



Commonwealth of Virginia
Department of Mines, Minerals, and Energy
Division of Gas and Oil
P.O. Drawer 159, Lebanon, VA 24266
Telephone: (276) 415-9700

Tracking Number:	<u>2353</u>
Company:	<u>Range Resources-Pine Mountain</u>
File Number:	<u>DI-2326</u>
Operations Name:	<u>V-530201</u>
Operation Type:	<u>Gas</u>
Drilling Report Type:	<u>Original</u>

DRILLING REPORT (DGO-GO-14)

1. Drilling Data

Date drilling commenced:	<u>1/4/2010</u>	Drilling Contractor:	<u>SW Jack #18</u>
Date drilling completed:	<u>1/15/2010</u>	Rig Type:	<u>R Rotary</u> <u>F Cable</u>
Driller's Total Depth (feet):	<u>4401.00</u>		
Log Total Depth (feet):	<u>4401.00</u>	Formation At Total Depth	<u>Big Lime</u>

2. Final Location Plat (as required by 4 VAC25-150-360.C.)

Permitted State Plane X:	<u>10336832.4900</u>	Final Plat State Plane X:	<u>10336832.0500</u>
Permitted State Plane Y:	<u>3633199.0800</u>	Final Plat State Plane Y:	<u>3633199.1200</u>

Plat Previously Submitted Or... F

List of Attached Items:

Description	FileName
V-530201 Final Plat	V-530201 Final Plat.pdf

3. Geological Data

Fresh Water At:

Depth (in feet)	Rate	Unit of Measure
440	Damp	

Salt Water At:

Depth (in feet)	Rate	Unit of Measure
2981	Damp	

Coal Seams:

List of Attached Items:

Description	FileName
V-530201 Coal	V-530201 Coal.xls

Gas and Oil Shows:

List of Attached Items:

Description	FileName
V-530201 Gas Shows	Shows.xls

4. Electric Logs (As required by 4VAC25-150-280.A)

List all logs run: Hi Res GR/Dens/Temp/Audio/PE/Caliper Data Pack

Did logs disclose vertical locations of a coal seam?

5. Survey Results (As required by 4VAC25-150-280.B.2)

List of Attached Items:

Description	FileName
V-530201 Survey	Survey.xls

6. Casing and Tubing Program

List of Attached Items:

Description	FileName
V-530201 Casing	Casing.xls

7. Remarks

Use this space to note any conditions or occurrences, such as lost circulation, fishing jobs, junk left in hole, sidetracks, squeeze jobs, etc., not shown above. Include data and depth of condition/occurrence.

1/11/10 – Drill pipe twisted off; 1/12/10 – Ran fish/recovered drill pipe

8. Drillers Log

Compiled By: Range Resources - Pine Mountain, Inc.

List of Attached Items:

Description	FileName
V-530201 Driller's Log	V-530201 Log.xls

9. Comments

Reject per Laura [1/28/2010, djd]

10. Signature

Permittee: Range Resources-Pine Mountain Date: 1/28/2010

Signed By: Laura Murray Title: Permit Specialist

INTERNAL USE ONLY

Submit Date: 1/28/2010

Status: A

Date: 2/11/2010

Final PDF Date: 2/12/2010

TOTAL UNIT AREA

= 112.69 ACRES

Lease No. 245735
USFS TR 3 - VAES 50529
2539.80 ACRES
UNITED STATES OF AMERICA - Gas, Oil, Coal
USFS - Surface
GAS 4.69 AC. - 4.16%

LATITUDE 37°15'00"

FINAL PLAT

The undersigned hereby certifies that the final location is within ten (10) feet of the location shown on the well plat dated OCTOBER 7, 2009.

— DENOTES MINERAL LINE
- - - DENOTES SURFACE LINE
- - - DENOTES SURFACE & MINERAL LINES

"AS-DRILLED"
STATE PLANE
NAD 27 COORDINATES
OF WELL V-530201
N 352320.59
E 853848.69
LAT 37.235362
LON -82.438157
NAD 83 COORDINATES
N 3633199.12
E 10336832.05

Lease No. 245733
USFS TR 1 - VAES 50527
2539.40 ACRES
UNITED STATES OF AMERICA - Gas, Oil, Coal
USFS - Surface
GAS 47.46 AC. - 42.12%

"AS-DRILLED"
CCC COORDINATES
OF WELL V-530201
N 49303.25
W 15958.60

COORDINATES OF
BENCH MARK
N 3504914.8125
E 10370404.8448
ELEV. = 1753.40

NOTE !!!
WELL COORDINATES ARE BASED ON STATE PLANE NAD 83
COORDINATE SYSTEM.
ELEVATIONS ARE BASED ON NGS CONTROL ST. PAUL 2.
PROPERTY INFORMATION PROVIDED BY RANGE
RESOURCES-PINE MOUNTAIN, INC.

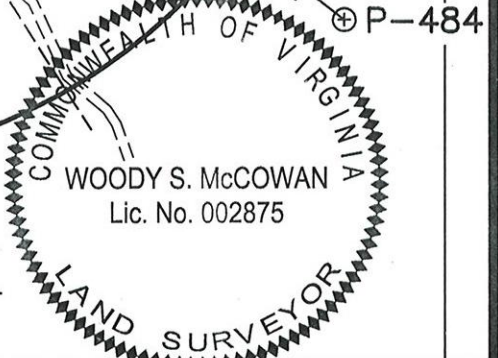
NOTE!!!
THE BOUNDARY LINES SHOWN HEREON ARE BASED ON
DEEDS, PLATS AND MAPS OF RECORD AND DO NOT DEPICT
CURRENT BOUNDARY SURVEYS.

Lease No. 241492
SHROLE, INC.
243.00 ACRES
AUBREY LYALL - Surface
FREDDIE & KAREN MULLINS -
Coal, Gas, Oil
GAS 60.54 AC. - 53.72%

AUBREY LYALL HEIRS -
Surface

PROPOSED
ACCESS
ROAD

WOODY S. McCOWAN
Lic. No. 002875



WELL LOCATION PLAT

COMPANY Range Resources-Pine Mountain, inc. WELL NAME AND NUMBER V-530201

TRACT No. LEASE NO. 241492 ELEVATION 2322.81 (GPS) QUADRANGLE CLINTWOOD

COUNTY DICKENSON DISTRICT WILLIS SCALE: 1" = 400' DATE JANUARY 5, 2010

THIS PLAT IS A NEW PLAT ; AN UPDATED PLAT ; OR A FINAL LOCATION PLAT

PROPOSED TOTAL DEPTH OF WELL = _____

+ DENOTES THE LOCATION OF A WELL ON UNITED STATES TOPOGRAPHIC MAPS, SCALE 1 TO 24,000, LATITUDE AND LONGITUDE LINES BEING REPRESENTED BY BORDER LINES AS SHOWN.

W. J. P. 1-5-10
T&L
LICENSED PROFESSIONAL ENGINEER OR LICENSED LAND SURVEYOR

(AFFIX SEAL)

10313 AS-D.DWG

Coal Seams

				MINING IN AREA		
NAME	TOP	BOTTOM	THICKNESS	YES	NO	MINED OUT
Coal	398	399	1		NO	NO
Coal	402	403	1		NO	NO
Coal	451	453	2		NO	NO

Gas and Oil Shows

FORMATION	DEPTH	THICKNESS	IPF (MCFD/BOPD)	PRESSURE	HOURS TESTED
Berea	2843		NS		
Big Lime	4401		1900 mcf		
Big Lime	4401		1400 mcf		
Big Lime	4401		1400 mcf		

Survey Results

Depth of Survey	Direction/Distance/Degree From True Vertical
200'	$1/4^\circ$
400'	$1/2^\circ$
585'	$3/4^\circ$
1000'	$3/4^\circ$
1200'	$3/4^\circ$
1400'	$3/4^\circ$
1600'	1°
1800'	1°
2000'	$1 1/4^\circ$
2200'	$1 1/4^\circ$

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Driller's Log

Geologic Age	Formation	General		Depth		Thickness	Remarks
		Lithology	Color	Top	Bottom		
Pennsylvanian		Sandy Shale		0	398	398	
Pennsylvanian		Coal		398	399	1	
Pennsylvanian		Sandy Shale		399	402	3	
Pennsylvanian		Coal		402	403	1	
Pennsylvanian		Sandy Shale		403	451	48	
Pennsylvanian		Coal		451	453	2	
Pennsylvanian		Sandy Shale		453	595	142	
Pennsylvanian	Lee	Sandstone		595	950	355	
Pennsylvanian		Sandy Shale		950	1440	490	
Mississippian	Maxton	Sandstone		1440	1700	260	
Mississippian		Sandy Shale		1700	1853	153	
Mississippian	Big Lime	Limestone		1853	2280	427	
Mississippian	Weir	Siltstone		2280	2500	220	
Mississippian	Weir Shale	Shale		2500	2765	265	
Mississippian	Sunbury	Shale		2765	2820	55	
Mississippian	Berea	Sandstone		2820	2880	60	
Devonian	Cleveland	Shale		2880	3435	555	
Devonian	Lower Huron	Shale		3435	3670	235	
Mississippian	Maxton	Sandstone		3670	3910	240	
Mississippian		Sandy Shale		3910	4030	120	
Mississippian	Big Lime	Limestone		4030			
					4401 TD		