

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:	870
Company:	Chesapeake Appalachia, LLC
File Number:	BU-3325
Operations Name:	826091 (HY-138) W/PL
Operation Type:	Gas/Pipeline
Drilling Report Type:	Original

DRILLING REPORT (DGO-GO-14)

1. Drilling Data			
Date drilling commenced:	6/23/2007	Drilling Contractor: Yost Drilling	
Date drilling completed:	7/5/2007	Rig Type: Rotary Cable Tool	
Driller's Total Depth (feet):	5,930		
Log Total Depth (feet):	5,930	Formation At Total Depth Onandoga	

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

Permitted State Plane X 932,926	Final Plat State Plane X: 932,933
Permitted State Plane Y: 387,048	Final Plat State Plane Y: 387,042
Plat Previously Submitted Or	

List of Attached Items:

Description	FileName
Final Plat Well #826091	Final Plat 826091.pdf

3. Geological Data

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Fresh Water At:

Depth (in feet)	Rate	Unit of Measure
354	Damp	

Salt Water At:

Depth (in feet)	Rate	Unit of Measure
2,274	Damp	

Coal Seams

List of Attached Items:

Description	FileName	
Coal Seams Well #826091	CoalBeds 826091.xls	

Gas and Oil Shows

List of Attached Items:

Description	FileName

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? ✓ Yes □ No

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

List of Attached Items:

Description	FileName	
Survey Results Well #826091	Survey Results 826091.xls	

6. Casing and Tubing Program

List of Attached Items:

Description	FileName	
Casing Program Well # 826091	Casing Program 826091.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/occurence.

9 5/8" Job: Open Mine @ 505'-508', Grout Basket @ 273'KB, grouted back to surface w/ 75 sks Class A cement

8. Drillers Log

Compiled By: Chad L Satterfield

List of Attached Items:

Description	FileName
Drillers Log Well # 826091	DrillersLog 826091.xls

9. Comments

10. Signature	0. Signature					
Permitee: C	Chesapeake Appalachia, LLC	Date: 11/27/2007	(Company)			
Signed By: C	Chad L Satterfield	Title: Drilling Engineer	(Signature)			
INTERNAL U	JSE ONLY					
Submit D	Date: 11/27/2007					
Sta	atus: Inspr Approved	Date: 12/3/2007				
Final PDF D	Date: 12/3/2007					

		- 1360' -
NOTES: 1. Property Lines Not Surveyed.		Latitude 37°22'30"
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 Subject To Change. 3. Well Was Drilled Within 10' Of Proposed		MLSL
Coordinates.		
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MI-SL	\sim	
	ML-SL	
	826091	MLSL SI
	(HY-138)	ML-SL TRADE
	Ser.	
	376°17	^{7758*} E 2601.87*
DRILL TRACT		
	Constant and Const	
	PTE 1028-040	826096 (H/CS-105)
Jesen 1998	MLSL	
(700)		ML-SL
	XX	and and
	6	
9390		Proposed Well ML Mineral Line
**	ML IRON (5)	SL Surface Line
	PIN IRON	* Existing Well
1+ 11	PIN	
Geographic Coordinates Nad '27" LAT: 37.339401 LON: -82.171345	Area of Unit-112.69 Acres	826095 (HCS-104)
	WELL LOCATION PLAT	
ompanyCHESAPEAKE APPALACHIA, LLC	Well Name or Number	826091 (HY-138)
act NoBELVA McCLANAHAN, ET AL	Quadrangle	HARMAN
District ROCKLICK		
/ell Coordinates (Virginia State Plane)	N: 387,041.63	E: 932,933.26
levation:1712.17 Method Used to	Determine Elevation: Trig. Levels	from GPS derived elevation.
ountyBUCHANANScale:	1" = 400' Date7-	20-07
The Third is a many state of the second state	· · · · · · · · · · · · · · · · · · ·	OTWEET
his Plat is a new plat; an updated plat; Denotes the location of a well on United State:	; or a man rocation plat	
latitude and longitude lines being represented	by border lines as shown.	20-07 CONTENTITY OF DESCRIPTION OF
	A. M. Kinde	DOUGLAS R. LIGHT
A	Xaugus K. + MAAT	– 🚺 No. 002285 🦸
orm DGO-GO-7 Licensed Professional/1 ev. 1-98	Engineer or Licensed Land Surveyor	
GV. 1		AND SURVEYOR

DGO-7 Supplement WELL UNIT PROPERTY OWNER INDEX 826091 (HY-138)

(1)

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Drill Tract Surface, Coal & Mineral Belva McClanahan Heirs (Fee) 43.80 Ac. ~ 38.87 % of 112.69 Ac.

(2) Landon McClanahan Trust (Fee) 39.83 Ac. ~ 35.34 % of 112.69 Ac.

(3) Green Charles Estate 0.5 Ac. ~ 0.44% of 112.69 Ac.

(4) Landon McClanahan Trust 6.91 Ac. ~ 6.13 % of 112.69 Ac.

(5)
James E. Buskirk (2/3 Int.)
Eagle Coal Corp. (1/3 Int.)
7.94 Ac. ~ 7.05 % of 112.69 Ac.

(6) James E. Buskirk 13.71 Ac. ~ 12.17 % of 112.69 Ac.

Well 826091 COALBEDS					MINING IN AREA			
NAME	ТОР	BOTTOM	THICKNESS	YES	NO	MINED OUT		
Unknown	179	183	4		Х	NO		
Unknown	206	209	3		Х	NO		
Unknown	210	211	1		Х	NO		
Unknown	229	232	3		Х	NO		
Unknown	352	354	2		Х	NO		
Unknown	396	399	3		Х	NO		
Unknown	505	508	3		Х	YES		
Unknown	759	764	5		Х	NO		
Unknown	1068	1072	4		Х	NO		
Unknown	1098	1100	2		Х	NO		

Well 826091 SURVEY RESULTS					
Depth of Survey	Direction/Distance/Degree From True Vertical				
190	3/4 degree				
401	3/4 degree				
625	3/4 degree				
805	3/4 degree				
1026	3/4 degree				
1230	3/4 degree				
1402	3/4 degree				

Well 826091 C/	ASING PF	ROGRAM					
	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	13 3/8"	40' KB	17 1/2"	Driven	No		
Surface	9-5/8"	578'KB	12-1/4"	177	Yes	6/24/2007	Grout basket at 273'
Intermediate	7"	2133'KB	8-3/4"	437.7	Yes	6/29/2007	Grout basket at 101'
Production	4-1/2"	5905'KB	6-1/4"	352.8	No	7/5/2007	

Well 826091 DRILLER'S LOG		General		Depth	Depth		
Geologic Age	Formation	Lithology	Color	Тор	Bottom	Thickness	Remarks
Penn	Lee	Siltstone & Shale/Coal		0	1230	1230	
Penn	Salt Sand	Sandstone		1230	2027	797	
Miss	Pennington	Siltstone & Shale		2027	2394	367	
Miss	Upper Maxon	Sandstone		2394	2427	33	
Miss	Pennington	Siltstone & Shale		2427	2526	99	
Miss	Middle Maxon	Sandstone		2526	2612	86	
Miss	Pennington	Siltstone & Shale		2612	2918	306	
Miss	Lower Maxon	Sandstone		2918	2946	28	
Miss	Pennington	Siltstone & Shale		2946	3102	156	
Miss	Bradley	Sandstone		3102	3167	65	
Miss	Pennington	Siltstone & Shale		3167	3184	17	
Miss	Little Lime	Limestone		3184	3215	31	
Miss	Big Lime	Limestone		3215	3630	415	
Miss	Pocono	Shale		3630	3806	176	
Miss	Weir	Sandstone		3806	3862	56	
Miss	Pocono	Shale		3862	4328	466	
Miss	Sunbury	Shale		4328	4346	18	
Miss	Berea	Sandstone		4346	4366	20	
Devonian	Devonian	Shale		4366	5178	812	
Devonian	Lower Huron	Shale		5178	5402	224	
Devonian	Java	Shale		5402	5504	102	
Devonian	Angola	Shale		5504	5636	132	
Devonian	Rhinestreet	Shale		5636	5822	186	
Devonian	Marcellus	Shale		5822	5830	8	
Devonian	Onondoga	Limestone		5830	5930	100	