



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: 193  
 Company: Chesapeake Appalachia, LLC  
 File Number: BU-3232  
 Operations Name: 825525 (HY-109) W/PL  
 Operation Type: Gas/Pipeline  
 Drilling Report Type: Original

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

#### 1. Drilling Data

Date drilling commenced: 8/29/2006 Drilling Contractor: Gasco, Inc.  
 Date drilling completed: 9/7/2006 Rig Type:  Rotary  Cable Tool  
 Driller's Total Depth (feet): 5,831  
 Log Total Depth (feet): 5,832 Formation At Total Depth Onandoga

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

Permitted State Plane X 935,459 Final Plat State Plane X: 935,463  
 Permitted State Plane Y: 393,952 Final Plat State Plane Y: 393,960

Plat Previously Submitted Or...

List of Attached Items:

Description	FileName
825525 Final Plat	825525 Final Plat.pdf

#### 3. Geological Data

Fresh Water At:

Depth (in feet)	Rate	Unit of Measure
232	1	INCH

Salt Water At:

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

List of Attached Items:

Description	FileName
Coal Beds 825525	CoalBeds 825525.xls

**Gas and Oil Shows**

List of Attached Items:

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

List all logs run: GR, LDT, CNL, PE, AIT, Audio & Temp

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 825525	Survey Results 825525.xls

**6. Casing and Tubing Program**

List of Attached Items:

Description	FileName
825525 Casing Program	Casing Program 825525.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.

9-5/8" cement did not circulate, grout backside to surface using 300 sks of Class A cement.

**8. Drillers Log**

Compiled By: Aaron Cato

List of Attached Items:

Description	FileName
Drillers Log 825525	DrillersLog 825525.xls

**9. Comments**

**10. Signature**

Permitee: Chesapeake Appalachia, LLC Date: 3/8/2007 (Company)

Signed By: Aaron Casto Title: Drilling Engineer (Signature)

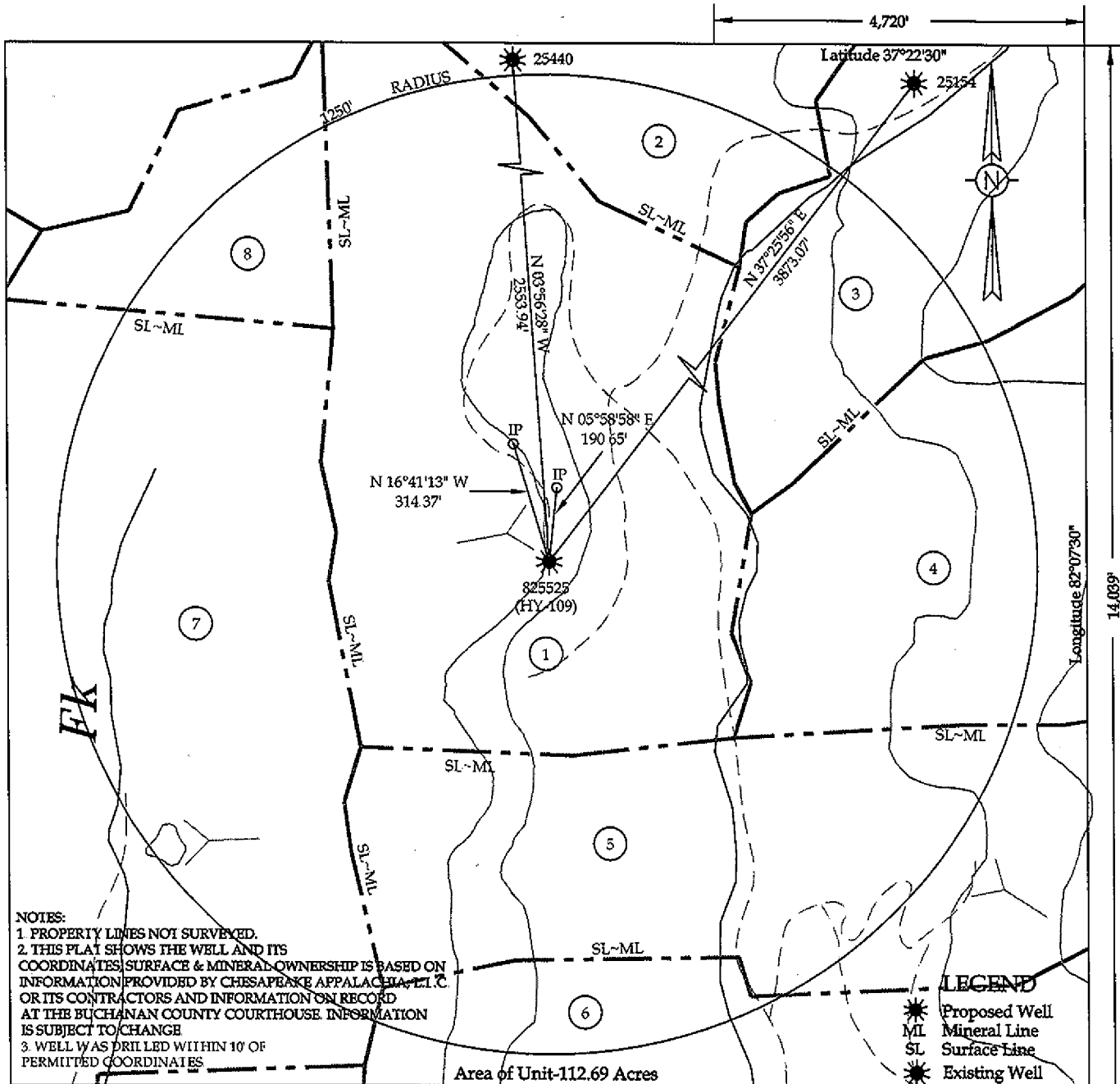
**INTERNAL USE ONLY**

Submit Date: 3/8/2007

Status: Inspr Approved

Date: 3/9/2007

Final PDF Date: 4/5/2007



**NOTES:**

1. PROPERTY LINES NOT SURVEYED.
2. THIS PLAT SHOWS THE WELL AND ITS COORDINATES. SURFACE & MINERAL OWNERSHIP IS BASED ON INFORMATION PROVIDED BY CHESAPEAKE APPALACHIA, L.L.C. OR ITS CONTRACTORS AND INFORMATION ON RECORD AT THE BUCHANAN COUNTY COURTHOUSE. INFORMATION IS SUBJECT TO CHANGE.
3. WELL WAS DRILLED WITHIN 10' OF PERMITTED COORDINATES.

**LEGEND**

- Proposed Well
- Mineral Line
- Surface Line
- Existing Well

Area of Unit-112.69 Acres  
**WELL LOCATION PLAT**



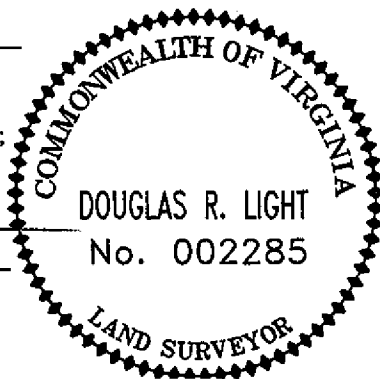
Company CHESAPEAKE APPALACHIA, L.L.C. Well Name or Number 825525 (HY-109)  
 Tract No. BUCHANAN GAS CO. Quadrangle HARMAN  
 District ROCKLICK  
 Well Coordinates (Virginia State Plane) N: 393,959.52 E: 935,463.10  
 Elevation: 1669.63 Method Used to Determine Elevation: Irig. Levels from GPS derived elevation.  
 County BUCHANAN Scale: 1" = 400' Date 10-10-06

This Plat is a new plat \_\_\_\_\_ ; an updated plat \_\_\_\_\_ ; or a final location plat X \_\_\_\_\_ ;

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.

Form DGO-GO-7  
 Rev. 1-98

Licensed Professional Engineer or Licensed Land Surveyor



DGO-7 Supplement  
WELL UNIT PROPERTY OWNER INDEX  
825525 (HY-109)

(1)

Drill Tract

Surface:

Haven & Christine Stiltner, et al

Coal:

Wellmore Coal Co., LLC

Gas:

Buchanan Gas Co.

35.79 Ac. ~ 31.76% of 112.69 Ac.

(2)

Buchanan Gas Co.

4.79 Ac. ~ 4.25% of 112.69 Ac.

(3)

Russell Deel Heirs

7.59 Ac. ~ 6.74% of 112.69 Ac.

(4)

Evelyn Belcher, et al

13.48 Ac. ~ 11.96% of 112.69 Ac.

(5)

Buchanan Gas Co.

19.66 Ac. ~ 17.45% of 112.69 Ac.

(6)

Buchanan Gas Co.

4.33 Ac. ~ 3.84% of 112.69 Ac.

(7)

Buchanan Gas Co.

23.44 Ac. ~ 20.80% of 112.69 Ac.

(8)

Big Sandy Coal Corporation

3.61 Ac. ~ 3.20% of 112.69 Ac.

Well 825525 COALBEDS				MINING IN AREA		
NAME	TOP	BOTTOM	THICKNESS	YES	NO	MINED OUT
Unknown	152	153	1		X	NO
Unknown	255	256	1		X	NO
Unknown	392	393	1		X	NO
Unknown	615	616	1		X	NO
Unknown	750	751	1		X	NO

Well 825525 SURVEY RESULTS	
Depth of Survey	Direction/Distance/Degree From True Vertical
220	1/4 degree
421	1/4 degree
615	1/2 degree
828	1/2 degree
1049	1/2 degree
1238	1/2 degree
1410	1/2 degree
1614	1/4 degree
1825	1/4 degree

Well 825525 CASING PROGRAM							
	Casing	Casing	Hole	Cement Used	Cemented To Surface	Date	Packers Or Bridge Plugs
Casing Type	Size	Interval	Size	In Cubic Ft.	Yes/No	Cemented	Kind/Size/Set
Surface	13-3/8"	26'KB	15"	Driven	No		
Surface	9-5/8"	510'KB	12-1/4"	561	Yes	08/30/06	Grout basket at 183'KB
Coal Protection	7"	2218'KB	8-7/8"	445	Yes	09/01/06	Grout basket at 94'KB
Production	4-1/2"	5785'KB	6-3/8"	361	No	09/08/06	



Well 825525 DRILLER'S LOG							
Geologic Age	Formation	General Lithology	Color	Depth Top	Depth Bottom	Thickness	Remarks
Penn	Lee	Siltstone & Shale/Coal		0	1213	1213	
Penn	Salt Sand	Sandstone		1213	2095	882	
Miss	Pennington	Siltstone & Shale		2095	2265	170	
Miss	Ravenclyff	Sandstone		2265	2290	25	
Miss	Pennington	Siltstone & Shale		2290	2347	57	
Miss	Upper Maxon	Sandstone		2347	2404	57	
Miss	Pennington	Siltstone & Shale		2404	2885	481	
Miss	Lower Maxon	Sandstone		2885	2945	60	
Miss	Pennington	Siltstone & Shale		2945	2998	53	
Miss	Bradley	Sandstone		2998	3027	29	
Miss	Pennington	Siltstone & Shale		3027	3070	43	
Miss	Little Lime	Limestone		3070	3112	42	
Miss	Big Lime	Limestone		3112	3526	414	
Miss	Pennington	Siltstone & Shale		3526	3657	131	
Miss	Weir	Sandstone		3657	3835	178	
Miss	Pocono	Shale		3835	4177	342	
Miss	Sunbury	Shale		4177	4195	18	
Miss	Berea	Sandstone		4195	4200	5	
Miss	Devonian	Shale		4200	5065	865	
Devonian	Lower Huron	Shale		5065	5310	245	
Devonian	Java	Shale		5310	5424	114	
Devonian	Rhinestreet	Shale		5424	5715	291	
Devonian	Marcellus	Shale		5715	5727	12	
Devonian	Onondoga	Limestone		5727	5832	105	