

WR-35 Rev (5-01)

Signed:

DATE: 10/30/07 API#: 47-031-00025-01-00

State of West Virginia Department of Environmental Protection Office of Oil and Gas

Well O _l	perator's Report of Wo	ell Work		
Farm name: Pearl River Timber, LLC	Oper	ator Well No.:	12348	
LOCATION: Elevation: 2189 ft	Quad	lrangle: Lost	River State Pa	rk
District: Lost River	Cou	ntv. Hardy		
Latitude: 13.892 Feet South	of 39 Deg. 00	Min. 00	Sec.	
Longitude 2,060 Feet West	of <u>78</u> Deg. <u>52</u>	Min. 30	Sec.	
Company: Columbia Gas Transmission Corp				
	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: 1700 MacCorkle Ave SE	24" 94# Gr. B-35	70	68	none – sanded in
Charleston, WV 25325-1273		***		
	20" 59# Gr. B-35	100	96	100 sks
Agent: Paul Amick				
Inspector: Craig Duckworth	13-3/8" 48# H-40	525	510	475 sks
Date Permit Issued: 12/15/05				
Date Well Work Commenced: 4/10/07	9-5/8" 36# J-55	1975	1952	585 sks
Date Well Work Completed: 7/31/07				
Verbal Plugging:	7" 23# N-80	6833	6814	340 sks
Date Permission granted on: not applicable Rotary X Cable Rig				
Rotary X Cable Rig Total Depth (feet): 7127	2-3/8" 4.7# J-55	6815	6815	none
Fresh Water Depth (ft.): 292				
Salt Water Depth (ft.): none detected				
Sait Water Depth (16.). Hone detected				
Is coal being mined in area (N/Y)? no		***	+	
Coal Depths (ft.): ft				
OPEN FLOW DATA				
Producing formation Oriskany Sand	Pay zone den	+h (A) 6055	7030	
Producing formation Oriskany Sand Pay zone depth (ft) 6855 – 7028 Gas: Initial open flow 1,800 MCF/d Oil: Initial open flow 0 Bbl/d Final open flow 1,800 MCF/d Final open flow 0 Bbl/GEF Oil & Gas Time of open flow between initial and final tests 30 Days Static rock Pressure 1200 psig (surface pressure) after 72+ Hours of 31 2007				
Final open flow 1,800 MCF/d Oil: Initial open flow 0 Bbl/d Bbl/GEC Gas				
Time of open flow between initial and final tests 30 Days Office of Oil 8				
Static rock Pressure 1200 psig (surface pressure) after 72+ Hours 067 312007				
Static rock Pressure 1200 psig (surface pressure) after 72+ Hours Office of 31 2007				
Second Producing formation not applicable Second Producing formation not applicable W Department of we produce the same of				
NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORMED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.				

E. Amos – Senior Storage Engineer – Columbia Gas Transmission Corp

Hardy Well 12348

Well drilled to Oriskany Sandstone for underground natural gas storage. Note that well was sidetracked.

Original wellbore (referred to as operator well number 12348A)

Directionally drilled to a total depth of 7147 ft.

Directional survey data (NAD 27 SPC WV-North Zone)

Surface:

N/S = 168,823 ft

E/W = 2,175,669 ftE/W = 2,175,498 ft

Final Depth (projected): N/S = 168,883 ft

TVD = 7092 ftMD = 7147 ft

* Refer to Schlumberger survey data report. 7" 23# N-80 casing set @ 6812 ft (steel line)

Top of Oriskany 6812 ft (driller)

o The 7" casing was parted at 4100 ft and pulled.

o The borehole was plugged back as follows:

Top	Bottom	Material	Quantity
6485	7147	Class A cement	24 bbls
4200	6485	6% gel	90 bbls
3820	4200	Class A cement	27 bbls
3430	3820	Class A cement	30 bbls

Sidetrack wellbore (referred to as operator well number 12348)

Departed original wellbore at 3450 ft.

Directionally drilled to a total depth of 7127 ft.

Directional survey data (NAD 27 SPC WV-North Zone)

N/S = 168,823 ft

E/W = 2,175,669 ft

Final Depth (projected): N/S = 169,084 ft

E/W = 2,175,266 ft

MD = 7127 ftTVD = 7082 ft

* Refer to "as-drilled" survey plat and Schlumberger survey data report.

Formation Record (elog)	Top (MD ft)	Bottom (MD ft)
various shales	0	5280
Hamilton Group	5280	6218
Upper Marcellus	6218	6261
~ fault	6261	6261
Hamilton Group	6261	6352
Upper Marcellus	6352	6420
Purcell	6420	6611
Lower Marcellus	6611	6725
Needmore	6725	6821
Oriskany Sandstone	6821	7040
Helderberg LS	7040	
TD		7127

Perforations:

none

Stimulation:

2,000 gals 28% HCl acid

Avg BH rate:

2 BPM

ATP:

2450 psig

Electric	Logs	Ran:
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6/13/07	CNL – Litho Dens	(sidetrack borehole)
6/13/07	CNL - Litho Dens (TVD)	(sidetrack borehole)
6/13/07	Laterolog	(sidetrack borehole)
6/13/07	Laterolog (TVD)	(sidetrack borehole)
6/13/07	Sonic Porosity	(sidetrack borehole)
6/13/07	Sonic Porosity (TVD)	(sidetrack borehole)
6/13/07	Directional Survey	(sidetrack borehole)
6/19/07	CNL – Litho Dens	(sidetrack borehole)
6/19/07	CNL – Litho Dens (TVD)	(sidetrack borehole)
6/19/07	Laterolog	(sidetrack borehole)
6/19/07	Laterolog (TVD)	(sidetrack borehole)
6/19/07	Directional Survey	(sidetrack borehole)