



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:** 1124  
**Company:** Chesapeake Appalachia, LLC  
**File Number:** BU-3283  
**Operations Name:** 825683 (PPN-47) W/PL  
**Operation Type:** Gas/Pipeline  
**Drilling Report Type:** Original

## DRILLING REPORT (DGO-GO-14)

### 1. Drilling Data

Date drilling commenced: 12/17/2006      Drilling Contractor: S.W. Jack Drilling  
Date drilling completed: 1/11/2007      Rig Type:  Rotary  Cable  
Driller's Total Depth (feet): 5440.00  
Log Total Depth (feet): 5423.00      Formation At Total Depth: Onandoga

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

Permitted State Plane X: 996479.27      Final Plat State Plane X: 996475.79  
Permitted State Plane Y: 443897.72      Final Plat State Plane Y: 443896.68

Plat Previously Submitted Or...

List of Attached Items:

Description	FileName
Final Plat Well #825683	825683 Final Plat.pdf

### 3. Geological Data

*Fresh Water At:*

Depth (in feet)	Rate	Unit of Measure
195	4-4.5	INCH
68	2	INCH

*Salt Water At:*

Depth (in feet)	Rate	Unit of Measure
1510	Damp	

*Coal Seams:*

List of Attached Items:

Description	FileName
Coal Seams Well #825683	CoalBeds 825683.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,CNL,LDT,SIB,TEMP,AUDIO

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
Survey Results Well #825683	Survey Results 825683.xls

## 6. Casing and Tubing Program

List of Attached Items:

Description	FileName
Casing Program Well # 825683	Casing Program 825683.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" Job: Job did not circulate, grouted back to surface w/ 100 sks Class A cement

## 8. Drillers Log

Compiled By: Chad L Satterfield

List of Attached Items:

Description	FileName
Drillers Log Well # 825683	DrillersLog 825683.xls

## 9. Comments

## 10. Signature

Permittee: Chesapeake Appalachia, LLC

Date: 1/31/2008

Signed By: Chad L Satterfield

Title: Drilling Engineer

### INTERNAL USE ONLY

Submit Date: 1/31/2008

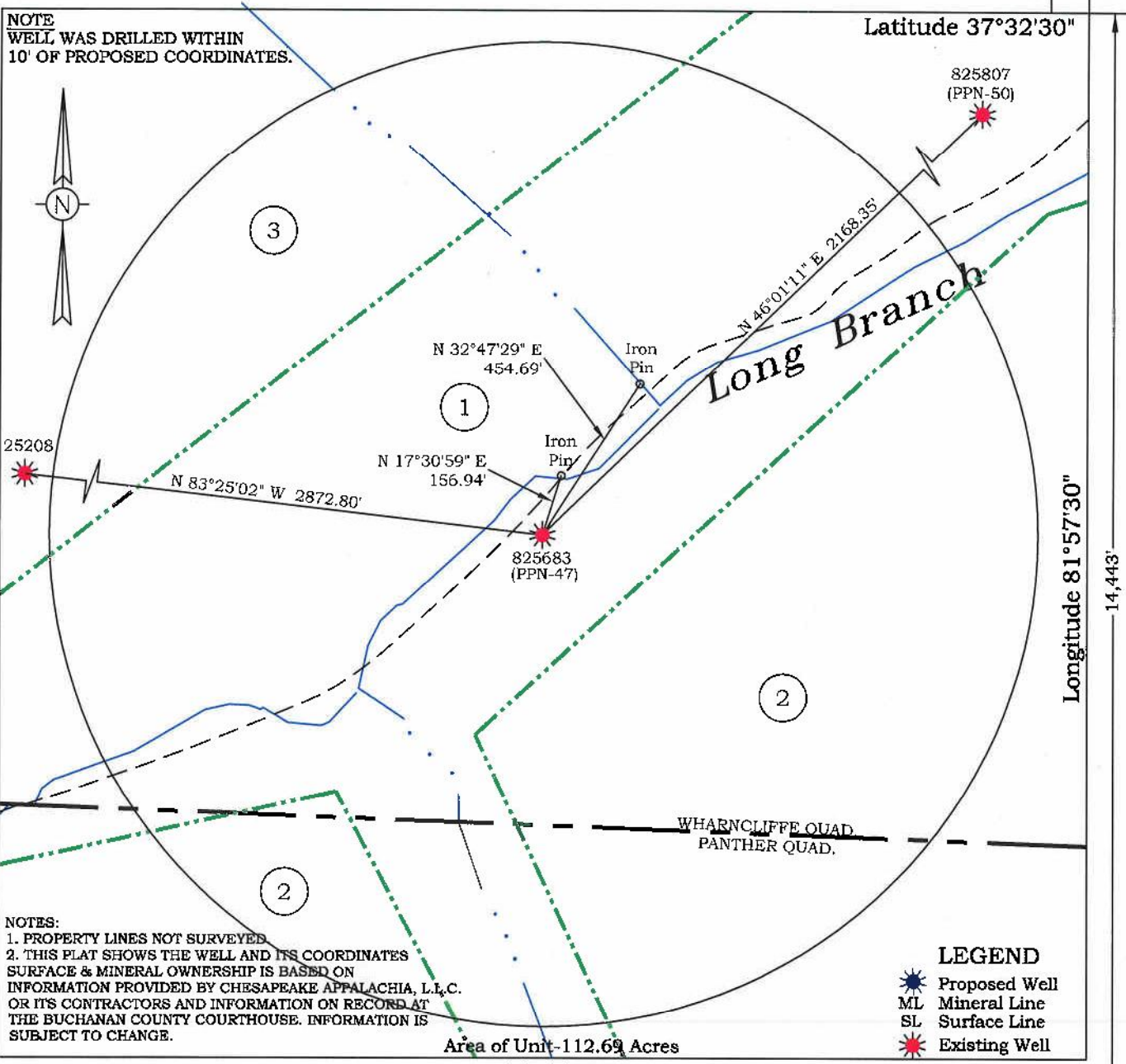
Status: A

Date: 2/1/2008

Final PDF Date: 2/27/2008

480'

Latitude 37°32'30"



Longitude 81°57'30"

14,443'

Company CHESAPEAKE APPALACHIA, L.L.C. Well Name or Number 825683 (PPN-47)

Tract No. BUCHANAN ENERGY CO., LLC - TRACT 99 Quadrangle WHARNCLIFFE

District KNOX

Well Coordinates (Virginia State Plane) N: 443,896.68 E: 996,475.79

Elevation: 1036.02 Method Used to Determine Elevation: Trig. Levels from GPS derived elevation.

County BUCHANAN Scale: 1" = 400' Date 1-18-07

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

*Douglas R. Light*  
 \_\_\_\_\_  
 Licensed Professional Engineer or Licensed Land Surveyor



OWNERSHIP SCHEDULE  
825683 (PPN-47)

(1)  
Buchanan Energy Co. LLC  
Tract 99  
57.08 Ac. ~ 50.65% of 112.69 Ac.

(2)  
Buchanan Energy Co. LLC  
Tract 95  
38.41 Ac. ~ 34.09% of 112.69 Ac.

(3)  
Buchanan Energy Co., LLC  
Tract 96  
17.20 Ac. ~ 15.26% of 112.69 Ac.

Well 825683 COALBEDS				MINING IN AREA		
NAME	TOP	BOTTOM	THICKNESS	YES	NO	MINED OUT
NA	NA	NA			X	No

Well 825683 SURVEY RESULTS	
Depth of Survey	Direction/Distance/Degree From True Vertical
200	1/4 degree
400	1/4 degree
600	1/2 degree
800	3/4 degree
1000	3/4 degree
1200	3/4 degree
1400	1 degree

Well 825683 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 #1	20"	25' KB	20"	Driven	No		
Conductor #2	13 3/8"	51' KB	17 1/2"	Driven	No		
Surface	9-5/8"	315' KB	12-3/8"	259.6	Yes	12/20/2006	Grout basket at 98' KB
Intermediate	7"	1542'KB	8-7/8"	326.5	Yes	1/5/2006	Grout basket at 98' KB
Production	4-1/2"	5398'KB	6-1/4"	404.37	No	1/11/2007	



Well 825683 DRILLER'S LOG		General		Depth	Depth		
Geologic Age	Formation	Lithology	Color	Top	Bottom	Thickness	Remarks
Penn	Lee	Siltstone & Shale/Coal		0	623	623	
Penn	Salt Sand	Sandstone		623	1382	759	
Miss	Pennington	Siltstone & Shale		1382	1610	228	
Miss	Upper Maxon	Sandstone		1610	1642	32	
Miss	Pennington	Siltstone & Shale		1642	1728	86	
Miss	Middle Maxon	Sandstone		1728	1862	134	
Miss	Pennington	Siltstone & Shale		1862	2018	156	
Miss	Lower Maxon	Sandstone		2018	2066	48	
Miss	Pennington	Siltstone & Shale		2066	2294	228	
Miss	Bradley	Sandstone		2294	2343	49	
Miss	Pennington	Siltstone & Shale		2343	2368	25	
Miss	Little Lime	Limestone		2368	2392	24	
Miss	Big Lime	Limestone		2392	2806	414	
Miss	Pocono	Shale		2806	2924	118	
Miss	Weir	Sandstone		2924	3032	108	
Miss	Pocono	Shale		3032	3397	365	
Miss	Sunbury	Shale		3397	3408	11	
Miss	Berea	Sandstone		3408	3422	14	
Devonian	Cleveland	Shale		3422	3694	272	
Devonian	Gordon	Sandstone		3694	3724	30	
Devonian	Devonian	Shale		3724	4478	754	
Devonian	Elk	Sandstone		4478	4552	74	
Devonian	Lower Huron	Shale		4552	4840	288	
Devonian	Java	Shale		4840	4942	102	
Devonian	Angola	Shale		4942	5138	196	
Devonian	Rhinestreet	Shale		5138	5319	181	
Devonian	Marcellus	Shale		5319	5329	10	
Devonian	Onondoga	Limestone		5329	5423	94	