



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: 212  
 Company: Chesapeake Appalachia, LLC  
 File Number: BU-3239  
 Operations Name: 825528 (HCS-87) W/PL  
 Operation Type: Gas/Pipeline  
 Drilling Report Type: Original

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

#### 1. Drilling Data

Date drilling commenced: 9/16/2006 Drilling Contractor: Gasco Drilling Co.  
 Date drilling completed: 9/27/2006 Rig Type:  Rotary  Cable Tool  
 Driller's Total Depth (feet): 6,200  
 Log Total Depth (feet): 6,196 Formation At Total Depth Onandoga

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

Permitted State Plane X 942,829 Final Plat State Plane X: 942,836  
 Permitted State Plane Y: 384,690 Final Plat State Plane Y: 384,691

Plat Previously Submitted Or...

List of Attached Items:

Description	FileName
825528 Final Plat	825528 Final Plat.pdf

#### 3. Geological Data

Fresh Water At:

Depth (in feet)	Rate	Unit of Measure
320	1	INCH

Salt Water At:

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

List of Attached Items:

Description	FileName
825528 Coal Seams	CoalBeds 825528.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, AIT, PE, Temp, & Audio

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
825528 Deviation Survey	Survey Results 825528.xls

**6. Casing and Tubing Program**

List of Attached Items:

Description	FileName
825528 Casing Prgram	Casing Program 825528.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.

An open mine was encountered while drilling the 12 1/4" hole at 528'. A grout basket was set on the 9 5/8" csg at 489' and grouted to surface using 150 sks of Class A cement.

**8. Drillers Log**

Compiled By: Aaron Casto

List of Attached Items:

Description	FileName
825528 Drillers Log	DrillersLog 825528.xls

**9. Comments**

The operator needs to submit information (i.e. bond log or pressure calculations that show if the cement for the 7" came up into the 9 5/8" casing.

After discussing the casing program with the operator, I learned that the 7" cement did circulate.  
After discussing the casing program with the operator, I learned that the 7" did circulate.

**10. Signature**

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

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

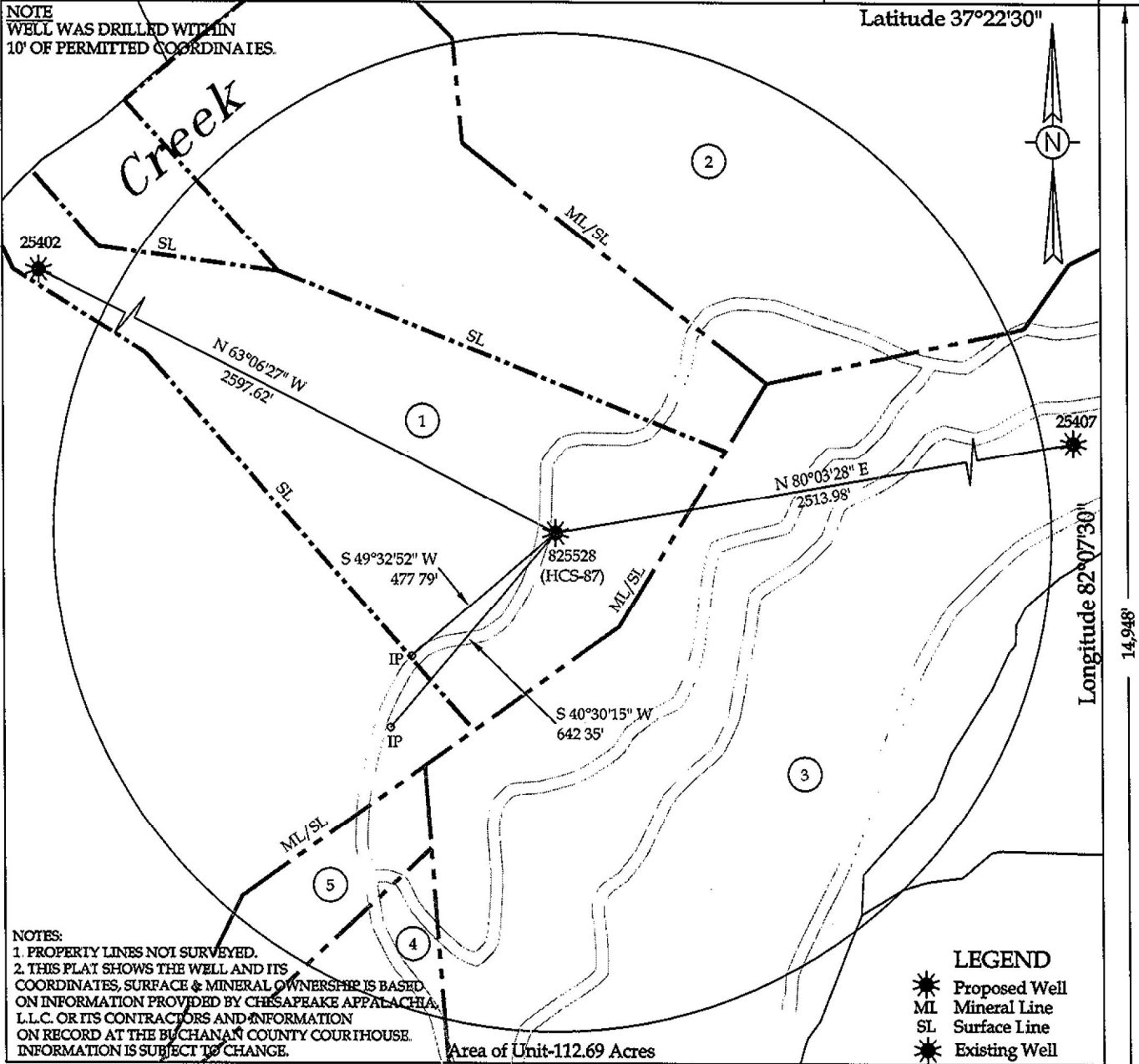
**INTERNAL USE ONLY**

Submit Date: 3/8/2007

Status: Inspr Approved

Date: 3/9/2007

Final PDF Date: 4/5/2007



WELL LOCATION PLAT

Company CHESAPEAKE APPALACHIA, L.L.C. Well Name or Number 825528 (HCS-87)

Tract No. GREEN CHARLES ESTIAIE Quadrangle HARMAN 7.5' TOPO

District North Grundy LOCATION

Well Coordinates (Virginia State Plane) N: 384,690.87 E: 942,836.21

Elevation: 1873.91 Method Used to Determine Elevation: Irig. Levels from GPS derived elevation.

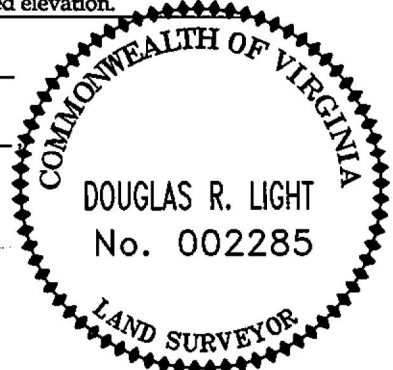
County BUCHANAN Scale: 1" = 400' Date 10-10-06

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.

*Douglas R. Light*

Licensed Professional Engineer or Licensed Land Surveyor



DGO-7 Supplement  
WELL UNIT PROPERTY OWNER INDEX  
825528 (HCS-87) with pipeline

(1)

Drill Tract  
Surface  
Wanda & Elster Ramey  
Mineral:  
Green Charles Estate  
52.63 Ac. ~ 46.70% of 112.69 Ac.

(2)

Green Charles Estate  
15.85 Ac. ~ 14.07% of 112.69 Ac.

(3)

Green Charles Estate  
40.03 Ac. ~ 35.52% of 112.69 Ac.

(4)

Robert Powers, et al  
51 Ac. Tract  
1.72 Ac. ~ 1.53 % of 112.69 Ac.

(5)

George Belcher Estate, et al  
5 Ac. Tract  
2.46 Ac. ~ 2.18% of 112.69 Ac.

Well 825528 COALBEDS				MINING IN AREA		
NAME	TOP	BOTTOM	THICKNESS	YES	NO	MINED OUT
Unknown	53	54	1		X	NO
Unknown	131	132	1		X	NO
Unknown	370	371	1		X	NO
Unknown	528	534	6		X	YES
Unknown	720	721	1		X	NO

**Well 825528 SURVEY RESULTS**

<b>Depth of Survey</b>	<b>Direction/Distance/Degree From True Vertical</b>
202	1/4 degree
424	1/4 degree
601	1/4 degree
828	1/2 degree
1050	1/2 degree
1208	1/4 degree
1397	1/4 degree
1618	1/2 degree
1808	1/2 degree
2029	1/4 degree
2218	1/4 degree
2408	1/4 degree
2628	1/4 degree

Well 825528 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
Conductor	18"	21'KB	24"	Driven	No		
Surface	13 3/8"	183' KB	16"	118	Yes	09/17/06	Grout basket at 88'
Surface	9-5/8"	610'KB	12-1/4"	236	Yes	09/18/06	Grout basket at 489'
Coal Protection	7"	2564'KB	8-7/8"	518	Yes	09/19/06	Grout basket at 88'KB
Production	4-1/2"	6139'KB	6-3/8"	401	No	09/29/06	



Well 825528 DRILLER'S LOG							
Geologic Age	Formation	General Lithology	Color	Depth Top	Depth Bottom	Thickness	Remarks
Penn	Lee	Siltstone & Shale/Coal		0	1288	1288	
Penn	Salt Sand	Sandstone		1288	2093	805	
Miss	Pennington	Siltstone & Shale		2093	2471	378	
Miss	Maxon	Sandstone		2471	2722	251	
Miss	Pennington	Siltstone & Shale		2722	3213	491	
Miss	Bradley	Sandstone		3213	3287	74	
Miss	Pennington	Siltstone & Shale		3287	3306	19	
Miss	Little Lime	Limestone		3306	3347	41	
Miss	Big Lime	Limestone		3347	3852	505	
Miss	Pennington	Siltstone & Shale		3852	3938	86	
Miss	Weir	Sandstone		3938	4093	155	
Miss	Pocono	Shale		4093	4446	353	
Miss	Sunbury	Shale		4446	4464	18	
Miss	Berea	Sandstone		4464	4469	5	
Miss	Devonian	Shale		4469	5463	994	
Devonian	Lower Huron	Shale		5463	5711	248	
Devonian	Java	Shale		5711	5834	123	
Devonian	Angola	Shale		5834	5918	84	
Devonian	Rhinestreet	Shale		5918	6079	161	
Devonian	Marcellus	Shale		6079	6089	10	
Devonian	Onondoga	Limestone		6089	6196	107	