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**west virginia** department of environmental protection

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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](http://www.dep.wv.gov)

April 15, 2014

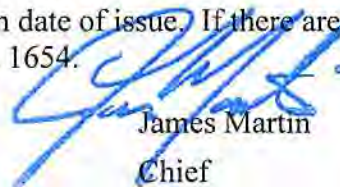
**WELL WORK PLUGGING PERMIT**

**Plugging**

This permit, API Well Number: 47-5300491, issued to APPALACHIAN POWER CO DBA AEP, 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: MW 3  
Farm Name: APPALACHIAN POWER CO  
**API Well Number: 47-5300491**  
**Permit Type: Plugging**  
Date Issued: 04/15/2014

## 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

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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.

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 \_\_\_\_ / Liquid injection \_\_\_\_ / Waste disposal \_\_\_\_ /  
(If "Gas, Production \_\_\_\_ or Underground storage \_\_\_\_ ) Deep  / Shallow \_\_\_\_

5) Location: Elevation 585.8' Watershed Ohio River  
District Graham County Mason Quadrangle Graham

6) Well Operator Appalachian Power Company dba 7) Designated Agent Richard D. Thompson  
Address American Electric Power Address Rt. 62, PO Box 419  
1 Riverside Plaza, Columbus, OH 43215 New Haven, WV 25625-0419

8) Oil and Gas Inspector to be notified Name James Stevens  
Address HC 62, Box 1C  
Kenna, WV 25248  
9) Plugging Contractor Name Battelle Memorial Institute  
Address 505 King Avenue  
Columbus, OH 43201

*SEE PLOGGING SUMMARY MW-3*

10) Work Order: The work order for the manner of plugging this well is as follows: *JNW/4/14/14*  
Set cement retainer at top of the liner at 7,280 ft. Squeeze perforations with 55 sx cement. Set cement plug on top of retainer, 50 sx cement. Set gel spacer to top of 7-5/8" cement, 175 bbl gel. Cut 7-5/8" casing at 4,000 ft. Pull 7-5/8" casing. Set 100 sx cement over open hole where casing is removed. Set 165 bbl gel spacer. Set 85 sx cement plug at set depth of coal string casing, 1,720 ft. to 1,920 ft. Set gel spacer, 60 bbl gel. Set 90 sx cement surface plug. After plugging, the wellhead will be removed and the surrounding area will be cleared to cut off the casing strings below grade. If pressure remains on outer casing strings after the final cement plug is set in the well, the vault and vent method can be employed to address the migrating gas. This involves constructing a cement vault over the cut-off casing that collects the gas to be vented out a stack or chimney to dissipate in the atmosphere at low volumes. There is an option for the vent pipes to run underground away from the well to eventually vent above ground in another area if venting at the well location is deemed not appropriate (see attached plugging plan and schematics for details).

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

Work order approved by inspector \_\_\_\_\_ Date \_\_\_\_\_



### Plugging Summary – MW-3

Prior to plugging the MW-3 well, all equipment such as tubing, packer, gauges and well tree will be removed from the well.

A cement retainer will be set in the 7-5/8" casing approximately 100 ft. above the 4-1/2" casing liner; the retainer will be set at +/- 7,200 ft. The perforations (7,756 ft. to 7,860 ft.) will be squeezed off by pumping 50/50 Pozmix cement through a tubing work string which will be stabbed into the cement retainer. When the squeeze job is complete, the tubing will be pulled out of the cement retainer and the retainer will be closed so that cement cannot come back up hole. A 200 ft. 50/50 Pozmix cement plug will be spotted on top of the retainer in the 7-5/8" production casing from approximately 7,000 ft. to 7,200 ft. The 50/50 Pozmix cement blend will be used for these two plugs due to its corrosion-resistant qualities. A gel spacer will be spotted in the 7-5/8" casing from 3,000 ft. to 7,000 ft.

The 7-5/8" production casing will be shot off at the free point (to be determined by running a free point tool) at approximately 4,000 ft. The 7-5/8" production casing will be pulled out of the well and salvaged.

A Class A cement plug will be spotted in the 9-1/2" open hole on top of the 7-5/8" casing stub from approximately 3,800 ft. to 4,000 ft. A gel spacer will be spotted in the 9-1/2" open hole from approximately 1,870 ft. to 3,800 ft.

A cement retainer will be set in the 10-3/4" casing at approximately 1,770 ft. A cement plug will be spotted through a tubing work string below the cement retainer in the 10-3/4" casing and 9-1/2" open hole from 1,770 ft. to 1,870 ft. A 100 ft. cement plug will be spotted on top of the cement retainer in the 10-3/4" casing from 1,670 ft. to 1,770 ft.

Additional Class A cement plugs will be spotted in the 10-3/4" casing as follows; 200 ft. across the fresh water/salt water interface inside the 10-3/4" casing from approximately ~~536 ft. to 636 ft.~~; and 200 ft. at the surface inside the 10-3/4" casing from approximately 0 ft. to 200 ft. <sup>400 ft to 1100ft</sup>

Bentonite gel spacers will be placed between the cement plugs.

★ CLASS A CEMENT PLUG FROM 400' – 1100' INSIDE 10 3/4" CASING COVERING COAL FORMATIONS  
OK  
gwm  
4/14/14

RECEIVED  
Office of Oil and Gas

MAR 27 2014

WV Department of  
Environmental Protection

Zone of Interest Description	Depth Interval, ft	Plugging Material		[C]asing / [H]ole Size	Additives	
		Type	Quantity		Type	Grade
<b>MW-3</b>						
Set Cement Retainer	7200	N/A	N/A	[C] 4-1/2", 11.60 #/ft.	N/A	N/A
Squeeze Perforations (Perforation Depths)	7200 – 7860 (7756–7860)	50/50 Pozmix	70 sacks	[C] 4-1/2", 11.60 #/ft., [C] 7-5/8", 33.7 #/ft.	Bentonite Gel	2%
Cement Retainer Plug	7000 - 7200	50/50 Pozmix	40 sacks	[C] 7-5/8", 33.7 #/ft.	Bentonite Gel	2%
Gel Spacer	3000 - 7000	Bentonite Gel	180 Bbl	[C] 7-5/8", 33.7 #/ft.	Bentonite Gel	6%
Shoot 7-5/8" Casing	+/- 4000	-	-	-	-	-
7-5/8" Casing Stub Plug	3800 – 4000	Class A	85 sacks	[H] 9-1/2"	N/A	N/A
Gel Spacer	1870 – 3800	Bentonite Gel	170 Bbl	[H] 9-1/2"	Bentonite Gel	6%
Set Cement Retainer	1770	N/A	N/A	[C] 10-3/4", 45.5 #/ft.	N/A	N/A
10-3/4" Casing Seat Plug	1770 - 1870	Class A	50 sacks	[H] 9-1/2" and, [C] 10-3/4", 45.5 #/ft.	N/A	N/A
Cement Retainer Plug	1670 – 1770	Class A	46 sacks	[C] 10-3/4", 45.5 #/ft.	N/A	N/A
Gel Spacer	<sup>1100'</sup> 636 – 1670	Bentonite Gel	<sup>101 Bbl</sup> <del>47 sacks</del>	[C] 10-3/4", 45.5 #/ft. and, [C] 10-3/4", 40.5 #/ft.	Bentonite	6%
FW/SW Interface	<del>536 – 636</del> <sup>100' = 1100'</sup>	Class A	<del>47 sacks</del>	[C] 10-3/4", 40.5 #/ft.	CaCl	3%
Gel Spacer	200 – <del>536</del> <sup>400'</sup>	Bentonite Gel	<del>35 Bbl</del>	[C] 10-3/4", 40.5 #/ft.	Bentonite Gel	6%
Surface Plug	0 – 200	Class A	94 sacks	[C] 10-3/4", 40.5 #/ft.	CaCl	3%

SW  
4/14/2014

RECEIVED  
Office of Oil and Gas

MAR 27 2014

WV Department of  
Environmental Protection

04/18/2014



WR-35  
Rev (5-01)

DATE: 6/30/09  
API #: 47-5300491

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

Well Operator's Report of Well Work

Farm name: Appalachian Power Co. Operator Well No.: MW-3

LOCATION: Elevation: 585.8 ft. Quadrangle: New Haven

District: Graham County: Mason  
Latitude: 68,689 Feet South of 39 Deg. 00 Min. 00 Sec.  
Longitude 6,123 Feet West of 81 Deg. 55 Min. 00 Sec.

Company: Appalachian Power Co. DBA AEP

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: U.S.Rt. 33, Mountaineer Plant New Haven, WV 25265-0419	16"	296'	296'	296 cf
	10-3/4"	1800'	1800'	1007 cf
Agent: Richard D. Thompson	7-5/8"	7394'	7394'	420 cf
Inspector: Jamie Stevens	4-1/2"	1041'	1041'	99 cf
Date Permit Issued: 06/24/2008	2-3/8"	7730'	7730'	-
Date Well Work Commenced: 09/25/2008				
Date Well Work Completed: 6/20/2009				
Verbal Plugging: n/a				
Date Permission granted on:				
Rotary X Cable Rig: UDI 51				
Total Depth (feet): 8335'				
Fresh Water Depth (ft.): 250'				
Salt Water Depth (ft.): 1232'				
Is coal being mined in area (N/Y)? Yes				
Coal Depths (ft.): 417'-1073' layered				

OPEN FLOW DATA

Formation of interest: Rose Run Pay zone depth (ft): 7,746'  
Gas: Initial open flow: 0 MCF/d Oil: Initial open flow: 0 Bbl/d  
Final open flow: 0 MCF/d Final open flow: 0 Bbl/d  
Time of open flow between initial and final tests: 0 Hours  
Static rock Pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ Hours

Formation of interest: Copper Ridge Pay zone depth (ft): 7,852'  
Gas: Initial open flow: 0 MCF/d Oil: Initial open flow: 0 Bbl/d  
Final open flow: 0 MCF/d Final open flow: 0 Bbl/d  
Time of open flow between initial and final tests: 0 Hours  
Static rock Pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED 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.

Signed: Richard D. Thompson  
By: Richard D. Thompson  
Date: 7/9/09

**AEP Mountaineer Plant, MW-3 Perforations**

Run	Perforated Zone	Lithology
1	7,756 – 7,777	Rose Run sandstone
2	7,804 – 7,819	Rose Run sandstone
3	7,832 – 7,860	Rose Run sandstone
Shot Density = 2 shots per foot 400 gallons 15% HCl spotted prior to perforating, swabbed back		

**AEP Mountaineer Plant, MW-3 Well Log Summary**

Lithology or Formation	Depth
Ground Surface/Alluvium/ Undiff. Pennsylvania Bedrock	0-1,152 <sup>(a)</sup>
Sharon Sandstone	1,152
Maxville Limestone	1,240
Cuyahoga Shale	1,258
Sunbury (Coffee) shale	1,722*
Berea sandstone	1,732*
Chagrin shale	1,753*
Lower Huron shale	2,817*
Java shale	3,178*
Pipe Creek shale	3,278*
Angola shale	3,294*
Rhinestreet shale	3,381*
Hamilton shale	3,542*
Marcellus shale	3,584*
Onondaga limestone	3,594*
Helderberg limestone	3,722*
Salina dolomite	3,814*
Lockport dolomite	4,358*
Niagaran/Rose Hill shale	4,580*
Dayton/Casing Shell limestone	4,788*
Brassfield/Packer Shell limestone	4,850*
Tuscarora/Clinton sandstone	4,883*
Medina sandstone	5,021
Queenston shale	5,026
Utica Shale	5,638
Point Pleasant Shale	6,276
Trenton limestone	6,358
Black River limestone	6,480
Gull River limestone	6,972
Lower Chazy limestone	7,028
Glenwood/Wells Creek shale	7,088
St. Peter sandstone	7,164
Beckmantown dolomite	7,196
Rose Run sandstone	7,746
Copper Ridge dolomite	7,852

\* Formation not logged, values from adjacent AEP-2 injection well.

(a) – Coal found from 417' – 1,073'



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**west virginia department of environmental protection**

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601 57th Street SE  
Charleston, WV 25304  
(304) 926-0450  
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Joe Manchin III, Governor  
Randy C. Huffman, Cabinet Secretary  
[www.wvdep.org](http://www.wvdep.org)

**PERMIT MODIFICATION APPROVAL**

January 14, 2009

APPALACHIAN POWER CO DBA AEP  
1 RIVERSIDE PLAZA, 26TH FLOOR  
COLUMBUS, OH 43125

Re: Permit Modification Approval for API Number 5300491 , Well #: MW 3

**Oil and Gas Operator:**

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

Gene Smith

Regulatory/Compliance Manager  
Office of Oil and Gas



Form: WW - 2B

53.00491

**STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
WELL WORK PERMIT APPLICATION**

- 1) Well Operator Appalachian Power Co.
- |             |        |          |            |
|-------------|--------|----------|------------|
| Operator ID | Mason  | Graham   | New Haven  |
|             | County | District | Quadrangle |
- 2) Operator Well Number: APP MW 1      3) Elevation: 587.1 ft +/-
- 4) Well Type: (a) Oil \_\_\_\_\_ or Gas \_\_\_\_\_      Other: Test Well—Class V \_\_\_\_\_  
 (b) If Gas: Production \_\_\_\_\_ / \_\_\_\_\_      Underground Storage \_\_\_\_\_  
 Deep \_\_\_\_\_ / \_\_\_\_\_      Shallow \_\_\_\_\_
- 5) Proposed Target Formation(s): Rose Run Sandstone/Conner Ridge Dolomite
- 6) Proposed Total Depth: 3,400 Feet
- 7) Approximate fresh water strata depth: 250 ft
- 8) Approximate salt water depth: 250 ft      1200'-1400'
- 9) Approximate coal seam depths: -417, 462, 554, 602, 743, 782, 812, 862, 943, 983, 1073 ft
- 10) Does land contain coal seams tributary to active mine? Yes
- 11) Describe proposed well work: Install test well to assess geologic character of deep saline formations, Well to remain open to monitor activity of AEP 1 and AEP 2 CO<sub>2</sub> injection wells.

12) **CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	
Conductor (optional)				<u>280'</u>	<u>280'</u>	<u>Janice 12/23/08</u>
Fresh Water	16"	K40	65	<u>260'</u>	<u>260'</u>	250' surface, 204 cf
Coal	10-3/4"	J55	40.5	1,800'	1,800'	1,500' surface, 1,000 cf
Intermediate	7-5/8"	J55, N80	<del>39.4</del> 29.7	<del>6,400'</del> <u>7400'</u>	<del>6,400'</del> <u>7400'</u>	<del>6,400' - 7,000'</del> 420 cf
Production	5" 21-seal thread	N80	<del>33.0</del> 15	8,400'	8,400'	8,400' - 4,000' 414 cf
Tubing	2-3/8"	J55	4.7	To be installed at a later date		
Liners	<del>2-3/8"</del>	<del>N80</del>	<del>33.0</del>	<del>6,400'</del>	<del>6,400'</del>	<del>6,400' - 7,000'</del>

Packers: Kind Retrievable  
 Sizes 2-3/8"  
 Depth Set Above/between Rose Run and/or Conner Ridge

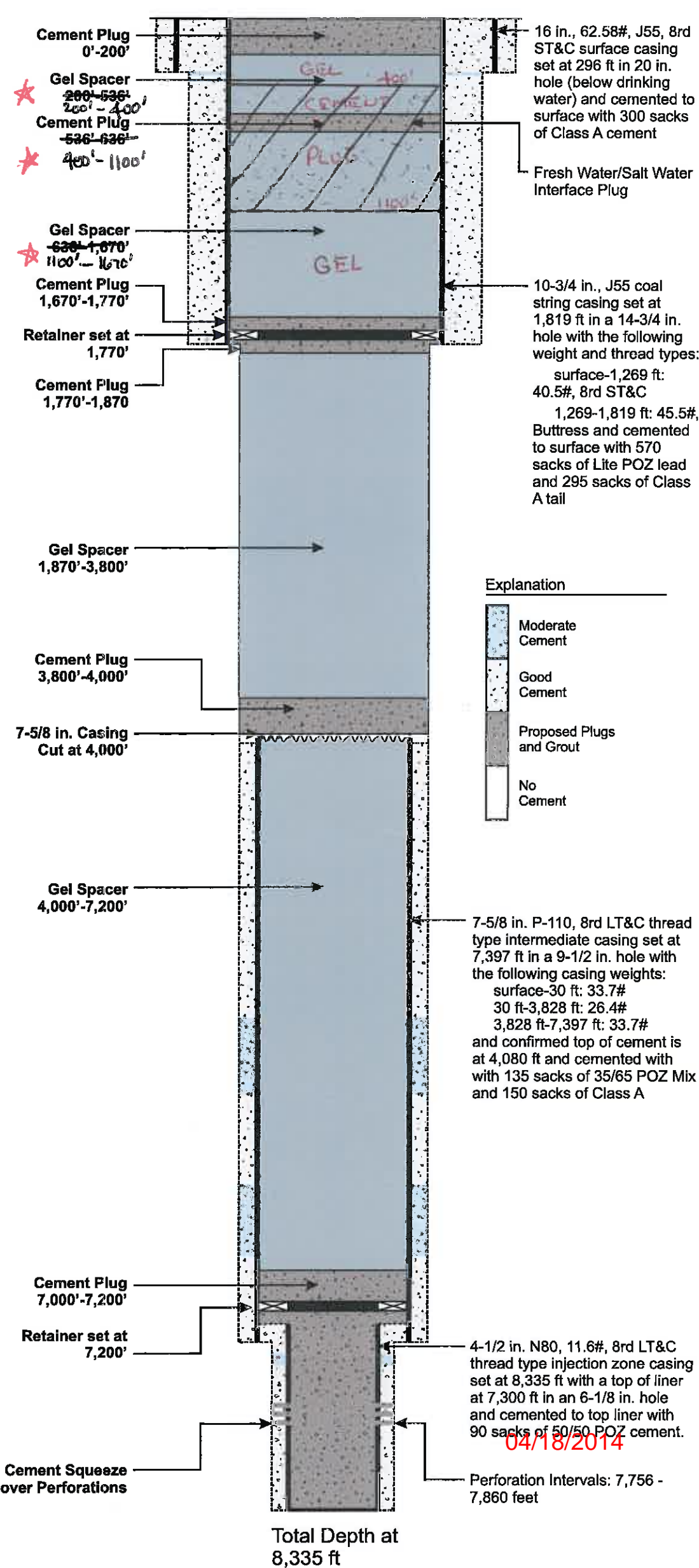
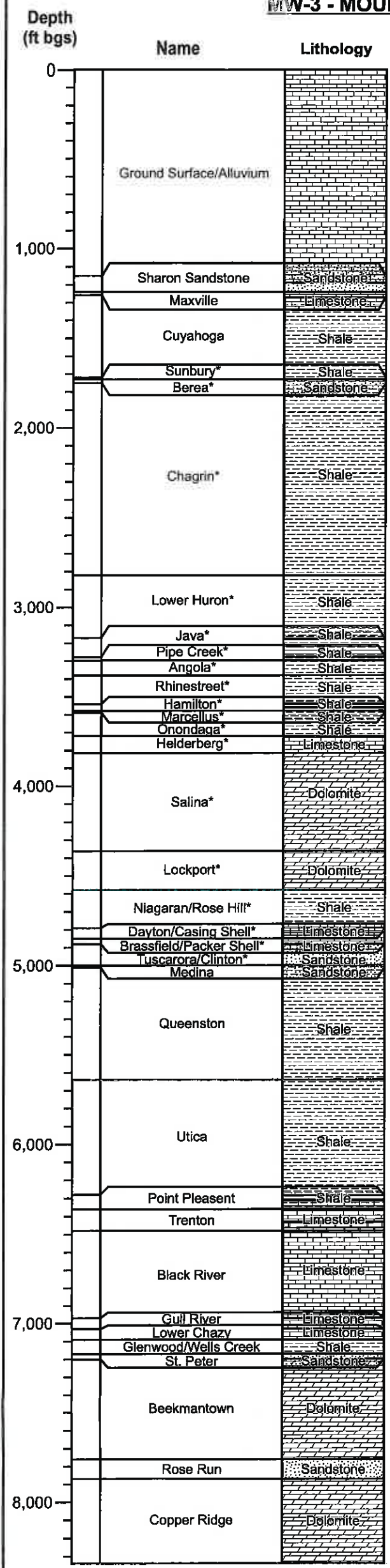
*Revised*  
*Janice 12/23/08*

*Cover to Gene Smith about Revisions on down hole casing*

*(See attached Schematic)*

**MW-3 - MOUNTAINEER, AS BUILT WITH PROPOSED PLUGS**

OK JMW 04/11/2014



**Explanation**

	Moderate Cement
	Good Cement
	Proposed Plugs and Grout
	No Cement

7-5/8 in. P-110, 8rd LT&C thread type intermediate casing set at 7,397 ft in a 9-1/2 in. hole with the following casing weights:  
 surface-30 ft: 33.7#  
 30 ft-3,828 ft: 26.4#  
 3,828 ft-7,397 ft: 33.7#  
 and confirmed top of cement is at 4,080 ft and cemented with with 135 sacks of 35/65 POZ Mix and 150 sacks of Class A

4-1/2 in. N80, 11.6#, 8rd LT&C thread type injection zone casing set at 8,335 ft with a top of liner at 7,300 ft in an 6-1/8 in. hole and cemented to top liner with 90 sacks of 50/50 POZ cement.

04/18/2014

Not to Scale

DESIGNED BY MD	<b>Battelle</b>		
DRAWN BY LC	<b>Mountaineer MW-3 - As Built Schematic</b>		
CHECKED BY MD	NEW HAVEN, WEST VIRGINIA		
	PROJECT 100040642	FILE ASBUILT_MONITORING_MW3_PLUG03.CDR	DATE 01/14

\*Tops were not selected in portions of the well that lacked open hole wireline logging data. Tops are based off of AEP2 data.

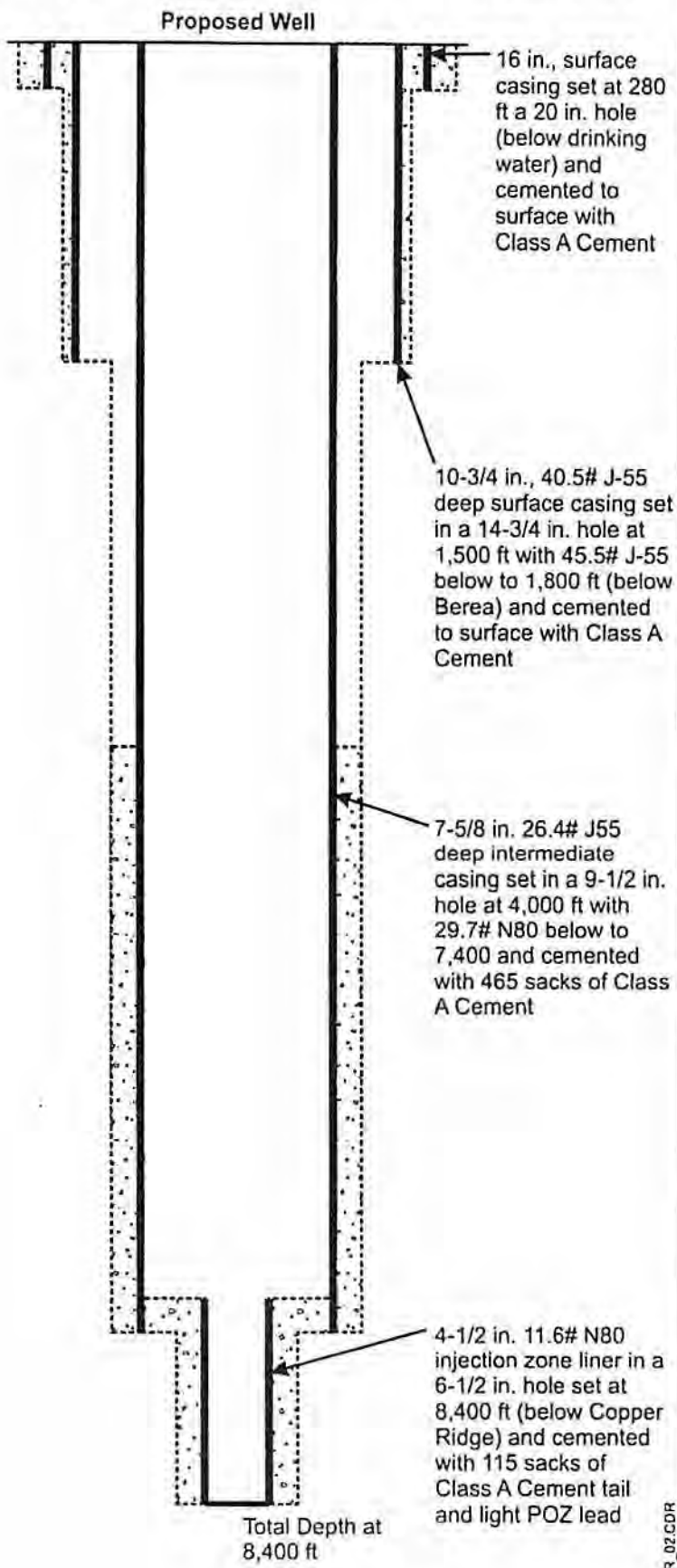
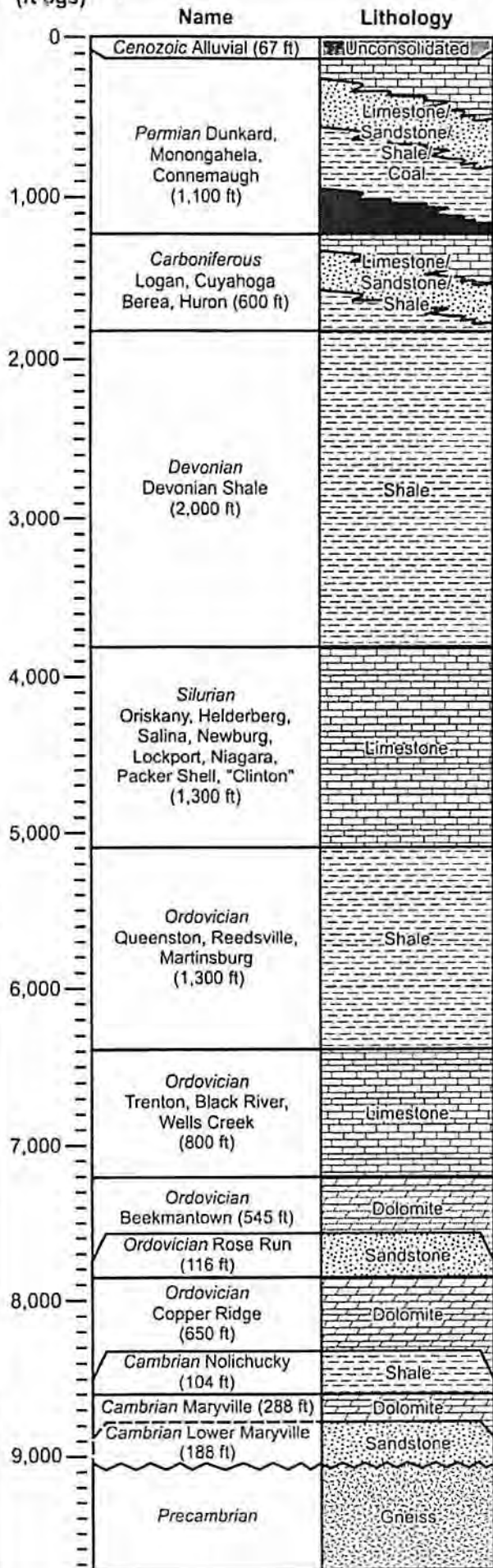
5300491P



# MW-3 - Mountaineer, Variation

5300491 P

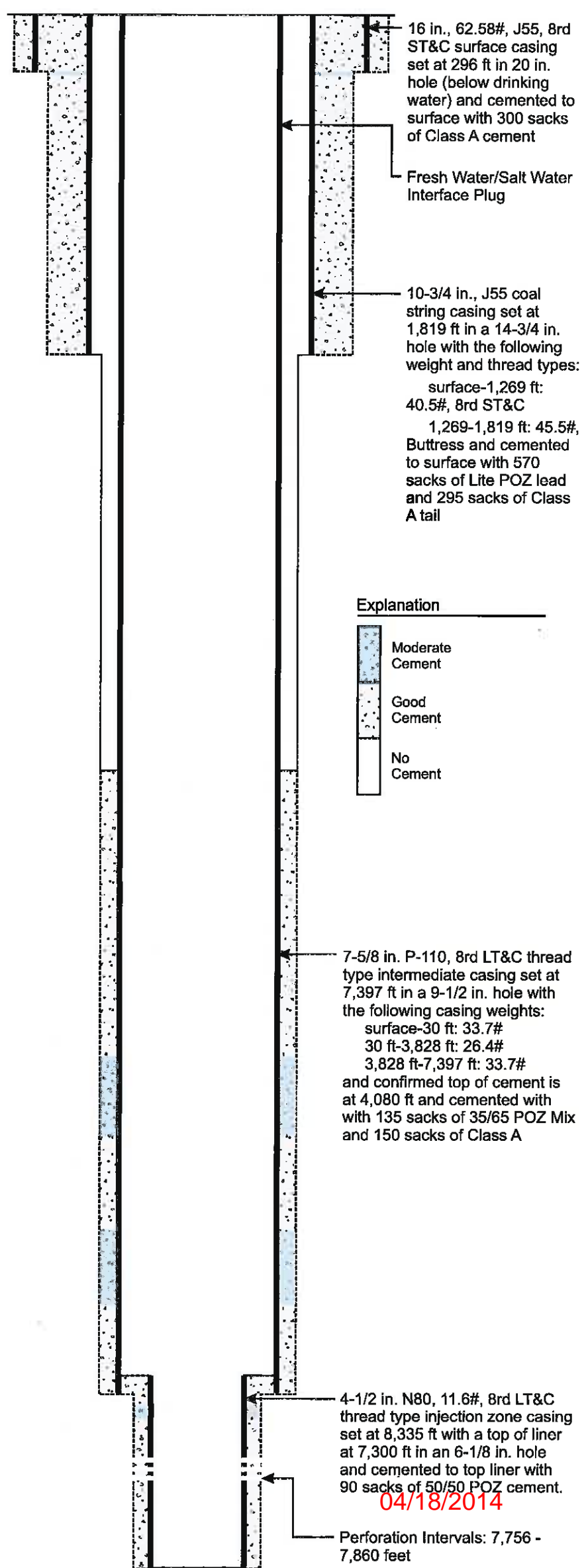
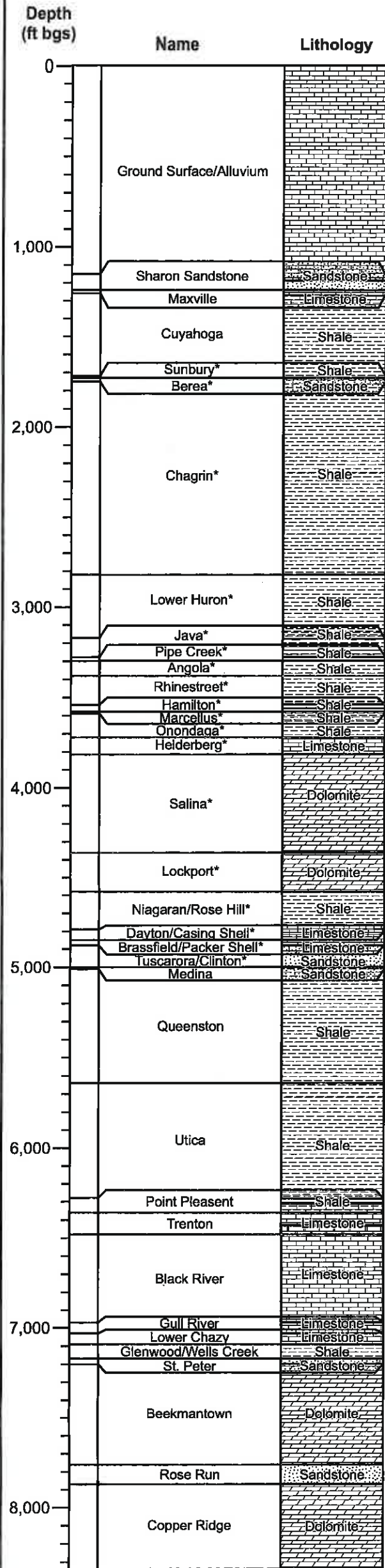
Depth (ft bgs)



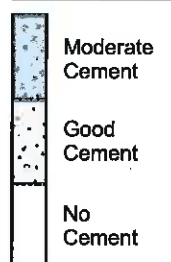
Not to Scale



**MW-3 - MOUNTAINEER, AS BUILT**



**Explanation**



Total Depth at 8,335 ft

Not to Scale

DESIGNED BY MD	<b>Battelle</b>		
DRAWN BY LC	<b>Mountaineer MW-3 - As Built Schematic</b>		
CHECKED BY MD	NEW HAVEN, WEST VIRGINIA		
	PROJECT 100040642	FILE ASBUILT_MONITORING_MW3.CDR	DATE 01/14

9,000  
RECEIVED  
APR 27 2014  
MW Department of Environmental Protection  
\*Tops were not selected in portions of the well that lacked open hole wireline logging data. Tops are based off of AEP2 data.

5300411 P

WW-4A  
Revised 6-07

1) Date: \_\_\_\_\_  
2) Operator's Well Number  
MW-3 \_\_\_\_\_  
3) API Well No.: 47 - 530 - 0491

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

<b>4) Surface Owner(s) to be served:</b>	<b>5) (a) Coal Operator</b>
(a) Name <u>Appalachian Power Company dba American Electric Power</u>	Name <u>No coal interests with declaration</u>
Address <u>Electric Power</u>	Address _____
<u>c/o American Electric Power Land Management</u>	_____
(b) Name <u>1 Riverside Plaza - 18th Floor</u>	<b>(b) Coal Owner(s) with Declaration</b>
Address <u>Columbus, OH 43215</u>	Name <u>No coal interests with declaration</u>
_____	Address _____
(c) Name _____	Name _____
Address _____	Address _____
_____	_____
<b>6) Inspector</b> <u>James Stevens</u>	<b>(c) Coal Lessee with Declaration</b>
Address <u>HC 82, Box 1C</u>	Name <u>No coal interests with declaration</u>
<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.



**LYNNE KAY BROUSSARD**  
**NOTARY PUBLIC**  
**STATE OF OHIO**  
**Comm. Expires**  
**January 05, 2014**  
**Recorded In**  
**Franklin County**

**Well Operator** Appalachian Power Company dba American Electric Power

**By:** Dean A. Berry *[Signature]*

**Its:** Manager, Real Estate Asset Manager

**Address** 1 Riverside Plaza - 18th Floor  
Columbus, OH 43215

**Telephone** 614-716-8830

Subscribed and sworn before me this 4th day of November, 2013 **RECEIVED**  
Lynne Kay Broussard Notary Public of Oil and Gas  
My Commission Expires 1-5-2014

MAR 27 2014

**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](mailto:depprivacyofficer@wv.gov).

**SURFACE OWNER WAIVER**

Operator's Well  
Number

MW-3

**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 57<sup>th</sup> 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,  
Office of Oil and Gas**

\_\_\_\_\_  
Signature

Date

Name \_\_\_\_\_  
By \_\_\_\_\_  
Its \_\_\_\_\_

Appalachian Power Company dba American Electric Power  
Date \_\_\_\_\_  
Signature *Dean A Berry* Date *11/04/2013*

04/18/2014



WW-4B

API No. 47-530-0491Farm Name AEP Mountaineer PlantWell No. MW-3

**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 X / 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: 11/04/2013Appalachian Power Company dba American Electric PowerBy: Dean A. Berry   
Its Manager, Real Estate Asset ManagerRECEIVED  
Office of Oil and Gas

MAR 27 2014

WV Department of  
Environmental Protection  
04/18/2014

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 Appalachian Power Company dba American Electric Power OP Code \_\_\_\_\_

Watershed Ohio River Quadrangle New Haven

Elevation 585.8' County 530(Mason) District Graham

Description of anticipated Pit Waste: Well brine and freshwater/cement excess

Will a synthetic liner be used in the pit? NA - tanks will be used.

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection ( UIC Permit Number \_\_\_\_\_ )
- Reuse (at API Number \_\_\_\_\_ )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain Qualified third-party hauling and disposal)

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 *Dean A. Berry*

Company Official (Typed Name) Dean A. Berry

Company Official Title Manager, Real Estate Asset Management, AEP authorized signer

Subscribed and sworn before me this 4th day of November, 2013

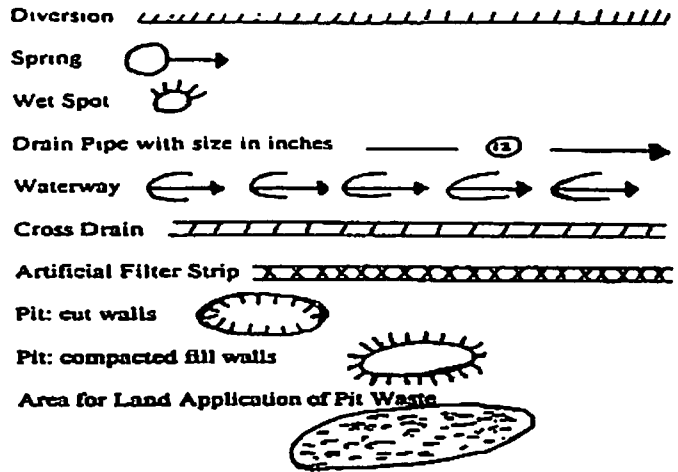
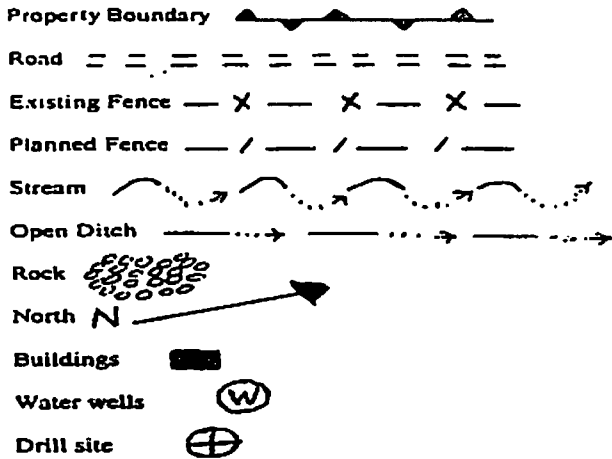
*Lynne Kay Broussard*

My commission expires 1-5-2014



RECEIVED  
Office of Oil and Gas  
LYNNE KAY BROUSSARD  
NOTARY PUBLIC  
STATE OF OHIO  
Comm. Expires  
January 05, 2014  
Recorded in  
Franklin County  
04/18/2014

LEGEND



Proposed Revegetation Treatment: Acres Disturbed none Prevegetation pH 7-8

Lime NA Tons/acre or to correct to pH NA

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

Mulch NA Tons/acre

Seed Mixtures

Seed Type	Area I	lbs/acre	Seed Type	Area II	lbs/acre
NA - work site is a gravel lot.					

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: \_\_\_\_\_

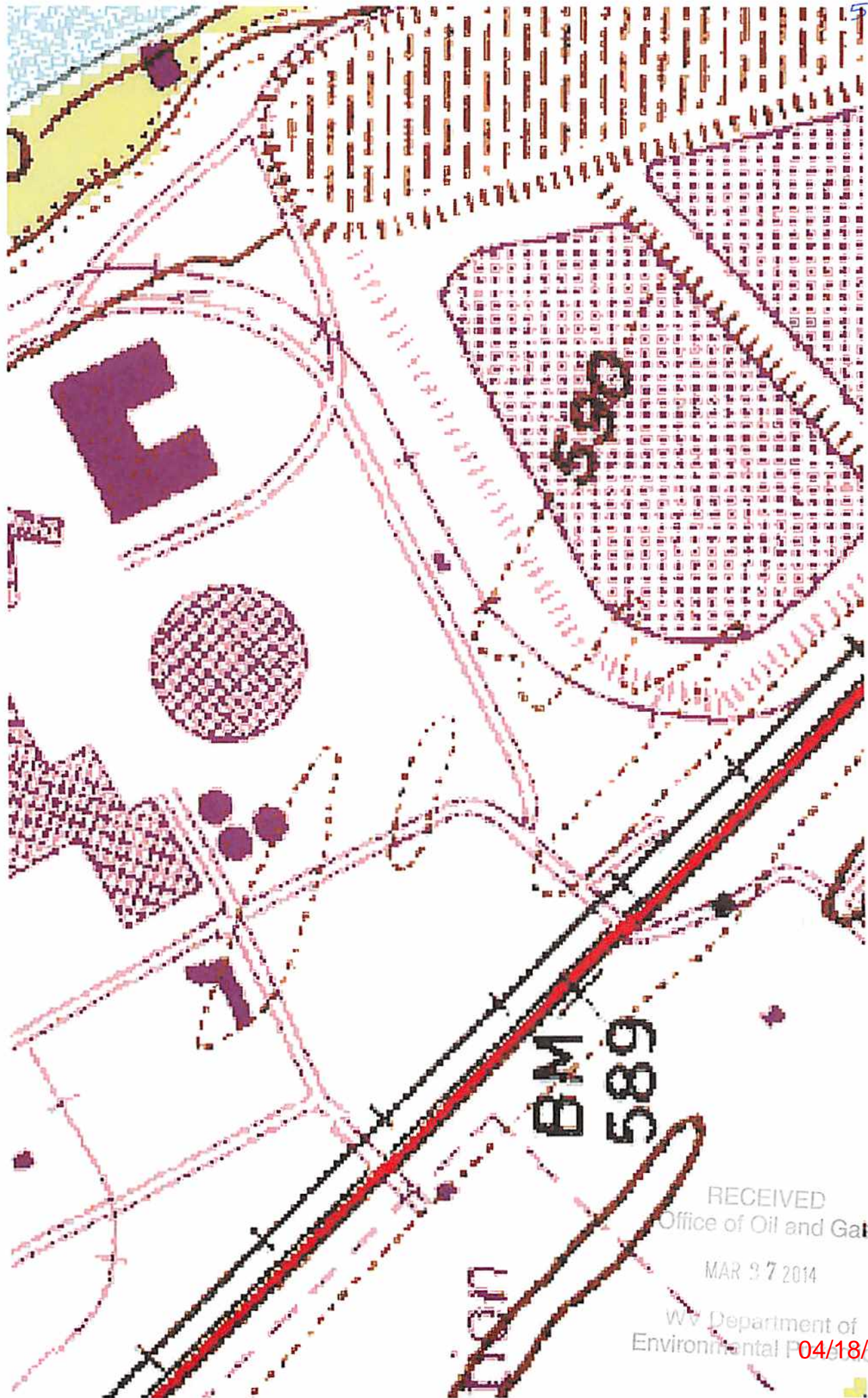
Comments: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

Field Reviewed? ( ) Yes ( ) No



5300 491 P

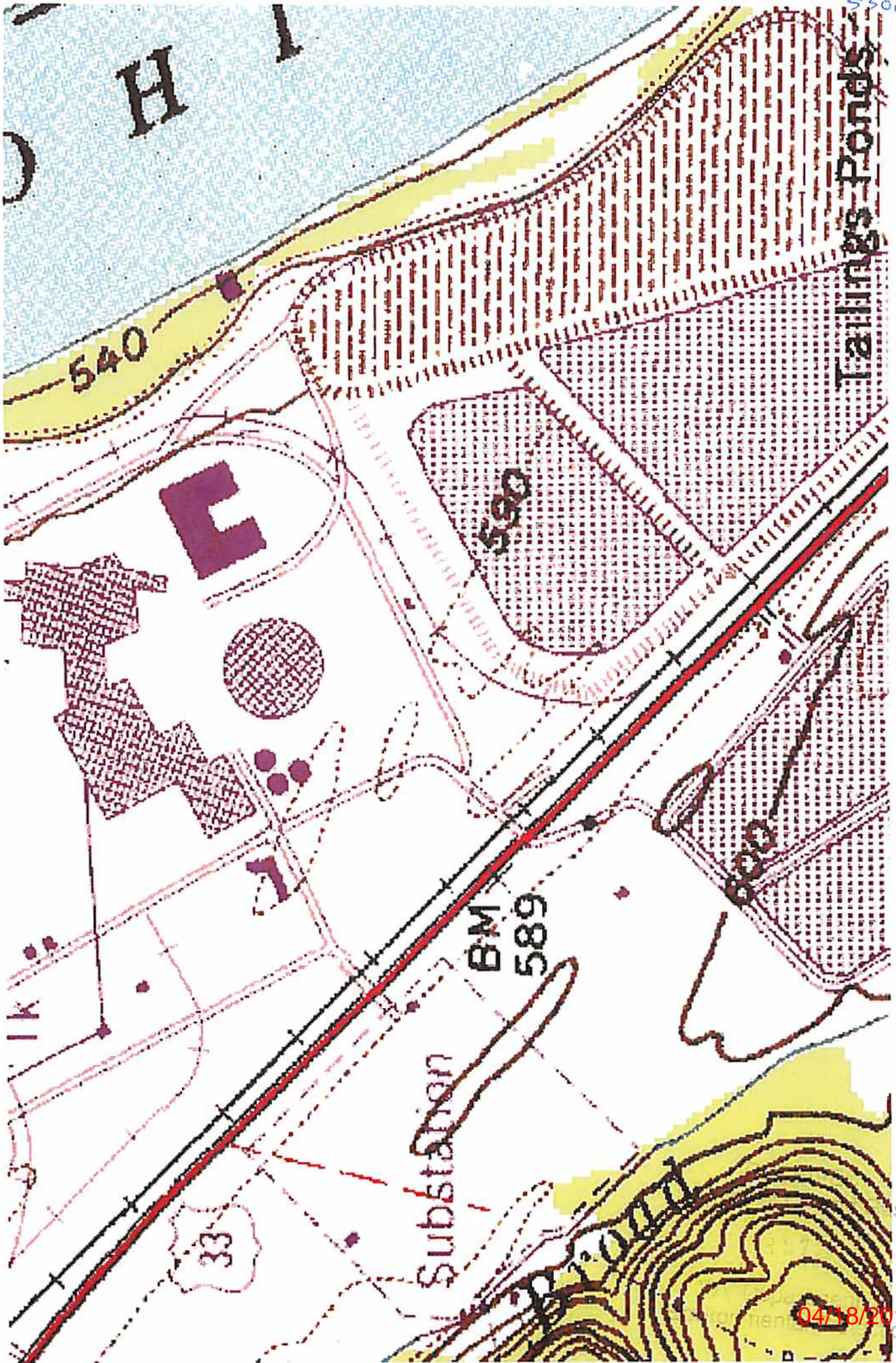


RECEIVED  
Office of Oil and Gas

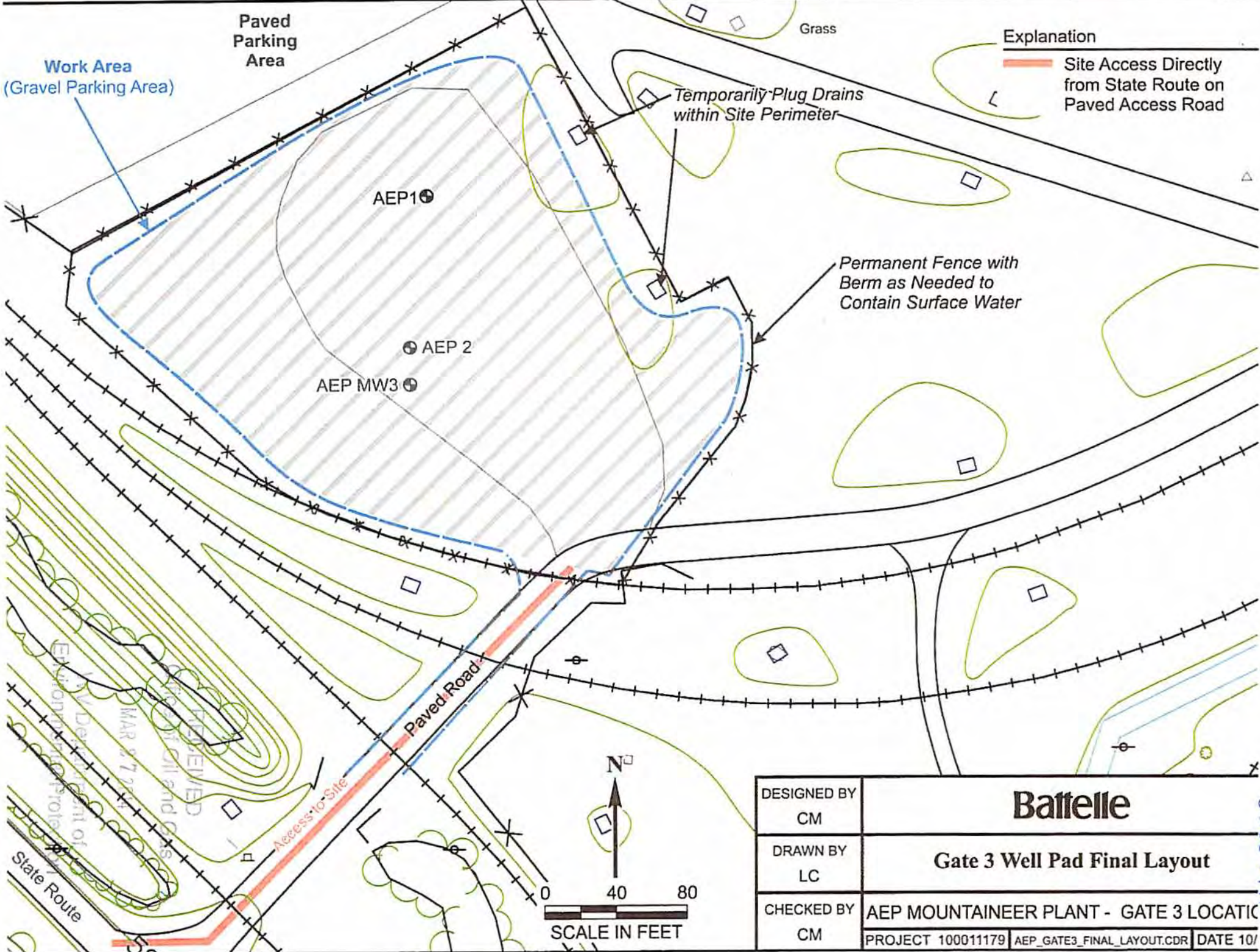
MAR 27 2014

WV Department of  
Environmental Protection 04/18/2014









**Explanation**

— Site Access Directly from State Route on Paved Access Road

Work Area  
(Gravel Parking Area)

Paved  
Parking  
Area

Temporarily Plug Drains  
within Site Perimeter

Permanent Fence with  
Berm as Needed to  
Contain Surface Water

AEP1

AEP 2

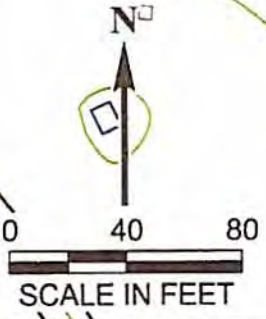
AEP MW3

Paved Road

Access to Site

State Route

Approved  
MAR 27 2014  
Project of Oil and Gas  
Development of  
Environment and  
Protection



DESIGNED BY CM	<b>Battelle</b>	
DRAWN BY LC	<b>Gate 3 Well Pad Final Layout</b>	
CHECKED BY CM	AEP MOUNTAINEER PLANT - GATE 3 LOCATIC	
	PROJECT 100011179	AEP_GATE3_FINAL_LAYOUT.CDR DATE 10/

S306491P



