



Commonwealth of Virginia  
 Department of Mines, Minerals, and Energy  
 Division of Gas and Oil  
 P.O. Box 1416; Abingdon, VA 24212  
 Telephone: (276) 676-5423

Tracking Number: 824  
 Company: Daugherty Petroleum, Inc.  
 File Number: LE-0217  
 Operations Name: 1754  
 Operation Type: Gas  
 Drilling Report Type: Original

### DRILLING REPORT (DGO-GO-14)

#### 1. Drilling Data

Date drilling commenced: 9/3/2007      Drilling Contractor: Phoenix Drilling Inc.  
 Date drilling completed: 9/14/2007      Rig Type:  Rotary    Cable Tool  
 Driller's Total Depth (feet): 5,790  
 Log Total Depth (feet): 0      Formation At Total Depth: Clinton

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

Permitted State Plane X: 671,233      Final Plat State Plane X: 671,233  
 Permitted State Plane Y: 204,493      Final Plat State Plane Y: 204,493

Plat Previously Submitted Or...

List of Attached Items:

Description	FileName
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#### 3. Geological Data

*Fresh Water At:*

Depth (in feet)	Rate	Unit of Measure
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*Salt Water At:*

Depth (in feet)	Rate	Unit of Measure
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*Coal Seams*

List of Attached Items:

Description	FileName
coal seams	coal seams.tif

**Gas and Oil Shows**

List of Attached Items:

Description	FileName
gas and oil shows	gas and oil shows.tif

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

List all logs run: GR/DEN/NEU/TEMP/AUDIO/PE

Did logs disclose vertical locations of a coal seam?  Yes  No

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

List of Attached Items:

Description	FileName
survey results	survey results.tif

**6. Casing and Tubing Program**

List of Attached Items:

Description	FileName
casing and tubing	casing and tubing.tif

**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.

Shut down fishing jobs, depths and dates, caves, lost circulation, etc.: Lost circulation from 340'-344' in open mine (see above)

**8. Drillers Log**

Compiled By: Shannon Williams

List of Attached Items:

Description	FileName
Driller's Log	driller's log.tif

**9. Comments**

**10. Signature**

Permitee: Daugherty Petroleum, Inc. Date: 11/14/2007 (Company)

Signed By: Shannon Williams Title: Geologist (Signature)

**INTERNAL USE ONLY**

Submit Date: 11/14/2007

Status: Inspr Approved

Date: 11/15/2007

Final PDF Date: 11/16/2007

Coal Seams

NAME	TOP	BOTTOM	THICKNESS	MINING IN AREA		MINED OUT
				YES	NO	
Lower Mason	340'	344'	4'	X		X

Gas and Oil Shows

FORMATION	TOP	BOTTOM	THICKNESS	IPF (MCFD/BOPD)	PRESSURE	HOURS TESTED
Weir	4653'	4946'	293'	Odor		
Brown Shale	5090'	5516'	426'	Odor		



Depth Of Survey	Direction/Distance/ Degrees From True Vertical	Depth Of Survey	Direction/Distance Degrees From True Vertical
169'	3/4 deg		
369'	1 deg		
579'	3/4 deg		
779'	3/4 deg		
979'	3/4 deg		
1179'	3/4 deg		
1409'	3/4 deg		
1629'	3/4 deg		
1869'	1 deg		
2079'	1 deg		
2279'	1 deg		
2479'	1 deg		
2679'	1 deg		
2879'	1 deg		
3099'	1 deg		
3279'	1 deg		
3459'	1 deg		

Use additional sheets as necessary

CASING AND TUBING PROGRAM

	Casing	Casing Interval	Hole Size	Cement Used In Cu/Ft	Cemented To Surface		Date Cemented	Packers Or Bridge Plugs Kind/Size/Set
					Yes	No		
Conductor	13 3/8"	0'-40'	17 1/2"	N/A				
Surface								
Water Protection	9 5/8"	0'- 500'	12 3/8"	177'	X		9-04-07	
Coal Protection	7"	0'- 4130'	8 3/4"	1132'	X		9-12-07	
Other Casing And Tubing Left In Well	4 1/2"	0'- 5738'	6 1/4"	212'		X	9-15-07	
Liners								

REMARKS: Shut down fishing jobs, depths and dates, caving, lost circulation, etc.: Lost circulation from 340'-344' in open mine (see above)

DRILLER'S LOGCompiled by: Shannon Williams

Geologic Age	Formation	General Lithology	Color	Depth		Thickness	Remarks
				Top	Bottom		
Pennsylvanian	Norton	Sand/SH/Coal	D. Gray	0'	1670'	1670'	
	Lee Sands	Sand/SH/Coal	Gray/Blk	1670'	3068'	1398'	
Mississippian	Upper Pennington	Shale	Gray	3068'	3501'	433'	
	Ravencliff	Sand/Shale	Br/Gray	3501'	3546'	45'	
	Maxon	Sand/Shale	Wh/Gray	3546'	3872'	326'	
	Lower Pennington	Shale	Gray	3872'	4160'	288'	
	Little Lime	Lime	Gray	4160'	4204'	44'	
	Pencil Cave	Shale	Grn/Gray	4204'	4218'	14'	
	Big Lime	Lime	Wh/Gray	4218'	4653'	435'	
	Weir	Sand/Siltstone	Dk Gray	4653'	4946'	293'	
	Sunbury	Shale	Black	4946'	5037'	91'	
	Berea	Siltstone/Sh	Dk Gray	5037'	5090'	53'	
Devonian	Brown Shale	Shale	Black	5090'	5516'	426'	
	Corniferous	Lime/Dlomite.	Tan/Gray	5516'	5725'	209'	
Silurian	Clinton	Shale	Red/Grn.	5725'	5790'	65'	LTD: 5970'

Permittee: Daugherty Petroleum, Inc. (Company)By: Shannon Williams, Geologist  (Signature)