



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

August 07, 2014

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-10700329, issued to COLUMBIA GAS TRANSMISSION, LLC, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalties being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: ROCKPORT 7237
Farm Name: AMOS, MILDRED B.
API Well Number: 47-10700329
Permit Type: Plugging
Date Issued: 08/07/2014

Promoting a healthy environment.

08/08/2014

PERMIT CONDITIONS

West Virginia Code § 22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.

WW-4B
Rev. 2/01

1) Date 4/1, 2014
2) Operator's
Well No. Rockport 7237
3) API Well No. 47-107 - 00329

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

- 4) Well Type: Oil ___ / Gas X / Liquid injection ___ / Waste disposal ___ /
(If "Gas, Production ___ or Underground storage X) Deep X / Shallow ___
- 5) Location: Elevation 890.3 Watershed Tygart Creek
District Steele County Wood Quadrangle Rockport
- 6) Well Operator Columbia Gas Transmission, LLC 7) Designated Agent Paul Amick
Address 1700 MacCorkle Ave SE Address 1700 MacCorkle Ave SE
Charleston, WV 25325-1273 Charleston, WV 25325-1273
- 8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name Jamie Stevens Name Contractor Services Inc
Address 105 Kentuck Road Address 929 Charleston Road
Kenna, WV 25248 Spencer, WV 25276

- 10) Work Order: The work order for the manner of plugging this well is as follows:
* Refer to attached detailed procedure and wellbore schematic.

Wellbore to be cleaned to uncover Oriskany storage zone. Bottom cement plug to be placed across Oriskany per regulations. Mechanical bridge plug to be installed above bottom cement plug. All casing that is free will be pulled. Good faith efforts will be made to hydraulically isolate potential oil, gas, and/or water bearing zones via squeeze cement and/or cement plugs, per regulations.

Received

JUN - 3 2014

Office of Oil and Gas
WV Dept. of Environmental Protection

See showing - OK

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector

Jamie Stevens

Date

5/29/2014

08/08/2014

107-00329-P.

Rockport - 07237

2014 Well Work

CONCERNS WITH INTEGRITY OF WELLHEAD TO HANDLE SHEAR AND AXIAL STRESSES REQUIRES UPGRADING WELLHEAD BASE PRIOR TO WELL WORK.

Kill well with polymer drilling fluid.

MI wireline unit. Run gauge ring and set cement retainer at 5030 ft correlated to Schlumberger GR log ran 8/16/74. Kill/load hole to surface. Obtain CBL from retainer to surface. Pressure test retainer with 300 psig.

* Note that results of CBL may dictate procedural changes. The following procedure assumes 4-1/2" flowstring is cemented to/close to surface.

Prepare location and remove concrete around base of wellhead. Replace 4-1/2" csg at surface if necessary to accommodate weight of BOPs and plugging string.

MIRU service rig. NU BOPs.

TIH open-ended, circulate fresh water to end of string, sting in to retainer, and perform injection test. If injection established, squeeze cement thru retainer until job locks up. Sting out and spot balanced cement plug from 4500' to TD. PU above cement top and reverse circulate to clean tubulars. Pull 5 stands, close BOPs, and WOC until cement compressive strength reaches 1500 psig. Tag cement top and load wellbore with 6% gel from top of cement plug to 4200'. TOOH.

MI wireline unit. Shoot squeeze cementing perms @ 4100' (30 ft below driller's gas show) with max charge in attempt to penetrate both 4-1/2" and 7" csg. Attempt to circulate thru squeeze perms. If circulation established, cement behind 7" csg from perms to 2500'. If circulation not established, perf @ 3000' and repeat in attempt to cement to 2500'. If squeeze cementing unsuccessful, cover perms with cement plug. Load wellbore from top of cement plug to 2150' with . TOOH.

ND BOPs and attempt to pull 8-5/8" and 10-3/4" csg. Perforate 4-1/2" at 2100', establish circulation to surface, and squeeze cement to surface. Displace cement to depth of cement top behind 4-1/2" csg. WOC.

Free pt. cut, and pull all 4-1/2", 7", 8-5/8", and 10-3/4" csg that is free or accessible. Spot balanced cement plug from top of last cement plug to surface. Grout all annuli as deep as possible.

Stab a ~10 ft long piece of 7" csg in well before top cement plug cures, leaving ~30" above grade. Tack weld steel cap and API number on side of monument.

Cost estimate includes to abandon well line.

* IF CHANGES ARE NECESSARY NOTIFY STATE INSPECTOR.

Received

JUN - 3 2014

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WV Dept. of Environmental Protection

Jamie
5/29/2014

08/08/2014

Rockport - 07237

DETAILED P&A PROCEDURE FOR STATE PERMIT APPLICATION

ROCKPORT 7237

Objective: P&A well and abandon line

--- Well Info ---

Drilled in 1950
Reconditioned in 1953

Field fabbed wellhead with concrete pad/cellar

* refer to wellbore schematic in well file

16" @ 24' (no record of cement)
13-3/8" ran/pulled - csg seat 872'
10-3/4" 40.50# set @ 1422' (no record of cement)
8-5/8" 24# set @ 2265' (no record of cement)
7" 23# set @ 5003' (old 1953 work order indicates 60 bags cement "poured")
4.5" 10.81# 0.237" wall (4.026" ID) Gr B (35,000 yield strength) line pipe as
flowstring set @ 5100' w/ wall & anchor pkr @ 5058' based on CCL response
on log - no record of anchor but most likely one was ran to activate W&A
packer - cmt'd above packer w/ 30 sx primary - 257 sx of additional cement
"poured" down annulus later in multiple trips (therefore most likely topped off at
surface).

BURST CALCULATIONS:

API -----> 3226 psi
B31G -----> 4055 psi

Driller's Formation Tops

lime	90 - 100'	(FW @ 95' - one 16" bailer/hr)
slate	1114 - 1148'	(SW @ 1117' - two 13" bailer/hr)
sand	1254 - 1321'	(SW @ 1254' - three 13" bailer/hr)
Salt Sand	1724 - 1916'	(SW @ 1866' - hole full)
Berea	2411 - 2412'	(elog - not called by driller and no show rpt'd)
shale	3941 - 4164'	(gas show @ 4070')
Onondaga	4978 - 5086'	
Oriskany	5086 - 5100'	(gas)
TD	5100'	

Top AOF 25.3 MMCFD
never fracture stimulated

No MFL, CBL, or neutron logs ran to date

* WELLHEAD AND/OR CASING BENT JUST BELOW GROUND LEVEL - 3.80" gauge ring will drift but mock-up HRVRT tool won't go.

--- Procedure ---

Obtain FERC and NRP clearances, and State permit. Perform pipeline crossing eval.

***** OBTAIN DIRECTIONAL WELLBORE SURVEY TO DETERMINE BOTTOM-HOLE LOCATION - NEW DRILL 12591 WILL BE TARGETING 7237
BOTTOM-HOLE LOCATION *****

Disconnect well line. Prep road and well site.

NOTE DO NOT EXERT MORE THAN 2800 psi on light weight 4-1/2" flowstring at any depth. Maximum surface pressures during kill job, pressure testing, etc. to be determined based on fluid hydrostatic pressure.

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JUN - 3 2014

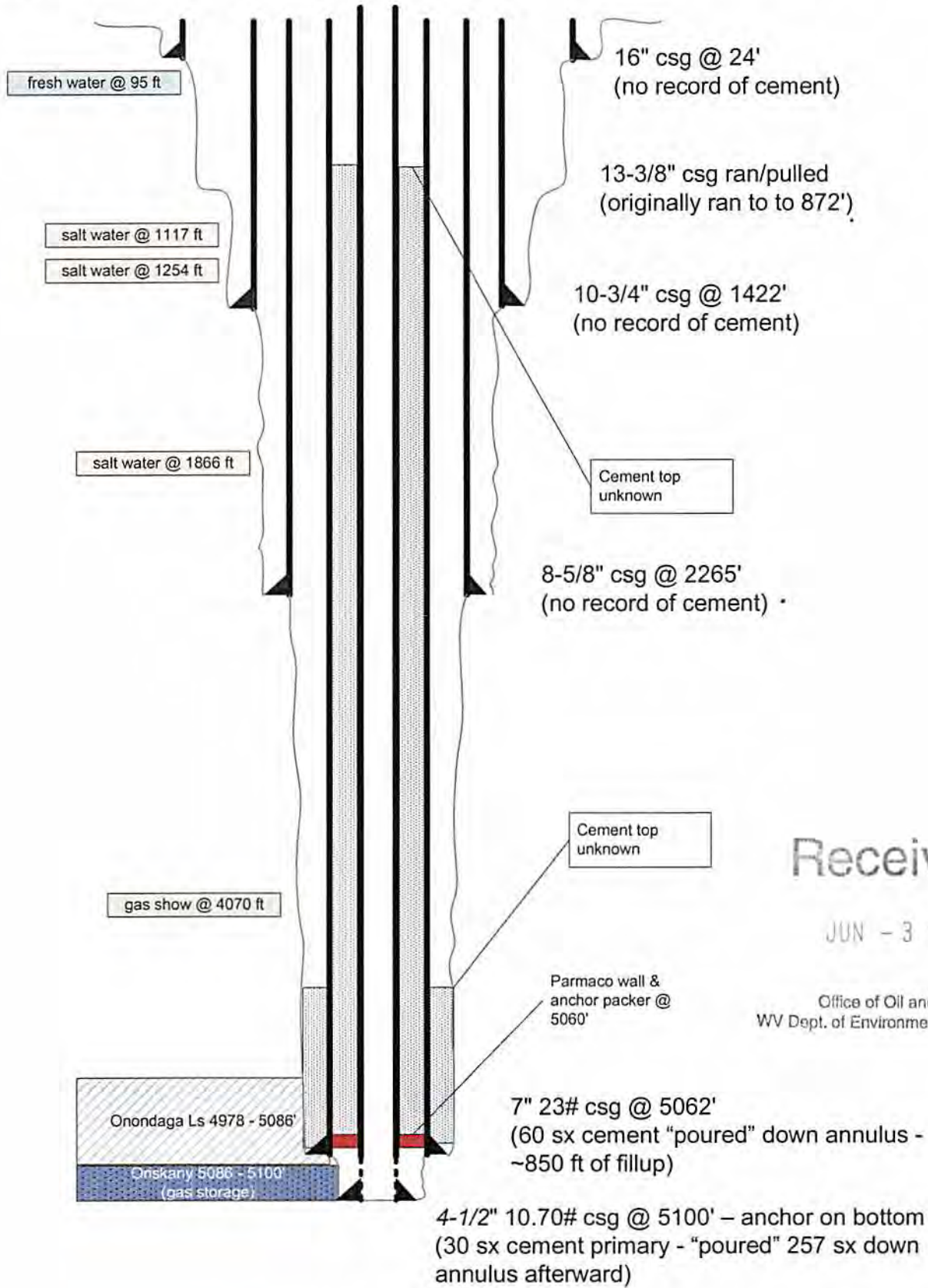
Office of Oil and Gas
WV Dept. of Environmental Protection

[Handwritten Signature]
08/08/2014

47-107-00329.P

ROCKPORT 7237

5/2/13



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TD 5100'

08/08/2014

U-8046

ROCKPORT 7237

1070032AP

H. C. McPherson, et al
 United Fuel Gas Co.
 Steale District, Wood County, W. Va.
 Map Square 66-109
 Commenced 7-7-50
 Completed 9-19-50
 Elevation 891.23'

Size
 16"
 13-3/8"
 10-3/4"
 8"
 7"

CASINO
 Wed. rate
 42#
 48#
 40#
 24#
 23#

Prod. rate
 24'
 871'9"
 1421'7"
 2265'3"
 5043'8"

CONTRACTOR:
 DRILLERS:

Red Rock	0	65
Sand	65	74
Red Rock	74	90
Lime	90	100
Red Rock	100	120
Lime	120	133
Red Rock	133	148
Lime	148	172
Slate	172	260
Red Rock	270	312
Slate	312	344
Red Rock	344	358
Sand	358	370
Red Rock	370	410
Sand	410	417
Slate	417	495
Red Rock	495	520
Slate	520	617
Red Rock	617	632
Slate & Shells	632	681
Red Rock	681	700
Slate & Shells	700	717
Red Rock	717	742
Sand	742	771
Slate	771	865
Lime	865	875
Slate	875	901
Red Rock	910	1001
Sand	1001	1017
Slate	1017	1073
Red Rock	1073	1114
Slate	1114	1148
Sand	1148	1192
Slate	1192	1254
Sand	1254	1321
Slate	1321	1425
Sand	1425	1489
Slate & Shells	1489	1524
Sand	1524	

Fresh Water 95' 1-16 blr/hr.
 Salt Water 1117' 2-13" blrs/hr.
 Salt Water 1254' 3-13" blrs/hr.
 Salt Water 1866' Hole full
 Gas 4070' Show
 Gas 5086-5100' 48/10 M. 7" 23# 10,913M cu.ft.
 Test before shot
 Not shot
 FINAL OPEN FLOW - 10,913 M Oriakany
 44 hrs. - R. P. 770#

Slate	1543	1724
Salt Sand	1724	1916
Slate	1916	1930
Sand	1930	2081
Lime	2081	2294
Slate	2294	3941
Shale	3941	4164
Slate	4164	4597
Shale	4597	4610
Slate	4610	4748
Shale	4748	4978 SLK
Black Lime	4978	4988
White Lime	4988	5086 SLK
Oriakany Sand	5086	5100

TOTAL DEPTH 5100'

Received

JUN - 154314

Purchased from Columbian & Carbon on
 May 1, 1952

Formerly F-23684

Office of Oil and Gas
 WV Dept. of Environmental Protection

WELL RECORD AT DATE PURCHASED

Janal
 5/29/2014

47-107-00329

08046

08/08/2014

* 107-107-00329

H7-107-00329-P

FORM CO 11140 P 0-0

WORK ORDER

REQUEST NO. 3945-R REVISION 11-5135-53 BUDGET NO. 763 WORK ORDER NO. 3811-R
 DATE April 28, 19 53 DATE ISSUED 5-8 19 53

COMPANY United Fuel Gas Company DEPT. (For Storage) PRODUCTION
 PROPOSED WORK Recondition Well X-58-7237, and Install Heavier Equipment. DISTRICT Clendenin

KNOWN AS Well X-58-7237-Additions NO. _____ ORIGINAL INSTALLATION DATE _____
 PURPOSE AND NECESSITY To Recondition Purchased Well for Storage in Pool X-58.

LOCATION: Well X-58-7237 - H.C. McPherson Farm.
 IN _____ DISTRICTION PLANT _____ REGISTERIAL DISTRICT Steala _____ TAXING DISTRICT Rural _____ COUNTY Wood _____ STATE West Virginia

RELATED PROJECT WORK ORDER NO. 3810 FOR Well # 8046-Part Removal
 APPROVED BY John C. Martin APPROVED BY H. C. Mefford, Jr.

DETAIL OF EXPENDITURES

MATERIAL TO BE INSTALLED - QUANTITY	UNIT PRICE	SIZE	ESTIMATE		ACTUAL		VARIATION
			QUANTITY	AMOUNT	QUANTITY	AMOUNT	
Steel Tubing-12# (used 10.81#)	.93	4-1/2"	5100'	4,743.00	5165'	5,376.76	633.76
Wall & Anchor Packer		4"x7"	1	200.00	1	175.11	(24.89)
Orbit Gate Valve-Comp.		4"	1	475.00	1	508.20	33.20
Nord Fig. 2349 P. Valve-Comp.		4"	1	400.00	1	365.38	(34.62)
Casing Centralizers	14.00	4"x7"	11	154.00	12	291.12	137.12
Bull Plug		4"	1	12.00	1	12.46	.46
Welded Tee		4"	1	11.00	1	13.43	2.43
Anchor Clamps		4"	1	30.00	1	20.19	(9.81)
Turnbuckles	13.00	1-1/2"x18"	2	26.00	2	28.99	2.99
Welding Neck Flanges 900#	25.00	4"	8	200.00	8	223.89	23.89
Fittings				65.00		47.30	(17.70)
TOTAL MATERIAL				6,316.00		7,062.83	746.83
INSTALLATION COST							
Direct Labor				1,000.00		1,155.12*	155.12
Use of Auto and Hauling				1,000.00		1,655.97*	655.97
Tools, Supplies & Miscellaneous Expense				275.00		109.12	(165.88)
Hauling, Erecting & Dismantling Spudder				350.00		- #	(350.00)
Cement & Services				1,200.00		1,647.66	447.66
Fuel Gas				-		30.00	30.00
Interest				-		58.18	58.18
Stores Expense and Freight				638.00		726.26	88.26
Labor Benefits Overheads				184.00		209.11	25.11
Administrative Overheads				57.00		65.49	8.49
TOTAL INSTALLATION COST				4,704.00		5,656.91	952.91
TOTAL ESTIMATE				11,020.00		12,719.74	1,699.74

INDICATE NORTH _____ SKETCH (CORRECT TO ACTUAL) _____ INVENTORY MAP NO. None
 Map Square 66-109

NOTE: Move in Bucyrus Erie Spudder, and String of Cleaning Out Tools.
 Pull 5079' of 2" Tubing, and Clean Well Out. Run 5100' of 4-1/2"
 Tubing on Wall and Anchor Packer. Cement Between 4-1/2" Tubing
 and 7" Casing to surface, and Install Heavier Equipment, shut Well
 In, and report results.

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* Included in use of auto and Direct Labor

Office of Oil and Gas
 WV Dept. of Environmental Protection

F 16
 5825

08/08/2014

2-763-3811-R

John C. Martin
 5/29/2014

47-107-00329-P.

COMPLETION REPORT

MAKE NECESSARY REVISIONS ON SKETCH TO SHOW WORK ACTUALLY PERFORMED, INDICATING LOCATION AND DIMENSIONS OF SPECIAL CONSTRUCTION.

FOR LINE WORK ON ESTABLISHED STREET OR HIGHWAY, INDICATE ON SKETCH THE DISTANCE OF LINE FROM ADJOINING PROPERTY, ALSO PORTION UNDER PAVING.

WHEN LINE EXTENDS INTO TWO OR MORE TAX DISTRICTS LIST BELOW PORTION INSTALLED OR RETIRED IN EACH

FT. OF _____	SIZE _____	KIND _____	TOWN _____	DIST _____	COUNTY _____
FT. OF _____	SIZE _____	KIND _____	TOWN _____	DIST _____	COUNTY _____
FT. OF _____	SIZE _____	KIND _____	TOWN _____	DIST _____	COUNTY _____
FT. OF _____	SIZE _____	KIND _____	TOWN _____	DIST _____	COUNTY _____

MATERIAL INSTALLED *of 1950*

MATERIAL INSTALLED OR RETIRED

QUANTITY	SIZE	DESCRIPTION	QUANTITY	SIZE	DESCRIPTION
5165'	4-1/2"	Pipe New Sm'l. Gr. B. .237" Wall 10.81#			
1	4"	Valve Gate Steel Orbit Flanged 3000# WOG			
1	4"	Valve Plug Nord Fig. 2349 2000# WOG Flg.			
1	4" X 7" X 2 1/2"	Packer Parmaco Wall & Anchor			
1	4"	Tee. Welding XS Sm'l. HI			
1	4"	Plug Bull Steel S X			
8	4"	Flanges W/N Drl. FS Ser. 90			
2	1-1/2" X 18"	Turnbuckles			
1	4" X 7"	Clamps Anchor			
12	4" X 7"	Centralizers Casing			
1	1/2"	Valve Needle Steel Screw			
6	4"	Gaskets Ring Oval Steel			
118	1-1/8" X 6-1/4"	Bolts All Thread			
2	1-1/4" X 2 1/2"	Bolts Hair Pin			
1'	4-1/2"	Pipe Sm'l. Gr. B. .237" Wall 10.79# P.E.			

665 Sacks Cement
5 Sacks Aquagel

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Office of Oil and Gas
WV Dept. of Environmental Protection

MATERIAL TRANSFER NUMBERS: June, 1953. # 216-248-July-20-22-N-23-23-162-196-August-13-180-185-Sept.-86-88-October-N-24.

PIPE COATING			ORIGINAL INSTALLATION DATES OF PROPERTY RETIRED		
QUANTITY	KIND	FT. OF PIPE	QUANTITY	KIND	DATE

TYPE OF JOINTS Steel Tubing
 EXCAVATION: BY HAND _____ FT., MACHINE _____ FT.
 WIDTH OF TRENCH _____ FT., AVG. DEPTH _____ FT.
 TYPE OF PAVING _____
 PAVING CUT: WIDTH _____ FT., LENGTH _____ FT.
 DESCRIBE NATURE OF SOIL: Storage Well

INFORMATION TO BE FURNISHED FOR SMALL STRUCTURES.
 OUTSIDE DIM. LENGTH _____ WIDTH _____
 HEIGHT TO EAVES _____ HEIGHT TO RIDGE _____
 FOUNDATION: KIND _____
 FOUNDATION: THICKNESS _____ HEIGHT ABOVE GROUND _____ DEPTH BELOW GROUND _____
 FLOOR: KIND _____ THICKNESS _____
 WALL: KIND _____ THICKNESS _____
 ROOF: TYPE _____ KIND _____
 DOORS: NO. _____ SIZE _____ KIND _____
 WINDOWS: NO. _____ SIZE _____ KIND _____
 PAINTING _____
 MISCELLANEOUS _____

REPORT UNUSUAL CONDITIONS ENCOUNTERED IN CONSTRUCTION:

REASON FOR OVERRUN - UNDERRUN: Labor, Use of Auto, Cement and Services overran the estimate due to cementing between all strings of casing including the space between the conductor pipe and the hole which was not anticipated. More water had to be hauled than estimated due to the dry weather.

DATE WORK STARTED June 8, 19 53 DATE WORK COMPLETED August 15, 19 53
 COMPILED BY Donald D. Rucker DATE 10/10/ 19 53 APPROVED BY [Signature] DATE 10-12 19 53

ROCKPORT 7237.txt

Survey File: C:\Humphrey Data\0514-4589.raw
 Date: May 07, 2014
 Time: 1:31
 Description: GYROSCOPIC SURVEY
 Location: ROCKPORT 7237
 Customer: COLUMBIA GAS
 Operator: REYNOLDS/LESHER
 Comments:
 WOOD COUNTY WV

GOODRICH TOOL IDENTIFICATION

Gyroscope Model: DG69-0901-4 #145
 TX Series: #4808
 EI Series: #5982
 AC Series: #107
 Accel.Voltage Limits: Xmax= 9.846 ; Xmin=-9.998 ; Ymax= 9.831 ; Ymin=-9.995
 Comments:
 0514-4589

Warm-Up Duration: 16.14 min

SURVEY REFERENCE DATA

Sight Reference Description: Corresponding Magnetic Compass Reading
 JACOBS STAFF OVER HILL
 Local Magnetic Declination: -8 deg.
 REFERENCE SUMMARY
 Survey Reference Point: 280 deg.
 Local Grid Offset: 8 deg.
 Drift Correction Method: Least Squares Drift Linearization
 Computation Method: Minimum Curvature

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JUN - 3 2014

Office of Oil and Gas
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Target Direction (deg):0

INRUN record set

Measured Course Closure	Vertical Inclin. Section from Vert. (feet)	Course Direction (deg)	Closure Direction (deg)	TrueVert. Depth (feet)	Rectangular Coordinates +N/-S +E/-W	Dogleg Severity °/100 f
100.00	0.10	165.5	186.50	99.97	-2.08 -0.24	2.20
2.10	-2.1					
200.00	0.47	182.5	185.16	199.97	-2.58 -0.23	0.40
2.59	-2.6					
300.00	1.67	205.8	191.63	299.95	-4.29 -0.88	1.20
4.38	-4.3					
400.00	3.06	218.2	202.37	399.86	-7.70 -3.17	1.50
8.32	-7.7					
500.00	4.58	211.9	207.73	499.64	-13.18 -6.93	1.60
14.89	-13.2					
600.00	5.19	205.5	208.03	599.28	-20.64 -10.99	0.80
23.38	-20.6					
700.00	5.86	203.8	207.03	698.81	-29.39 -14.99	0.70
32.99	-29.4					
800.00	6.21	199.7	205.73	798.26	-39.15 -18.87	0.60
43.46	-39.2					
900.00	5.84	197.1	204.32	897.71	-49.11 -22.19	0.50
53.89	-49.1					
1000.00	7.43	197.4	203.07	997.03	-60.14 -25.62	1.60
65.37	-60.1					
1100.00	7.92	195.9	201.98	1096.14	-72.93 -29.43	0.50
78.65	-72.9					
1200.00	7.67	196.2	201.10	1195.22	-85.96 -33.18	0.30
92.14	-86.0					
1300.00	5.70	195.2	200.50	1294.53	-97.17 -36.34	2.00

ROCKPORT 7237.txt

103.74	-97.2							
1400.00	4.87	193.8	200.02	1394.11	-106.09	-38.65	0.80	
112.91	-106.1							
1500.00	3.32	189.9	199.56	1493.85	-113.06	-40.16	1.60	
119.98	-113.1							
1600.00	2.19	177.1	199.00	1593.73	-117.82	-40.56	1.30	
124.61	-117.8							
1700.00	2.13	169.4	198.27	1693.66	-121.56	-40.12	0.30	
128.01	-121.6							
1800.00	1.67	141.1	197.33	1793.61	-124.52	-38.86	1.00	
130.45	-124.5							
1900.00	1.32	112.4	196.30	1893.57	-126.10	-36.88	0.80	
131.38	-126.1							
2000.00	1.14	63.8	195.48	1993.55	-126.10	-34.92	1.00	
130.84	-126.1							
2100.00	0.60	52.8	195.01	2093.54	-125.34	-33.60	0.60	
129.76	-125.3							
2200.00	1.15	92.0	194.43	2193.53	-125.05	-32.17	0.80	
129.13	-125.1							
2300.00	1.63	63.3	193.51	2293.50	-124.45	-29.90	0.80	
127.99	-124.4							
2400.00	1.55	52.4	192.63	2393.46	-122.99	-27.56	0.30	
126.04	-123.0							
2500.00	1.71	44.2	191.87	2493.42	-121.09	-25.45	0.30	
123.74	-121.1							
2600.00	1.89	46.8	191.05	2593.37	-118.90	-23.21	0.20	
121.14	-118.9							
2700.00	2.05	34.3	190.24	2693.32	-116.29	-21.00	0.50	
118.17	-116.3							
2800.00	2.02	34.2	189.52	2793.25	-113.35	-19.00	0.00	
114.93	-113.4							
2900.00	2.51	33.8	188.67	2893.17	-110.07	-16.79	0.50	
111.35	-110.1							
3000.00	2.55	26.3	187.81	2993.08	-106.26	-14.58	0.30	
107.25	-106.3							
3100.00	2.50	31.4	186.94	3092.98	-102.40	-12.46	0.20	
103.16	-102.4							
3200.00	2.65	32.5	185.84	3192.88	-98.59	-10.08	0.20	
99.10	-98.6							
3300.00	2.21	21.6	184.90	3292.79	-94.84	-8.13	0.60	
95.19	-94.8							
3400.00	2.38	7.9	184.48	3392.71	-90.99	-7.13	0.60	
91.27	-91.0							
3500.00	1.90	2.3	184.44	3492.64	-87.28	-6.78	0.50	
87.54	-87.3							
3600.00	1.60	346.7	184.77	3592.59	-84.26	-7.03	0.60	
84.56	-84.3							
3700.00	2.05	340.5	185.59	3692.54	-81.22	-7.95	0.50	
81.61	-81.2							
3800.00	2.29	322.4	187.14	3792.47	-77.96	-9.77	0.70	
78.57	-78.0							
3900.00	1.53	309.1	189.04	3892.42	-75.53	-12.02	0.90	
76.48	-75.5							
4000.00	1.00	297.1	190.55	3992.39	-74.29	-13.83	0.60	
75.57	-74.3							
4100.00	1.07	293.7	191.88	4092.37	-73.51	-15.47	0.10	
75.12	-73.5							
4200.00	1.06	350.8	192.85	4192.36	-72.22	-16.48	1.00	
74.08	-72.2							
4300.00	1.60	335.4	193.80	4292.33	-70.03	-17.21	0.60	
72.12	-70.0							
4400.00	1.79	300.2	195.73	4392.29	-67.97	-19.14	1.00	
70.62	-68.0							

Received

JUN - 3 2014

ROCKPORT 7237.txt							
4500.00	0.69	276.7	197.45	4492.27	-67.12	-21.09	1.20
70.35	-67.1						
4600.00	0.80	257.9	198.42	4592.26	-67.19	-22.37	0.30
70.82	-67.2						
4700.00	0.14	263.1	198.99	4692.25	-67.35	-23.17	0.70
71.23	-67.4						
4800.00	0.66	49.8	198.84	4792.25	-66.99	-22.85	0.80
70.78	-67.0						
4900.00	1.19	199.5	198.61	4892.25	-67.60	-22.76	1.80
71.33	-67.6						
5000.00	1.63	177.8	198.23	4992.22	-69.99	-23.05	0.70
73.69	-70.0						
5080.00	1.14	163.9	197.59	5072.19	-71.89	-22.79	0.70
75.42	-71.9						

Bottom:

True Vertical Depth	5072.19feet
Closure Distance	75.4 feet
Closure Direction	197.6 deg.
Course Direction	163.9 deg.

Received

JUN - 3 2014

WW-4A
Revised 6-07

1) Date: 4/1/14
2) Operator's Well Number
Rockport storage well 7237

3) API Well No.: 47 - 107 - 00329

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>Mildred B. Amos</u>	Name <u>not operated</u>
Address <u>8361 Southern Highway</u>	Address _____
<u>Rockport, WV 26169</u>	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name _____
_____	Address _____
(c) Name _____	Name _____
Address _____	Address _____
_____	_____
6) Inspector <u>Jamie Stevens</u>	(c) Coal Lessee with Declaration
Address <u>105 Kentuck Rd</u>	Name _____
<u>Kenna, WV 25248</u>	Address _____
Telephone <u>304-206-7775</u>	_____

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

Received

JUN - 3 2014

Office of Oil and Gas
WV Dept. of Environmental Protection

Well Operator	<u>Columbia Gas Transmission, LLC</u>
By:	<u>James E. Amos</u> <i>James E. Amos 6/2/14</i>
Its:	<u>Senior Well Services Engineer</u>
Address	<u>48 Columbia Gas Road</u>
	<u>Sandyville, WV 25275</u>
Telephone	<u>304-483-0073</u>

X Subscribed and sworn before me this 2nd day of June
Mary Marie Clendenin Notary
 My Commission Expires March 22, 2015



Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

10700329P

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

Article Sent To:
ROCKPORT WV 26169

7099 3220 0009 0804 9466

Postage	\$	\$1.82
Certified Fee		\$3.50
Return Receipt Fee (Endorsement Required)		\$2.70
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$7.82

RW71-0010
07
Postmark Here
JUN 02 2014
06/02/2014

Name (Please Print Clearly) (To be completed by mailer)
 Mildred B. Amos
 Street, Apt. No., or PO Box No.
 8361 Southern Highway
 City, State, ZIP+4
 Rockport WV 26169
 PS Form 3800, July 1999 See Reverse for Instructions



Received

JUN - 3 2014

Office of Oil and Gas
WV Dept. of Environmental Protection

08/08/2014

SURFACE OWNER WAIVER

Operator's Well
Number

Rockport 7237

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW4-A

The well operator named on page WW-4A is applying for a permit from the State to plug and abandon a well. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.
WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

Time Limits and methods for filing comments. The law requires these materials to be served on or before the date the operator files his Application. You have **FIVE (5) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Comments must be in writing. Your comments must include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

- 1) The proposed well work will constitute a hazard to the safety of persons.
- 2) The soil erosion and sediment control plan is not adequate or effective;
- 3) Damage would occur to publicly owned lands or resources;
- 4) The proposed well work fails to protect fresh water sources or supplies;
- 5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation..."

If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.

VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application For A Permit To Plug And Abandon on Forms WW-4A and WW-4B, and a survey plat.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

**FOR EXECUTION BY A NATURAL PERSON
ETC.**

**FOR EXECUTION BY A CORPORATION,
ETC.**

Signature

Date

Name
By
Its

Received

Date

Signature

08/08/2014

WW-4B

API No.	<u>47-107-00329 P</u>
Farm Name	<u>McPherson, H. C., et al</u>
Well No.	<u>Rockport 7237</u>

**INSTRUCTIONS TO COAL OPERATORS
OWNERS AND LESSEE**

The well operator named on the obverse side of WW-4 (B) is about to abandon the well described in the enclosed materials and will commence the work of plugging and abandoning said well on the date the inspector is notified. Which date shall not be less than five days after the day on which this notice and application so mailed is received, or in due course should be received by the Department of Environmental Protection Office of Oil & Gas.

This notice and application is given to you in order that your respective representatives may be present at the plugging and filling of said well. You are further notified that whether you are represented or not the operator will proceed to plug and fill said well in the manner required by Section 24, Article 6, Chapter 22 of the Code and given in detail on obverse side of this application.

NOTE: If you wish this well to be plugged according to 22-6-24(d) then as per Regulation 35CSR4-13.9 you must complete and return to this office on form OB-16 "Request by Coal Operator, Owner, or Lessee for plugging" prior to the issuance of this plugging permit.

WAIVER

The undersigned coal operator ____ / owner ____ / lessee ____ / of the coal under this well location has examined this proposed plugging work order. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: _____

By: _____

Its _____

Received

JUN - 3 2014

Office of Oil and Gas
WV Dept. of Environmental Protection

08/08/2014

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name Columbia Gas Transmission, LLC OP Code 307032

Watershed Tygart Creek Quadrangle Rockport

Elevation 890.3 ft County Wood District Steele

Description of anticipated Pit Waste: fresh and/or salt water, drilling fluid, cement returns

Will a synthetic liner be used in the pit? yes 20 mil

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number 34-105-23619, 34-167-2-9395, 34-155-2-3795)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain Enviro Tank Clean (Rt 7, Belpre, OH))

Proposed Work For Which Pit Will Be Used:

- Drilling
- Workover
- Other (Explain _____)
- Swabbing
- Plugging

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto 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. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature James E. Amos 6/2/14

Company Official (Typed Name) James E. Amos

Company Official Title Senior Well Services Engineer

Received

JUN - 3 2014

Office of Oil and Gas
WV Dept. of Environmental Protection
Subscribed and sworn before me this 2nd day of June, 20 14

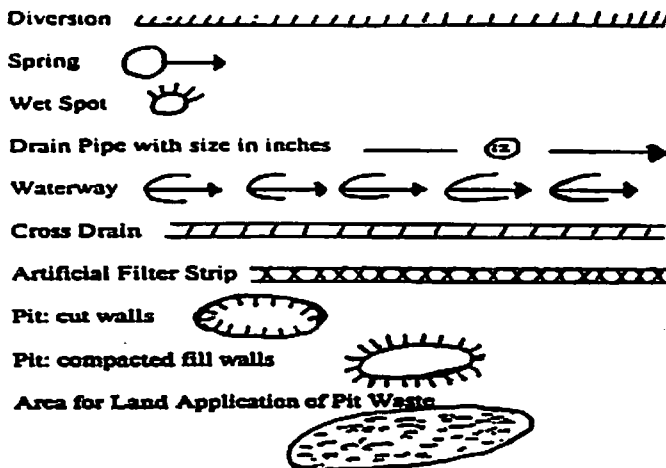
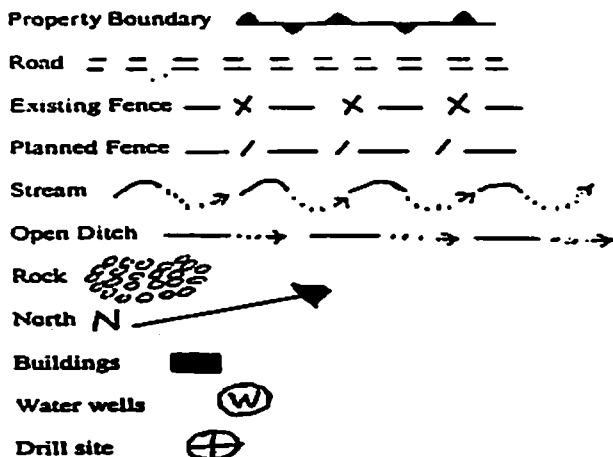
Mary Marie Clendenin

Notary Public

My commission expires March 22, 2015



LEGEND



Proposed Revegetation Treatment: Acres Disturbed 0.9 *OK* Prevegetation pH 5 - 6

Lime 2 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 500 lbs/acre (500 lbs minimum)

Mulch 2 Tons/acre

Seed Mixtures

Seed Type	Area I	lbs/acre
Orchard Grass		20
Ledino Clover		10
Annual Rye		20

Seed Type	Area II	lbs/acre
Orchard Grass		20
Ledino Clover		10
Annual Rye		20

Attach: Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Received

Plan Approved by: *Jamie Stevens* JUN - 3 2014

Comments: _____ Office of Oil and Gas
WV Dept. of Environmental Protection

Title: _____ Date: 5/29, 2014

Field Reviewed? Yes No

(LUBECK)



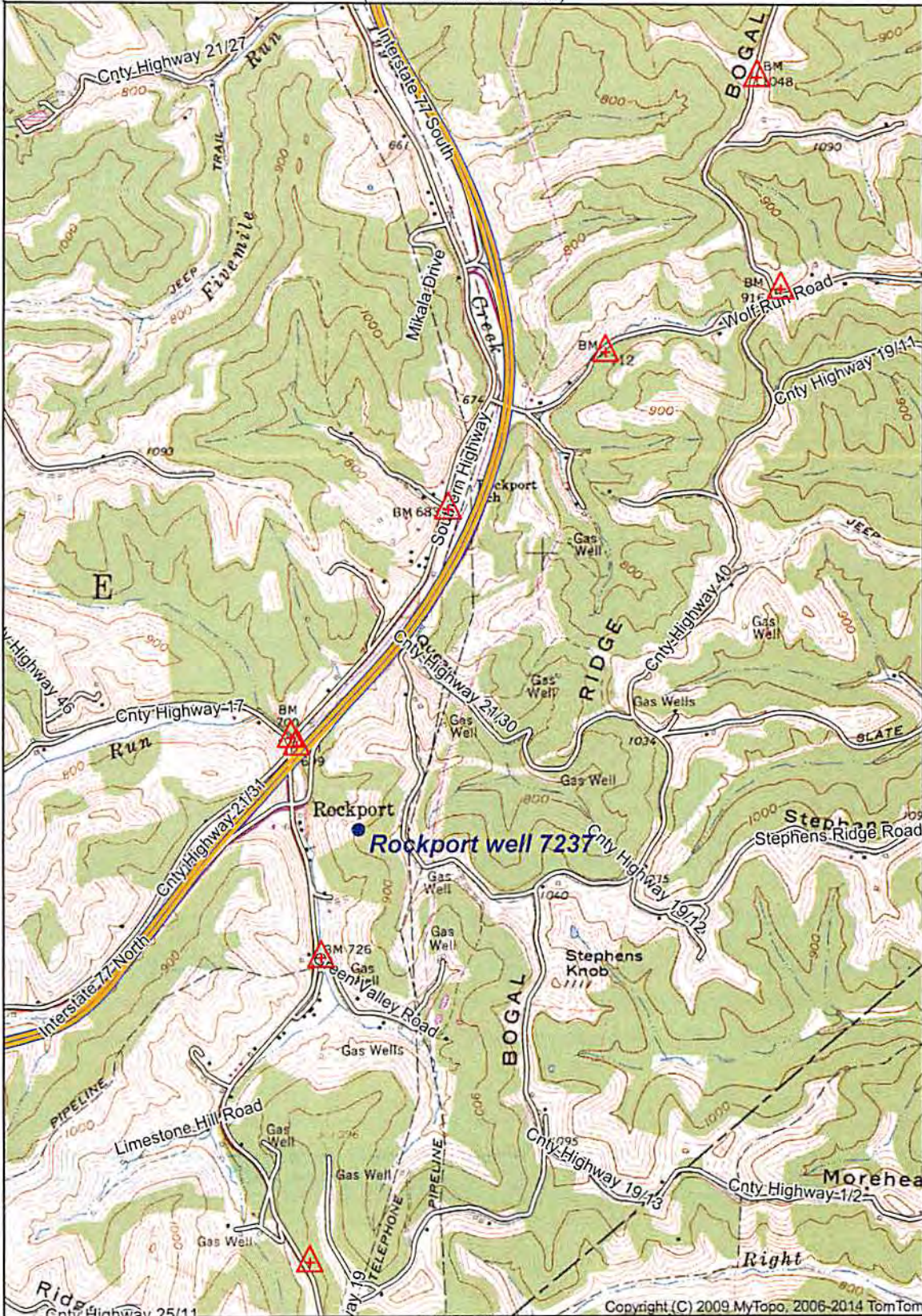
ROCKPORT QUADRANGLE
WEST VIRGINIA
TOPOGRAPHIC SERIES

(KANAWHA)

081° 33' 58.82" W
039° 06' 10.49" N

(SOUTH PARKERSBURG)

081° 31' 26.44" W
039° 06' 10.49" N



(POND CREEK)

(ELIZABETH)

Handwritten signature and date: 5/29/2014

039° 03' 22.92" N
081° 33' 58.82" W

(LIVERPOOL)
SCALE 1:24000

039° 03' 22.92" N
081° 31' 26.44" W
Copyright (C) 2009 MyTopo, 2006-2014 TomTom
Printed: Wed Feb 26, 2014

(SANDYVILLE)

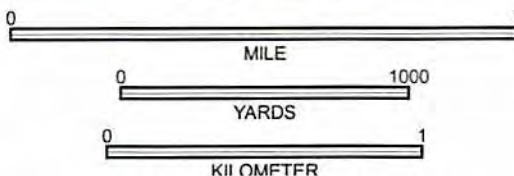
(REEDY)

Produced by MyTopo Terrain Navigator
Topography based on USGS 1:24,000
Maps

North American 1983 Datum (NAD83)
Polyconic Projection

To place on the predicted North American
1927 move the projection lines 9M N and
13M E

Declination



CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM 1929

Received

JUN - 3 2014
ROCKPORT, WV
1960

08/08/2014

Office of Oil and Gas
WV Dept. of Environmental Protection

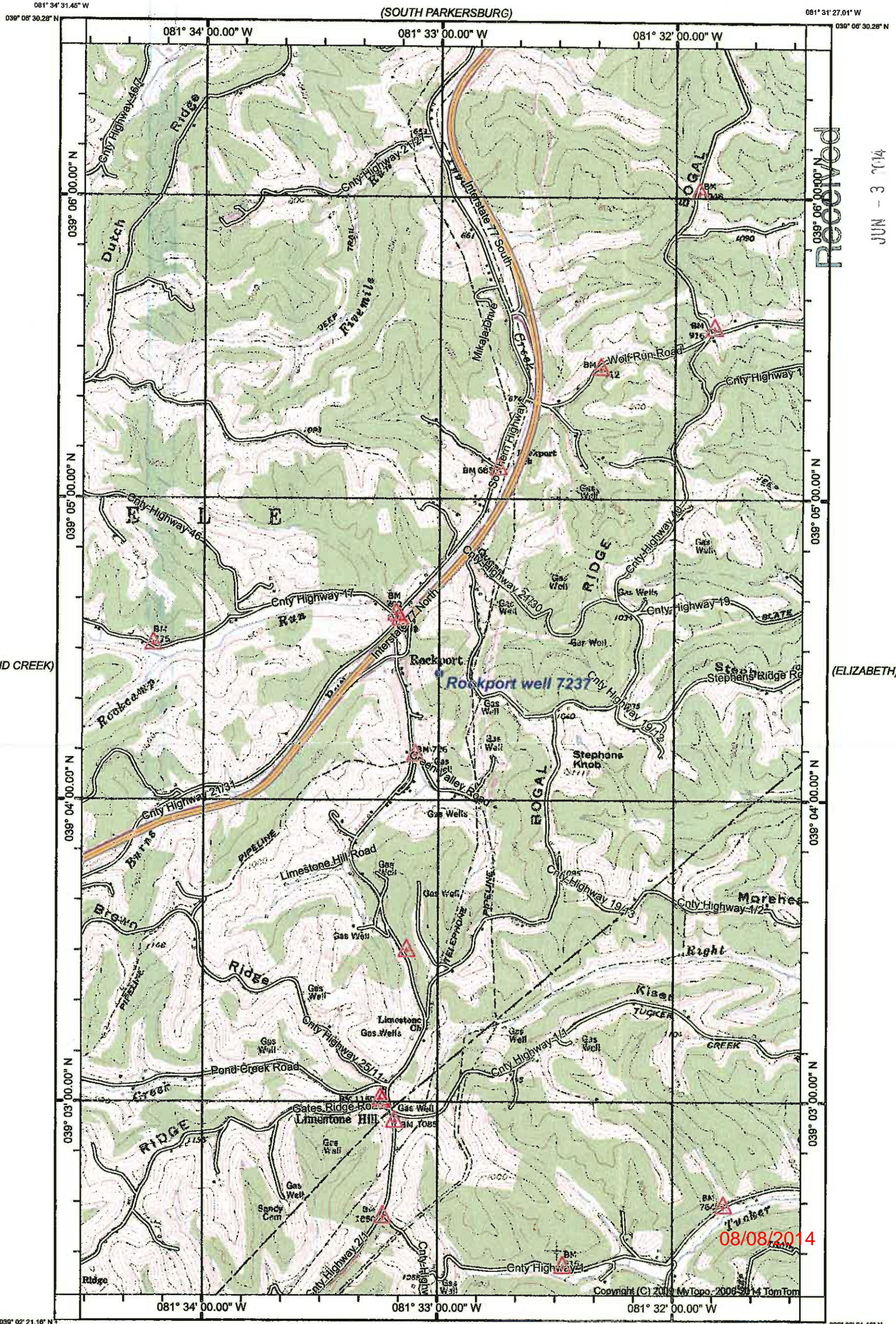
107003298

(LUBECK)



ROCKPORT QUADRANGLE
WEST VIRGINIA
TOPOGRAPHIC SERIES

(KANAWHA)



Received

JUN - 3 2014

Office of Oil and Gas
WV Dept. of Environmental Protection

(POND CREEK)

(ELIZABETH)

(SANDYVILLE)

(REEDY)

Produced by MyTopo Terrain Navigator
Topography based on USGS 1:24,000 Maps

North American 1983 Datum (NAD83)
Polyconic Projection

To place on the predicted North American 1927 move the
projection lines 9M N and 13M E

Declination

MN GN

GN 0.35° W
MN 7.87° W

(LIVERPOOL)
SCALE 1:24000



CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM 1929

ROCKPORT, WV
1960

47-107-003298

Copyright (C) 2014 MyTopo, 2006-2014 TomTom

Printed: Wed Feb 26, 2014



Google earth



Reclamation Plan 1 of 2 (overview) - Rockport 7237

* refer to civil engineering drawings for details of proposed earth disturbance

08/08/2014

Received

JUN - 3 2014

Office of Oil and Gas
WV Dept. of Environmental Protection

10700329P

10700329 P

WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas

WELL LOCATION FORM: GPS

API: 47-107-00329 WELL NO.: 7237

FARM NAME: McPherson, H. C., et al

RESPONSIBLE PARTY NAME: Columbia Gas Transmission, LLC

COUNTY: Wood DISTRICT: Steele

QUADRANGLE: Rockport

SURFACE OWNER: Mildred B. Amos

ROYALTY OWNER: H. C. McPherson, et ux (storage lease)

UTM GPS NORTHING: 4325104.26 m

UTM GPS EASTING: 452431.95 m GPS ELEVATION: 271.4 m (890.2')

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:

Survey grade GPS : Post Processed Differential

Real-Time Differential

Mapping Grade GPS : Post Processed Differential

Real-Time Differential

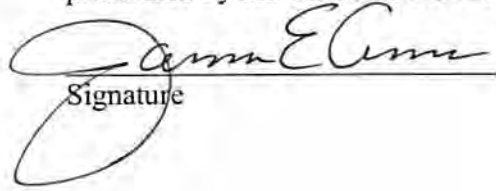
Received

JUN - 3 2014

Office of Oil and Gas
WV Dept. of Environmental Protection

4. Letter size copy of the topography map showing the well location.

I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.


Signature

Senior Engineer
Title

6/2/14
Date



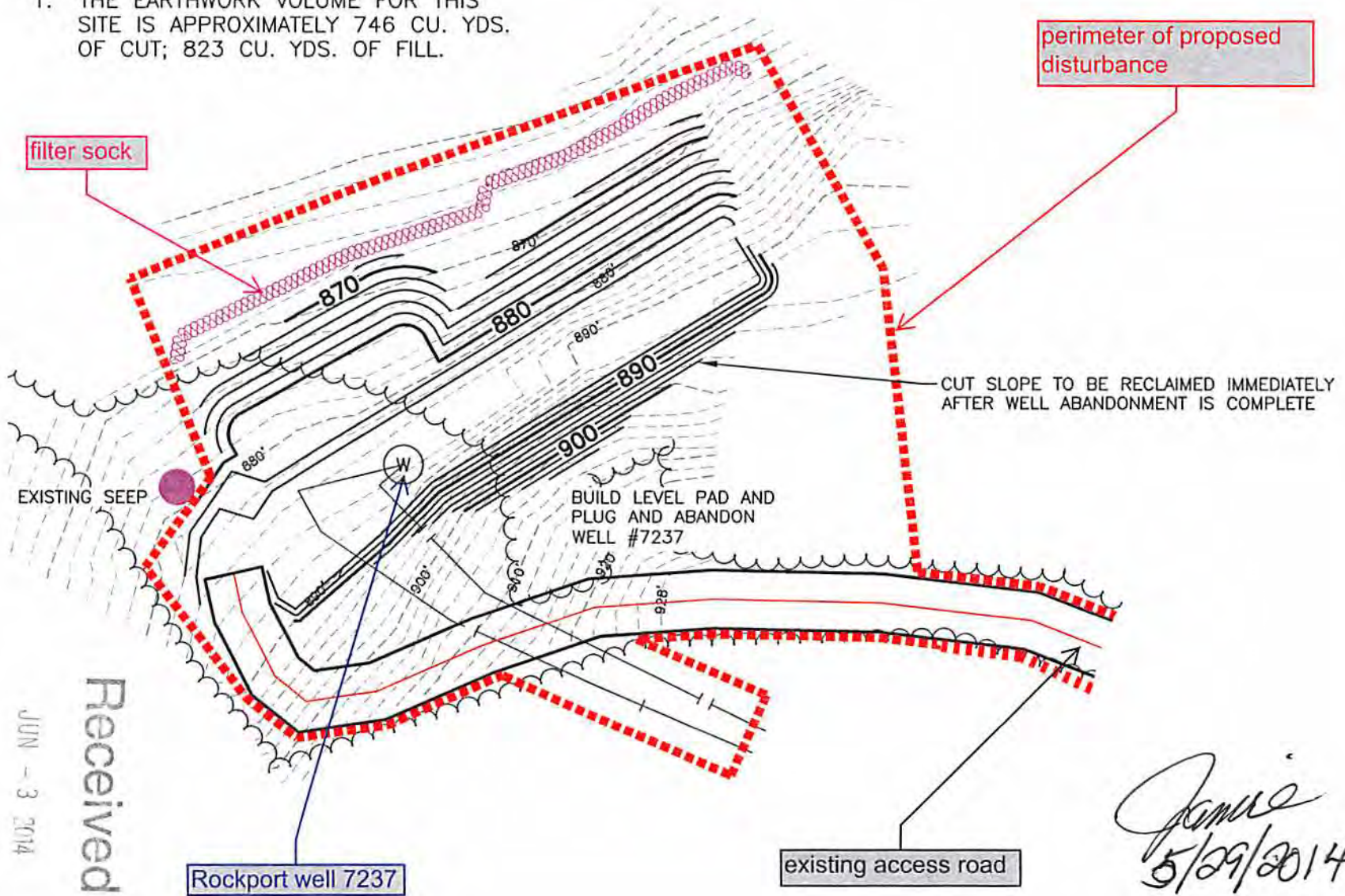
08/08/2014

Reclamation Plan 2 of 2 (Site Detail) - Rockport 7237

- grading / fill as depicted on drawing
- BMPs to be utilized per DEP

NOTE:

1. THE EARTHWORK VOLUME FOR THIS SITE IS APPROXIMATELY 746 CU. YDS. OF CUT; 823 CU. YDS. OF FILL.



Received
JUN - 3 2014

Office of Oil and Gas
WV Dept. of Environmental Protection

Jamie
5/29/2014

10700329P