT OIL & GAS CORPORATION covering an undivided interest in a tract of land containing 96 acres, more or less, and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 670 and thereby assigned to CARL E. SMITH PETROLEUM, INC. dated May 28, 1999 from CABOT OIL & GAS CORPORATION as recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia in Lease Book 235 at Page 284.

LEASE NO. 3672.1: (Net acres in unit - .8571) That certain lease dated October 18, 1998, granted by GKEY KOONTZ AND RUTH ANN KOONTZ, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 6 acres, more or less, and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 234, at Page 580.

LEASE NO. 3672.2: (Net acres in unit - .8571) That certain lease dated October 18, 1998, granted by DALE THOMPSON AND JOYCE THOMPSON, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 6 acres, more or less, and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 234, at Page 574.

LEASE NO. 3672.3: (Net acres in unit - .8571) That certain lease dated October 18, 1998, granted by CARL O. THOMPSON AND VICKIE THOMPSON, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 6 acres, more or less, and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 234, at Page 586.

LEASE NO. 3672.4: (Net acres in unit - .8571) That certain lease dated October 18, 1998, granted by EARL W. THOMPSON AND MILDRED THOMPSON, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 6 acres, more or less, and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 234, at Page 576.

LEASE NO. 3672.5: (Net acres in unit - .8571) That certain lease dated February 11, 1999, granted by DONALD L. THOMPSON AND CAROLYN J. THOMPSON, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 6 acres, more or less, and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 235, at Page 107.

LEASE NO. 3672.6: (Net acres in unit - .8571) That certain lease dated November 10, 1998, granted by GRACE T. BROWDER AND BRUCE BROWDER, her husband, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 6 acres, more or less, and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 234, at Page 592.

LEASE NO. 3672.7: (Net acres in unit - .8571) That certain lease dated November 21, 1998, granted by WAYNE T. THOMPSON AND JOANNE THOMPSON, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 6 acres, more or less, and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 235, at Page 003.

LEASE NO. 3655.1: (Net acres in unit - 2.4167) That certain lease dated January 16, 1997, granted by JOHN GLOVER AND CAROLYN GLOVER, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 411. 05/24/2019

LEASE NO. 3655.2: (Net acres in unit - 1.2083) That certain lease dated January 21, 1997, granted by DOW WOLFE SR AND ELOISE WOLFE, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 427.

LEASE NO. 3655.3: (Net acres in unit - .9063) That certain lease dated January 18, 1997, granted by JACK WESTFALL AND ILA G. WESTFALL, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 421.

LEASE NO. 3655.4: (Net acres in unit - 1.2083) That certain lease dated January 22, 1997, granted by LAWRENCE E. STUCKEY AND ELEA STUCKEY, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 438.

LEASE NO. 3655.5: (Net acres in unit - .8056) That certain lease dated January 24, 1997, granted by MILDRED NULL, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 436.

LEASE NO. 3655.6: (Net acres in unit - .9063) That certain lease dated January 23, 1997, granted by CURTIS ROBBINS AND BETTY ROBBINS, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 434.

LEASE NO. 3655.7: (Net acres in unit - 1.8125) That certain lease dated January 22, 1997, granted by JACK WILLIAMSON AND THELMA WILLIAMSON, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 430.

LEASE NO. 3655.8: (Net acres in unit - 1.8125) That certain lease dated January 22, 1997, granted by GLENN GILKINSON AND KATHERINE GILKINSON, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 432.

LEASE NO. 3655.9: (Net acres in unit - .4028) That certain lease dated January 23, 1997, granted by ALMA RANDOLPH, widow, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 419.

LEASE NO. 3655.10: (Net acres in unit - 1.2083) That certain lease dated January 22, 1997, granted by GERALD MURRAY, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 440.

LEASE NO. 3655.11: (Net acres in unit - .4028) That certain lease dated January 27, 1997, granted by RAY THORNTON AND CAROLYN THORNTON, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 448.

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LEASE NO. 3655.12: (Net acres in unit - .9063) That certain lease dated January 18, 1997, granted by MARION R. WELCH AND LOU WELCH, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 518.

LEASE NO. 3655.13: (Net acres in unit - .4028) That certain lease dated January 28, 1997, granted by CARL THORNTON AND TWILA THORNTON, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 466.

LEASE NO. 3655.14: (Net acres in unit - .4028) That certain lease dated January 31, 1997, granted by GLENNIE SAMS, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 472.

LEASE NO. 3655.15: (Net acres in unit - .9063) That certain lease dated January 27, 1997, granted by OMA G. COX, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 468.

LEASE NO. 3655.16: (Net acres in unit - 1.2083) That certain lease dated December 2, 1996, granted by EDGAR BAUCH AND ETHEL BAUCH, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 474.

LEASE NO. 3655.17: (Net acres in unit - 1.2083) That certain lease dated February 1, 1997, granted by WAYNE KURLINSKI AND VIRGINIA KURLINSKI, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 528.

LEASE NO. 3655.18: (Net acres in unit - .3021) That certain lease dated February 6, 1997, granted by JACK LYONS AND GLADYS LYONS, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 540.

LEASE NO. 3655.19: (Net acres in unit - .4028) That certain lease dated February 4, 1997, granted by AMBER CRUM AND ADA CRUM, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 538.

LEASE NO. 3655.20: (Net acres in unit - 1.8125) That certain lease dated February 4, 1997, granted by THEODORE CHOUINARD AND MARGARET CHOUINARD, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 542.

LEASE NO. 3655.21: (Net acres in unit - 10.8750) That certain lease dated February 10, 1997 granted by FRED ARGENIO AND HELEN ARGENIO, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 576.

LEASE NO. 3655.22: (Net acres in unit - .3021) That certain lease dated February 12, 1997, granted by JUANITA SMITH, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 623. 05/24/2019

LEASE NO. 3655.23: (Net acres in unit - 1.2083) That certain lease dated February 19, 1997, granted by THOMAS CALGOS AND MARY CALGOS, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 660.

LEASE NO. 3655.24: (Net acres in unit - 1.6111) That certain lease dated February 18, 1997, granted by ROSA McCONNELL, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 658.

LEASE NO. 3655.25: (Net acres in unit - .3021) That certain lease dated February 19, 1997, granted by DONALD WAYNE MOORE AND MARY MOORE, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 656.

LEASE NO. 3655.26: (Net acres in unit - .3021) That certain lease dated February 19, 1997, granted by WILLIAM MOORE AND JOAN MOORE, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 702.

LEASE NO. 3655.27: (Net acres in unit - .3021) That certain lease dated February 27, 1997, granted by CHARLES MOORE AND ELIZABETH MOORE, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 735.

LEASE NO. 3655.28: (Net acres in unit - 1.8125) That certain lease dated March 4, 1997, granted by GLEN D. ARCHER AND SHARON ARCHER, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 757.

LEASE NO. 3655.29: (Net acres in unit - 1.8125) That certain lease dated March 5, 1997, granted by PAUL COOLEY AND GLORENE COOLEY, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 758.

LEASE NO. 3655.30: (Net acres in unit - .3021) That certain lease dated March 8, 1997, granted by CARL MOORE AND JOSEPHINE MOORE, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 781.

LEASE NO. 3655.31: (Net acres in unit - 1.8125) That certain lease dated March 7, 1997, granted by CHARLES EDDY AND RUTH EDDY, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 038.

LEASE NO. 3655.32: (Net acres in unit - 1.8125) That certain lease dated March 12, 1997, granted by ROBERT SWARTZ AND RUTH SWARTZ, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 044. 05/24/2019

LEASE NO. 3655.33: (Net acres in unit - 3.6250) That certain lease dated March 7, 1997, granted by WILLIAM FARLEY AND GLADYS FARLEY, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 042.

LEASE NO. 3655.34: (Net acres in unit - 1.2083) That certain lease dated February 24, 1998, granted by MICHAEL J. SMEDLEY AND SANDRA L. SMEDLEY to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 232, at Page 701.

LEASE NO. 3655.35: (Net acres in unit - 2.4167) That certain lease dated February 24, 1998, granted by DONNA LOTT - single MICHAEL J. SMEDLEY Power of Attorney, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 232, at Page 703.

LEASE NO. 3655.36: (Net acres in unit - 1.2083) That certain lease dated February 24, 1998, granted by RHENA STANLEY, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 232, at Page 705.

LEASE NO. 3655.37: (Net acres in unit - .4028) That certain lease dated March 6, 1998, granted by GLADYS THORTON - widow CRYSTAL JONES Power of Attorney, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 232, at Page 711.

LEASE NO. 3655.38: (Net acres in unit - 1.8125) That certain lease dated September 14, 1999, granted by CHARLES ARCHER AND JEANETTE ARCHER to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 235, at Page 485.

LEASE NO. 3655.39: (Net acres in unit - .1007) That certain lease dated September 15, 1999, granted by JUDI BOYLE to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 235, at Page 487.

LEASE NO. 3655.40: (Net acres in unit - .1007) That certain lease dated September 24, 1999, granted by JAMES C. BASTON to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 235, at Page 513.

LEASE NO. 3655.41: (Net acres in unit - .1007) That certain lease dated November 6, 1999, granted by DENNIS P. BASTON AND DIANE B. BASTON to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 116 acres, more or less, (but using for the purpose of this unitization only 58 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, WV, in Lease Book 236, at Page 033.

LEASE NO. 3656.1: (Net acres in unit - 1.3203) That certain lease dated 05/24/2019 January 22, 1997, granted by WILLIAM W. WAYBRIGHT, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 423.

LEASE NO. 3656.2: (Net acres in unit - .7545) That certain lease dated January 28, 1997, granted by MARVIN W. CULPEPPER AND CARMEN E. CULPEPPER, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 520.

LEASE NO. 3656.3: (Net acres in unit - .0782) That certain lease dated January 28, 1997, granted by TED B. LAW AND JANICE LAW, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, WV, in Lease Book 230, at Page 522.

LEASE NO. 3656.4: (Net acres in unit - 10.5625) That certain lease dated January 28, 1997, granted by WILMA JEAN KELCH, divorced, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 464.

LEASE NO. 3656.5: (Net acres in unit - .1408) That certain lease dated February 3, 1997, granted by DORTHA ANGUS, widow, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 516.

LEASE NO. 3656.6: (Net acres in unit - .176) That certain lease dated January 30, 1997, granted by OTHO TOLLEY, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 514.

LEASE NO. 3656.7: (Net acres in unit - .4311) That certain lease dated January 30, 1997, granted by WARREN P. HUDSON AND JUNE E. HUDSON, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, WV, in Lease Book 230, at Page 476.

LEASE NO. 3656.8: (Net acres in unit - .4311) That certain lease dated February 5, 1997, granted by MATTHEW AMATO, widower, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 526.

LEASE NO. 3656.9: (Net acres in unit - .7042) That certain lease dated February 6, 1997, granted by TRESSIE SKEEN, widow, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 536.

LEASE NO. 3656.10: (Net acres in unit - .3912) That certain lease dated February 7, 1997, granted by HELEN MALESKI, widow, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 534.

LEASE NO. 3656.11: (Net acres in unit - .2641) That certain lease dated February 11, 1997, granted by RONALD CONNERS, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 546.

LEASE NO. 3656.12: (Net acres in unit - .0391) That certain lease ~~dated~~ February 9, 1997, granted by WILLIAM H. RICKARD AND DOTTY LOU RICKARD, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 544. 05/24/2019

LEASE NO. 3656.13: (Net acres in unit - .503) That certain lease dated February 10, 1997, granted by JAMES A. EAKINS, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 548.

LEASE NO. 3656.14: (Net acres in unit - .503) That certain lease dated February 9, 1997, granted by DAYTON COPEN AND GLENDINE COPEN, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, WV, in Lease Book 230, at Page 549.

LEASE NO. 3656.15: (Net acres in unit - .1408) That certain lease dated February 8, 1997, granted by BILL WILLIAMS AND JOYCE WILLIAMS, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, WV, in Lease Book 230, at Page 555.

LEASE NO. 3656.16: (Net acres in unit - .1304) That certain lease dated February 11, 1997, granted by JOHN TRIPLETT AND DOROTHY TRIPLETT, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, WV, in Lease Book 230, at Page 557.

LEASE NO. 3656.17: (Net acres in unit - .1956) That certain lease dated February 12, 1997, granted by CURTIS J. FOUSE AND VELMA IRENE FOUSE, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 551.

LEASE NO. 3656.18: (Net acres in unit - .3018) That certain lease dated February 11, 1997, granted by ROY J. BAKER AND EUNICE BAKER, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, WV, in Lease Book 230, at Page 553.

LEASE NO. 3656.19: (Net acres in unit - .4311) That certain lease dated February 10, 1997, granted by BRUCE HUDSON AND LUCILLE HUDSON, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, WV, in Lease Book 230, at Page 574.

LEASE NO. 3656.20: (Net acres in unit - .1304) That certain lease dated February 10, 1997, granted by CAROLYN MITCHELL, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 580.

LEASE NO. 3656.21: (Net acres in unit - .0391) That certain lease dated February 14, 1997, granted by DAVID A. GAINER AND CAROL S. GAINER, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 578.

LEASE NO. 3656.22: (Net acres in unit - .5030) That certain lease dated February 7, 1997, granted by JERRY MANGUS AND PEGGY MANGUS, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 582. 05/24/2019

LEASE NO. 3656.23: (Net acres in unit - .5030) That certain lease dated February 18, 1997, granted by MAYFORD EAKINS AND DOROTHY EAKINS, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 625.

LEASE NO. 3656.24: (Net acres in unit - .0719) That certain lease dated February 17, 1997, granted by DONALD CONLEY AND SOTERA CONLEY, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 664.

LEASE NO. 3656.25: (Net acres in unit - .2641) That certain lease dated February 14, 1997, granted by ROY CONNER AND MARJORIE CONNER, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 662.

LEASE NO. 3656.26: (Net acres in unit - .4311) That certain lease dated February 19, 1997, granted by WILBERT L. STUTLER AND SHIRLEY A. STUTLER, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 654.

LEASE NO. 3656.27: (Net acres in unit - .0782) That certain lease dated February 21, 1997, granted by BASIL LAWRENTZ AND SARA LAWRENTZ, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 668.

LEASE NO. 3656.28: (Net acres in unit - .4311) That certain lease dated February 14, 1997, granted by FLOSSIE EAKIN, widow, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 670.

LEASE NO. 3656.29: (Net acres in unit - .1956) That certain lease dated February 19, 1997, granted by ROY MARTIN AND HELEN MARTIN, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson Co., West Virginia, in Lease Book 230, at Page 672.

LEASE NO. 3656.30: (Net acres in unit - .1408) That certain lease dated February 21, 1997, granted by WILLIAM O. TOLLEY AND MARGARET TOLLEY, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 666.

LEASE NO. 3656.31: (Net acres in unit - .7042) That certain lease dated February 21, 1997, granted by EVELYN LAMIELL, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 700.

LEASE NO. 3656.32: (Net acres in unit - .4694) That certain lease dated February 24, 1997, granted by WENDELL CORNETET JR. AND JUNE LESTER CORNETET, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 704. 05/24/2019

LEASE NO. 3656.33: (Net acres in unit - 1.7604) That certain lease dated February 24, 1997, granted by NORMA L. DESMOND, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 708.

LEASE NO. 3656.34: (Net acres in unit - .3912) That certain lease dated February 26, 1997, granted by SARAH BAKER, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 706.

LEASE NO. 3656.35: (Net acres in unit - 1.5648) That certain lease dated February 25, 1997, granted by DICK VALLEE AND HAZEL VALLEE, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 734.

LEASE NO. 3656.36: (Net acres in unit - .6036) That certain lease dated February 27, 1997, granted by JERRY BRABHAM AND CAROLYN BRABHAM, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 724.

LEASE NO. 3656.37: (Net acres in unit - .8802) That certain lease dated February 26, 1997, granted by BILL MEEK AND ELEANOR MEEK, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 722.

LEASE NO. 3656.38: (Net acres in unit - .4694) That certain lease dated February 27, 1997, granted by E. ROY LESTER, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 720.

LEASE NO. 3656.39: (Net acres in unit - .8802) That certain lease dated February 28, 1997, granted by GLENN ROMINE AND CAROL ROMINE, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 718.

LEASE NO. 3656.40: (Net acres in unit - .2641) That certain lease dated February 25, 1997, granted by DONALD CONNER AND DOROTHY CONNER, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 726.

LEASE NO. 3656.41: (Net acres in unit - .3018) That certain lease dated February 27, 1997, granted by ROY H. BRABHAM, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 728.

LEASE NO. 3656.42: (Net acres in unit - .0719) That certain lease dated March 2, 1997, granted by GEORGE KING AND MARJORIE KING, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 741. 05/24/2019

LEASE NO. 3656.43: (Net acres in unit - .4694) That certain lease dated March 4, 1997, granted by CHARLES LESTER AND CLARICE LESTER, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 739.

LEASE NO. 3656.44: (Net acres in unit - .0391) That certain lease dated March 4, 1997, granted by KERMIT DAVID ELLISON AND FRED A JEANNE ELLISON, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 737.

LEASE NO. 3656.45: (Net acres in unit - .3521) That certain lease dated March 7, 1997, granted by MARIE MILLER to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 755.

LEASE NO. 3656.46: (Net acres in unit - .7042) That certain lease dated March 1, 1997, granted by RICHARD MARTIN AND ELLEN MARTIN, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 753.

LEASE NO. 3656.47: (Net acres in unit - .1408) That certain lease dated March 3, 1997, granted by JOHN F. TOLLEY AND BETTY TOLLEY, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 751.

LEASE NO. 3656.48: (Net acres in unit - .7042) That certain lease dated March 3, 1997, granted by ROBERT ARCHER AND SHIRLEY ARCHER, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 34.

LEASE NO. 3656.49: (Net acres in unit - 1.2071) That certain lease dated March 10, 1997, granted by RUBY CASTO, widow, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 783.

LEASE NO. 3656.50: (Net acres in unit - .0391) That certain lease dated March 11, 1997, granted by BILLY R. ELMORE AND DIXIE ELMORE, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 36.

LEASE NO. 3656.51: (Net acres in unit - .4311) That certain lease dated March 5, 1997, granted by JUANITA HUDSON, widow, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 32.

LEASE NO. 3656.52: (Net acres in unit - .1956) That certain lease dated March 12, 1997, granted by LOU HALL AND MAXINE HALL, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 30. 05/24/2019

LEASE NO. 3656.53: (Net acres in unit - .2156) That certain lease dated February 21, 1997, granted by DAVID L. TRUMAN AND JANET TRUMAN, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 50.

LEASE NO. 3656.54: (Net acres in unit - .0719) That certain lease dated March 17, 1997, granted by NORMAN HARRIS AND LOIS HARRIS to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 153.

LEASE NO. 3656.55: (Net acres in unit - .8802) That certain lease dated February 18, 1997, granted by ARTHUR ROMINE AND RUTH ROMINE, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 155.

LEASE NO. 3656.56: (Net acres in unit - .6602) That certain lease dated April 9, 1997, granted by JAMES K. WAYBRIGHT AND HELEN WAYBRIGHT, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 193.

LEASE NO. 3656.57: (Net acres in unit - .0719) That certain lease dated April 12, 1997, granted by WILLIAM VanGORDER AND VELMA VanGORDER, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 225.

LEASE NO. 3656.58: (Net acres in unit - .1760) That certain lease dated April 17, 1997, granted by GARY TOLLEY AND DIXIE WASHINGTON, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 223.

LEASE NO. 3656.59: (Net acres in unit - .0604) That certain lease dated May 6, 1997, granted by IRA HENRY to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 296.

LEASE NO. 3656.60: (Net acres in unit - .0782) That certain lease dated May 5, 1997, granted by JAMES DROST AND KATHERINE ESTELLE DROST, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 300.

LEASE NO. 3656.61: (Net acres in unit - .0559) That certain lease dated May 8, 1997, granted by TOM AND JENNIFER PHILLIPS, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 298.

LEASE NO. 3656.62: (Net acres in unit - .0261) That certain lease dated May 12, 1997, granted by LESTER AND BETTY MILLER, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 288. 05/24/2019

LEASE NO. 3656.63: (Net acres in unit - .1304) That certain lease dated February 22, 1997, granted by HERBERT FANNIN AND DELPHA FANNIN, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 258.

LEASE NO. 3656.64: (Net acres in unit - .0604) That certain lease dated May 8, 1997, granted by LELIA DODSON, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 302.

LEASE NO. 3656.65: (Net acres in unit - .0604) That certain lease dated May 9, 1997, granted by JIM AND MARTHA HENRY, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 320.

LEASE NO. 3656.66: (Net acres in unit - .0559) That certain lease dated May 7, 1997, granted by KIMBERLY KUTSCHER, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 339.

LEASE NO. 3656.67: (Net acres in unit - .0719) That certain lease dated May 7, 1997, granted by LORENZO O. BRIGHTBILL III AND RUTH A. BRIGHTBILL, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 341.

LEASE NO. 3656.68: (Net acres in unit - .0559) That certain lease dated May 14, 1997, granted by ANDREW AND DAYNA OLEI, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 335.

LEASE NO. 3656.69: (Net acres in unit - .0604) That certain lease dated May 14, 1997, granted by SADIE HENSLEY to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 333.

LEASE NO. 3656.70: (Net acres in unit - .0559) That certain lease dated May 21, 1997, granted by TONEY EAKIN, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 371.

LEASE NO. 3656.71: (Net acres in unit - .0604) That certain lease dated May 22, 1997, granted by BELVA FAIN to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 373.

LEASE NO. 3656.72: (Net acres in unit - .1408) That certain lease dated June 2, 1997, granted by CARL R. AND MARY FRANCES SNYDER, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 378. 05/24/2019

LEASE NO. 3656.73: (Net acres in unit - .0604) That certain lease dated June 4, 1997, granted by JO HENRY, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 386.

LEASE NO. 3656.74: (Net acres in unit - .0604) That certain lease dated May 31, 1997, granted by FRANK AND BETTY HENRY, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 382.

LEASE NO. 3656.76: (Net acres in unit - .2347) That certain lease dated July 23, 1997, granted by BOB HENDERSON, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 565.

LEASE NO. 3656.77: (Net acres in unit - .0604) That certain lease dated July 21, 1997, granted by FRANK AND ANN SHAMBLIN, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 563.

LEASE NO. 3656.78: (Net acres in unit - .1956) That certain lease dated July 22, 1997, granted by ERNEST F. ARCHER AND ELIZABETH ARCHER, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 561.

LEASE NO. 3656.79: (Net acres in unit - .0587) That certain lease dated July 24, 1997, granted by JUDITH CAMPBELL, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 572.

LEASE NO. 3656.80: (Net acres in unit - .8802) That certain lease dated July 23, 1997, granted by GARLAND ROMINE, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 569.

LEASE NO. 3656.81: (Net acres in unit - .1760) That certain lease dated July 21, 1997, granted by THOMAS KISH AND LENORA KISH, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 584.

LEASE NO. 3656.82: (Net acres in unit - .6036) That certain lease dated July 23, 1997, granted by IRENE PARSONS, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 580.

LEASE NO. 3656.83: (Net acres in unit - .2156) That certain lease dated July 25, 1997, granted by STEVE AND YVETTE TRUMAN, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 582. 05/24/2019

LEASE NO. 3656.84: (Net acres in unit - 1.3203) That certain lease dated July 30, 1997, granted by MILLIE M. WAYBRIGHT, divorced, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 586.

LEASE NO. 3656.85: (Net acres in unit - .0587) That certain lease dated July 28, 1997, granted by DANNY MARTIN AND SANDRA MARTIN, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 588.

LEASE NO. 3656.86: (Net acres in unit - .6602) That certain lease dated February 24, 1997, granted by BOBBY V. LANHAM AND CANDACE LOUISE LANHAM, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 559.

LEASE NO. 3656.87: (Net acres in unit - .0587) That certain lease dated July 31, 1997, granted by THOMAS AND ELIZABETH MARTIN, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 594.

LEASE NO. 3656.88: (Net acres in unit - .0196) That certain lease dated July 31, 1997, granted by BARBARA O'QUINN, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 596.

LEASE NO. 3656.89: (Net acres in unit - .7042) That certain lease dated August 6, 1997, granted by EDGAR B. TIMMS, JR. AND MARY RUTH TIMMS, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 619.

LEASE NO. 3656.90: (Net acres in unit - .0587) That certain lease dated August 4, 1997, granted by JUANITA SAYRE AND RAY SAYRE, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 231, at Page 617.

LEASE NO. 3656.91: (Net acres in unit - .0587) That certain lease dated September 26, 1997, granted by EDWARD M. MARTIN AND MARION J. MARTIN, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 232, at Page 35.

LEASE NO. 3656.92: (Net acres in unit - .2201) That certain lease dated September 15, 1997, granted by CHRISTOPHER AND LISA L. ZANISH, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 232, at Page 23.

LEASE NO. 3656.93: (Net acres in unit - .0196) That certain lease dated September 24, 1997, granted by JOYCE DORSEY AND D. L. DORSEY to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 232, at Page 37. 05/24/2019

LEASE NO. 3656.94: (Net acres in unit - .7545) That certain lease dated October 16, 1997, granted by MAXINE HARPER O'DELL to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 232, at Page 80.

LEASE NO. 3656.95: (Net acres in unit - .2347) That certain lease dated October 27, 1997, granted by ROMIE REX FRYE, WIDOWER, TRUSTEE FOR THE ESTATE OF DOROTHY WILLIAMS to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 232, at Page 116.

LEASE NO. 3656.96: (Net acres in unit - .1760) That certain lease dated October 13, 1997, granted by MELVIN R. TOLLEY AND WANDA TOLLEY, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 232, at Page 373.

LEASE NO. 3656.97: (Net acres in unit - .0144) That certain lease dated November 14, 1997, granted by CAROL YOHO AND BARRY LEE YOHO to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 232, at Page 181.

LEASE NO. 3656.98: (Net acres in unit - .044) That certain lease dated December 1, 1997, granted by JEFF CONNER, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 232, at Page 343.

LEASE NO. 3656.99: (Net acres in unit - .0144) That certain lease dated December 1, 1997, granted by ROBERT EAKINS to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 232, at Page 341.

LEASE NO. 3656.100: (Net acres in unit - .0440) That certain lease dated December 3, 1997, granted by DALE CONNER, single, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 232, at Page 252.

LEASE NO. 3656.101: (Net acres in unit - .0440) That certain lease dated December 3, 1997, granted by BOBBY CONNER AND MABEL CONNER, husband and wife, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 232, at Page 264.

LEASE NO. 3656.102: (Net acres in unit - .0144) That certain lease dated December 18, 1997, granted by SHIRLEY DAVIS AND FRANKLIN DAVIS, spouse, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 232, at Page 415.

LEASE NO. 3656.103: (Net acres in unit - 1.3203) That certain lease dated December 19, 1997, granted by RUBY HYRE to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 232, at Page 411. 05/24/2019

LEASE NO. 3656.104: (Net acres in unit - .7042) That certain lease dated January 28, 1998, granted by SYBIL ARCHER to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 232, at Page 491.

LEASE NO. 3656.105: (Net acres in unit - .3018) That certain lease dated January 9, 1998, granted by FRANK T. LITTON, JR. AND DORIS MILLS LITTON, CO-TRUSTEES OF THE FRANK T. LITTON RESTATED REVOCABLE TRUST to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 232, at Page 417.

LEASE NO. 3656.106: (Net acres in unit - .4694) That certain lease dated March 16, 1998, granted by CARNEGIE NATURAL GAS COMPANY to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 232, at Page 737.

LEASE NO. 3656.107: (Net acres in unit - .0880) That certain lease dated March 21, 1998, granted by CAROL CONNER to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 233, at Page 58.

LEASE NO. 3656.108: (Net acres in unit - .3018) That certain lease dated April 8, 1998, granted by CHARLES EDWARD BEULIKE, HEIR AND BENEFICIARY OF MYRTLE BEULIKE, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 233, at Page 145.

LEASE NO. 3656.109: (Net acres in unit - .3018) That certain lease dated January 9, 1998, granted by EDNA MARIE ERWIN to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 232, at Page 419.

LEASE NO. 3656.110: (Net acres in unit - 1.2071) That certain lease dated March 31, 1998, granted by WACO OIL & GAS CO., INC. and TRIO PETROLEUM CORP. to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 233, at Page 227.

LEASE NO. 3656.111: (Net acres in unit - 10.5625) That certain lease dated March 31, 1998, granted by WACO OIL & GAS CO., INC. and TRIO PETROLEUM CORP. to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 233, at Page 225.

LEASE NO. 3656.112: (Net acres in unit - .3018) That certain lease dated June 15, 1998, granted by CLYDE LITTON to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 233, at Page 306.

LEASE NO. 3656.113: (Net acres in unit - 15.0324) That certain lease dated July 16, 1998, granted by LARRY L. SKEEN, SPECIAL COMMISSIONER, PURSUANT TO COURT ORDER IN JACKSON COUNTY CIVIL ACTION NO. 97-C-102 (CARL E. SMITH PETROLEUM, INC. V. ROSALIND RAMEY JONES, ET.AL.) WHICH ORDER WAS ENTERED JULY 10, 1998 to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 234, at Page 74.

LEASE NO. 3656.114: (Net acres in unit - 5.2813) That certain lease dated January 14, 1997, granted by SHEILA C. McCOY A.I.F. to CABOT OIL AND GAS CORPORATION covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 365 assigned to CARL E. SMITH PETROLEUM, INC. in Lease Book 232, at Page 713.

LEASE NO. 3656.115: (Net acres in unit - 5.2813) That certain lease dated January 15, 1997, granted by FREDA OPAL LLOYD, widow, to CABOT OIL AND GAS CORPORATION covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 230, at Page 460 assigned to CARL E. SMITH PETROLEUM, INC. in Lease Book 232, at Page 713.

LEASE NO. 3656.116: (Net acres in unit - .3018) That certain lease dated February 4, 1999, granted by BANK ONE OF WEST VIRGINIA, N.A., TRUSTEE OF ARTHUR C. LITTON TRUST, to CARL E. SMITH PETROLEUM, INC. covering an undivided interest in a tract of land containing 1880 acres, more or less, (but using for the purpose of this unitization only 84.5 acres) and recorded in the Office of the Clerk of the County Court of Jackson County, West Virginia, in Lease Book 235, at Page 282.

To the aforesaid leases, agreements and records reference is hereby made for all purposes.

Said properties are shown and identified on the map or plat attached

CARLE SMITH PETROLEUM, INC. P.O. BOX 4, SANDYVILLE, WEST VIRGINIA 25275

Lease No. 3655.1	.98843%
Lease No. 3655.2	.49419%
Lease No. 3655.3	.37067%
Lease No. 3655.4	.49419%
Lease No. 3655.5	.32949%
Lease No. 3655.6	.37067%
Lease No. 3655.7	.74131%
Lease No. 3655.8	.74131%
Lease No. 3655.9	.16474%
Lease No. 3655.10	.49419%
Lease No. 3655.11	.16474%
Lease No. 3655.12	.37067%
Lease No. 3655.13	.16474%
Lease No. 3655.14	.16474%
Lease No. 3655.15	.37067%
Lease No. 3655.16	.49419%
Lease No. 3655.17	.49419%
Lease No. 3655.18	.12356%
Lease No. 3655.19	.16474%
Lease No. 3655.20	.74131%
Lease No. 3655.21	4.44785%
Lease No. 3655.22	.12356%
Lease No. 3655.23	.49419%
Lease No. 3655.24	.65894%
Lease No. 3655.25	.12356%
Lease No. 3655.26	.12356%
Lease No. 3655.27	.12356%
Lease No. 3655.28	.74131%
Lease No. 3655.29	.74131%
Lease No. 3655.30	.12356%
Lease No. 3655.31	.74131%
Lease No. 3655.32	.74131%
Lease No. 3655.33	1.48262%
Lease No. 3655.34	.49419%
Lease No. 3655.35	.98843%
Lease No. 3655.36	.49419%
Lease No. 3655.37	.16474%
Lease No. 3655.38	.74131%
Lease No. 3655.39	.04119%
Lease No. 3655.40	.04119%
Lease No. 3655.41	.04119%
Lease No. 3656.1	.54000%
Lease No. 3656.2	.30859%
Lease No. 3656.3	.03198%
Lease No. 3656.4	4.32004%

4703503029

CARLE E. SMITH PETROLEUM, INC. P.O. BOX 4, SANDYVILLE, WEST VIRGINIA 25275

Lease No. 3656.34	.16%
Lease No. 3656.35	.64%
Lease No. 3656.36	.24687%
Lease No. 3656.37	.36%
Lease No. 3656.38	.19198%
Lease No. 3656.39	.36%
Lease No. 3656.40	.10802%
Lease No. 3656.41	.12344%
Lease No. 3656.42	.02941%
Lease No. 3656.43	.19198%
Lease No. 3656.44	.01599%
Lease No. 3656.45	.14401%
Lease No. 3656.46	.28802%
Lease No. 3656.47	.05759%
Lease No. 3656.48	.28802%
Lease No. 3656.49	.49370%
Lease No. 3656.50	.01599%
Lease No. 3656.51	.17632%
Lease No. 3656.52	.08%
Lease No. 3656.53	.08818%
Lease No. 3656.54	.02941%
Lease No. 3656.55	.36%
Lease No. 3656.56	.27002%
Lease No. 3656.57	.02941%
Lease No. 3656.58	.07198%
Lease No. 3656.59	.02470%
Lease No. 3656.60	.03198%
Lease No. 3656.61	.02286%
Lease No. 3656.62	.01067%
Lease No. 3656.63	.05333%
Lease No. 3656.64	.0247%
Lease No. 3656.65	.0247%
Lease No. 3656.66	.02286%
Lease No. 3656.67	.02941%
Lease No. 3656.68	.02286%
Lease No. 3656.69	.0247%
Lease No. 3656.70	.02286%
Lease No. 3656.71	.0247%
Lease No. 3656.72	.05759%
Lease No. 3656.73	.0247%
Lease No. 3656.74	.0247%
Lease No. 3656.76	.09599%
Lease No. 3656.77	.0247%
Lease No. 3656.78	.08%
Lease No. 3656.79	.02401%
Lease No. 3656.80	.36%
Lease No. 3656.81	.07198%
Lease No. 3656.82	.24687%
Lease No. 3656.83	.08818%
Lease No. 3656.84	.54%
Lease No. 3656.85	.02401%
Lease No. 3656.86	.27002%
Lease No. 3656.87	.02401%
Lease No. 3656.88	.00802%
Lease No. 3656.89	.28802%
Lease No. 3656.90	.02401%
Lease No. 3656.91	.02401%
Lease No. 3656.92	.09002%
Lease No. 3656.93	.00802%
Lease No. 3656.94	.30859%
Lease No. 3656.95	.09599%
Lease No. 3656.96	.07198%
Lease No. 3656.97	.00589%
Lease No. 3656.98	.018%
Lease No. 3656.99	.00589%
Lease No. 3656.100	.018%
Lease No. 3656.101	.018%
Lease No. 3656.102	.00589%
Lease No. 3656.103	.54%
Lease No. 3656.104	.28802%
Lease No. 3656.105	.12344%
Lease No. 3656.106	.19198%
Lease No. 3656.107	.03599%
Lease No. 3656.108	.12344%

05/24/2019



Lease No. 3656.109	. . . . .	.12344%
Lease No. 3656.110	. . . . .	.4937%
Lease No. 3656.111	. . . . .	4.32004%
Lease No. 3656.112	. . . . .	.12344%
Lease No. 3656.113	. . . . .	6.14821%
Lease No. 3656.114	. . . . .	2.16004%
Lease No. 3656.115	. . . . .	2.16004%
Lease No. 3656.116	. . . . .	.12344%
Escrow		3.24215%

05/24/2019

TOTAL 100.00%

This declaration notice forming this drilling unit is made by authority of the aforesaid amendatory agreements to said leases or the pooling provisions contained in the aforesaid leases.

In WITNESS WHEREOF, the said Carl E. Smith Petroleum, Inc., a corporation, has caused its corporate name to be hereunto subscribed and its corporate seal hereunto affixed by its President duly authorized as of this 20th day of January, 2000.

Witness:

CARL E. SMITH PETROLEUM, INC.
a corporation

[Signature]

BY: [Signature]
Larry D. Smith, President

[Signature]

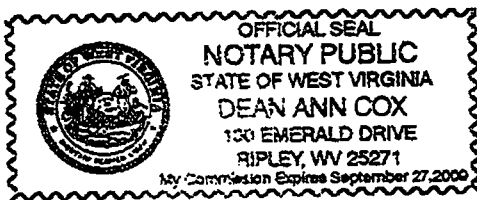
STATE OF WEST VIRGINIA,
COUNTY OF JACKSON, To-wit;

I, Dean Ann Cox, a Notary Public in said county and state, hereby certify that LARRY D. SMITH, PRESIDENT, who signed the writing above bearing date the 20th day of January, 2000, for CARL E. SMITH PETROLEUM, INC., a corporation, has this day in said county before me acknowledged the said writing to be the act and deed of said corporation.

Given under my hand and seal this 20th day of January, 2000.

[Signature]
Notary Public

My Commission Expires: September 27, 2009.



This instrument was prepared by Robert A. Pryce, P. O. Box 27, Sandyville, WV 25275-0027.

CARL E. SMITH PETROLEUM, INC. P.O. BOX 4, SANDYVILLE, WEST VIRGINIA 25275



WW-2B1
(5-12)

Well No. 351

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	<u>Fairway Labs</u>
Sampling Contractor	<u>SLS Land & Energy Development</u>
Well Operator	<u>Mountaineer Energy Inc.</u>
Address	<u>P.O. Box 27</u> <u>Sandyville, WV 25257</u>
Telephone	<u>304-273-9313</u>

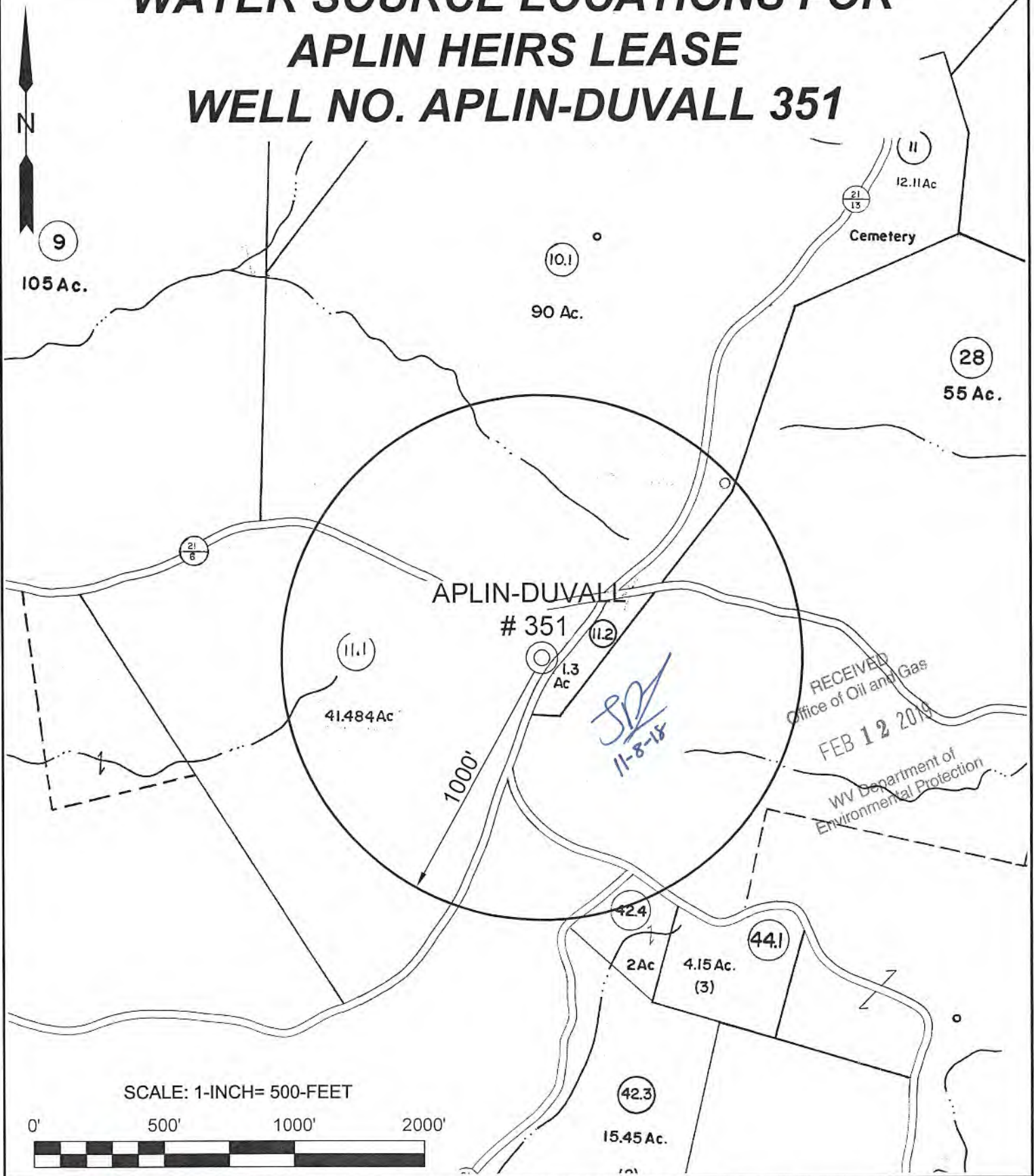
RECEIVED
Office of Oil and Gas


FEB 12 2019

WV Department of
Environmental Protection

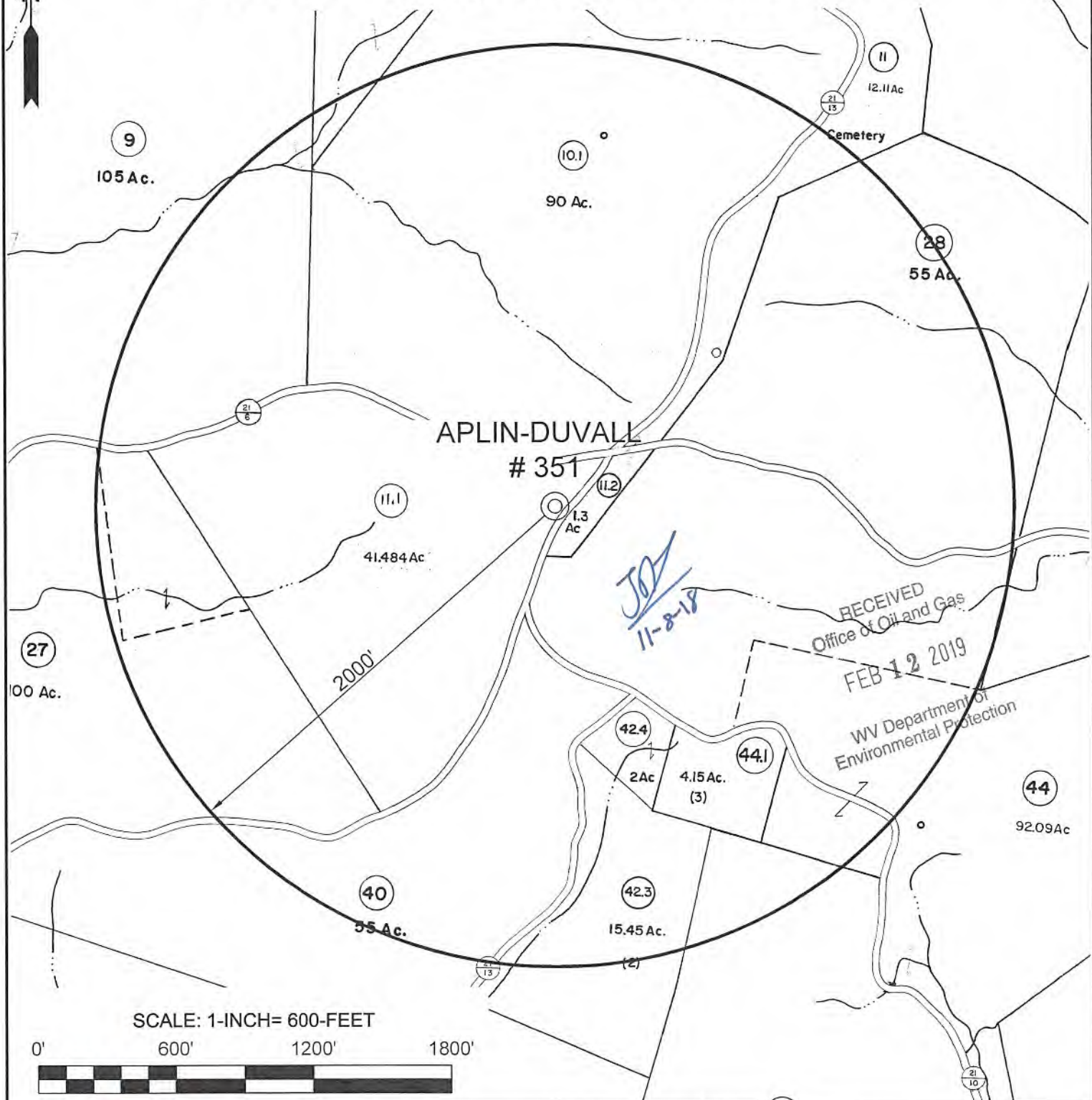
FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. 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.

WATER SOURCE LOCATIONS FOR APLIN HEIRS LEASE WELL NO. APLIN-DUVALL 351

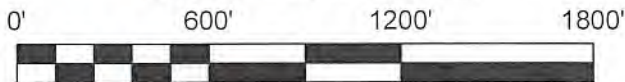


				TOPO SECTION OF: ROCKPORT, WV 7.5' QUAD			OPERATOR: MOUNTAINEER STATE ENERGY, INC P.O BOX 27 SANDYVILLE, WV 25257		
DRAWN BY	FILE NO.	DATE	CADD FILE	DISTRICT	COUNTY	TAX MAP-PARCEL NO.			
CMM	XXXX	10/01/18	XXXXXXXXXXWS.dwg	GRANT	JACKSON	24-11.1			

WATER SOURCE LOCATIONS FOR APLIN HEIRS LEASE WELL NO. APLIN-DUVALL 351



SCALE: 1-INCH= 600-FEET



TOPO SECTION OF:
ROCKPORT, WV 7.5' QUAD

OPERATOR:
MOUNTAINEER STATE ENERGY, INC
P.O BOX 27
SANDYVILLE, WV 25257

DISTRICT	COUNTY	TAX MAP-PARCEL NO.
GRANT	JACKSON	24-11.1

DRAWN BY CMM	FILE NO. XXXX	DATE 10/01/18	CADD FILE: XXXXXXXXXXWS.dwg
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24-9

*Timmy E. & Patricia I. Boyce ✓

1174 Maul Camp Run Rd.

Ravenswood, WV 26164

24-10.1

Timothy E. & Charles W. Boyce ✓

9706 Pond Creek Rd.

Rockport, WV 26169

24-11, 28

*Christopher Wight 304-377-8333 (New Owner)

1843 Ranch Road

Sandyville, WV 25275

Russell L. & Tamara Schreiber Trustees (Previous Owner) ✓

515 Front St.

Marietta, OH 45750

24-11.1

*Dennise R. & William L. Duvall ✓

724 Green Rd.

South Charleston, WV 25309

24-11.2, 44

James C. Trivett & Sallie A. Guffanti ✓

2880 McGraw Run Rd.

Sandyville, WV 25275

24-40

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Edwin & Sarah Hildebrand ✓
P.O. Box 1036
Parkersburg, WV 26102

24-42.3
Teresa L. & David L. Kessell ✓ 304-373-3021
107 Sugar Maple Ln.
Sandyville, WV 25275

24-42.4
Sherry L. & Michael D. Stevens ✓
2864 McGraw Run Rd.
Sandyville, WV 25275

24-44.1
Wilbert E. Campbell & Joshua L. & Heidi Gorby ✓
49317 McClure Rd.
East Palestine, OH 44413

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WW-9
(5/16)

API Number 47 - _____ - _____
Operator's Well No. #351 _____

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Mountaineer State Energy, Inc. OP Code 45650

Watershed (HUC 10) McGraw Run of Big Sandy Ck Quadrangle Rockport

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

Will a pit be used? Yes No

If so, please describe anticipated pit waste: Drill Cuttings FW SW Gel Frac Water, Cement

Will a synthetic liner be used in the pit? Yes No If so, what ml.? 40-Mil 20 mil

Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- Underground Injection (UIC Permit Number Ohio UIC 178)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

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Will closed loop system be used? If so, describe: NO

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Air -no oil based mud, Gel FEB 12 2019

-If oil based, what type? Synthetic, petroleum, etc. N/A

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Environmental Protection

Additives to be used in drilling medium? KCL

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) Cement

-Landfill or offsite name/permit number? _____

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, 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 John D. Kent
Company Official (Typed Name) Mountaineer State Energy, Inc. John D. Kent
Company Official Title General Manager + Vice President



Subscribed and sworn before me this 12th day of November, 20 2018

Linda Philyaw Notary Public

My commission expires September 17, 2019

[Handwritten Signature]
11-5-18

Proposed Revegetation Treatment: Acres Disturbed 3.8 Prevegetation pH 4.8 or 5.00

Lime 2 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount 500/600 lbs/acre

Mulch Hay Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type lbs/acre

Seed Type lbs/acre

Landowner request

Same

Southern States Mixture

or equivalent

Attach: SEE WW-9 SITE PLAN BY SLS APRIL-DUVAL WELL SITE FOR PIT LOCATION.
Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Joseph Taylor

Comments: Sediment control in place at All Times!!!

[Signature]

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Environmental Protection

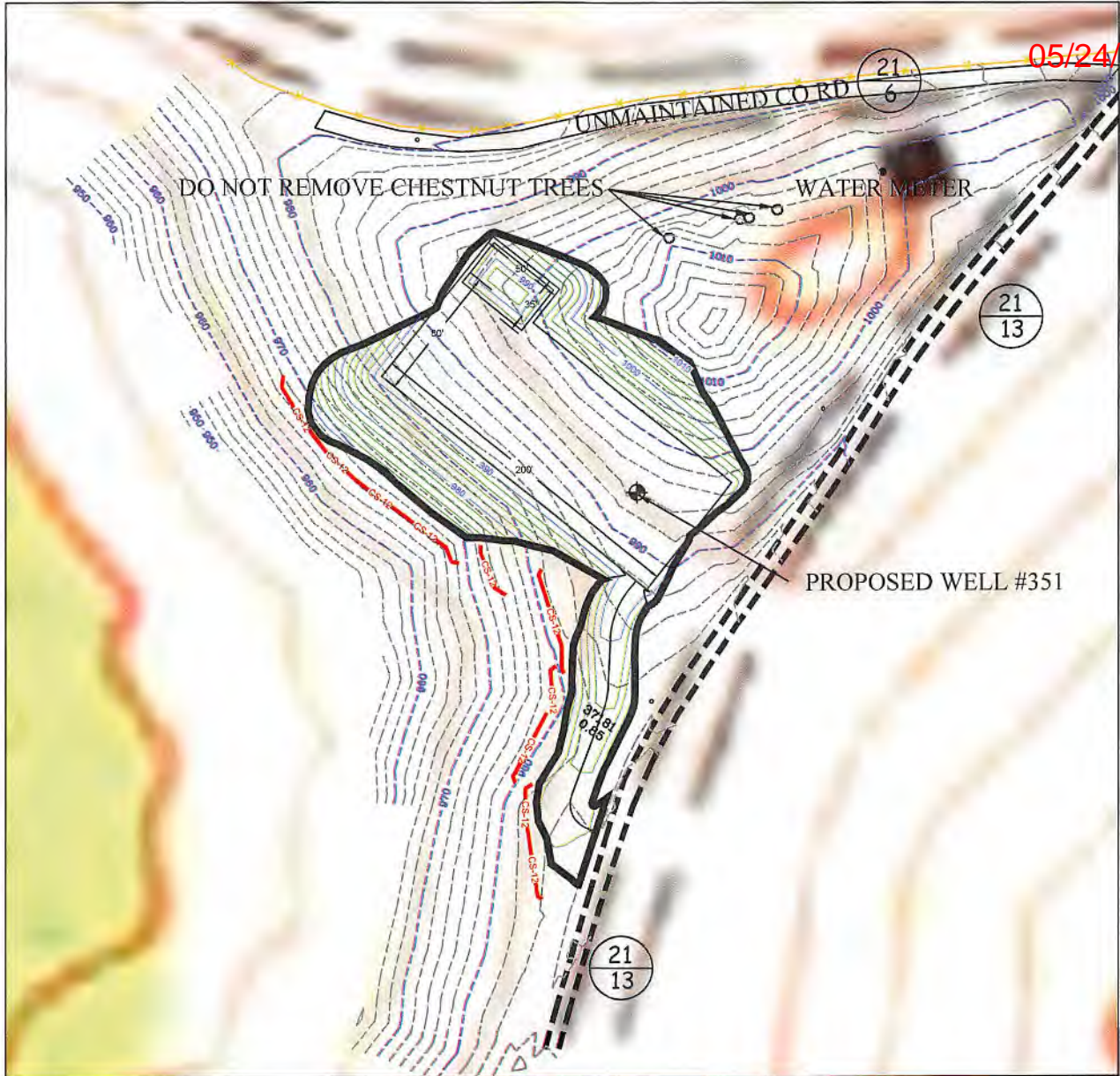
Title: OOG-Inspector

Date: 1-8-18

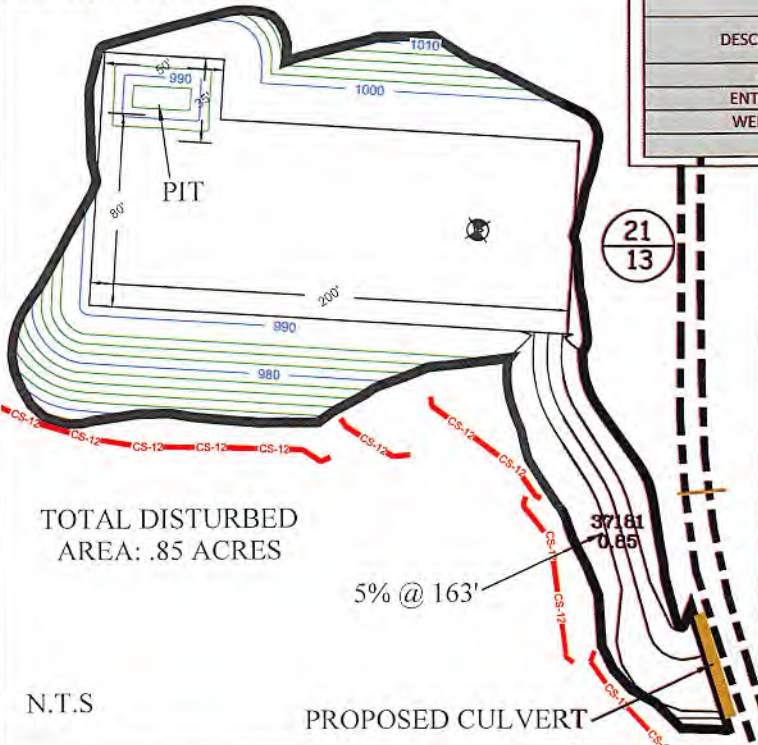
Field Reviewed? Yes No

APLIN-DUVALL WELL SITE WELL #351

05/24/2019



DETAIL SKETCH



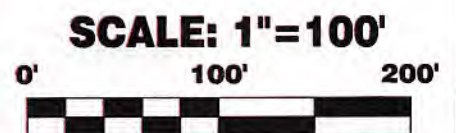
EARTH WORK SUMMARY						
DESCRIPTION	CUT (CY)	FILL (CY)	SPOIL (CY)	BORROW (CY)	MAX SLOPE (%)	LENGTH OF SLOPE (FT)
PIT	91	-	91	-	N/A	N/A
ENTRANCE	16	530	-	514	5%	160
WELL PAD	2,808	2,008	800	-	N/A	N/A
TOTAL			891	514		

Elevation (ft)	Volume (Gallon)	Volume (Barrels)
992'	23,000	548
991'	17,000	405
990'	12,000	286
989'	8,000	190
988'	5,000	119
987'	2,000	48
986'	0	0

[Handwritten Signature]
11-8-18



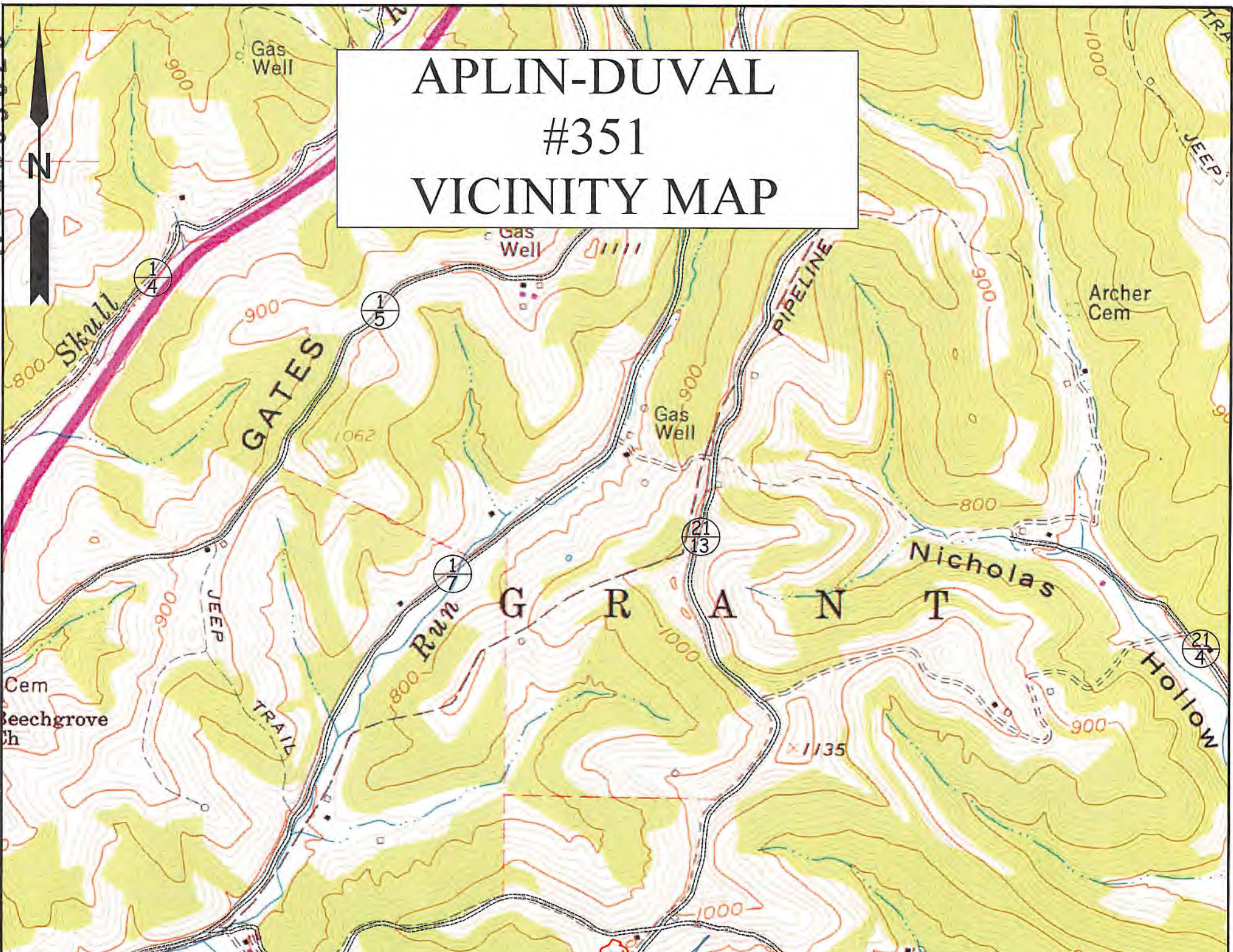
TOPO SECTIONS OF USGS
ROCKPORT
7.5' QUADRANGLES



4703503029



APLIN-DUVAL #351 VICINITY MAP



Cem
Beechgrove
ch

Archer
Cem

JEEP

JEEP

Hollow

GATES

GRANT

Nicholas

Run

PIPELINE

Gas Well

Gas Well

900

1062

900

900

800

1000

900

1000

1135

1/4

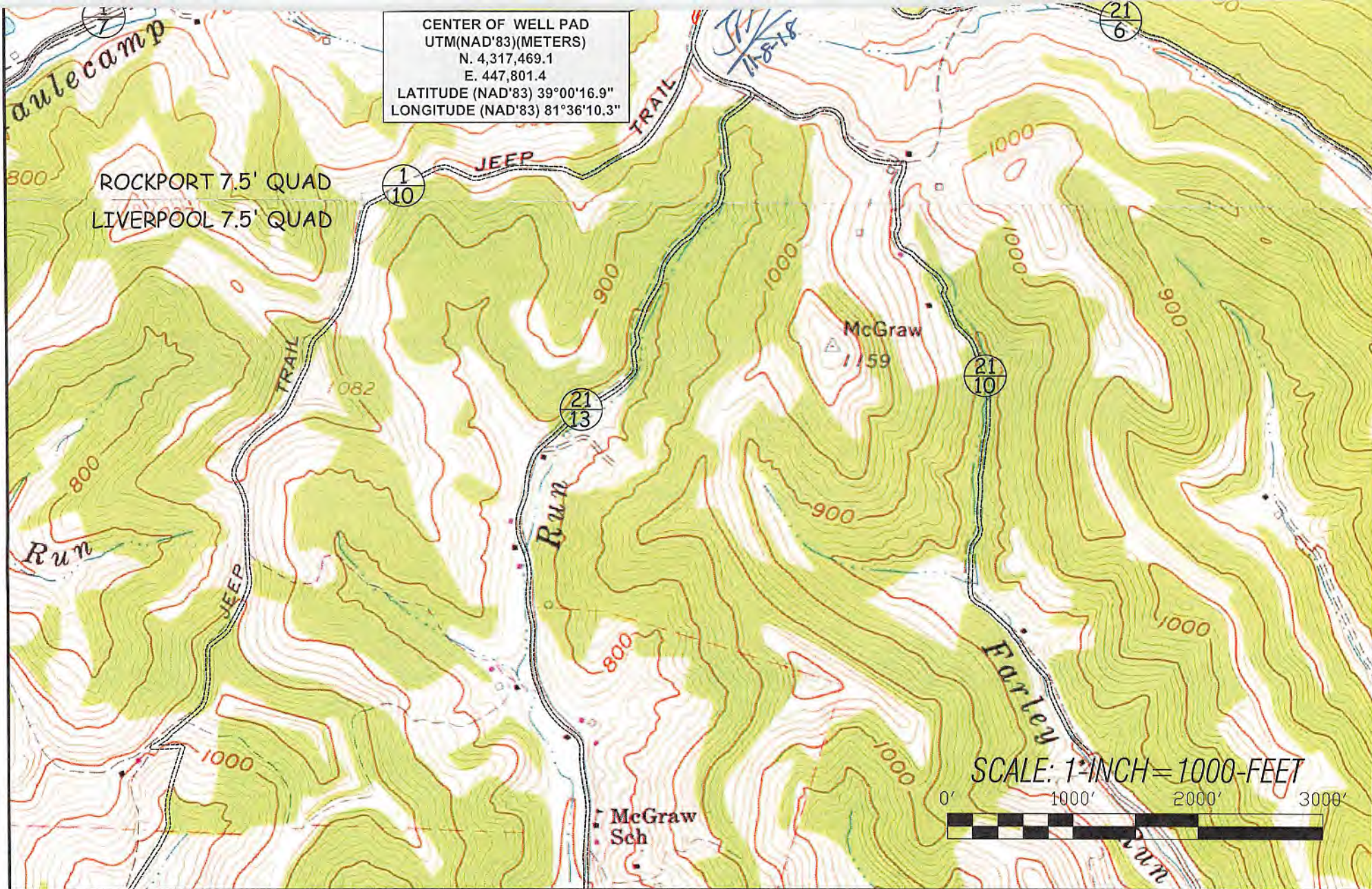
1/5

1/7

21/13

21/4

CENTER OF WELL PAD
 UTM(NAD'83)(METERS)
 N. 4,317,469.1
 E. 447,801.4
 LATITUDE (NAD'83) 39°00'16.9"
 LONGITUDE (NAD'83) 81°36'10.3"



ROCKPORT 7.5' QUAD
 LIVERPOOL 7.5' QUAD

SCALE: 1-INCH = 1000-FEET
 0' 1000' 2000' 3000'



SLS
 Land & Energy Development
 Solutions from the ground up.
 P.O. Box 150 • 12 Vanston Drive • Glenville, WV 25201 • (304) 462-5634
 www.slsurveys.com

TOPO SECTIONS OF:
 LIVERPOOL & ROCKPORT WV 7.5' QUADS

OPERATOR:
 MOUNTAINEER STATE ENERGY, INC.
 P.O. BOX 27
 SANDYVILLE, WV 25275-0027

DRAWN BY K.G.M.	FILE NO. 8383	DATE 10-22-18	CADD FILE: 8383VICINITYMAP.DWG
--------------------	------------------	------------------	-----------------------------------

COUNTY	DISTRICT
JACKSON	GRANT

LEGEND

LEASE LINE	
SURFACE LINE	
TIE LINE	
CREEK	
ROAD	
COUNTY ROUTE	
STATE ROUTE	
PROPOSED WELL	
EXISTING WELL	
PERMITTED WELL	
TAX MAP-PARCEL	00-00

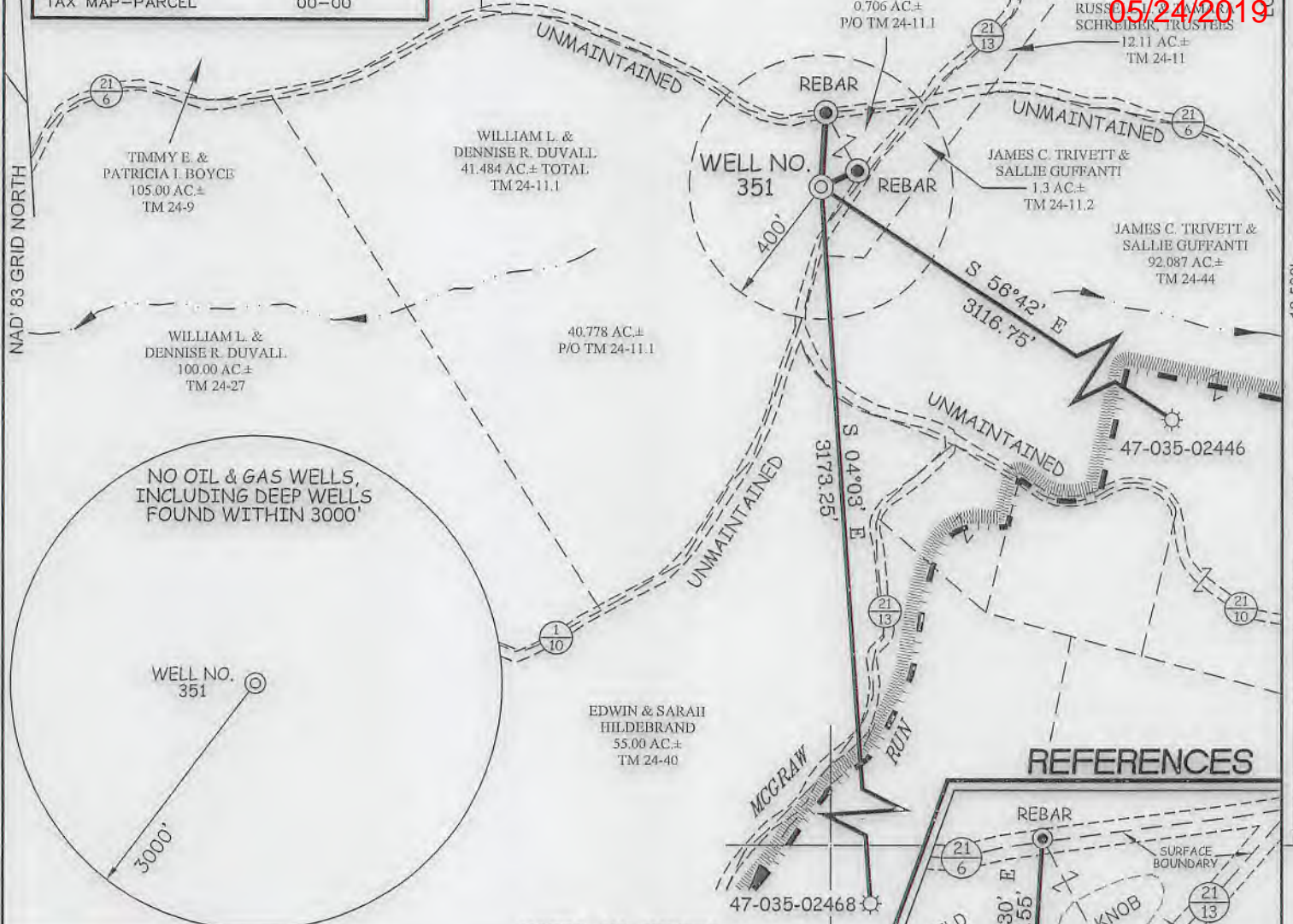
CHARLES W. BOYCE (LIFE) &
TIMOTHY B. BOYCE
90.00 AC.±
TM 24-10.1

APLIN-DUVAL LEASE

1,880 ACRES ±
WELL NO. 351

(S.P.C. SOUTH ZONE) (UTM(M) ZONE 17 NORTH)
NAD'27 S.P.C.(FT) N. 730,489.7 E. 1,828,686.0
NAD'27 GEO. LAT-(N) 39.004502 LONG-(W) 81.602789
NAD'83 UTM (M) N. 4,317,457.8 E. 447,819.7

05/24/2019

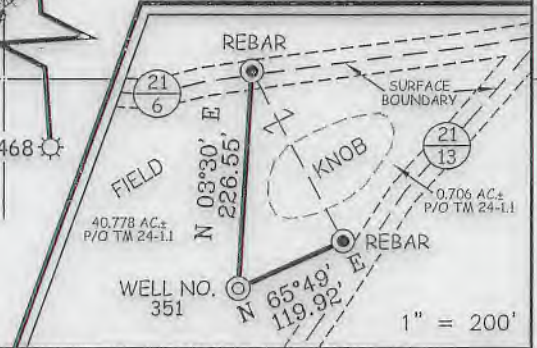


NO OIL & GAS WELLS,
INCLUDING DEEP WELLS
FOUND WITHIN 3000'

WELL NO.
351

3000'

REFERENCES



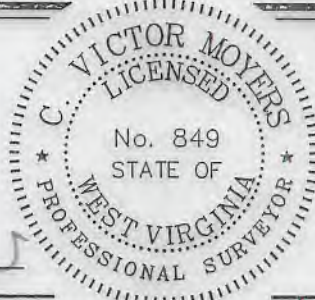
NOTES ON SURVEY

1. NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS ≥ 2500 SQ. FT. OR DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
2. APPROXIMATE LEASE BOUNDARY INFORMATION AS SHOWN PROVIDED BY MOUNTAINEER STATE ENERGY, INC.

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Land & Energy Development
Solutions from the ground up.
P.O. Box 150 • 12 Vanhorn Drive • Glenville, WV 26351 • (304) 462-5834
www.slsurveys.com

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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 849 *C. Victor Moyers*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE OCTOBER 26, 20 18
REVISED _____, 20 ____
OPERATORS WELL NO. APLIN-DUVAL #351
API WELL NO. 47-035-03029
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 8872P351.dwg
HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK) SCALE 1" = 500'

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: GROUND: 994' PROPOSED: 992' ELEVATION _____ WATERSHED TRIBUTARY OF MAULECAMP RUN DISTRICT GRANT COUNTY JACKSON QUADRANGLE ROCKPORT 7.5'

SURFACE OWNER WILLIAM AND DENNISE DUVAL ACREAGE 40.778 OF 41.484 ±
ROYALTY OWNER APLIN HEIRS ACREAGE 1,880 ±

PROPOSED WORK: LEASE NO. 3656-1 THRU 117
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 ORISKANY ESTIMATED DEPTH 5,100'

WELL OPERATOR MOUNTAINEER STATE ENERGY, INC. DESIGNATED AGENT JOHN KENT
ADDRESS P.O. BOX 27 SANDYVILLE, WV 25275-0027 ADDRESS P.O. BOX 27 SANDYVILLE, WV 25275-0027

LONGITUDE 81°35'00" 13,508' 2412 9412

Mountaineer State Energy
Division of Interest Listing
Effective Date: 09/2018
Property: Proposed Well# 351

4703502020 05/24/2019 1

Duval Well# 351

Acct	Owner	Owner's Name	Typ	Billing(WI)	Revenue(NRI)	Susp	Ext Sus	Grp/Part	DI	Ex	O
1200	AMAGAR	GARY AMATO	R		0.00011000	PAY					
1200	AMARIC	RICK AMATO	R		0.00011000	PAY					
1200	ARCCHA	CHARLES LEE ARCHER	R		0.00092700	L03					
1200	ARCELI	ELIZABETH ARCHER	R		0.00010000	PAY					
1200	ARCGLE	GLEN D ARCHER	R		0.00092600	PAY					
1200	ARCJUD	JUDITH ARCHER	R		0.00003000	L03					
1200	ARCSYB	SYBIL ARCHER	R		0.00036000	L03					
1200	BAKWIL	WILLIAM DANNY BAKER	R		0.00004000	PAY					
1200	BARMAR	MARY LISA CRAIG BARKER	R		0.00000300	PAY					
1200	BARNAN	NANCY PAULETTE BARON	R		0.00001000	PAY					
1200	BASDEN	DENNIS BASTON	R		0.00005100	PAY					
1200	BASJAM	JAMES C BASTON	R		0.00005100	PAY					
1200	BAUETH	ETHEL BAUCH	R		0.00061700	L03					
1200	BENANN	ANN PICKENS BENSON	R		0.00490780	PAY					
1200	BENGLA	GLADYS PICKENS BENNETT	R		0.00490780	PAY					
1200	BEUMIC	MICHAEL ALAN BEULIKE	R		0.00005133	PAY					
1200	BEUSTE	STEPHEN EDWARD BEULIKE	R		0.00005134	PAY					
1200	BONWIL	WILLIAM P. BONAR	R		0.00045000	PAY					
1200	BOSCAS	CASSANDRA JO RAKE BOSWOR	R		0.00163600	PAY					
1200	BOSDON	DONNA HYRE BOSTIC	R		0.00013500	PAY					
1200	BOYJUD	JUDI BOYLE	R		0.00005100	PAY					
1200	BRACAR	CAROLYN A BRABHAM	R		0.00030800	L03					
1200	BRAROY	ROY BRABHAM	R		0.00015400	PAY					
1200	BRIRUT	RUTH BRIGHTBILL	R		0.00003600	PAY					
1200	BROGRA	GRACE T. BROWDER	R		0.00043800	PAY					
1200	BROOED	ED BROOME, INC.	R		0.00018000	PAY					
1200	BROOED	ED BROOME, INC.	R1		0.00007700	PAY					
1200	BROOED	ED BROOME, INC.	R2		0.00002250	PAY					
1200	BROROB	E BROOME, ROBERT JONES &	R		0.00075800	PAY					
1200	CABOT	CABOT OIL AND GAS CORPORA	O		0.00118100	PAY					
1200	CALMAR	MARY CALGOS	R		0.00061700	L03					
1200	CALSAD	SADIE FAIN CALFEE	R		0.00000500	PAY					
1200	CALSAD	SADIE FAIN CALFEE	R1		0.00000083	PAY					
1200	CARGAR	CAROL FAIN CAREY	R		0.00000084	PAY					
1200	CASDON	DONALD I CASTO	R		0.00061700	PAY					
1200	CHAMAR	MARGUERITE L CHAPMAN	R		0.00000300	PAY					
1200	CHOMAR	MARGARET CHOUINARD	R		0.00092600	PAY					
1200	CHRSTE	STEPHANIE BEULIKE CHRISTIAN	R		0.00005133	L01					
1200	CLIHEN	HENRY CLINE	R		0.00020500	L02					
1200	COMBEN	BENITA ANGUS COMER	R		0.00001440	PAY					
1200	CONBOB	BOBBY CONNER	R		0.00002200	PAY					
1200	CONCAR	CAROL CONNER	R		0.00004500	PAY					
1200	CONDAL	DALE CONNER	R		0.00002200	L03					
1200	CONDON	DONALD CONNER	R		0.00020200	PAY					
1200	CONDWA	DWAYNE CONNER	R		0.00002200	L03					
1200	CONJEF	JEFF CONNER	R		0.00002200	L03					
1200	CONROY	ROY CONNER	R		0.00020200	L03					
1200	COOPAU	PAUL COOLEY	R		0.00092600	PAY					
1200	COPJAM	JAMES DAYTON COPEN	R		0.00008600	PAY					
1200	CORDEB	DEBRA COPEN CORRA	R		0.00008600	PAY					
1200	CORJUN	JUNE LESTER CORNETET	R		0.00024000	PAY					
1200	COXOMA	OMA G COX	R		0.00046300	PAY					
1200	CRACAT	CATHERINE CRAIG	R		0.00000300	L03					
1200	CRADAV	DAVID CRAIG	R		0.00000300	PAY					
1200	CRAEDW	EDWARD CRAIG	R		0.00000300	L03					
1200	CRANOR	NORMAN CRAIG	R		0.00000300	L03					
1200	CRARUS	RUSSELL CRAIG	R		0.00000300	PAY					
1200	CRUADA	ADA CRUM	R		0.00020500	L03					
1200	CULMAR	MARVIN CULPEPPER	R		0.00038500	PAY					
1200	CUNPEG	PEGGY I CUNNINGHAM	R		0.00004000	PAY					

DECLARATION NOTICE
OF UNITIZATION
BOOK 0236
Pg 158-178

LEASE 3649 (12)
BOOK 230/Pg 403
LEASE 3672 (7)
BOOK 234 Pg 580-586
Pg 574-576
LEASE 3655 (41)
BOOK 230 232 236
231 235
LEASE 3656 (116)
BOOK 230
231
232
233
234
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Mountaineer State Energy
Division of Interest Listing
Property: Proposed Well #351

4703508089
09/24/2019

Duval Well# 351 (continued)

Acct	Owner	Owner's Name	Typ	Billing(WI)	Revenue(NRI)	Susp	Ext Sus	Grp/Part	DI	Ex	O
1200	DALDEN	DENITA ANGUS DALE	R	0.00001440		L01					
1200	DAVDAW	DAWN DAVIS	R	0.00004500		L03					
1200	DAVMAR	MARJORIE L DAVIS	R	0.00004000		PAY					
1200	DAVSHI	SHIRLEY DAVIS	R	0.00005100		PAY					
1200	DESNOR	NORMA L DESMOND	R	0.00090000		PAY					
1200	DODLEL	LELIA DODSON	R	0.00003000		L03					
1200	DODNEL	NELL HENRY DODSON	R	0.00003090		PAY					
1200	DORJOY	JOYCE DORSEY	R	0.00001000		PAY					
1200	DROKAT	KATHRYN E DROST	R	0.00004000		PAY					
1200	EAKCHR	CHRISTOPHER G EAKINS	R	0.00002800		L05					
1200	EAKKEN	KENNETH EAKINS	R	0.00005100		L03					
1200	EAKROB	ROBERT EAKINS	R	0.00005100		PAY					
1200	EAKRON	RONALD DWAYNE EAKINS	R	0.00005100		PAY					
1200	EAKTON	TONY EAKINS	R	0.00002800		PAY					
1200	EDDCHA	CHARLES EDDY	R	0.00092600		PAY					
1200	EDDNEL	NELSON EDDY	R	0.00092600		PAY					
1200	ELLDVAV	DAVID ELLISON	R	0.00002000		PAY					
1200	ELMDIX	DIXIE ELMORE	R	0.00002000		PAY					
1200	EQUITA	EQUITABLE PRODUCTION COMP	R	0.00024000		PAY					
1200	EULPAT	PATRICIA ANN DICKESS EULISS	R	0.00067500		L02					
1200	FAIBET	BETTY J. FAIN	R	0.00000500		PAY					
1200	FAIBET	BETTY J. FAIN	R1	0.00000083		PAY					
1200	FAIHAR	HARRY LEE FAIN, III	R	0.00000500		L03					
1200	FAIHAR	HARRY LEE FAIN, III	R1	0.00000083		L03					
1200	FAIWIL	WILLIAM HOWARD FAIN	R	0.00000500		PAY					
1200	FAIWIL	WILLIAM HOWARD FAIN	R1	0.00000084		PAY					
1200	FANKEN	KENNETH FANNIN	R	0.00002200		PAY					
1200	FANSTA	STANLEY FANNIN	R	0.00002200		PAY					
1200	FARWIL	WILLIAM FARLEY	R	0.00185300		L03					
1200	FISDEB	DEBRA ANN FISHER	R	0.00016800		L03					
1200	FOUCUR	CURTIS J. FOUSE	R	0.00010000		PAY					
1200	GAICAR	CAROL GAINER	R	0.00001000		PAY					
1200	GAINDA	DAVID S. GAINER	R	0.00001000		PAY					
1200	GAINDA	DAVID S. GAINER	R1	0.00000200		PAY					
1200	GARCOR	GARNET GAS CORPORATION	R	0.00036000		L03					
1200	GARCOR	GARNET GAS CORPORATION	R1	0.00005100		L03					
1200	GARCOR	GARNET GAS CORPORATION	R2	0.00003000		L03					
1200	GARCOR	GARNET GAS CORPORATION	R3	0.00003000		L03					
1200	GILGLE	GLENN GILKINSON	R	0.00092600		L02					
1200	GLASAN	SANDRA GLASS	R	0.00000800		PAY					
1200	GLOJOH	JOHN GLOVER	R	0.00123500		PAY					
1200	GODION	IONA PAULINE GODDARD	R	0.00005100		PAY					
1200	GOFDAV	DAVID GOFF	R	0.00012000		PAY					
1200	HALOUI	LOUIS HALL	R	0.00010000		L02					
1200	HARBAR	BARBARA HARRIS	R	0.00005100		PAY					
1200	HARDAR	DARRELL HARBIN	R	0.00163600		PAY					
1200	HARHEN	HENRY HARBIN	R	0.00102200		PAY					
1200	HARKEI	KEITH HARRIS	R	0.00051100		PAY					
1200	HARLEI	LEIGH HARBIN	R	0.00163600		PAY					
1200	HARLOI	LOIS CONLEY HARRIS	R	0.00003600		PAY					
1200	HARNOR	NORMA JEANNE HARBIN	R	0.00818000		L03					
1200	HARPAT	PATRICIA DIANE HARTWIG	R	0.00015434		PAY					
1200	HARRDA	DANE L HARRIS	R	0.00051100		L03					
1200	HARTRO	TORY HARRIS	R	0.00051100		PAY					
1200	HEAKEN	KENNA HEATH	R	0.00051100		PAY					
1200	HENFRA	FRANK R HENRY	R	0.00003000		PAY					
1200	HENMAR	MARTHA P. HENRY	R	0.00003100		PAY					
1200	HENMIC	MICHAEL KENNA HENDERSON	R	0.00004000		PAY					
1200	HENRJA	HAMES MALCOLM HENRY	R	0.00001000		PAY					
1200	HENRJO	JO HENRY	R	0.00003000		PAY					
1200	HENROS	ROSS HENRY	R	0.00003000		PAY					

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Environmental Protection

Mountaineer State Energy
 Division of Interest Listing
 Property: Proposed Well #351

Duval Well# 351 (continued)

Acct	Owner	Owner's Name	Typ	Billing(WI)	Revenue(NRI)	Susp	Ext Sus	Grp/Part	DI	Ex	O
1200	HINSAN	SANDRA HYRE HINRICH	R		0.00013500	L03					
1200	HOFFDI	ALBERT & DIANA HOFFMAN	R		0.00080000	PAY					
1200	HOLMAL	MALCENIA HENDERSON HOLBE	R		0.00004000	PAY					
1200	HUDJUA	HAZEL JUANITA HUDSON	R		0.00022000	L03					
1200	HUDWAR	WARREN P HUDSON	R		0.00044000	L03					
1200	HULBRE	BRETT HULBOY	R		0.00068180	PAY					
1200	HULDUS	DUSTIN HULBOY	R		0.00068160	PAY					
1200	HULJEF	JEFF HULBOY	R		0.00068160	PAY					
1200	HUNBRE	BRENDA ANGUS HUNT	R		0.00001440	PAY					
1200	HYRBIL	BILLY GUY HYRE	R		0.00004500	PAY					
1200	HYRHEA	HEATHER HYRE-CIEUTAT	R		0.00004500	PAY					
1200	HYRKRI	KRIS LEE HYRE	R		0.00004500	L03					
1200	HYRPHI	PHILLIP DWIGHT HYRE	R		0.00013500	PAY					
1200	HYRRD	RODERICK PAUL HYRE	R		0.00013500	PAY					
1200	JDMILL	JDMI, LLC	R		0.00018000	PAY					
1200	JOHJAN	JANET CARROLL JOHNSON	R		0.00001000	PAY					
1200	JONCRY	CRYSTAL JONES	R		0.00041100	PAY					
1200	JONROS	ROSALIND RAMEY JONES	R		0.00185100	PAY					
1200	KELWIL	WILMA J KELCH	R		0.00540000	PAY					
1200	KENLIN	LINDA H. KENDALL	R		0.00555900	PAY					
1200	KINMAR	MARJORIE KING	R		0.00003600	PAY					
1200	KIRPAT	PATTI KIRK	R		0.00001500	L03					
1200	KIRPAT	PATTI KIRK	R1		0.00000000	L03					
1200	KISLEN	LENORA KISH	R		0.00009000	PAY					
1200	KOOSTE	Steve Koontz	R		0.00014600	PAY					
1200	KURWAY	WAYNE OR VIRGINIA KURLINSKI	R		0.00061700	PAY					
1200	KUTKIM	KIMBERLY KUTSCHER	R		0.00002800	PAY					
1200	LAMEVE	EVELYN LAMIELL	R		0.00036000	L03					
1200	LANCAN	CANDACE L. LANHAM	R		0.00033700	PAY					
1200	LAWJAM	JAMES LAWRENTZ	R		0.00004000	PAY					
1200	LAWJAN	JANICE T LAW	R		0.00004000	L03					
1200	LAWJAN	JANICE T LAW	R1		0.00000000	L03					
1200	LESCHA	CHARLES LESTER	R		0.00024000	L03					
1200	LESERO	E ROY LESTER	R		0.00024000	L03					
1200	LITART	ARTHUR C. LITTON, III	R		0.00007700	L03					
1200	LITCLY	ESTATE OF CLYDE LITTON	R		0.00015400	L02					
1200	LITFRA	FRANK LITTON JR & DORIS LITT	R		0.00015400	PAY					
1200	LITFRN	FRANK T. LITTON, JR.	R		0.00015400	L01					
1200	LOCMEL	MELANIE LOCKHART	R		0.00000800	PAY					
1200	LOTCHA	CHARLENE LOTT	R		0.00003600	L03					
1200	LOTDON	DONNA LOTT	R		0.00123500	PAY					
1200	LYOGLA	GLADYS LYONS	R		0.00015400	PAY					
1200	MADROS	ROSANNA MADVAY	R		0.00102200	PAY					
1200	MALHEL	HELEN MALESKI	R		0.00020000	L02					
1200	MANPEG	PEGGY MANGUS	R		0.00030800	PAY					
1200	MARHEL	HELEN MARTIN	R		0.00010000	PAY					
1200	MARJUD	JUDITH MARTIN	R		0.00030000	PAY					
1200	MARLIN	LINDA LEE LITTON MARTIN	R		0.00007700	L03					
1200	MARTHO	THOMAS MARTIN	R		0.00003000	L03					
1200	MATDRE	DRENDA ANGUS MATHENY	R		0.00001440	PAY					
1200	MAYJAC	JACKIE MABRY	R		0.00002200	PAY					
1200	MCCROS	ROSA McCONNELL	R		0.00123400	L03					
1200	MCCSHE	SHEILA McCOY	R		0.00540000	PAY					
1200	MCELOU	LOUELLA McELROY	R		0.00001500	PAY					
1200	MCGDEL	DELORES ANN McGUIRE	R		0.00005100	PAY					
1200	MCKDON	DONALD McKIBBEN	R		0.00008600	PAY					
1200	MEEELE	ELEANOR MEEK	R		0.00060000	PAY					
1200	METMAC	MACY LYNN METZ	R		0.00005100	PAY					
1200	MILBET	BETTY MILLER	R		0.00001300	L03					
1200	MILGER	GERALD MILLER	R		0.00009000	L02					
1200	MITCAR	CAROLYN MITCHELL	R		0.00006600	PAY					

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Mountaineer State Energy
Division of Interest Listing
Property: Proposed Well #351

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Duval Well# 351 (continued)

Acct	Owner	Owner's Name	Typ	Billing(WI)	Revenue(NRI)	Susp	Ext Sus	Grp/Part	DI	Ex	O
1200	MOOCAR	CARL MOORE	R		0.00015400	PAY					
1200	MOOCHA	CHARLES MOORE	R		0.00015440	L03					
1200	MOODON	DONALD WAYNE MOORE	R		0.00015400	PAY					
1200	MOOWIL	WILLIAM MOORE	R		0.00015400	PAY					
1200	MORJEA	JEAN MORNINGSTAR	R		0.00163600	L03					
1200	MORLOR	LORI MORTON	R		0.00004500	PAY					
1200	MOUNT	Mountaineer State Energy, Inc.	O		0.00093500	PAY					
1200	MOUNT	Mountaineer State Energy, Inc.	R		0.00163600	PAY					
1200	MOUNT	Mountaineer State Energy, Inc.	R1		0.00061800	PAY					
1200	MOUNT	Mountaineer State Energy, Inc.	W	1.00000000	0.87238870	PAY					
1200	MPHPRO	MPH PRODUCTIONS	R		0.00018000	L03					
1200	MURGER	GERALD MURRAY	R		0.00061700	L03					
1200	MURLOR	LORENE HDNERSON MURNAHA	R		0.00004000	PAY					
1200	NICBOB	BOBBY JO NICHOLS	R		0.00004500	L03					
1200	ODEMAX	MAXINE HARPER O'DELL	R		0.00038500	PAY					
1200	OFFMON	MONICA LEAH OFFUTT	R		0.00000300	PAY					
1200	OLEDAY	DAYNA WILDE	R		0.00002800	L03					
1200	OQUIBA	BARBARA O'QUINN	R		0.00001000	L03					
1200	OQUROB	ROBERT O'QUINN	R		0.00001000	PAY					
1200	PARELV	ELVA BERNICE WAYBRIGHT PAR	R		0.00067500	L02					
1200	PARIRE	IRENE PARSONS	R		0.00030800	L03					
1200	PERMAR	MARY CONLEY PERELMAN	R		0.00003600	PAY					
1200	PHIJEN	JENNIFER PHILLIPS	R		0.00002800	PAY					
1200	PHILMI	Michele Phillips	R		0.00014600	PAY					
1200	PICCHA	CHARLES W. PICKENS	R		0.00490780	PAY					
1200	PICELA	ELIZABETH A. PICKENS	R		0.00490780	PAY					
1200	PICJAM	JAMES LEWIS PICKENS	R		0.00490780	L01					
1200	POSEYD	Debbie Posey	R		0.00014600	PAY					
1200	REYDON	DONALD REYNOLDS	R		0.00002800	PAY					
1200	ROBCUR	CURTIS ROBBINS	R		0.00046300	L03					
1200	ROMART	ARTHUR ROMINE	R		0.00060000	L02					
1200	ROMGLE	GLEN ROMINE	R		0.00060000	PAY					
1200	SAMGLE	GLENNIE SAMS	R		0.00020500	L03					
1200	SANDIA	DIANA SANDS	R		0.00046300	PAY					
1200	SANGER	GERALD HOWARD SANDS	R		0.00046300	PAY					
1200	SAYJUA	JUANITA SAYRE	R		0.00003000	PAY					
1200	SCAPHI	PHILLIP & TERESA SCARBERRY	R		0.00018000	PAY					
1200	SCAPHI	PHILLIP & TERESA SCARBERRY	R1		0.00007700	PAY					
1200	SCAPHI	PHILLIP & TERESA SCARBERRY	R2		0.00002250	PAY					
1200	SHAANN	ANN SHAMBLIN	R		0.00003000	PAY					
1200	SHASHI	SHIRLEY FAIN SHAMBLIN	R		0.00000500	L02					
1200	SHASHI	SHIRLEY FAIN SHAMBLIN	R1		0.00000083	L02					
1200	SHEBEV	BEVERLY JUNE SHEPPARD	R		0.00005100	PAY					
1200	SMAMIC	MICHELLE SMALL	R		0.00004500	L03					
1200	SMEMIC	MICHAEL SMEDLEY	R		0.00061700	PAY					
1200	SMIFAM	THE SMITH FAMILY TRUST	R		0.00004000	PAY					
1200	SMIWIL	WILLIAM F SMITH, II	R		0.00005100	PAY					
1200	SNYMAR	MARY FRANCES SNYDER	R		0.00007200	PAY					
1200	STAAUD	AUDRA STALNAKER	R		0.00154200	PAY					
1200	STARHE	RHENA STANLEY	R		0.00061700	PAY					
1200	STUSHI	SHIRLEY STUTLER	R		0.00022000	L05					
1200	SWAROB	ROBERT SWARTZ	R		0.00092600	PAY					
1200	THOCAR	CARL THORNTON	R		0.00020500	PAY					
1200	THODAL	JOYCE E THOMPSON	R		0.00043800	PAY					
1200	THODAV	DAVID W. THOMPSON	R		0.00021900	PAY					
1200	THODON	DONALD L AND CAROLYN J THO	R		0.00043800	PAY					
1200	THOEAR	EARL W. THOMPSON	R		0.00043800	PAY					
1200	THOJUD	JUDY ANN THOMPSON	R		0.00051125	PAY					
1200	THOMCA	CARL AND VICKIE THOMPSON	R		0.00043800	PAY					
1200	THOMIC	MICHAEL A THOMPSON	R		0.00021900	PAY					
1200	THORAY	RAY THORNTON	R		0.00020500	PAY					

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Property: Proposed Well #351

Duval Well# 351 (continued)

Acct	Owner	Owner's Name	Typ	Billing(WI)	Revenue(NRI)	Susp	Ext Sus	Grp/Part	DI	Ex	O
1200	TIMEDG	EDGAR TIMMS	R		0.00036000	L03					
1200	TOLBET	BETTY TOLLEY	R		0.00007200	PAY					
1200	TOLERL	ERLENE B TOLLEY	R		0.00009000	PAY					
1200	TOLGAR	GARY TOLLEY	R		0.00009000	L03					
1200	TOLJAC	JACK TOLLEY	R		0.00009000	PAY					
1200	TOLJIM	JIMMY TOLLEY	R		0.00009000	L03					
1200	TOLMEL	MELVIN R TOLLEY	R		0.00009000	PAY					
1200	TOLRAM	RAMAH TOLLEY	R		0.00009000	PAY					
1200	TOLWIL	WILLIAM O TOLLEY	R		0.00007200	L03					
1200	TOMPAT	PATRICIA S. TOM	R		0.00000800	PAY					
1200	TRIPJO	JOHN AND DOROTHY TRIPLETT	R		0.00006600	PAY					
1200	TRUDAV	DAVID L TRUMAN	R		0.00031900	PAY					
1200	TRUSTE	STEVE TRUMAN	R		0.00011000	PAY					
1200	VANVEL	VELMA VanGORDER	R		0.00003600	PAY					
1200	WACO	WACO	O		0.00733300	PAY					
1200	WARLOI	LOIS WARD	R		0.00002800	PAY					
1200	WATKEV	KEVIN WATSON	R		0.00000800	PAY					
1200	WATMAR	MARTIN WATSON	R		0.00000800	PAY					
1200	WAYEDW	EDWINA ANGUS WAYBRIGHT	R		0.00001440	PAY					
1200	WAYGAR	GARY ALLEN WAYBRIGHT	R		0.00016800	PAY					
1200	WAYJAM	JAMES K WAYBRIGHT	R		0.00033700	PAY					
1200	WAYJEF	JEFFREY LEE WAYBRIGHT	R		0.00016800	L03					
1200	WAYMIL	MILLIE W WAYBRIGHT	R		0.00067500	PAY					
1200	WAYOTI	OTIS WAYBRIGHT	R		0.00033700	PAY					
1200	WAYROB	ROBERT WAYBRIGHT	R		0.00011200	PAY					
1200	WAYSTE	STEVEN WAYBRIGHT	R		0.00011200	PAY					
1200	WAYTHO	THOMAS WAYNE WAYBRIGHT	R		0.00016800	L03					
1200	WEBCHA	CHARLES R. WEBB	R		0.00015433	PAY					
1200	WELGAR	GARRY L. WELCH	R		0.00015433	L03					
1200	WESILA	ILA G WESTFALL	R		0.00046300	L03					
1200	WILCLA	CLARK WILLIAMSON	R		0.00030900	PAY					
1200	WILJOY	JOYCE WILLIAMS	R		0.00007200	PAY					
1200	WOLDOW	DOW OLIVER WOLFE	R		0.00061700	L03					
1200	WRIANG	ANGELA WRIGHT	R		0.00009000	PAY					
1200	YOHCAR	CAROL EAKINS YOHO	R		0.00005100	PAY					
1200	YOHCAR	CAROL EAKINS YOHO	R1		0.00000000	PAY					
1200	YOUAUS	AUSTIN G. YOUNG	R		0.00051125	PAY					
1200	YOUHAV	DAVID YOUNG	R		0.00051125	PAY					
1200	YOUWAY	WAYNE A. YOUNG	R		0.00051125	PAY					
1200	ZANLIS	LISA L ZANISH	R		0.00011200	PAY					
TOTAL					1.00000000	1.00000000					

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E. SYSTEM OF MAINTAINING DETAILED RECORDS

A detailed drillers log will be maintained at all times.

Including but not limited to:

- Lost Circulation
- Presence of hydrogen sulfide gas (H₂S)
- Fluid entry
- Kicks
- Abnormal pressure

F. NOTIFICATION OF THE OFFICE OF OIL AND GAS

Expired Date

The WV DEP Office of Oil and Gas will be immediately notified of the presence of hydrogen sulfide gas above 10 ppm, significant kicks, or blow out events.

G. WELL HEAD ASSEMBLY (Completion)

Upon Completion of the well it is anticipated that a 4.5" x 2 3/8" wellhead is to be installed on the 4.5" casing and 2 3/8" tubing will be ran as a production string.

H. WELL KILLING PROCEDURE

The 351 Well is planned to be drilled in an underbalanced environment using compressed air for drilling medium. Natural gas shows while drilling will be taken through the surface equipment in a controlled manner. It is not anticipated that there will be large natural shows of gas that would warrant the well to be killed. If however, circumstances arise that would deem it necessary to kill the well, a pumping unit and all necessary materials will be ordered out to load the hole and kill the well.

VOID

5. BOP AND WELL CONTROL

A. BOP EQUIPMENT AND CASING HEADS: (DRILLER HAS NOT BEEN SELECTED YET BUT ALL BOP INFORMATION WILL BE UPDATED BASED ON DRILLER PROTOCOLS AND FOLLOWING WV DEP REGULATIONS)

- 3M Annular BOP to be installed for the 8 3/4" hole section.
- 7 1/16" 5M Screw on Casing head.
- 7 1/16" 3M Annular BOP to be installed for the 6 3/8" hole section.

B. BOP TESTING PROCEDURES:

- Annular Preventers will be tested upon installation, then at least once every 21 days. Testing procedure will use water or air as medium and consist of a low pressure (300psi) test and a high pressure (70%of WP or 80%Casing Burst). Pressure will be held for 30 min.

C. BOP EQUIPMENT AND INSTALLATION SCHEDULE:

- After setting and cementing 9 5/8" surface casing - a 3000 psi annular BOP is to be flanged up directly to the casing.
- After setting and cementing 7" Intermediate Casing, the well will be fitted with a **screw on 7 1/16" API 5000 psi wellhead**. A 7 1/16" 3000 psi Annular BOP will be flanged up to wellhead and tested according to procedure before drilling bottom hole section.

D. NAMES OF WELL CONTROL TRAINING

Throughout operations, the following Mountaineer State Energy Employees shall have and maintain Well Control Certification. Any on site consultants hired to oversee drilling or completions must have and prove a current Certification of Well Control Training.

NAMES	ISSUED DATE	EXPIRATION DATE

05/24/2019


2. CONTACTS, SCHEDULES, AND MEETINGS

A. 24 Hour Emergency Contact for Mountaineer State Energy: (1-800-xxx-xxxx)

B. List of Telephone Numbers:

OPERATOR:	EMPLOYEE NAME:	EMERGENCY NUMBER:	CELL PHONE NUMBER:
MOUNTAINEER STATE ENERGY OFFICE (24 HOUR CONTACT)			
OTHER MOUNTAINEER STATE ENERGY CONTACTS			

KEY CONTRACTORS:			
BBU Environmental:	Spill Response	304-372-8192	1-866-925-8192
Safety Kleen	Spill Response	304-755-4279	
Enviroprobe	Spill Response	304-776-6717	
R&R Well Service	Spill Response	304-531-4822	
Haz-tech Environmental	Spill Response	800-304-4286	
Mcjunki Redman	Pipe/Equip Venders	304-562-5724	
Miller Supply	Pipe/Equip Venders	304-595-5105	740-373-6806
Hildreth Supply	Pipe/Equip Venders	304-927-2170	
TekSolv	H2S Monitoring	304-472-4800	304-472-0007
Drilling contractor TBD	Drilling Contractors		
Drilling contractor TBD	Drilling Contractors		
Baker Hughes	Cementing/pumping	1-304-624-9802	
Haliburton	Cementing/pumping		
Schlumberger	Cementing/pumping	1-304-269-1939	
Universal	Cementing/pumping	1-304-473-8960	
C&J	Cementing/pumping		1-276-679-5860
Weatherford	Wellhead/BOP/control	1-304-884-8103	1-724-754-9439
Universal Wellhead	Wellhead/BOP/control	1-740-492-0403	

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