

SEP 9 AHa (280) 9-0-64 Term

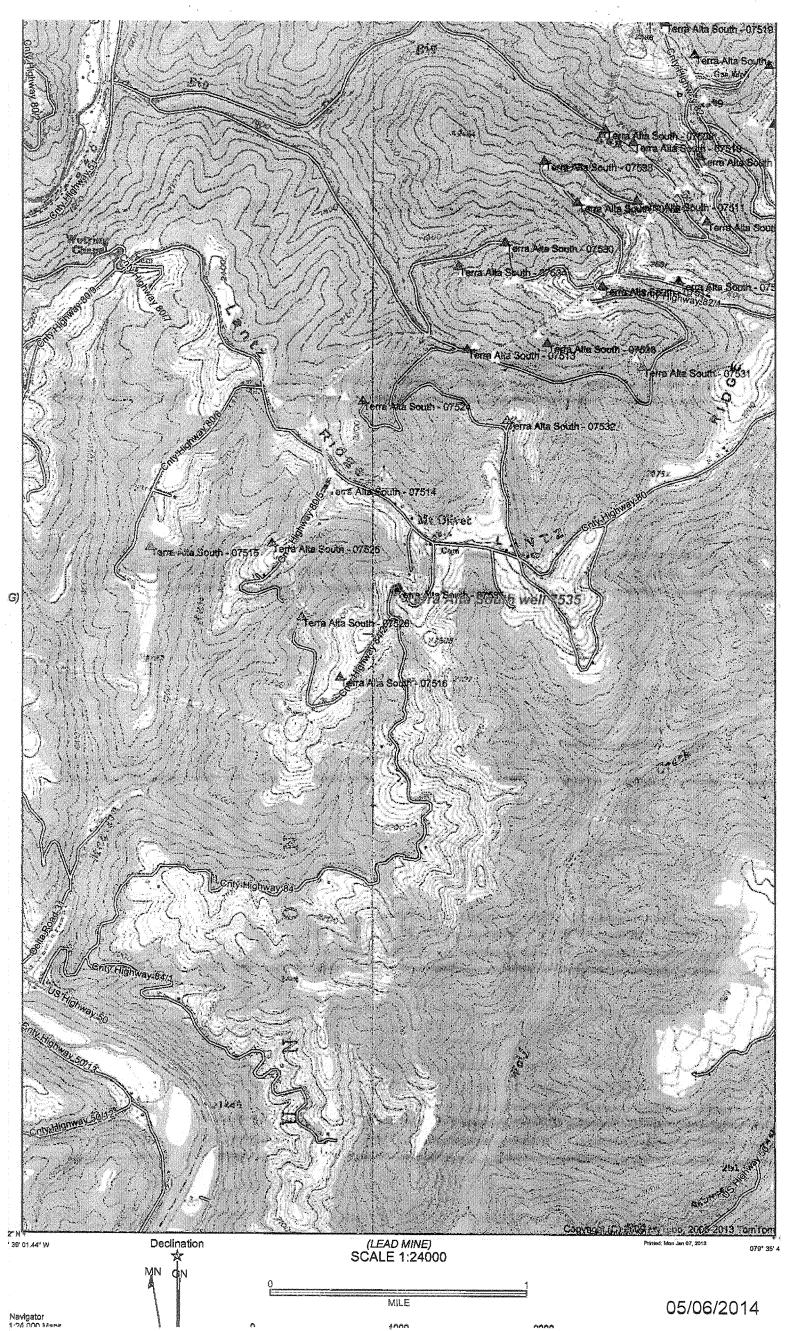
File No. 170-127 Drawing No.

Engineer's Registration No.

Date APR. ZO, '71 Scale |" = 400' Deep Well (Oriskany) 1971

of original tracing.

— Denotes one inch spaces on border line





WR-35 Rev (9-11)

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	6/3/14
API#:	47-7700164 W

TION: Elevation: 2607 ft	Quadrangle: _	Aurora		
District: Union	County: Prest	ton		
Latitude: 14,490 Feet South of 39 Deg.				
Longitude 11,075 Feet West of 79 Deg.		. 00 Sec		
Company: Columbia Gas Transmission, LLC				
Address: 1700 MacCorkle Ave SE	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Charleston, WV 25325-1273	* no existing	casing altered		
Agent: Paul Amick				
Inspector: John Shockey				
Date Permit Issued: 5/15/14				
Date Well Work Commenced: 5/28/14				
Date Well Work Completed: 5/29/14				
Verbal Plugging: NA				
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft):				
Total Measured Depth (ft): 6582 (existing)				
Fresh Water Depth (ft.): none rpt'd by driller in 1971				
Salt Water Depth (ft.): none rpt'd by driller in 1971				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): none rpt'd by driller in 1971				
Void(s) encountered (N/Y) Depth(s) none rpt'd				
EN FLOW DATA (If more than two producing formation Producing formation Oriskany (natural gas storage) Pay 2	zone depth (ft)_6	6408 - 6541		
Gas: Initial open flow MCF/d Oil: Initial open flow MCF/d Final open flow				CEIVED
Time of open flow between initial and final tests	Hours	~ ~	Office o	of Oil & Gas
static rock Pressurepsig (surface pressure) aff	terHour	rs	J. M	2 2014
	ne depth (ft)	7/3		بير
Gas: Initial open flow MCF/d Oil: Initial open flow MCF/d Final open flow		oI/d 1/d	WV De	partment of ental Protect
Time of open flow between initial and final tests		E	Tvironme	ental Protect
tatic rock Pressure psig (surface pressure) aff				

all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

06/13/2014

Terra Alta (280) 9-0

Were core samples taken? YesNo_X	Were cuttings caught during drilling? YesNo_NA
Were Electrical, Mechanical or Geophysical logs recorded on this	well? If yes, please list High Resolution MicroVertilog (pipe inspection)
NOTE: IN THE AREA BELOW PUT THE FOLLOW FRACTURING OR STIMULATING, PHYSICAL CHANGE DETAILED GEOLOGICAL RECORD OF THE TOPS A COAL ENCOUNTERED BY THE WELLBORE FROM SUR	, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC ND BOTTOMS OF ALL FORMATIONS, INCLUDING
Perforated Intervals, Fracturing, or Stimulating:	
Killed well. Pulled tubing. Logged and installed mech	anical bridge plug. Installed new wellhead.
Pulled bridge plug. Acid stimulated.	
Acid treatment: 2000 gal 15% HCl acid, 150 bbls fresh	water, Nitrogen. Avg rate = 4 bpm, ATP = 1790 psig
Plug Back Details Including Plug Type and Depth(s):	
Formations Encountered: Top Depth Surface:	n / Bottom Depth
NA - no new borehole drilled	



JAN 26 1972

DEPARTMENT OF MINES OIL AND GAS WELLS DIVISION (15 ...

Kulaiy	E
Spudder	

Cable Tools

Storage X

Oil or Gas Well Gas

Quadrangle Kingwood

Well No. X-76-S 7535

Mineral rights are owned by

Permit No. Pres. 164

Company Columbia Gas Transmission Corporation Address P. O. Box 1067, Elkins, West Virginia Farm Robert P. Wiles Acres 150

District Union County Preston

Address

Drilling commenced September 26, 1971

Drilling completed October 11, 1971

Date Shot...... From...... To

Open Flow 12 /10ths Water in 2 Inch

______/10ths Merc. in ______Inch

Volume 146 M Cu. Ft.

Rock Pressure lbs. hrs.

WELL ACIDIZED (DETAILS) (See Reverse Side)

*

..... Elev....

Location (waters) Madison Run

The surface of tract is owned in fee by.....

W	EL	L	RE	CO	RD
---	----	---	----	----	----

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size	Ground	Level	
16			Kind of Packer
13 3/8"	29 '	29'	
10			Size of
kl/1 9 5/8"	2584 '	2584'	
15/14 7"	6247!	6247!	Depth set

Perf. top. (See..... 2.3/8!!.... Perf. bottom....Reverse Liners Used..... Perf. top Side) Perf. bottom....

Attach copy of cementing record.

CASING CEMENTED SIZE No. Ft. Date Amount of cement used (bags) (See Reverse Side) Name of Service Co. Dowell

COAL WAS ENCOUNTERED AT None FEET INCHES FEET INCHES FEET INCHES FEET INCHES FEET INCHES

WELL FRACTURED (DETAILS).....

ROCK PRESSURE AFTER TREATMENT 2285#

... HOURS.

7,200,

.....bbls., 1st 24 hrs.

Salt Water Feet

Producing Sand	CUTISKANY	and Chert	1		Depth		
Formation	Color	Hard or Soft	Тор	Bottom	Oil, Gas or Water	Depth	Remarks
√fully			5757'	5794'	Measured	from K.B.	
Shale			5794'	6230'			-
√0nondaga			6230'	6255'			
Chert - Hur			6255'	6391'	Gas		
Shale Nes	phofi		6391'	6408'			
Oriskany			6408'	6541'			
Helderberg			6541'		Gas		ابيد
Total	Depth			6582'	6230 2604 3626	6408 2604 3804	654/ 2604 3937

NOTE: 13 3/8" 488/ft., -40 cosing cocented to surface with 25 sacks sevent plus 22 CaCl. September 26, 1971. -9' ground level, 46' kell y buching. 9 5/8" 36/ft., -55, cacing comented to surface with 25 sacks sevent plus 22 CaCl. October 3, 1971. Casing Set at 258/ ground level, 2601' kelly buching. 7" 23/ft., -55, plus 1; joints of 23/ft., N-80, Scal-lok research 1000' with 220 cu. ft. of Dowells RFC cement plus kolita, october 8, 1971. Gal drilling sud to surface with 1 drum Baroids B-33. Cating set at 2547' ground level, 6201' kelly bushing. 5247' threads off, 5300' threads on. 2 3/8" 4.66/ft., -55, Scal-lok thing run to total depth, (1) Daker Nodel."" ported sociting sipple. (1) Baker Note Model. "I' pound level. 6201' kelly bushing. 6247' threads off, 6300' threads on. Perforations: Chert and Oriskaby open hole Logging: Gamma Ray- Coller log and temperature (5600' - 6585') October 11, 1971. (671' ground level., 6581' kelly bushing. 656' chreads on. Perforations: October 19, 1971 21507 rock pressure, upleaded. After 1 hour well gauged "21/10" water in 2" or 176 M. October 26, 1971. 2 1506 rock pressure, walliburton treated well using 1000 gallons 20% WCL acid, 800 barrels of fresh water, 40 BPM, 28008' average pressure, plus Ug. October 27, 1971. "94/10" more ury in 4", 6.003 M wet. October 29, 1971 Final open flow, 22858 rock pressure, 7.2 M, sist.						61.6.	73-16	
13 3/8" September 26, 19'1. 29' ground level, 46' kelly bushing. 9 5/8" 36#/ft., k-55, casing cemented to surface with 740 sacks of Kolite plus 2Z Cacl. October 3, 1971. Casing Set at 2584' ground level, 2601' kelly bushing, 3880' threads off, 2599' threads on. 7" 23#/ft., k-55, plus 13 joints of 23#/ft., N-80, Scal-lok casing cemented in 1000' with 220 cu. ft. of Dowells RFC cement plus kolite, October 8, 1971. Gel drilling mud to surface with 1 drum Barol/s B-33. Casing set at 6247' ground level, 6261' kelly bushing, 6247' threads off, 6300' threads on. 2 3/8" 4.6#/ft., J-55, Scal-lok tubing run to total depth, (1) Baker Model "J" ported scating nipple. (1) Baker MFC Model "L" sliding sleeve. Spanner. Good off, 6615' threads on. Perforations: Chert and Oriskeny open hole Logging: Gamma Ray- Collar log and temperature (5600' - 6585') October 11, 1971. 6571' ground level, 6581' kelly bushing. Good rock pressure, unleaded. Added 5 gallons of soap plus 2150# rock pressure, unleaded. Added 5 gallons of soap plus water in 2" or 176 M. October 26, 1971 2150# rock pressure. Halliburton treated well using 1000 gallons 20% HCL acid, 800 barrels of fresh water, 40 BPM, 2800# average pressure, plus N ₂ . October 27, 1971 "94/10" mercury in 4", 6.003 M wet. October 29, 1971	Formation	Color	Hard or Soft	Top (S	Bottom	Oil, Gas or Water	Depth Found	Rémarks
9 5/8" 36#/ft., k-55, casing cemented to surface with 740 sacks of Kolite plis 27 CaCl. October 3, 1971. Casing Set at 2584' ground level, 2601' kelly bushing, 3580' threads off, 2599' threads on. 7" 23#/ft., K-55, plus 12 joints of 23#/ft., N-80, Seal-lok asing cemented in 1000' with 220 cu. ft. of Dowells RFC cement plus kolite, October 8, 1971. Gel drilling mud to surface with 1 drum Baroids B-33. Casing set at 6247' ground level, 6261' kelly bushing, 6247' threads off, 6300' threads on. 2 3/8" 4.6#/ft., J-55, Seal-lok tubing run to total depth, (1) Baker Nodel "J" ported seating nipple, (1) Baker HFC Model "L" sliding sleeve is 425' off bottom. Cetober 11, 1971. 6571' ground level, 6581' kelly bushing, 6566' threads off, 6615' threads on. Perforations: Chert and Oriskeny open hole Logging: Gamma Ray- Coller log and temperature (5600' - 6585') October 11, 1971. 2150# rock pressure, unloaded. Added 5 gallons of soap plus 25 barrels of fresh water and unloaded. After 1 hour well gauged "21/10" water in 2" or 176 M. October 26, 1971 2150# rock pressure. Halliburton treated well using 1000 average pressure, plus N ₂ . October 27, 1971 "94/10" mercury in 4", 6.003 M wet. October 29, 1971 "94/10" mercury in 4", 6.003 M wet.	NOTE:				1			
2% Cacl. October 3, 1971. Casing Set at 2584 ground level, 2601 kelly bushing, 3580' threads off, 2599' threads on. 7" 23%/ft., K-55, plus 13 joints of 23%/ft., N-80, Scal-lok casing comented in 1000' with 220 cu. ft. of Dowells RFC cement plus kelite, October 8, 1971. Cel drilling mud to surface with 1 drum Baroids B-33. Casing set at 6247' ground level, 6261' kelly bushing, 6247' threads off, 6300' threads on. 2 3/8" 4.6%/ft., J-55, Seal-lok tubing run to total depth, (1) Baker Model "J" ported scating nipple, (1) Baker MFC Model. "L" sliding sleeve. Sliding sleeve is 425' off bottom. October 11, 1971. 6571' pushing, 6566' threads off, 6615' threads on. Perforations: Chert and Oriskany open hole Logging: Gamma Ray- Collar log and temperature (5600' - 6585') October 11, 1971 2150% rock pressure, unloaded. Added 5 gallors of soap plus 25 barrels of fresh water and unloaded. After 1 hour well gauged "21/10" water in 2" or 176 M. October 26, 1971 2150% rock pressure. Halliburton treated well using 1000 gallons 20% HCL acid, 800 barrels of fresh water, 40 BPM, 2800% average pressure, plus N2. October 27, 1971 "94/10" mercury in 4", 6.003 M wet. October 29, 1971	13 3/8"	48#/ft., I September	1-40 casing of 26, 1971.	emented to	urface with evel 46' kel	25 sacks ce ly bushing.	ment plus 2%	CaC1
1000' with 220 cu. ft. of Dowells RFC cement blus kolific, October 8, 19/1. Gel drilling mud to surface with 1 drum Baroids B-33. Casing set at 6247' ground level, 6261' kelly bushing d247' threads off, 6300' threads on. 2 3/8" 4.6#/ft., J-55, Seal-lok tubing run to total depth, (1) Baker Model "J" ported seating nipple, (1) Baker HFC Model "L" sliding sleeve. Sliding sleeve is 425' off bottom. October 11, 1971. 6571' bushing, 6566' threads off, 6615' threads on. Perforations: Chert and Oriskany open hole Logging: Gamma Ray- Collar log and temperature (5600' - 6585') October 11, 1971 Stimulation: October 19, 1971 2150# rock yater in 2" or 176 M. October 26, 1971 2150# rock gallons of fresh water and unloaded. After 1 hour well gauged "21/10" water in 2" or 176 M. October 26, 1971 2150# rock gallons 20% HCL acid, 800 barrels of fresh water, 40 BPM, 2800# average pressure, plus N ₂ . October 27, 1971 "94/10" mercury in 4", 6.003 M wet. October 29, 1971	9 5/8"	2% CaC1.	October 3,	971. Casin	Set at 258	f' ground le	of Kolite pl vel, 2601' k	us e11y
ported seating nipple, (1) Baker HFC Model "L" sliding sleeve. Sliding sleeve is 425' off bottom. October 11, 1971. 6571' bushing, 6566' threads off, 6615' threads on. Perforations: Chert and Oriskany open hole Logging: Gamma Ray- Collar log and temperature (5600' - 6586') October 11, 1971 Stimulation: October 19, 1971 2150# rock pressure, unloaded. Added 5 gallons of soap plus 25 barrels of fresh water and unloaded. After 1 hour well gauged "21/10" water in 2" or 176 M. October 26, 1971 2150# rock gallons 20% HCL acid, 800 barrels of fresh water, 40 BPM, 2800# average pressure, plus N2. October 27, 1971 "94/10" mercury in 4", 6.003 M wet. October 29, 1971	7"	1000' with Gel drill	220 cu. ft	of Dowells rface with	RFC cement drum Baroi	plus kolite, ds B-33. Ca	October 8, sing set at	1971. 6247'
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25 barrels of fresh water and unloaded. After 1 hour well gauged "21/10" October 26, 1971 2150# rock pressure. Halliburton treated well using 1000 gallons 20% HCL acid, 800 barrels of fresh water, 40 BPM, 2800# plus N2. October 27, 1971 "94/10" mercury in 4", 6.003 M wet.		Octo	ber 19, 1971					
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"94/10" mercury in 4", 6.003 M wet. October 29, 1971			ons 20% HCL	acid, 800 ba				
October 29, 1971		Octo	ber 27, 1971					
	•		"94/10" m	ercury in 4"	, 6.003 M we	t.		
Final open flow, 2285# rock pressure, 7.2 M, mist.		Octo	ber 29, 1971		•)
	-		Final ope	n flow, 2285	# rock press	sure, $7.2 \overline{M}$,	mist.	
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Date January 20, 19 72

APPROVEDCOlumbia Gas Transmission Corporation wher By Production and Story Superintendent