

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:	377
Company:	Equitable Production Company
File Number:	DI-1617
Operations Name:	V-536804 W/PL
Operation Type:	Gas/Pipeline
Drilling Report Type:	Original

•	Operation Type:	Gas/Pipe	Gas/Pipeline			
	Drilling Report Type	Original	Original			
DRILLING REPORT (DGO-GO-14)						
1. Drilling Data						
Date drilling commenced: 12/1	4/2006 Drilling Cor	tractor: G	Sasco			
Date drilling completed: 12/2	<u>11/2006</u> F	_ Rig Type: ☑	Rotary			
Driller's Total Depth (feet): 4,87		0 71 —	, _			
Log Total Depth (feet): 4,85	Formation A	t Total Depth	Cleveland Shale			
2. Final Location Plat (as required	l by 4 VAC25-150-360.C.)					
Permitted State Plane X 846,555	Final Plat St	ate Plane X:	846,549			
Permitted State Plane Y: 304,882 Final Plat State Plane Y: 304,880			304,880			
☐ Plat Previously Submitted Or						
List of Attached Items:						
Description		F	ileName			
Final Plat 53680)4	V-536804 final plat.tif				
3. Geological Data						
Fresh Water At:						
Depth (in fo	204)	Rate	Unit of Measure			
	134	damp	Utilit of Measure			
	340	damp				
3,	960	damp				
Salt Water At:						
Depth (in fo	eet)	Rate	Unit of Measure			

Form DGO-GO-14-E Rev. 1/2007

Coal Seams				
List of Attached Items:				
Description	FileName			
Coal Seams 536804	Coal Seams.doc			
Gas and Oil Shows				
List of Attached Items:				
Description	FileName			
Gas & Oil Shows 536804	Gas and Oil Shows.doc			
4. Electric Logs (As required by 4VAC25-150-2	80.A.)			
List all logs rup: GP/Density/Temp/Induction/Neutron				
List all logs run: GR/Density/Temp/Induction/Neu	tron			
List all logs run: GR/Density/Temp/Induction/Neu				
List all logs run: GR/Density/Temp/Induction/Neu Did logs disclose vertical locations of a coal seam?				
Did logs disclose vertical locations of a coal seam?	☐ Yes ☑ No			
Did logs disclose vertical locations of a coal seam?	☐ Yes ☑ No			
Did logs disclose vertical locations of a coal seam? 5. Survey Results (As required by 4VAC25-150-2	☐ Yes ☑ No			
Did logs disclose vertical locations of a coal seam? 5. Survey Results (As required by 4VAC25-150-2 List of Attached Items:	☐ Yes ☑ No			
Did logs disclose vertical locations of a coal seam? 5. Survey Results (As required by 4VAC25-150-2 List of Attached Items: Description Survey Results 536804	☐ Yes ☑ No 80.B.2) FileName			
Did logs disclose vertical locations of a coal seam? 5. Survey Results (As required by 4VAC25-150-2 List of Attached Items: Description Survey Results 536804	☐ Yes ☑ No 80.B.2) FileName			
Did logs disclose vertical locations of a coal seam? 5. Survey Results (As required by 4VAC25-150-2 List of Attached Items: Description Survey Results 536804 6. Casing and Tubing Program List of Attached Items:	☐ Yes ☑ No 80.B.2) FileName			
Did logs disclose vertical locations of a coal seam? 5. Survey Results (As required by 4VAC25-150-2 List of Attached Items: Description Survey Results 536804 6. Casing and Tubing Program	☐ Yes ☑ No 80.B.2) FileName Survey Results.doc			
Did logs disclose vertical locations of a coal seam? 5. Survey Results (As required by 4VAC25-150-2 List of Attached Items: Description Survey Results 536804 6. Casing and Tubing Program List of Attached Items: Description	☐ Yes ☑ No Bo.B.2) FileName Survey Results.doc FileName			
Did logs disclose vertical locations of a coal seam? 5. Survey Results (As required by 4VAC25-150-2 List of Attached Items: Description Survey Results 536804 6. Casing and Tubing Program List of Attached Items: Description Csg 536804 Tbg 536804	☐ Yes ☑ No FileName Survey Results.doc FileName Casing Data.doc			
Did logs disclose vertical locations of a coal seam? 5. Survey Results (As required by 4VAC25-150-2 List of Attached Items: Description Survey Results 536804 6. Casing and Tubing Program List of Attached Items: Description Csg 536804	FileName Survey Results.doc FileName Casing Data.doc Tubing Size.doc			

8. Drillers Log

Compiled By:

List of Attached Items:

Description	FileName	
Drillers Log 536804	Drillers Log.doc	

9. Comments

Drillers log is incomplete. Not clear on which csg. strings are cemented to surface.

10. Signature

Permitee: Equitable Production Company Date: 6/26/2007 (Company)

Signed By: L. Todd Tetrick Title: Director of Drilling (Signature)

INTERNAL USE ONLY

Submit Date: 6/26/2007

Status: Inspr Approved Date: 6/27/2007

Final PDF Date: 7/6/2007

Form DGO-GO-14-E

Coal Seams & Open Mines

Type Coal

Coal

<u>From</u> 205'-06',250'-51',295'-

96',384'-85',570'-71' 835'-36',945'-46',1045'-

46',1230'-31',1450'-51' Coal 1710'-11',1835'-36',2085'-

86',2150'-51'

Gas and Oil Shows

Gas Tests

Depth	Remarks
2,813	No Show
3,529	TSTM
3,907	59MCF/D
4,094	59MCF/D
4,715	73MCF/D
4,870	119MCF/D

Survey Results

<u>Depth</u>	<u>Direction/Distance/Degrees</u> From True Vertical
197	1/4
385	1/4
574	1/4
764	1/4
953	1/4
1,142	1/4
1,332	1/4
1,521	1/4
1,710	1/4
1,900	1/4
2,089	1/2
2,277	1/2

	Casing Data						
Casing Outside		Casing Interval	Hole Size	Cement used in	Cmtd To	Date Cemented	Cement Baskets
Diameter				Cu. ft.	Surface		
16		25	17 1/2				
11 3/4		318	15	224.20	Y	12/14/2006	98
7		2347	8 7/8	613.80	Y	12/16/2006	448
4 1/2		4810	6 1/2	349.70	N	12/21/2006	

 Tubing Size
 Footage

 2 3/8
 4,603.55

Drillers Log

Formation Name	Depth Top	Depth Bottom	Formation Thickness
Sandy Shale	0.00	20.00	20.00
Sand Stone	20.00	140.00	120.00
Sandy Shale	140.00	205.00	65.00
Coal	205.00	206.00	1.00
Sandy Shale	206.00	250.00	44.00
Coal	250.00	251.00	1.00
Sand Stone	251.00	295.00	44.00
Coal	295.00	296.00	1.00
Sandy Shale	296.00	384.00	88.00
Coal	384.00	385.00	1.00
Sand Stone	385.00	570.00	185.00
Coal	570.00	571.00	1.00
Sand Stone	571.00	625.00	54.00
Sandy Shale	625.00	835.00	210.00
Coal	835.00	836.00	1.00
Sand Stone	836.00	880.00	44.00
Sandy Shale	880.00	945.00	65.00
Coal	945.00	946.00	1.00
Sand Stone	946.00	1,000.00	54.00
Sandy Shale	1,000.00	1,045.00	45.00
Coal	1,045.00	1,046.00	1.00
Sand Stone	1,046.00	1,145.00	99.00
Sandy Shale	1,145.00	1,230.00	85.00
Coal	1,230.00	1,231.00	1.00
Sand Stone	1,231.00	1,450.00	219.00
Coal	1,450.00	1,451.00	1.00
Sandy Shale	1,451.00	1,540.00	89.00
Sand Stone	1,540.00	1,710.00	170.00
Coal	1,710.00	1,711.00	1.00
Sandy Shale	1,711.00	1,835.00	124.00
Coal	1,835.00	1,836.00	1.00
Sand Stone	1,836.00	1,980.00	144.00
Sandy Shale	1,980.00	2,085.00	105.00
Coal	2,085.00	2,086.00	1.00
Sandy Shale	2,086.00	2,150.00	64.00
Coal	2,150.00	2,151.00	1.00
Sand Stone	2,151.00	2,340.00	189.00
Base LEE	2,226.00	0.00	0.00
Red Rock	2,340.00	2,355.00	15.00
Sandy Shale	2,355.00	2,716.00	361.00
RVCF	2,716.00	2,724.00	8.00
AVIS	2,784.00	2,814.00	30.00
MXTN	3,124.00	0.00	0.00
LLIM	3,518.00	3,586.00	68.00
BGLM	3,586.00	4,062.00	476.00
WEIR	4,062.00	4,306.00	244.00

WEIR Sh	4,306.00	4,548.00	242.00
SNBY	4,548.00	4,618.00	70.00
BEREA	4,618.00	4,642.00	24.00
CLEV	4,642.00	4,760.00	118.00
TLB	4,760.00	0.00	0.00
TD	4,870.00	0.00	0.00