



west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Friday, November 30, 2018
WELL WORK PERMIT
Horizontal 6A / New Drill

CHEVRON APPALACHIA, LLC
700 CHERRINGTON PARKWAY

CORAOPOLIS, PA 15108

Re: Permit approval for HAZLETT M12
47-051-02107-00-00

This well work permit 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 any additional specific 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.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.

James A. Martin
Chief

A blue ink signature of James A. Martin, written in a cursive style.

Operator's Well Number: HAZLETT M12
Farm Name: IRENE HAZLETT - LIFE
U.S. WELL NUMBER: 47-051-02107-00-00
Horizontal 6A New Drill
Date Issued: 11/30/2018

PERMIT CONDITIONS 4705102107

West Virginia Code § 22-6A-8(d) 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. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
9. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
10. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

API Number:

4705102107

PERMIT CONDITIONS

11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.



west virginia department of environmental protection

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

Jim Justice, Governor
Austin Caperton, Cabinet Secretary
www.dep.wv.gov

**ORDER
ISSUED UNDER
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 6A**

TO: Chevron Appalachia, LLC
P.O. Box 611
Moon Township, PA 15108

DATE: November 27, 2018
ORDER NO.: 2018-W-12

INTRODUCTION

This Order (hereinafter "Order") is issued by the Office of Oil and Gas (hereinafter "OOG"), by and through its Chief, pursuant to the authority of W. Va. Code §§ 22-1-1, 22-6-1 and 22-6A-1 *et seq.* to Chevron Appalachia, LLC (hereinafter "Operator"), collectively the "Parties."

FINDINGS OF THE CHIEF

In support of this Order, the Chief hereby finds the following:

1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 *et seq.*, and the rules and regulations promulgated thereunder.
2. Chevron Appalachia, LLC is a "person" as defined by W. Va. Code §22-6-1(n), with a corporate address as P.O. Box 611, Moon Township, Pennsylvania.
3. On August 3, 2018, Chevron Appalachia, LLC submitted well work permit applications identified as API#s 47-051-02092, 47-051-02093, 47-051-02094, 47-051-02095, 47-051-02096, 47-051-02097, 47-051-02099 and 47-051-02100. Then on August 7, 2018 Chevron Appalachia, LLC submitted well work permit applications identified as API#s 47-051-02107, 47-051-02108, 47-051-02109, 47-051-02110, 47-051-02111 and 47-051-02112. The proposed wells are to be located on the Hazlett Pad in Union District of Marshall County, West Virginia.
4. On August 3, 2018, Chevron Appalachia, LLC requested a waiver for Wetlands 1A, 3A, 3B and 4 outlined in Attachment 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit applications identified as API#s 47-051-02092, 47-051-02093, 47-051-02094, 47-051-02095, 47-051-02096, 47-051-02097, 47-051-02099, 47-051-02100, 47-051-02107, 47-051-02108, 47-051-02109, 47-051-02110, 47-051-02111 and 47-051-02112. Wetlands 1A and 4 will be excluded from this waiver because they are more than 100' from the LOD of the pad.

CONCLUSIONS OF LAW

1. West Virginia Code §22-1-6(d) requires, in part, that “[i]n addition to other powers, duties and responsibilities granted and assigned to the secretary by this chapter, the secretary is authorized and empowered to... (3) Enter private lands to make surveys and inspections for environmental protection purposes; to investigate for violations of statutes or rules which the Office of Oil and Gas is charged with enforcing; to serve and execute warrants and processes; to make arrests; issue orders, which for the purposes of this chapter include consent agreements; and to otherwise enforce the statutes or rules which the Office of Oil and Gas is charged with enforcing.”
2. West Virginia Code §22-6A-2(a)(6) requires, in part, that “Concomitant with the broad powers to condition the issuance of well work permits, the secretary should also have broad authority to waive certain minimum requirements of this article when, in his or her discretion, such waiver is appropriate: *Provided*, That the secretary shall submit a written report of the number of waivers granted to the Legislature commencing January 1, 2013, and each year thereafter.”
3. West Virginia Code §22-6A-12(b) requires, in part, that “[n]o well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the Office of Oil and Gas shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The Office of Oil and Gas may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary.”

ORDER

West Virginia Code §22-6A-12(b) requires, in part, that “[n]o well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland. The Office of Oil and Gas grants the request for a waiver for Wetlands 3A and 3B from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit applications identified as API#s 47-051-02092, 47-051-02093, 47-051-02094, 47-051-02095, 47-051-02096, 47-051-02097, 47-051-02099, 47-051-02100, 47-051-02107, 47-051-02108, 47-051-02109, 47-051-02110, 47-051-02111 and 47-051-02112. The Office of Oil and Gas hereby **ORDERS** that Chevron Appalachia, LLC shall meet the following site construction and operational requirements for the Hazlett Well Pad:

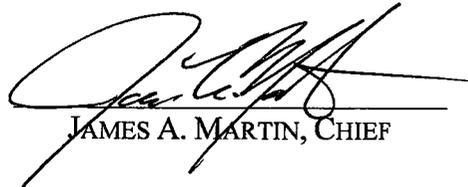
- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least twenty-four inches (24”) in height;
- b. Erosion control blankets shall be installed on all slopes and down gradient locations of the pad as erosion and sediment controlling BMPs;
- c. Wetland 3A shall have both a compost filter sock trap and a layer of thirty two-inch (32”) compost filter sock to prevent any sediment from reaching the wetland from the well pad. This along with temporary and permanent vegetative cover will prevent sediment from reaching the wetland.
- d. Wetland 3B shall have two layers of eighteen-inch (18”) compost filter sock to prevent any sediment from reaching the wetland from the well pad. This along with temporary and permanent vegetative cover will prevent sediment from reaching the wetland.
- e. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- f. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill;
- g. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- h. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- i. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs;
- j. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½”) rain within any twenty-four (24) hour period;
- k. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies;
- l. All records from inspections shall be maintained on site for the life of the project and be available upon request.

Thus ORDERED, the 27th day of November, 2018.

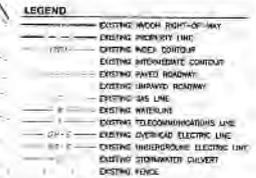
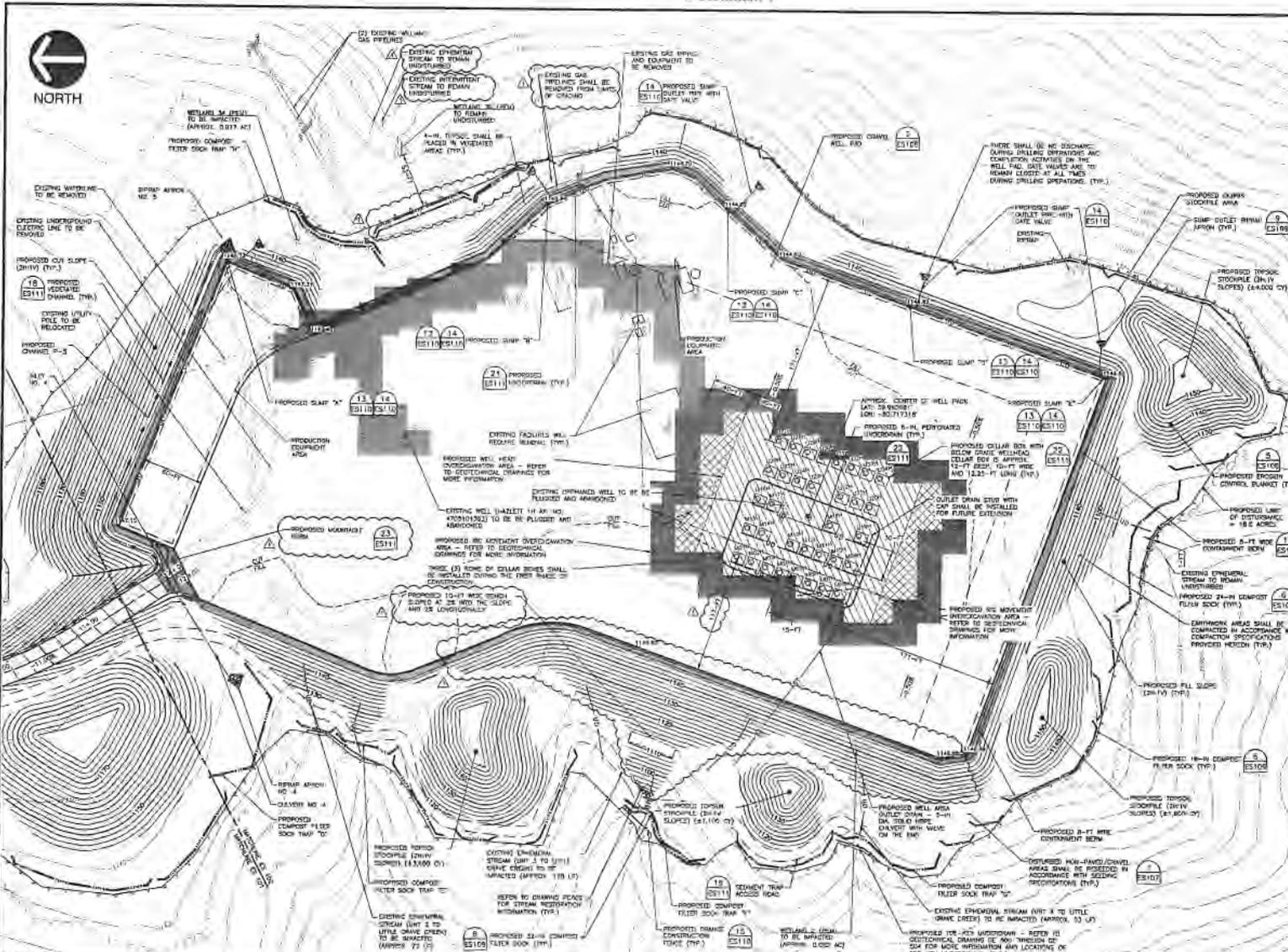
IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

By:



JAMES A. MARTIN, CHIEF



REVISION RECORD

NO.	DATE	DESCRIPTION
1	11/08/17	ISSUE FOR PERMITS
2	11/08/17	ISSUE FOR PERMITS
3	11/08/17	ISSUE FOR PERMITS
4	11/08/17	ISSUE FOR PERMITS
5	11/08/17	ISSUE FOR PERMITS
6	11/08/17	ISSUE FOR PERMITS

STREAM AND WETLAND NOTES

1. WETLAND HAZARD AREAS ARE BEING REQUESTED FOR THE FOLLOWING FOUR (4) LOCATIONS THAT ARE LOCATED WITHIN 100-FT OF THE LIMIT OF DISTURBANCE AND ARE PARTIALLY PERMANENTLY IMPACTED.
2. THE FOLLOWING FOUR (4) WETLANDS AND (1) TEMPORAL STREAM ARE LOCATED WITHIN THE LIMIT OF DISTURBANCE AND ARE SUBJECT TO THE USACE HAZARD RISK ASSESSMENT FOR PERMANENT IMPACTS. WETLAND 1A, 1B, 2, 2A AND STREAMS 1, 2, 3 AND 4 ARE TO BE LITTLE OR NO IMPACT.
3. THE STREAMS SHOWN HEREON OUTSIDE THE LIMIT OF DISTURBANCE ARE TEMPORAL OR PERMANENT AS SUCH. A HAZARD IS NOT BEING REQUESTED FOR PERMANENT STREAMS.
4. TEMPORAL STREAMS HEREON ARE WEATHERED FROM THE EDGE OF THE WETLAND TO THE PROPOSED LIMIT OF DISTURBANCE.

COMPACTION SPECIFICATIONS

1. PLACE SIX (6) INCHES THICK LAYER OF COMPACTED EQUIPMENT (CE) GRAVEL THROUGHOUT THE ENTIRE PROJECT AREA NOT EXCEEDING 12 INCHES THICK. USE A REDUCED LOSS LIMIT PRODUCE TO 4 INCHES (MAXIMUM) IN AREAS WHERE STABILIZED CHANNELS OR OTHER HARD-CREATED FILL AREAS WOULD BE HEAVY. MAXIMUM PARTICLE SIZE SHOULD NOT EXCEED 8 INCHES IN STRUCTURAL FILL AREAS. HEAVY, SELF-PROPELLED COMPACTORS ARE REQUIRED. A REDUCED MAXIMUM PARTICLE SIZE OF 3 INCHES SHOULD BE USED IN AREAS WHERE HAND-CREATED COMPACTORS ARE USED. WHERE OVERSIZED PARTICLES (EXCEEDING THE MAXIMUM PARTICLE SIZE INDICATED ABOVE) OCCUR IN THE PROPOSED FILL AREAS OR IN DEEPEST AREAS OF FILL, OVERSIZED ROCK PARTICLES OR MATERIALS EXCEEDING 8 INCHES SHOULD BE PLACED IN THE DEEPEST UNITS OF FILL. FILL SHOULD BE PLACED IN SEVERAL PASSES USING HEAVY COMPACTATION EQUIPMENT.
2. COMPACT ALL FILL AND ROADWAY SUBGRADE AND EACH LIFT OF FILL MATERIAL TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY WITH A MINIMUM OF 90 PERCENT OF THE OPTIMUM MOISTURE CONTENT. OBTAIN MAXIMUM DRY DENSITY THROUGH MOISTURE DENSITY CHART IN ACCORDANCE WITH ASTM D1557 (STANDARD PRACTICE).

REFERENCES

1. STREAMS AND WETLANDS DELINEATED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 05/13/2017
2. UNDERPINNING UTILITIES LOCATED BY A GEOTECHNICAL SURVEY CONDUCTED BY THE GEOTECHNICAL LTD. DATED 03/17/2017 TO 03/23/2017.
3. INFORMATION WITHIN THE PROJECT AREA AND MARKED UTILITY FEATURES SUPPLIED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 03/23/2017 TO 03/30/2017 AND 03/23/2017 TO 03/23/2017. INFORMATION OUTSIDE OF THE PROJECT AREA IS SUPPLEMENTED WITH WEST VIRGINIA ZONING ORD. 2003.
4. HIGHEST BOUNDARIES WERE PROVIDED BY D-30000.

MISS UTILITY OF WEST VIRGINIA
 1-800-245-4848
 West Virginia State Law
 (GAS) 19-17 Chapter 24-2 requires that you call before digging any trench, hole or pit in the walls of main streets.
IT'S THE LAW

Civil & Environmental Consultants, Inc.
 1400 Temple Lane, Suite 200 • Exeter, PA 17026
 717-337-6200 • 800-896-1510
 www.civilenv.com

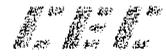


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6	11/08/17	ISSUE FOR PERMITS

HAZLETT WELL PAD
 HAZLETT DISTRICT
 MARSHALL COUNTY, WEST VIRGINIA
 PREPARED FOR
CHEVRON APPALACHIA, LLC
 700 CHEBRINGTON PARKWAY
 CORAOPOLIS, PA 15108

EROSION AND SEDIMENT CONTROL PLAN (2 OF 2)
 Project Number: 15-0750
 Drawing Scale: 1"=50'
 Date Issued: 05/03/2017
 Model Number:
 Drawn By: RBS
 Checked By: JMT
 Project Manager: KLE



May 3, 2018

West Virginia Department of Environmental Protection
Office of Oil and Gas
601 57th Street
Charleston, West Virginia 25304

Dear Reviewer:

Subject: Wetland Waiver Request
Chevron Appalachia, LLC
Hazlett Well Pad Project
Union District, Marshall County, West Virginia
CEC Project 164-755

1.0 INTRODUCTION

On behalf of Chevron Appalachia, LLC (Chevron), Civil & Environmental Consultants, Inc. (CEC) is submitting a Wetland Waiver Request pursuant to Chapter 22 Article 6A Section 12 of the West Virginia Code. Chevron is requesting a waiver to construct a natural gas well pad within 100 feet of three palustrine emergent wetlands and one palustrine scrub-shrub wetland for their proposed Hazlett Well Pad Project located in Union District, Marshall County, West Virginia.

Chevron is proposing to expand an existing natural gas well pad and widen the associated existing access road. The total limit of disturbance (LOD) for the project is approximately 18 acres. The waiver request form is included in Attachment A. The following figures are included in Attachment B: Site Location Map, Aquatics Impact Map, and Wetland Waiver Request Figure. The Erosion & Sediment Control (E&S) Plan is included in Attachment C. Existing wetlands and streams were delineated by qualified CEC biologists on May 23, 2017. The following section provides additional information as required by the waiver.

2.0 WETLAND WAIVER REQUEST

Question 1: Describe the proposed project location, including unique identifying names of all wetlands, and the names of perennial streams for which the waiver is sought.

The proposed Hazlett Well Pad Project is located off Grandview Road/WV-86 in Union District, Marshall County, West Virginia, east of the city of Glen Dale, as shown on the Site Location Map. The project's proposed LOD is located within 100 feet of three palustrine emergent wetlands and one palustrine scrub-shrub wetland, as shown on the Aquatic Impacts Map. The approximate distance of each wetland to the nearest boundary of the LOD is as follows:

- Wetland 1A – 0 linear feet; ^h
- Wetland 3A – 0 linear feet;
- Wetland 3B – 53 linear feet; and
- Wetland 4 – 1 linear foot. ^x

No perennial streams are located within 100 feet of the project LOD. A waiver is not being requested for the Wetlands 1B and 2 which are located entirely within the LOD. Chevron is requesting authorization from the U.S. Army Corps of Engineers (USACE) for impacts to these wetlands, impacts to the portions of Wetlands 1A and 3A within the LOD, and for impacts to three ephemeral unnamed tributaries to Little Grave Creek. A copy of the Application for Department of the Army Permit is included in Attachment D.

Question 2: Justify the proposed activity by describing alternatives to this project that were considered.

- a. Include a No-Action Alternative as to show “the future without the project”.*

The No-Action alternative represents “no alteration” of the existing environment, meaning the well pad and access road would not be expanded and no immediate environmental impacts would occur. Natural gas extraction would not occur at this site, and Chevron would be required to find an alternative site. This option is highly undesirable and would not fulfill the project’s purpose and need.

- b. Location alternatives must be shown.*

Due to the size of the proposed well pad, the steep topography of the surrounding area, and the location of the subsurface coal boundary, the current location of the proposed Hazlett Well Pad is the primary location desired by Chevron. Further, this project expands an existing well pad and access road. Siting the proposed well pad at an alternative location will likely result in additional earth and vegetation disturbance. Minor adjustments to the dimensions of the proposed well pad were made during the conceptual planning phase of the project; however, the current location of the well pad has remained unchanged due to the limitations listed above. The size of the well pad is optimized for the extraction and production equipment that will be set on the well pad. As such, minimizing the dimensions of the well pad beyond the dimensions provided is not feasible. The location of the well pad and LOD are shown on Figure 3 – Wetland Waiver Request Figure provided in Attachment B.

c. Must demonstrate why a one hundred foot buffer cannot be maintained.

Maintaining a 100-foot buffer from all on-site wetlands is not feasible due to topographic constraints and locations of the existing features. Two of the wetlands are located on the southwest side of the access road and two of the wetlands are located on the eastern side of the well pad. If the access road was shifted northeast, it would result in significantly more earth disturbance due to the steep topography. Similarly, if the well pad was shifted west to avoid the two wetlands, additional permanent stream impacts would occur on the western side of the pad.

The other alternative to meet the setback requirements would be a reduction in the project's footprint; however, the proposed design represents the minimum footprint required to meet the project's purpose and need. A reduction in the well pad's limits would mean the project could not be developed.

d. Describe how the proposed project is the least environmentally damaging practicable alternative.

The proposed Hazlett Well Site design represents the alternative which reduces permanent impacts to the greatest degree practicable. Shifting the proposed well pad east or west would create higher fill slopes and result in more disturbance to existing streams and wetlands.

Question 3: Identify sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect waters of the state. This description should include all additional erosion and sediment control measures and devices that will be used.

As part of the well pad permitting process, an E&S Plan has been prepared for the Hazlett Well Pad project which stipulates implementations to reduce soil erosion, compaction, and sedimentation of receiving streams and wetlands. The following measures will be implemented as part of the E&S Plan to protect the existing wetlands and streams:

- Compost filter sock traps will be positioned downslope of larger drainage areas and upslope of the existing wetlands and/or ephemeral streams;
- Compost filter socks will be positioned downslope of smaller drainage areas and upslope of the existing wetlands and/or ephemeral streams;
- Orange construction fence will be erected along the edge of the LOD to clearly mark and help protect the wetlands from being impacted during construction operations;

- Erosion control blanket will be placed on slopes greater than 3 Horizontal to 1 Vertical (3H:1V) to limit erosion and promote vegetative growth;
- Riprap aprons will be constructed at the outfalls of pipes to dissipate runoff;
- Disturbed areas within the LOD shall be stabilized within 21 days of construction activity temporarily or permanently ceasing; and
- One ephemeral stream (UNT 3 to Little Grave Creek) located within the LOD will be realigned and restored to approximate original dimensions downgradient of the proposed fill slope toe-key outlet drain and lined with riprap.

Question 4: Provide mapping, plans, specifications and design analysis for the preferred alternative to the project.

- a. Specify in writing what additional controls, measures, devices, monitoring, etc. will be used to protect wetlands and/or perennial streams for which the waiver is sought.*

Refer to the E&S Plan and details in Attachment C for locations of erosion control measures, specifications on installation and maintenance requirements, and the construction sequence.

3.0 CLOSING

We appreciate your review of this Wetland Waiver Request. Please contact Mallory Owens at 724-327-5200 or mowens@cecinc.com if you have any questions or require additional information.

Respectfully submitted,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC



Sarah V. Parker
Assistant Project Manager



Mallory A. Owens, M.S.
Project Manager

SVP:MAO/jg/hm
Enclosures

cc: Jenny Hayes, Chevron Appalachia, LLC (PDF only)

L-164755.May3/P

ATTACHMENT A

WETLAND AND PERENNIAL STREAM WAIVER REQUEST FORM

11/3/14

Wetland and Perennial Stream Waiver Request

API Number: _____

Operator's Well Number: _____

Well Operator: Chevron Appalachia, LLC

Well Number: _____ Well Pad Name: Hazlett Well Pad

County, District, Quadrangle of Well Location: Marshall County, Union District, Moundsville Quad

Answer the questions below to request a waiver from West Virginia Department of Environmental Protection for any wetlands or perennial streams which lie within one hundred feet of proposed project Limit of Disturbance (LOD), which includes any erosion and sediment control devices to be used.

This waiver shall be requested pursuant to Chapter 22 Article 6A Section 12 of West Virginia Code, which states:

§22-6A-12(b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows:

- (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir.
- (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake.
- (3) For a groundwater source, the distance shall be measured from the wellhead or spring.

The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary.

§22-6A-12(c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section.

11/3/14

Wetland and Perennial Stream Waiver Request

API Number: _____

Operator's Well Number: _____

Answer in the space provided, or use additional pages as necessary to fully answer the questions below:

- 1. Describe the proposed project location, including unique identifying names of all wetlands, and the names of perennial streams for which the waiver is sought.**

Please refer to Section 2.0, Question 1 of the letter.

- 2. Justify the proposed activity by describing alternatives to this project that were considered.**

- a. Include a No-Action Alternative as to show "the future without the project"
- b. Location Alternatives must be shown
- c. Must demonstrate why a one hundred foot buffer cannot be maintained
- d. Describe how the proposed project is the least environmentally damaging practicable alternative

Please refer to Section 2.0, Question 2 of the letter.

11/3/14

Wetland and Perennial Stream Waiver Request

API Number: _____

Operator's Well Number: _____

- 3. Identify sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. This description should include all additional erosion and sediment control measures and devices that will be used.**

Please refer to Section 2.0, Question 3 of the letter.

- 4. Provide mapping, plans, specifications and design analysis for the preferred alternative to the project.**

- a. Specify in writing what additional controls, measures, devices, monitoring, etc. will be used to protect these wetlands and/or perennial streams for which the waiver is sought.

Please refer to Section 2.0, Question 4 of the letter.

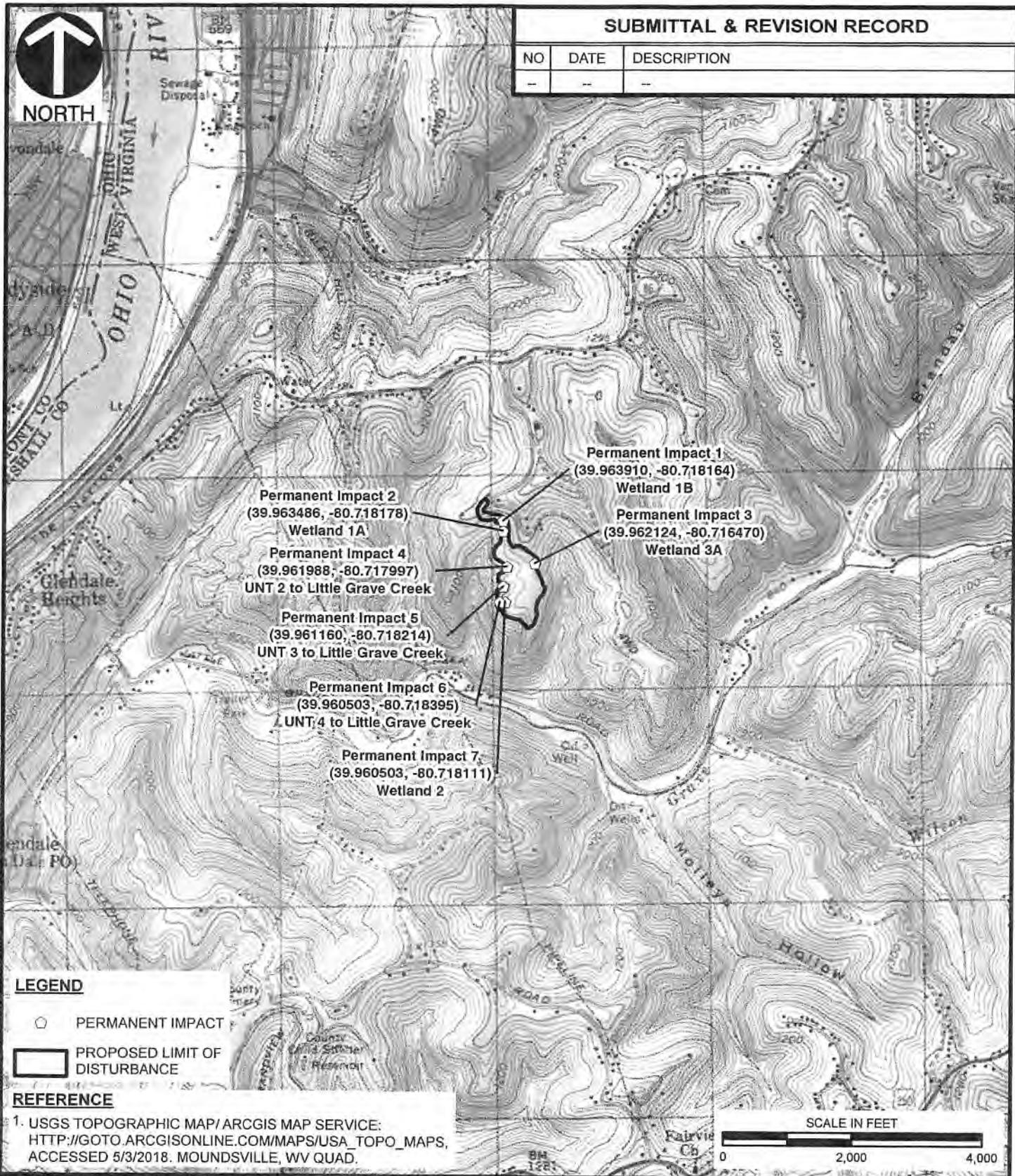
ATTACHMENT B
FIGURES



NORTH

SUBMITTAL & REVISION RECORD

NO	DATE	DESCRIPTION
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Permanent Impact 2
(39.963486, -80.718178)
Wetland 1A

Permanent Impact 4
(39.961988, -80.717997)
UNT 2 to Little Grave Creek

Permanent Impact 5
(39.961160, -80.718214)
UNT 3 to Little Grave Creek

Permanent Impact 6
(39.960503, -80.718395)
UNT 4 to Little Grave Creek

Permanent Impact 7
(39.960503, -80.718111)
Wetland 2

Permanent Impact 1
(39.963910, -80.718164)
Wetland 1B

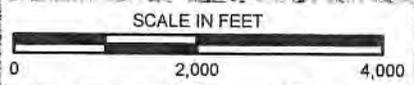
Permanent Impact 3
(39.962124, -80.716470)
Wetland 3A

LEGEND

- PERMANENT IMPACT
- PROPOSED LIMIT OF DISTURBANCE

REFERENCE

1. USGS TOPOGRAPHIC MAP/ ARCGIS MAP SERVICE:
[HTTP://GOTO.ARCGISONLINE.COM/MAPS/USA_TOPO_MAPS](http://gto.arcgis.com/maps/usa_topo_maps),
ACCESSED 5/3/2018. MOUNDSVILLE, WV QUAD.



Civil & Environmental Consultants, Inc.

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www.cecinc.com

CHEVRON APPALACHIA, LLC
HAZLETT WELL PAD
UNION DISTRICT,
MARSHALL COUNTY, WEST VIRGINIA

SITE LOCATION MAP

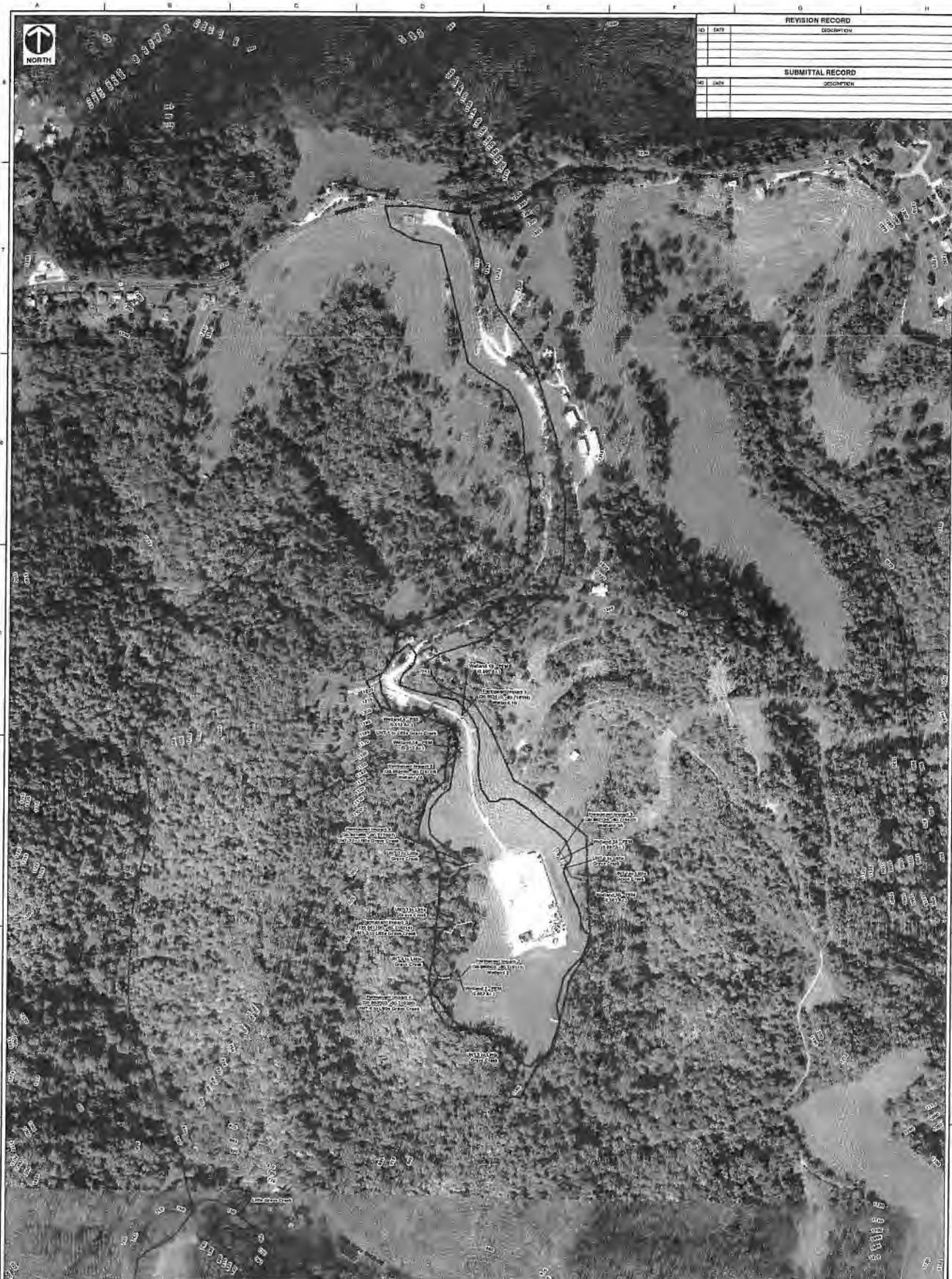
DRAWN BY:	KMC	CHECKED BY:	SVP	APPROVED BY:	PAK*	FIGURE NO:	1
DATE:	05/03/2018	SCALE:	1" = 2,000'	PROJECT NO:	164-755	<small>*Hand signature on file</small>	

P:\2018\164-755-GIS\Maps\EC05 NWPV\164755_EC05_FIG 1 SITE LOC MAP.mxd 5/3/2018 8:33 AM (kcolajzj)



REVISION RECORD	
ID	DESCRIPTION

SUBMITTAL RECORD	
ID	DESCRIPTION



LEGEND

	PERMANENT IMPACT		WETLAND CONTAINED BEYOND DELINEATION BOUNDARY
	PROPOSED STREAM IMPACT		PROPOSED WETLAND IMPACT
	EPHEMERAL STREAM		WETLAND - PFM
	INTERMITTENT STREAM		WETLAND - PMS
	WW AND STREAM		PROPOSED LIMIT OF DISTURBANCE
			DELINEATION BOUNDARY
			INDEX CONTOUR

- REFERENCES**
1. USGS NATIONAL HYDROGRAPHY DATASET FOR WEST VIRGINIA 2012.
 2. WVDG CLEFFING HOUSE 19 CONTOURS MONROEVILLE, WV QUAD 2020
 3. ESRI WORLD IMAGERY / AERIALS MAP SERVICE: [HTTP://GO10.ARCGIS.COM](http://go10.arcgis.com) MAPS; WORLD IMAGERY ACQUIRED 8/9/2016. IMAGE DATE: 2015.

- NOTES**
1. THE WETLAND AND STREAM DELINEATION WAS CONDUCTED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. ON 05/23/2017
 2. CIVIL & ENVIRONMENTAL CONSULTANTS, INC. CONDUCTED THE WETLAND DELINEATION IN A MANNER CONSISTENT WITH THE CRITERIA CONTAINED IN THE 1987 U.S. ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL (1987 MANUAL) AND THE 2012 REGIONAL SUPPLEMENT TO THE MANUAL (2012 REGIONAL SUPPLEMENT), AND WITH THE LEVEL OF CARE AND BOLL ORDINARILY EXERCISED BY MEMBERS OF THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL, EASTERN MOUNTAINS AND Piedmont Region, Version 2.0 (2012 Regional Supplement), and with the ENVIRONMENTAL CONSULTING PROFESSION PRACTICING COMPETENCE UNDER SIMILAR CONDITIONS IN THE LOCALITY OF THE PROJECT. IT MUST BE RECOGNIZED THE WETLAND DELINEATION WAS BASED ON FIELD OBSERVATIONS AND CIVIL & ENVIRONMENTAL CONSULTANTS' PROFESSIONAL INTERPRETATION OF THE CRITERIA IN THE 1987 MANUAL AND THE 2012 REGIONAL SUPPLEMENT. WETLAND DETERMINATIONS MAY CHANGE SUBSEQUENT TO CIVIL & ENVIRONMENTAL CONSULTANTS' DELINEATION BASED ON CHANGES TO REGULATORY CRITERIA, CHANGES TO DRAINAGE AND OTHER HUMAN ACTIVITIES AND/OR LAND DISTURBANCES.



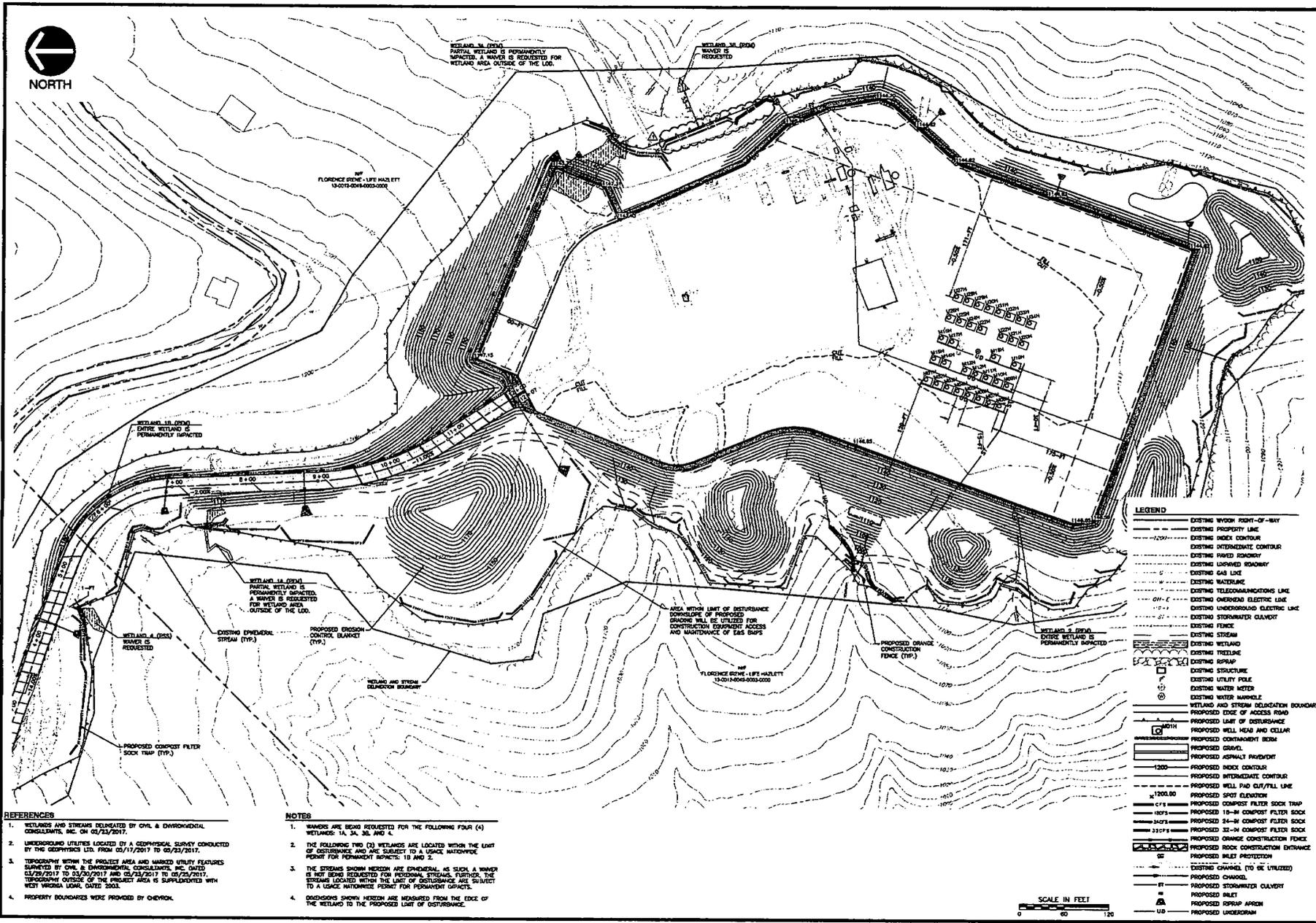
CEC
Civil & Environmental Consultants, Inc.
 4000 Hanger Lane, Suite 300, Exton, PA 19341
 Ph: 717-237-8500 • 800-926-9610
www.cecinc.com

CHEVRON APPALACHIA, LLC
HAZLETT WELL PAD
UNION DISTRICT,
MARSHALL COUNTY, WEST VIRGINIA

DRAWN BY: KMC CHECKED BY: SWP APPROVED BY: PKC
 DATE: 06/03/2018 SCALE: 1" = 200' PROJECT NO: 164736
 FIGURE NO: 2
 SHEET 1 OF 1

AQUATIC IMPACTS MAP

© 2018 CIVIL & ENVIRONMENTAL CONSULTANTS, INC. ALL RIGHTS RESERVED. WETLAND DELINEATION MAP FOR CHEVRON APPALACHIA, LLC HAZLETT WELL PAD, UNION DISTRICT, MARSHALL COUNTY, WEST VIRGINIA.

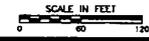


- REFERENCES**
1. WETLANDS AND STREAMS DELINEATED BY ONE & ENVIRONMENTAL CONSULTANTS, INC. ON 01/21/2017.
 2. UNDERGROUND UTILITIES LOCATED BY A GEOPHYSICAL SURVEY CONDUCTED BY THE GEOPHYSICS LTD. FROM 05/17/2017 TO 05/25/2017.
 3. TOPOGRAPHY WITHIN THE PROJECT AREA AND HAZZLETT WELLY FEATURES SURVEYED BY ONE & ENVIRONMENTAL CONSULTANTS, INC. DATED 02/29/2017 TO 03/30/2017 AND 02/23/2017 TO 02/24/2017. TOPOGRAPHY OUTSIDE OF THE PROJECT AREA IS SUPPLEMENTED WITH WEST VIRGINIA LOCAL, DATED 2003.
 4. PROPERTY BOUNDARIES WERE PROVIDED BY CHEVRON.

- NOTES**
1. WAIVERS ARE BEING REQUESTED FOR THE FOLLOWING FOUR (4) WETLANDS: 1A, 3A, 3B AND 4.
 2. THE FOLLOWING TWO (2) WETLANDS ARE LOCATED WITHIN THE LIMIT OF DISTURBANCE AND ARE SUBJECT TO A LOUCC NATIONAL WIDE PERMIT FOR PERMANENT IMPACTS: 1B AND 2.
 3. THE STREAMS SHOWN HEREON ARE ENHANCED AS SUCH A WAIVER IS NOT BEING REQUESTED FOR PROGRAM, STRINGS, FURTHER, THE STREAMS LOCATED WITHIN THE LIMIT OF DISTURBANCE ARE SUBJECT TO A LOUCC NATIONAL WIDE PERMIT FOR PERMANENT IMPACTS.
 4. DISBURSERS SHOWN HEREON ARE MEASURED FROM THE EDGE OF THE WETLANDS TO THE PROPOSED LIMIT OF DISTURBANCE.

LEGEND

---	EXISTING WOOD RIGHT-OF-WAY
---	EXISTING PROPERTY LINE
---	EXISTING INDEX CONTOUR
---	EXISTING INTERMEDIATE CONTOUR
---	EXISTING PAVED ROADWAY
---	EXISTING UNPAVED ROADWAY
---	EXISTING GAS LINE
---	EXISTING WATERLINE
---	EXISTING TELECOMMUNICATIONS LINE
---	EXISTING OVERHEAD ELECTRIC LINE
---	EXISTING UNDERGROUND ELECTRIC LINE
---	EXISTING STORMWATER CULVERT
---	EXISTING FENCE
---	EXISTING STREAM
---	EXISTING WETLAND
---	EXISTING TIELINE
---	EXISTING BR/APP
---	EXISTING STRUCTURE
---	EXISTING UTILITY POLE
---	EXISTING WATER METER
---	EXISTING WATER MANNHOLE
---	WETLAND AND STREAM DELINEATION BOUNDARY
---	PROPOSED EDGE OF ACCESS ROAD
---	PROPOSED LIMIT OF DISTURBANCE
---	PROPOSED WELL HEAD AND CELLAR
---	PROPOSED CONTAINMENT BERM
---	PROPOSED BRAGEL
---	PROPOSED SPH/SLT PILE/POST
---	PROPOSED INDEX CONTOUR
---	PROPOSED INTERMEDIATE CONTOUR
---	PROPOSED WELL PAD CUT/FILL LINE
---	PROPOSED SPOT ELEVATION
---	PROPOSED COMPOST FILTER SOCK TRAP
---	PROPOSED 19-IN COMPOST FILTER SOCK
---	PROPOSED 24-IN COMPOST FILTER SOCK
---	PROPOSED 32-IN COMPOST FILTER SOCK
---	PROPOSED 42-IN COMPOST FILTER SOCK
---	PROPOSED SOIL CONSTRUCTION ENTRANCE
---	PROPOSED SOIL PROTECTION
---	EXISTING CHANNEL (TO BE UTILIZED)
---	PROPOSED CHANNEL
---	PROPOSED STORMWATER CULVERT
---	PROPOSED BR/APP
---	PROPOSED BR/APP APPROX
---	PROPOSED UNDERDRAIN





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REVISION RECORD	
NO.	DATE

HAZZLETT WELL PAD
 UNION DISTRICT
 MARSHALL COUNTY, WEST VIRGINIA
 PREPARED FOR:
CHEVRON APPALACHIA, LLC
 700 CHERRINGTON PARKWAY
 CORAOPOLIS, PA 15108

Project Number: 164,750
Drawing Scale: 1"=60'
Date Issued: 03/2018
Under Number: 100
Drawn By: RBD
Checked By: BAO
Project Manager: PAX

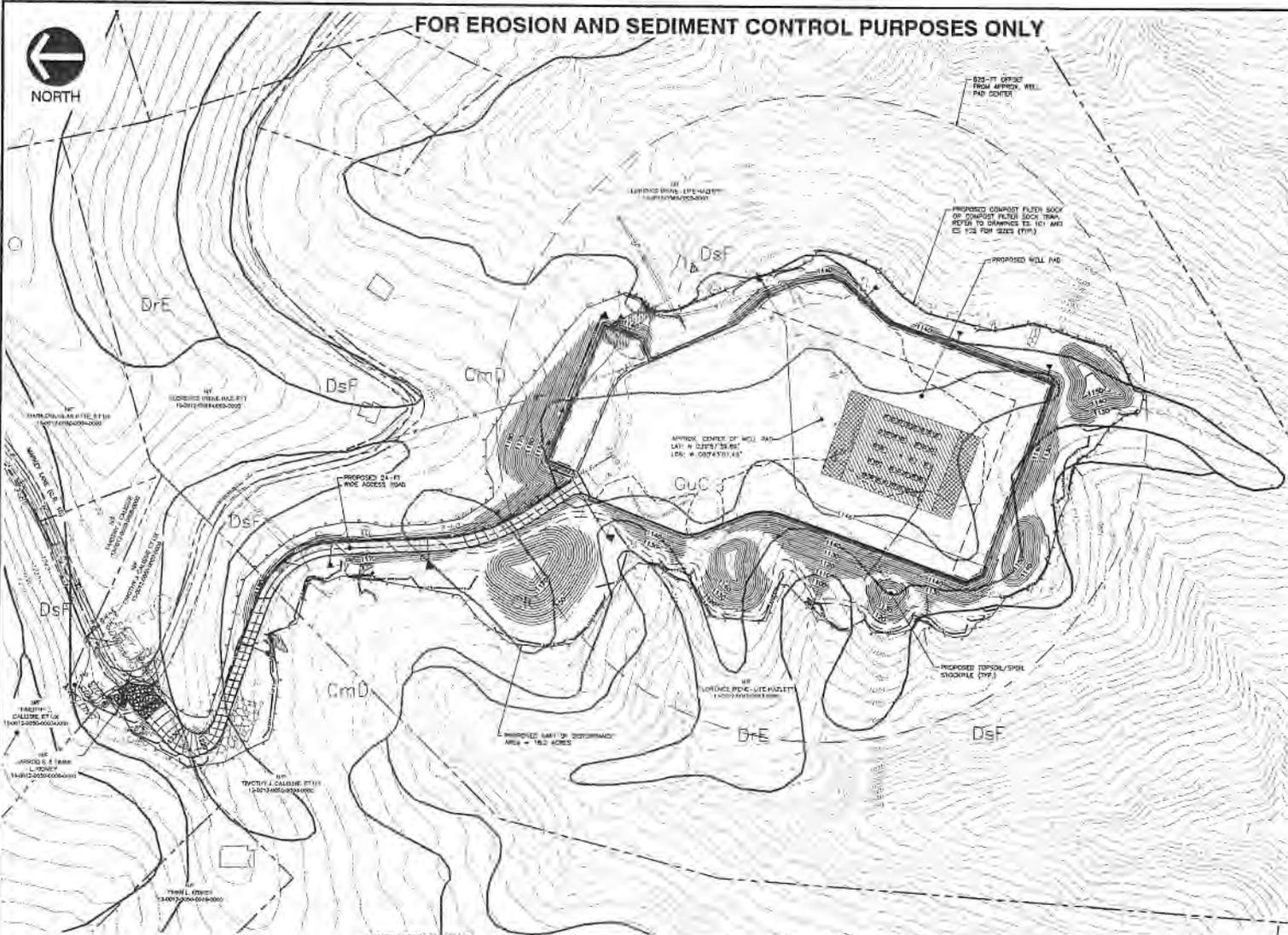
FIG. 3

ATTACHMENT C

EROSION AND SEDIMENT CONTROL PLAN



FOR EROSION AND SEDIMENT CONTROL PURPOSES ONLY



SITE LOCATION MAP

REFERENCE
U.S.G.S. 7.5' TOPOGRAPHIC MAP, MOUNDSVILLE
CLEARANCE, WV-D (DATE: 1976)

LEGEND

---	EXISTING ROAD RIGHT-OF-WAY
---	EXISTING PROPERTY LINE
---	EXISTING MOUD, CONTOUR
---	EXISTING INTERMEDIATE CONTOUR
---	EXISTING PAVED ROADWAY
---	EXISTING UNPAVED ROADWAY
---	EXISTING GAS LINE
---	EXISTING WATERLINE
---	EXISTING TELECOMMUNICATIONS LINE
---	EXISTING OVERHEAD ELECTRIC LINE
---	EXISTING UNDERGROUND ELECTRIC LINE
---	EXISTING STORMWATER DRAINAGE
---	EXISTING FENCE
---	EXISTING STREAM
---	EXISTING WETLAND
---	EXISTING TRAIL
---	EXISTING RIVER
---	EXISTING STRUCTURE
---	EXISTING UTILITY POLE
---	EXISTING WATER METER
---	EXISTING WATER MANHOLE
---	EXISTING GAS WELL
---	PROPOSED EDGE OF ACCESS ROAD
---	PROPOSED LIMIT OF DISTURBANCE
---	PROPOSED WELL HEAD AND CELLAR
---	PROPOSED CONCRETE BERM
---	PROPOSED GRAVEL
---	PROPOSED ASPHALT PAVEMENT
---	PROPOSED INDEX CONTOUR
---	PROPOSED INTERMEDIATE CONTOUR
---	PROPOSED WELL PAD CURB/PAVE LINE
---	PROPOSED SPOT ELEVATION
---	PROPOSED COMPOST FILTER SOCK TRAP
---	PROPOSED 18-IN COMPOST FILTER SOCK
---	PROPOSED 24-IN COMPOST FILTER SOCK
---	PROPOSED 32-IN COMPOST FILTER SOCK
---	PROPOSED ORANGE CONSTRUCTION FENCE
---	PROPOSED ROCK CONSTRUCTION ENTRANCE
---	PROPOSED ALLEY PROTECTION
---	EXISTING CHANNEL (TO BE UTILIZED)
---	PROPOSED CHANNEL
---	PROPOSED STORMWATER DIVERT
---	PROPOSED HOLE
---	PROPOSED RIVER/ARROW
---	PROPOSED UNDERDRAIN
---	USDA SOIL BOUNDARY
---	SOIL BOUNDARY LABEL

- REFERENCES**
1. STREAMS AND WETLANDS DELINEATED BY CHEVON & ENVIRONMENTAL CONSULTANTS, INC. DATED 05/23/2017.
 2. UNDERGROUND UTILITIES LOCATED BY A GEOPHYSICAL SURVEY CONDUCTED BY THE CHEVONS INC. DATED 05/17/2017 TO 05/23/2017.
 3. TOPOGRAPHY WITHIN THE PROJECT AREA AND MARKED UTILITY FEATURES SUPPLIED BY CHEVON & ENVIRONMENTAL CONSULTANTS, INC. DATED 05/23/2017 TO 05/23/2017 AND 05/22/2017 TO 05/25/2017. TOPOGRAPHY OUTSIDE OF THE PROJECT AREA IS SUPPLEMENTED WITH WEST VIRGINIA LISTS, DATED 2005.
 4. PROPERTY BOUNDARIES WERE PROVIDED BY CHEVON.

EARTHWORK SUMMARY

	04/11/2018	07/11/2018	08/10/2018
WELL PAD	46,400	42,500	2,900 FC
ACCESS ROAD	5,200	300	4,900 CUT
TOTAL	45,600	44,000	1,600 CUT
TYPICAL STOCKPILES REQUIRED	N/A	8,800	
USE OUR CONTINGENCY STOCKPILE REQUIRED	N/A	4,100	
TYPICAL/STOCKPILE SHOWN	N/A	24,100	

- EARTHWORK NOTES**
1. EARTHWORK ANALYSIS IS PRELIMINARY AND FOR INFORMATION PURPOSES ONLY.
 2. ACTUAL EARTHWORK WILL VARY BASED ON SITE CONDITIONS AND MATERIALS USED.
 3. EARTHWORK ANALYSIS DOES NOT CONSIDER SOIL SHrink OR SWELL.
 4. TRENCH SOOLS ARE NOT INCLUDED.

NOTE: DIMENSIONS LISTED ABOVE ARE APPROXIMATE AND HAVE BEEN ADJUSTED USING 8-IN OF TYPICAL BENCH HEIGHTS. TYPICAL STONE PLACEMENT ON THE PAD AND 42-IN OF PAVEMENT ON THE ACCESS ROAD. WE ADJUSTMENTS WERE MADE FOR SHrink OR SWELL.

MISS UTILITY OF WEST VIRGINIA
1-800-245-4848
West Virginia State Law
Section 20-2-1 (Chapter 24-C requires that you call Miss Utilities before you dig in the state of West Virginia.)
IT'S THE LAW

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Chevron & Environmental Consultants, Inc.
4000 Fingert Lane, Suite 200 • Lyndon, VA 24097
754-377-2388 800-499-9310
www.chevroncec.com



REVISION RECORD

NO.	DATE	DESCRIPTION
1		
2		
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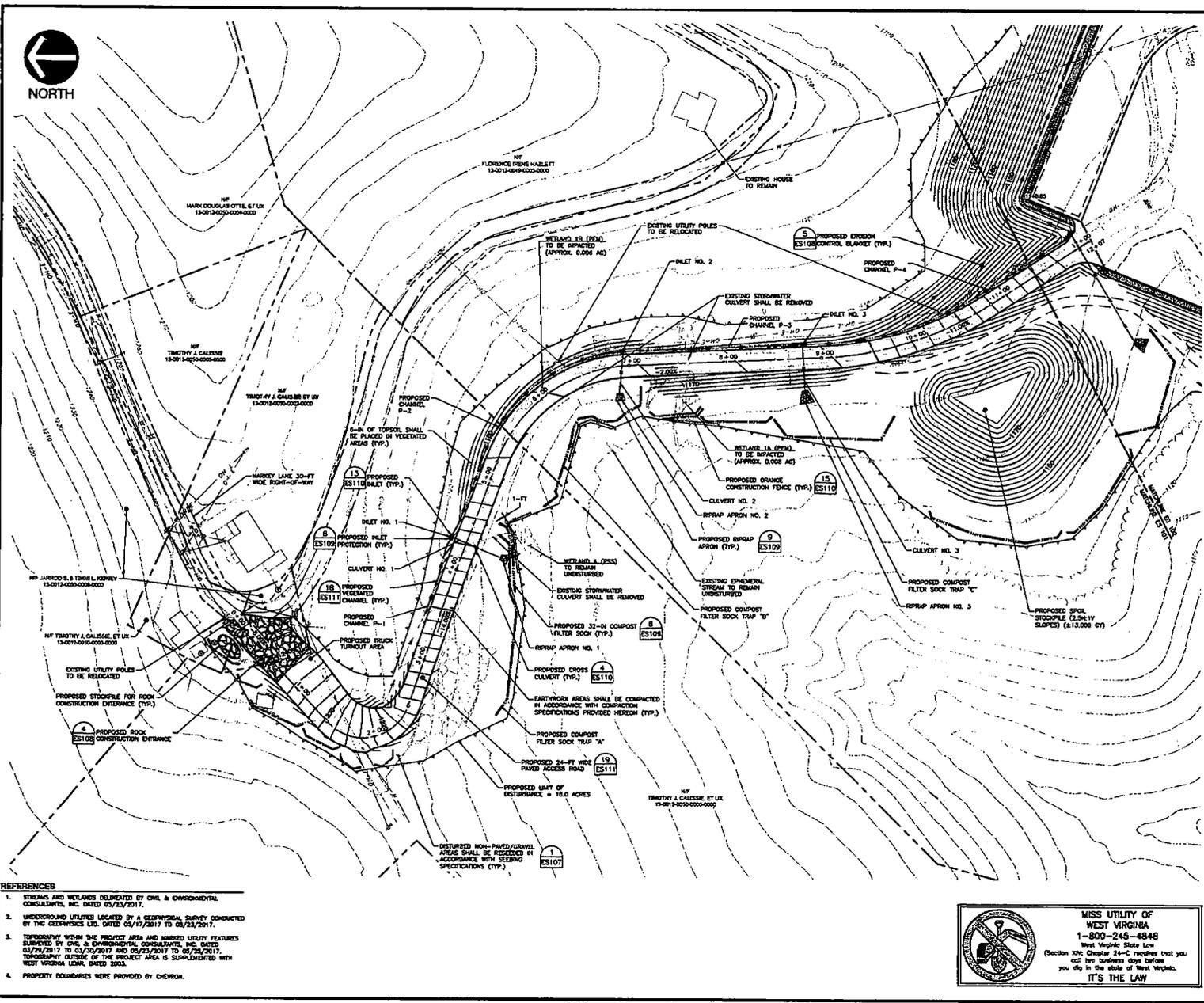
HAZLETT WELL PAD
UNION DISTRICT
JEFFERSON COUNTY, WEST VIRGINIA
PREPARED BY
CHEVRON APPALACHIA, LLC
700 CHERINGTON PARKWAY
CONAPOUS, PA 15108

OVERALL EROSION AND SEDIMENTATION CONTROL PLAN

Project Number: 254-075
Drawing Date: 11/13/18
Date Issued: 01/20/19
Issue Number:
Drawn By: RBG
Checked By: JAW
Project Manager: CR277

ES 100

Plan & Elevation: 2018/11/13 10:52 AM. Project: 254-075 HAZLETT WELL PAD. Scale: 1"=40'. User: JAW. Title: ES 100. Path: C:\Users\jw\Documents\254-075 HAZLETT WELL PAD\Drawings\ES 100.dwg. Plot Date: 2018/11/13 10:52 AM.



LEGEND

- EXISTING WOOD ROADS--OF-WAY
- EXISTING PROPERTY LINE
- EXISTING INDEX CONTOUR
- EXISTING INTERMEDIATE CONTOUR
- EXISTING PAVED ROADWAY
- EXISTING UNPAVED ROADWAY
- EXISTING GAS LINE
- EXISTING WATERLINE
- EXISTING TELECOMMUNICATIONS LINE
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING STORMWATER CULVERT
- EXISTING FENCE
- EXISTING STREAM
- EXISTING WETLAND
- EXISTING TIEBACK
- EXISTING BRIPAP
- EXISTING UTILITY POLE
- EXISTING WATER METER
- EXISTING WATER MANHOLE
- EXISTING GAS WELL
- PROPOSED SIDE OF ACCESS ROAD
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED WELL HEAD AND CELLAR
- PROPOSED CONFORMANCE BENCH
- PROPOSED SHOULDER
- PROPOSED ASPHALT PAVEMENT
- PROPOSED INDEX CONTOUR
- PROPOSED INTERMEDIATE CONTOUR
- PROPOSED WELLS PAD CUR/PILL LINE
- PROPOSED SPOT CULVERT
- PROPOSED COMPOST FILTER SOCK TRAP
- PROPOSED 18-IN COMPOST FILTER SOCK
- PROPOSED 24-IN COMPOST FILTER SOCK
- PROPOSED 36-IN COMPOST FILTER SOCK
- PROPOSED ORANGE CONSTRUCTION FENCE
- PROPOSED BRICK CONSTRUCTION ENTRANCE
- PROPOSED INLET PROTECTION
- PROPOSED EROSION CONTROL BLANKET
- EXISTING CHANNEL (TO BE UTILIZED)
- PROPOSED CHANNEL
- EXISTING STORMWATER CULVERT
- PROPOSED BRIPAP
- PROPOSED BRIPAP AREA
- PROPOSED UNDERDRY
- DETAIL NUMBER
- DRAWING DESIGNATION

- STREAM AND WETLAND NOTES**
1. WETLAND NUMBERS ARE BEING REQUESTED FOR THE FOLLOWING FOUR (4) WETLANDS ARE LOCATED WITHIN 100-FT OF THE LIMIT OF DISTURBANCE. WETLANDS 1A, 1B, 2, 3C, AND 3D ARE PARTIALLY PERMANENTLY IMPACTED.
 2. THE FOLLOWING FOUR (4) WETLANDS AND (C) EPHEMERAL STREAMS ARE LOCATED WITHIN THE LIMIT OF DISTURBANCE AND ARE SUBJECT TO THE USACE WATERSHED REPORT #R FOR PERMANENT IMPACTS. WETLAND 1A, 1B, 2, 3C AND STREAMS 1A, 2, 3, AND 4A TO 4C LITTLE GREEK CREEK.
 3. THE STREAMS SHOWN HEREIN OUTSIDE THE LIMIT OF DISTURBANCE ARE EPHEMERAL OR INTERMITTENT, AS SUCH, A BRIDGE IS NOT BEING REQUESTED FOR PERMANENT STREAMS.
 4. ROADWAYS SHOWN HEREIN ARE REQUESTED FROM THE EDGE OF THE WETLAND TO THE PROPOSED LIMIT OF DISTURBANCE.

- COMPACTION SPECIFICATIONS**
1. PLACE FILL MATERIALS USING COMPACTION EQUIPMENT WITH GROSS TREAD 10-INCH WEIGHT IN COMPACTED LIFTS NOT EXCEEDING 12 INCHES THICK. USE A REDUCED LOOSE LIFT THICKNESS OF 4 INCHES WHEREVER THE MATERIALS ARE STEEL-PLATE TAMPERS OR OTHER HAND-OPERATED COMPACTIONERS ARE BEING USED. MAXIMUM PARTICLE SIZE SHOULD NOT EXCEED 1 1/2 INCHES IN STRUCTURAL FILL AREAS AND 2 INCHES IN NON-STRUCTURAL AREAS. SELF-PROPELLED COMPACTIONERS ARE UTILIZED, A REDUCED MAXIMUM PARTICLE SIZE OF 3 INCHES SHOULD BE USED IN AREAS WHERE HAND-OPERATED COMPACTIONERS ARE USED. WASTE OVERSIZED MATERIALS EXCEEDING THE MAXIMUM PARTICLE SIZE INDICATED ABOVE) OUTSIDE OF THE PROPOSED FILL AREA OR IN DEEPEST AREAS OF FILL OVERSIZED MATERIALS (I.E. MATERIALS EXCEEDING 3 INCHES) SHOULD BE PLACED IN LIFTS NOT EXCEEDING 24 INCHES. LIFTS SHOULD BE COMPACTIONED IN SEVERAL PASSES USING HEAVY COMPACTION EQUIPMENT.
 2. COMPACT ALL PAD AND ROADWAY SUBGRADES AND EACH LIFT OF FILL MATERIAL TO A MINIMUM OF 100 PERCENT OF ITS MAXIMUM DRY DENSITY WITHIN 0.5 PERCENT OF THE OPTIMUM MOISTURE CONTENT. DETERMINE MAXIMUM DRY DENSITY AND OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D698 (STANDARD PROCTOR).

- REFERENCES**
1. STREAMS AND WETLANDS DELINEATED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 05/23/2017.
 2. UNDERGROUND UTILITIES LOCATED BY A GEOPHYSICAL SURVEY CONDUCTED BY THE GEOPHYSICS LTD. DATED 09/17/2017 TO 09/23/2017.
 3. TOPOGRAPHY WITHIN THE PROJECT AREA AND AROUND UTILITY FEATURES SURVEYED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 03/29/2017 TO 03/30/2017 AND 03/23/2017 TO 03/25/2017 WITH TOPOGRAPHY OUTSIDE OF THE PROJECT AREA IS SUPPLEMENTED WITH WEST VIRGINIA LEGAL, DATED 2003.
 4. PROPERTY BOUNDARIES WERE PROVIDED BY CHEVRON.



REVISION RECORD

No.	Date	Description
1	05/23/2017	ISSUED FOR PERMIT
2	06/08/2017	REVISIONS
3	06/08/2017	REVISIONS
4	06/08/2017	REVISIONS
5	06/08/2017	REVISIONS
6	06/08/2017	REVISIONS
7	06/08/2017	REVISIONS
8	06/08/2017	REVISIONS
9	06/08/2017	REVISIONS
10	06/08/2017	REVISIONS

HAZZLETT WELL PAD
 UNION DISTRICT
 HARRISBURG COUNTY, WEST VIRGINIA
 CHEVRON APPALACHIA, LLC
 700 CHERRINGTON PARKWAY
 CORAOPOLIS, PA 15108

EROSION AND SEDIMENT CONTROL PLAN (1 OF 2)

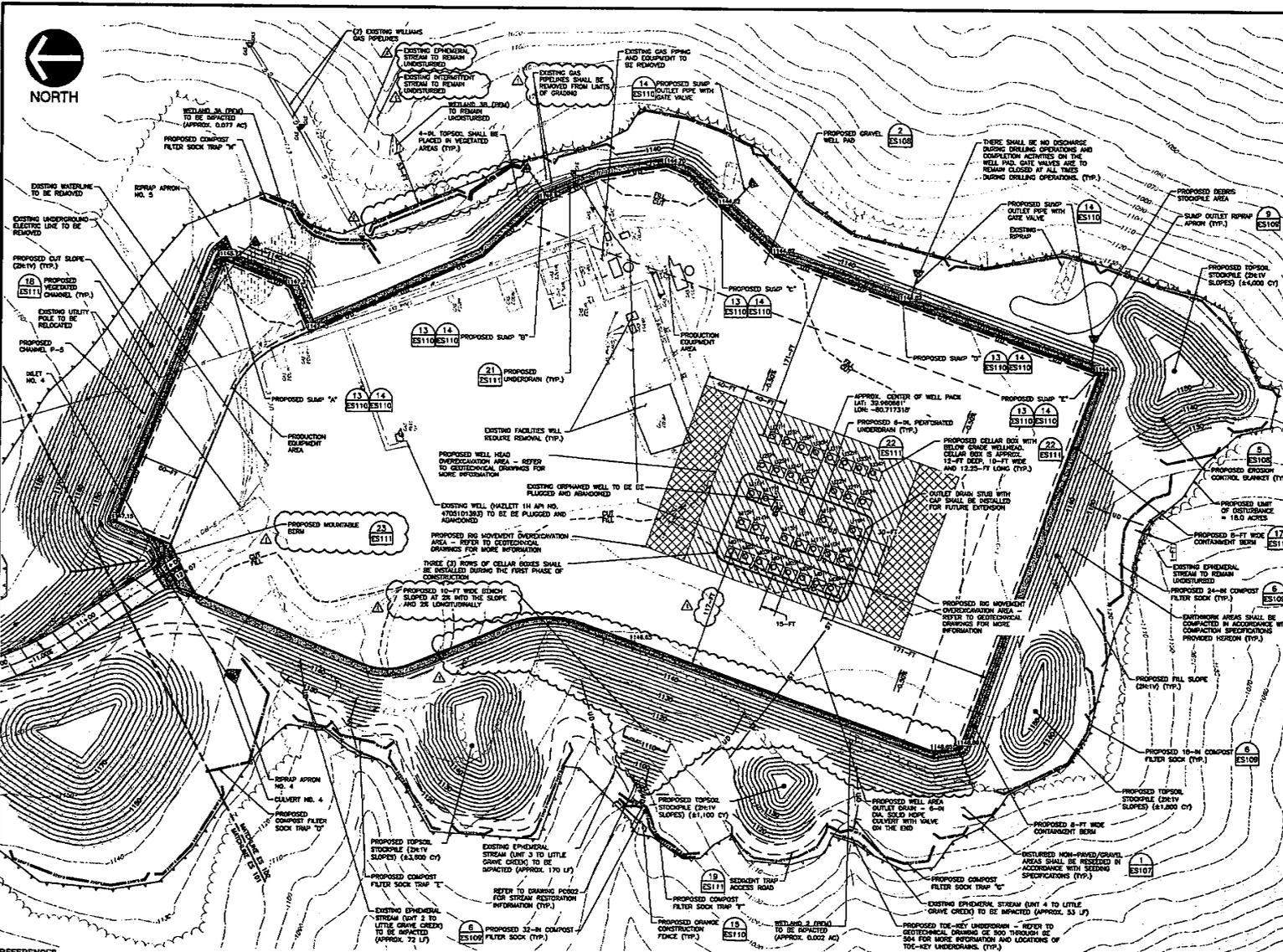
Project Number: 184-725
 Drawing Scale: AS SHOWN
 Date Issued: 07/20/17
 Issue Number: 1
 Drawn By: BOB
 Checked By: JAM
 Project Manager: DRAFT

ES 101

Civil & Environmental Consultants, Inc. 4000 Triangle Lane, Suite 200 - Export, PA 15622
 Phone: 724-577-0500 Fax: 724-577-0501
 www.civilandenvironmental.com



NORTH



LEGEND

- EXISTING WIDEN RIGHT-OF-WAY
- EXISTING PROPERTY LINE
- EXISTING INDEX CONTOUR
- EXISTING INTERMEDIATE CONTOUR
- EXISTING PAVED ROADWAY
- EXISTING UNPAVED ROADWAY
- EXISTING GAS LINE
- EXISTING WATERLINE
- EXISTING TELECOMMUNICATIONS LINE
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING STORMWATER CULVERT
- EXISTING FENCE
- EXISTING STREAM
- EXISTING WETLAND
- EXISTING FREELINE
- EXISTING REEPAW
- EXISTING STRUCTURE
- EXISTING UTILITY POLE
- EXISTING WATER METER
- EXISTING WATER METER
- EXISTING GAS WELL
- PROPOSED LINE OF ACCESS FROM
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED WELL HEAD AND CELLAR
- PROPOSED CONTAINMENT BERM
- PROPOSED CHIMNEY
- PROPOSED SPINAL FROSTMENT
- PROPOSED INDEX CONTOUR
- PROPOSED INTERMEDIATE CONTOUR
- PROPOSED WELL PAD OUT/FILL LINE
- PROPOSED SPOT ELEVATION
- PROPOSED COMPOST FILTER SOCK TRAP
- PROPOSED 18-IN COMPOST FILTER SOCK
- PROPOSED 24-IN COMPOST FILTER SOCK
- PROPOSED 33-IN COMPOST FILTER SOCK
- PROPOSED GRASS CONSTRUCTION FENCE
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED PILET PROTECTION
- PROPOSED EROSION CONTROL BLANKET
- EXISTING CHIMNEY (TO BE UTILIZED)
- PROPOSED CHIMNEY
- PROPOSED STORMWATER CALUMN
- PROPOSED WELLET
- PROPOSED REEPAW APPROX
- PROPOSED UNDERDRAIN
- DETAIL NUMBER
- DRAWING REVISION

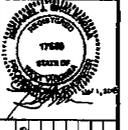
STREAM AND WETLAND NOTES

1. WETLAND BOUNDARIES ARE BEING REQUESTED FOR THE FOLLOWING FOUR (4) WETLANDS THAT ARE LOCATED WITHIN 100-FT OF LIMIT OF DISTURBANCE: WETLAND 1A, 1B, 2, 3, AND 4. WETLANDS 1A AND 3A, 2, 3, AND 4 ARE PARTIALLY PERMANENTLY IMPACTED.
2. THE FOLLOWING FOUR (4) WETLANDS AND (3) EPHEMERAL STREAMS ARE LOCATED WITHIN THE LIMIT OF DISTURBANCE AND ARE SUBJECT TO THE USACE NHP/PERMITS PERMIT 30 FOR PERMANENT IMPACTS: WETLAND 1A, 1B, 2, 3, AND STREAMS UNIT 2, UNIT 3, AND UNIT 4 TO LITTLE CRANE CREEK.
3. THE STREAMS SHOWN HEREIN OUTSIDE THE LIMIT OF DISTURBANCE ARE EPHEMERAL OR INTERMITTENT, AS SUCH A PERMIT IS NOT BEING REQUESTED FOR PERMANENT STREAMS.
4. DISTURBANCES SHOWN HEREIN ARE MEASURED FROM THE EDGE OF THE WETLAND TO THE PROPOSED LIMIT OF DISTURBANCE.

COMPACTION SPECIFICATIONS

1. PLACE SOIL FILL MATERIAL USING COMPACTION EQUIPMENT THAT EXCEEDS THE 15-TON ROLLER IF COMPACTED LIFT IS NOT EXCEEDING 12 INCHES THICK. USE A REDUCED LOADS LIFT METHOD OF 8 INCHES MAXIMUM IN AREAS WHERE STEEL-PLATE TAMPERS OR OTHER HAND-OPERATED COMPACTORS ARE BEING USED. MAXIMUM PARTICLE SIZE SHOULD NOT EXCEED 8 INCHES IN STRUCTURAL FILL AREAS. USE SELF-PROPAGATING COMPACTORS ARE UTILIZED. A REDUCED MAXIMUM PARTICLE SIZE OF 4 INCHES SHOULD BE USED IN AREAS WHERE HAND-OPERATED COMPACTORS ARE USED. WASTE OVERSIZED PARTICLES EXCEEDING THE MAXIMUM PARTICLE SIZE INDICATED ABOVE OUTSIDE OF THE PROPOSED FILL AREAS OR IN DEEPER AREAS OF FULL OVERSIZED ROCK PARTICLES ARE WASTES EXCEEDING 4 INCHES PLACED IN THE DEEPEST LAYER OF FILL SHOULD BE PLACED IN LIFTS NOT EXCEEDING 6 INCHES. FILL SHOULD BE COMPACTIONED IN SEVERAL PASSES USING HEAVY COMPACTION EQUIPMENT.
2. COMPACT ALL PAD AND ROADWAY SUBGRADES AND EACH LIFT OF FILL MATERIAL TO A MINIMUM OF 95 PERCENT OF ITS MAXIMUM DRY DENSITY WITHIN 4.5 PERCENT OF THE OPTIMUM MOISTURE CONTENT. DETERMINE MAXIMUM DRY DENSITY AND OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D698 (STANDARD PROCTOR).

Check & Environmental Consultants, Inc.
 4000 Through Lane, Suite 300 - Export, PA 15622
 PH: 412-227-8297 FAX: 412-227-8910
 www.checkand.com



REVISION RECORD

NO.	DATE	BY	DESCRIPTION
1	01/15/2017	ES	ISSUED FOR PERMITS
2	01/15/2017	ES	ISSUED FOR PERMITS
3	01/15/2017	ES	ISSUED FOR PERMITS
4	01/15/2017	ES	ISSUED FOR PERMITS
5	01/15/2017	ES	ISSUED FOR PERMITS
6	01/15/2017	ES	ISSUED FOR PERMITS
7	01/15/2017	ES	ISSUED FOR PERMITS
8	01/15/2017	ES	ISSUED FOR PERMITS
9	01/15/2017	ES	ISSUED FOR PERMITS
10	01/15/2017	ES	ISSUED FOR PERMITS

HAZLETT WELL PAD
 UNION COUNTY, WEST VIRGINIA
 PREPARED FOR:
CHEVRON APPALACHIA, LLC
 700 CHERINGTON PARKWAY
 COVINGTON, LA 70120

EROSION AND SEDIMENT CONTROL PLAN (2 OF 2)

Project Number: 184765
 Drawing Scale: 1"=50'
 Date Issued: 01/15/2017
 Issue Number:
 Drawn By: EGS
 Checked By: JAM
 Project Manager: EUS

MISS UTILITY OF WEST VIRGINIA
 1-800-245-4848
 West Virginia State Law
 (Section 30A Chapter 24-C requires that you cut two business days before you dig in the state of West Virginia.)
IT'S THE LAW

- REFERENCES**
1. STREAMS AND WETLANDS DELINEATED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 05/23/2017.
 2. UNDERGROUND UTILITIES LOCATED BY A GEOPHYSICAL SURVEY CONDUCTED BY THE GEOPHYSICS LTD. DATED 07/17/2017 TO 05/23/2017.
 3. TOPOGRAPHY WITHIN THE PROJECT AREA AND MARKED UTILITY FEATURES SURVEYED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 03/28/2017 TO 03/30/2017 AND 05/23/2017 TO 05/25/2017. TOPOGRAPHY OUTSIDE OF THE PROJECT AREA IS SUPPLEMENTED WITH WEST VIRGINIA LEAD, DATED 2002.
 4. PROPERTY BOUNDARIES WERE PROVIDED BY CHEVRON.

SCALE IN FEET
 0 50 100

ATTACHMENT D

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT

17. DIRECTIONS TO THE SITE

From I-70 W, continue onto I-470 W, following signs for Columbus. Take Exit 1 for US 250 S/WV-2 S toward Moundsville. Drive 0.5 mile, turn left, and use the right 2 lanes to merge onto US-250 S/WV-2 S via the ramp to Moundsville. Drive 5.1 miles, and turn left onto 21st Street and then right onto Marshall Street. Marshall Street turns slightly left and becomes 23rd Street and then Riley Hill Road. Drive approximately 1 mile, and turn left onto WV-86 N/Grandview Road. Drive 0.5 mile, and turn right onto Markey Lane/CR-10.

18. Nature of Activity (Description of project, include all features)

Chevron Appalachia, LLC is proposing to expand an existing natural gas well pad site and widen the associated existing access road. The proposed limit of disturbance (LOD) is approximately 26 acres. The proposed project area includes an existing well pad and access road, residential areas, upland hay field, and wooded hillslopes. The project will require fill to be placed in 0.101 acre of palustrine emergent (PEM) wetlands and 288 linear feet of ephemeral streams.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

The purpose of the project is to construct a natural gas well pad and access road for shale operations.

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

The construction of the facility will require the placement of fill material into three unnamed tributaries (UNTs) to Little Grave Creek and four palustrine emergent (PEM) wetlands. These permanent impacts are associated with grading activities for expansion of the well pad and access road. Underdrains are being installed beneath the proposed fill slopes to maintain stream flow.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards
390 CY of earthen material into wetlands	80 CY of earthen material into streams	N/A

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres 0.101 acre of PEM wetlands
or
Linear Feet 288 linear feet of ephemeral streams

23. Description of Avoidance, Minimization, and Compensation (see instructions)

Chevron analyzed numerous on-site configurations for the siting of the facility, and the proposed site plan represents the layout which minimizes impacts to the furthest extent while still meeting the project's purpose and need. Grading was minimized to avoid impacts to UNTs 1, 5, 6, and 7 to Little Grave Creek and Wetlands 3B and 4. Orange construction fencing will be installed around the downstream portions of UNTs 1, 2, 3, and 6 to Little Grave Creek to avoid additional impacts.

24. List any Portions of the Work Already Completed? (Check YES) IF YES DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody to be Dredged, Filled, or otherwise altered or improved.

a. Address- See attached table.

City - State Zip -

b. Address-

City - State Zip -

c. Address

City - State Zip -

d. Address

City - State Zip -

e. Address

City - State Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
WVDNR OLS	Right of Entry	Not yet assigned	December 2017	Pending	
WVDEP	Horizontal 6A Well P	Not yet assigned	Pending	Pending	

* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant

Jenny Hayes
SIGNATURE OF APPLICANT

1-15-18
DATE

Malcolm A. Owens
SIGNATURE OF AGENT

1/15/18
DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that Whoever in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

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

1) Well Operator: Chevron Appalachia, LLC 49449935 Marshall Union Moundsville, WV
Operator ID County District Quadrangle

2) Operator's Well Number: 12H Well Pad Name: Hazlett

3) Farm Name/Surface Owner: Hazlett Public Road Access: CR 10 Markey Lane

4) Elevation, current ground: 1148' Elevation, proposed post-construction: 1144'

5) Well Type (a) Gas Oil Underground Storage

Other

(b) If Gas Shallow Deep

Horizontal

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus, 6150', 50' thick; pore pressure gradient 0.64 psi/ft

CTB
11/30/15

8) Proposed Total Vertical Depth: 6,170'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 14,121

11) Proposed Horizontal Leg Length: 6,755

12) Approximate Fresh Water Strata Depths: 541' below GL

13) Method to Determine Fresh Water Depths: Deepest known water well w/in 3 mi radius

14) Approximate Saltwater Depths: Potential Brine @ 1754 ft and 2066 ft below GL

15) Approximate Coal Seam Depths: Pittsburgh Coal top @ 624 ft below GL

16) Approximate Depth to Possible Void (coal mine, karst, other): 624 ft below GL

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes No

(a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____

18) **CASING AND TUBING PROGRAM**

TYPE	<u>Size (in)</u>	<u>New or Used</u>	<u>Grade</u>	<u>Weight per ft. (lb/ft)</u>	<u>FOOTAGE: For Drilling (ft)</u>	<u>INTERVALS: Left in Well (ft)</u>	<u>CEMENT: Fill-up (Cu. Ft.)/CTS</u>
Conductor	30"	New			50'	50'	CTS
Fresh Water	20"	New	J-55	94	591'	591'	CTS
Coal	13-3/8"	New	J-55	54.5	724'	724'	CTS
Intermediate	9-5/8"	New	L-80	40	2,116'	2,116'	CTS
Production	5-1/2"	New	P-110	20	14,121'	14,121'	2,616' (500' below 9-5/8" shoe)
Tubing							
Liners							

CTB 11/30/18

TYPE	<u>Size (in)</u>	<u>Wellbore Diameter (in)</u>	<u>Wall Thickness (in)</u>	<u>Burst Pressure (psi)</u>	<u>Anticipated Max. Internal Pressure (psi)</u>	<u>Cement Type</u>	<u>Cement Yield (cu. ft./k)</u>
Conductor	30"	36"					
Fresh Water	20"	26"	0.438"	2,110		Class A	1.2
Coal	13-3/8"	17-1/2"	0.38"	2,730	400	Class A	1.19
Intermediate	9-5/8"	12-3/8" to 12-1/4"	0.395"	5,750	500	Class A	1.19
Production	5-1/2"	8-1/2" to 8-3/4"	0.361"	14,360	2050	Class A, G, or H	1.25
Tubing							
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drill vertical depth to the Marcellus at an estimated total vertical depth of approximately 6,170'. Drill horizontal leg.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

9525 bbl fluid - 400,000 lbm sand/stage - 9,400 anticipated max psi - 100 bpm anticipated max rate

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 25.6

22) Area to be disturbed for well pad only, less access road (acres): 15

23) Describe centralizer placement for each casing string:

Surface: (1) on shoe track w/ stop collar & (1) per jt to surface; Intermediate: (1) on shoe track w/ stop collar & (1) per 3 jts; Production String: (1) centralizer every jt from TMD to planned TOC & (1) every other joint from planned TOC to surface.

24) Describe all cement additives associated with each cement type:

For the Water String the blend will contain class A cement, 3% CaCl₂, and flake. The coal will contain class A cement, 3% CaCl₂, Salt, and flake. The intermediate will contain class A cement, 3% CaCl₂, Salt, and flake. The Production cement will have a lead and tail cement. The lead will contain class A, G, or H cement, KCl, dispersant, suspension agent, and retarder. The tail will contain class A, G, or H cement, Calcium Carbonate, KCl, dispersant, de-foamer, suspension agent, and friction reducer.

25) Proposed borehole conditioning procedures:

Air sections ensured to be clean via air circulation once TD is reached. Fluid sections will be circulated a minimum of 2 bottoms up once casing point has been reached and until uniform mud properties are achieved.

*Note: Attach additional sheets as needed.

4705102107

Cement Additives

The Water String the blend will contain class A cement, 3% CaCl₂, and flake.

The intermediate will contain class A cement, 10% CaCl₂, Salt, and flake.

The Production cement will have a lead and tail cement.

The lead will contain class A, G, or H cement, KCl, dispersant, suspension agent, and retarder.

The tail will contain class A, G, or H cement, Calcium Carbonate, KCl, dispersant, de-foamer, suspension agent, and friction reducer.

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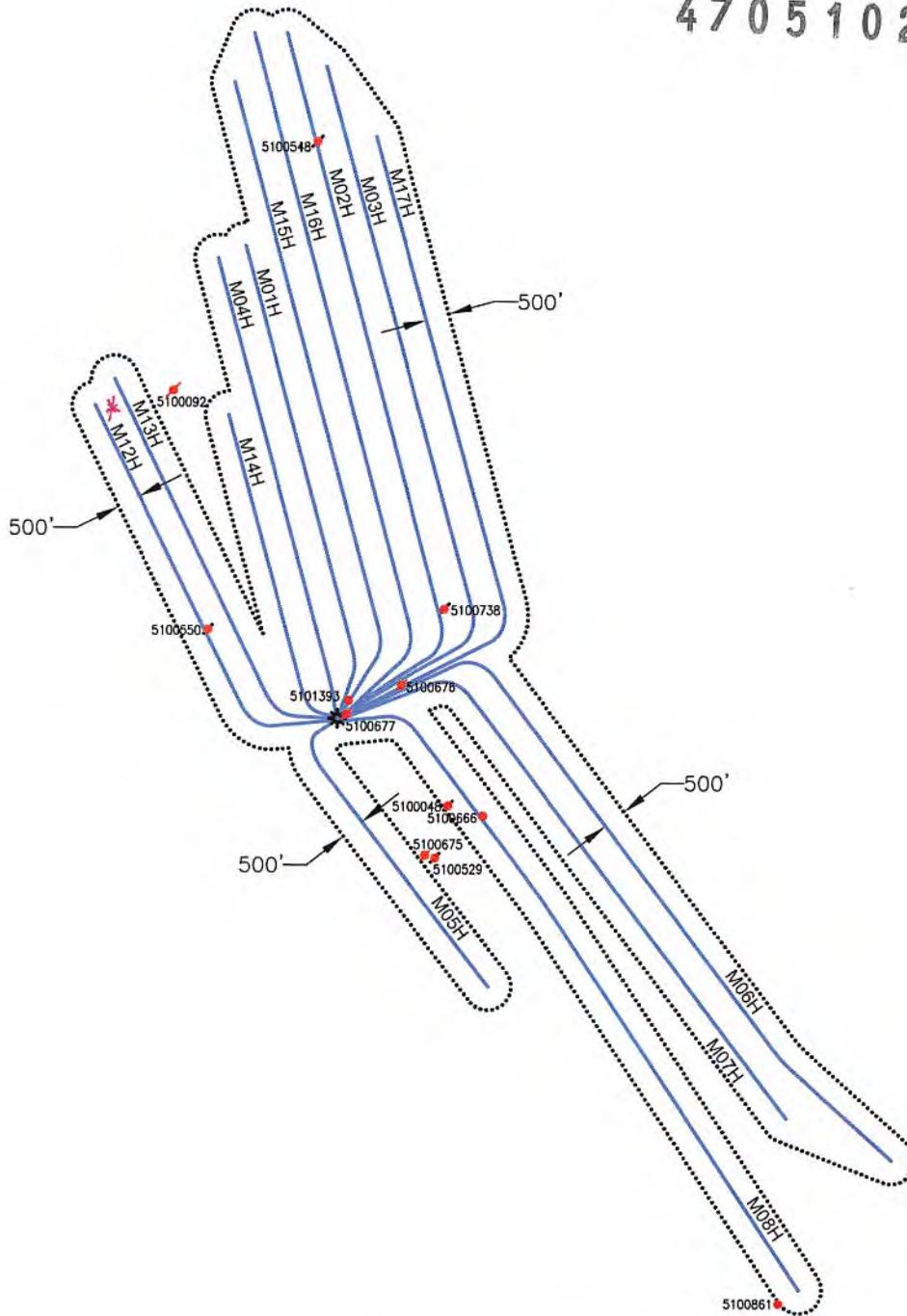
WV Department of
Environmental Protection

47-051-D2107

Hazlett M12H

Permit#		Ground Level Elev. (ft above SL):		1144					
Clay Twp, Marshall Co, WV		**All depths below reference GL**							
11/30/2018 8:04									
DRILLING FLUID / BIT TYPE / TFA	CENTRALIZER PROGRAM	CASING SIZE / FORMATION	DEPTH		WELLHEAD DESIGN FMC UH-S 13 5/8"	HOLE SIZE (IN)	HOLE DEPTH (FT)	CASING SPECS	CEMENT PROGRAM
			MD (FT)	TVD (FT)					
Core Barrel / Auger	2 Bow Spring per jt	30" Conductor	50	50	INC	36	50	Conductor 30" 118.2# X-42 29.25 Minimum 40 ft from GL or at least 10 ft into bedrock	Grout to Surface
Air DRL with Mist and additives / 26" Hammer	Bow Spring: (1) on shoe track w/ stop collar & (1) per jt over coupling to surface	20" Casing	591	591	AZM	26	621	Surface Casing 20" 94# J-55 BTC 0.438" Wall Coupling OD (in) 21.000 ID (in) 19.124 Drift ID (in) 18.937 Burst (psi) 2110 Collapse (psi) 520 Yield (Jt Strength 1,000 lbs) 1402 Capacity (bb/ft) 0.3553 Annulus (bb/ft) 0.2681	Surface Blend (Class A) Cement to surface 30% Excess
Air DRL with Mist and additives	Bow Spring: (1) on shoe track w/ stop collar & (1) per jt over coupling (1) Installed 100 ft from surface Basket Placement Secured w/ (2) lock rings above and (1) below	13-3/8" Casing	724	724		17.50	754	Coal String 13-3/8" 54.5# J-55 BTC 0.380" Wall Coupling OD (in) 14.375 ID (in) 12.615 Drift ID (in) 12.459 Burst (psi) 2730 Collapse (psi) 1130 Yield (Jt Strength 1,000 lbs) 853	Intermediate I Blend (Class A) Cement grout to surface Shoe Job Vol. (50% Excess) Grout Job Vol. (100% Excess)
Air DRL with Mist and additives	Bow Spring: (1) on shoe track w/ stop collar & (1) per 3 jts over coupling	9-5/8" Casing	2,116	2,116		12.25	2,176	Intermediate Casing 9-5/8" 40# L-80IC BTC 0.395" Wall Coupling OD (in) 10.625 ID (in) 8.635 Drift ID (in) 8.679 Burst (psi) 5750 Collapse (psi) 3090 Yield (Jt Strength 1,000 lbs) 916	Intermediate II Blend (Class A) Cement to surface 30% Excess
	Surface - TOC (1) per every other jt TOC-Curve KOP (1) per jt of csg Curve KOP-TMD (1) per jt of csg 10' Marker Jt of Csg 100' above KOP	KOP				8.5 to 8.75		Production Casing 5-1/2" 20# P110EC DWC/C-18-Plus .361" Wall Coupling OD (in) 6.300 ID (in) 4.778 Drift ID (in) 4.653 Burst (psi) 14360 Collapse (psi) 12090 Yield (Jt Strength 1,000 lbs) 729	Production Lead Slurry (Class A, G, H) Cement top approximately 500' below 9-5/8" shoe
Planned MW: 11.5ppg SBM - 12.5ppg SBM	Float Equip. (2) Jts of Csg Float Equip.	Est. BHT deg. F 5-1/2" Casing	14,121	6,200		8.500	14,136		Production Tail Slurry (Class A, G, H)

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Blue Mountain Inc.
10125 MASON DIXON HIGHWAY
BURTON, WV 26562
PHONE: (304) 662-6486

PREPARED FOR:
CHEVRON APPALACHIA, LLC
700 CHERRINGTON PARKWAY
CORAOPOLIS, PA 15108

LEGEND

-  - WELL LOCATION
-  - ACTIVE WELL
-  - PLUGGED WELL
-  - ABANDON WELL

HAZLETT
AREA OF REVIEW MAP
MARSHALL COUNTY
UNION DISTRICT
WEST VIRGINIA

TOPO QUAD: MOUNDSVILLE, WV
SCALE: 1" = 4000'
DATE: MAY 4, 2018

Well ID	Prior Operator On Record	Operator - DEP	Status	Latitude	Longitude	Vertical TD	Producing Formation	Producing Zones: NOT Partitioned
47-051-00548	PACE, PREBLE & BOWER INC.	PACE, PREBLE & BOWER INC.	PLUGGED	39.994422	-80.719818	UNKNOWN	BEREA SANDSTONE	UNKNOWN
47-051-00738	MID-CON PETROLEUM CO., INC	MID-CON PETROLEUM CO., INC	PLUGGED	39.967281	-80.709460	1100'	COW RUN SANDSTONE	UNKNOWN
47-051-01393	CHIEF OIL & GAS LLC	CHEVRON APPALACHIA LLC	ACTIVE	39.961821	-80.716665	6250'	MARCELLUS SHALE	UNKNOWN
47-051-00677	COLEMAN, C R	UNIVERSAL MINERAL, INC.	ABANDONED	39.961040	-80.716806	3100'	GORDON SANDSTONE	UNKNOWN
47-051-00676	COLEMAN, C R	UNIVERSAL MINERAL, INC.	ABANDONED	39.962782	-80.712662	3100'	GORDON SANDSTONE	UNKNOWN
47-051-00092	RUDDER OIL & GAS	CONLEY & ASSOC	ABANDONED	39.979762	-80.730517	UNKNOWN	UNKNOWN	UNKNOWN
47-051-00550	PACE, PREBLE & BOWER INC.	PACE, PREBLE & BOWER INC.	PLUGGED	39.965829	-80.727542	2512'	BIG INJUN	UNKNOWN
47-051-00048	WASMUTH - CALLAHAN GAS CO.	WASMUTH - CALLAHAN GAS CO.	PLUGGED	39.955803	-80.708895	1626	BIG INJUN	UNKNOWN
47-051-00666	COLEMAN, C R	UNIVERSAL MINERAL, INC.	ABANDONED	39.955223	-80.706218	2700'	GORDON SANDSTONE	UNKNOWN
47-051-00675	COLEMAN, C R	UNIVERSAL MINERAL, INC.	ABANDONED	39.952901	-80.710590	2700'	GORDON SANDSTONE	UNKNOWN
47-051-00529	PACE-BOWER CONSTRUCTION	PACE-BOWER CONSTRUCTION	PLUGGED	39.952756	-80.709837	1624'	BIG INJUN	UNKNOWN
47-051-00861	CNX GAS COMPANY, LLC	CNX GAS COMPANY, LLC	ACTIVE	39.927045	-80.682911	378'	PITTSBURGH	UNKNOWN

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WW-9
(5/16)

API Number 47-4705-02107
Operator's Well No. Hazlett 12H

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Chevron Appalachia, LLC OP Code 49449935

Watershed (HUC 10) Short Creek - Ohio River Quadrangle Moundsville, WV 7.5'

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No

Will a pit be used? Yes No

If so, please describe anticipated pit waste: _____

Will a synthetic liner be used in the pit? Yes No If so, what ml.? _____

Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____ at next anticipated well)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

Will closed loop system be used? If so, describe: Yes, we will be utilizing multiple open/closed top tanks

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Air to KOP & Oil based from KOP to TMD

-If oil based, what type? Synthetic, petroleum, etc. Synthetic

Additives to be used in drilling medium? Barite, fluid loss, emulsifiers, rheological control

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Removed offsite

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A

-Landfill or offsite name/permit number? Short Creek Landfill/SWF-1034/WV0109517 and Arden Landfill/#100172

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, 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 Jenny Hayes
Company Official (Typed Name) Jenny Hayes
Company Official Title Permitting Team Lead

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Commonwealth of Pennsylvania
County of Allegheny

Subscribed and sworn before me this 27th day of June, 2018
Laura Savage
Notary Public

My commission expires September 17, 2018

Commonwealth of Pennsylvania - Notary Seal
Laura Savage, Notary Public
Allegheny County
My commission expires September 17, 2018
Commission number 1285773
Member, Pennsylvania Association of Notaries

Proposed Revegetation Treatment: Acres Disturbed 15.4 Prevegetation pH Per soils testing report

Lime 3 Tons/acre or to correct to pH unless otherwise noted in soils report

Fertilizer type 10-20-20

Fertilizer amount 300 lbs/acre

Mulch 3, 5 for winter stabilization Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type lbs/acre

Seed Type lbs/acre

See Attached

See Attached

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Jim Nichols

Comments: _____

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Environmental Protection

Title: Oil + Gas Inspector

Date: 6/26/18

Field Reviewed? Yes No

4705 102107

SEED MIXTURE				
Temporary			Permanent	
Seed Type		Lbs/Acre	Seed Type	Lbs/Acre
Annual Ryegrass	or	50	Hayfield, Pastureland, & Cropland	
Winter Wheat		75	Orchard Grass	80
			Timothy	80
			Birdsfoot – Trefoil	20
			Ladino Clover	20

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Environmental Protection

4705102107



Chevron

**Appalachian LLC
WV Well Site Safety Plan
Pad: Hazlett Pad A
Well # M12H**

**28 Timmi Lane
Glen Dale, WV 26038
Glen Dale District
Marshall County, WV**

JN 7/19/18

**Access Point – [39.964486°N, 80.719328°W]
Well Site – [39.961756°N, 80.717081°W]
Marshall County, West Virginia**

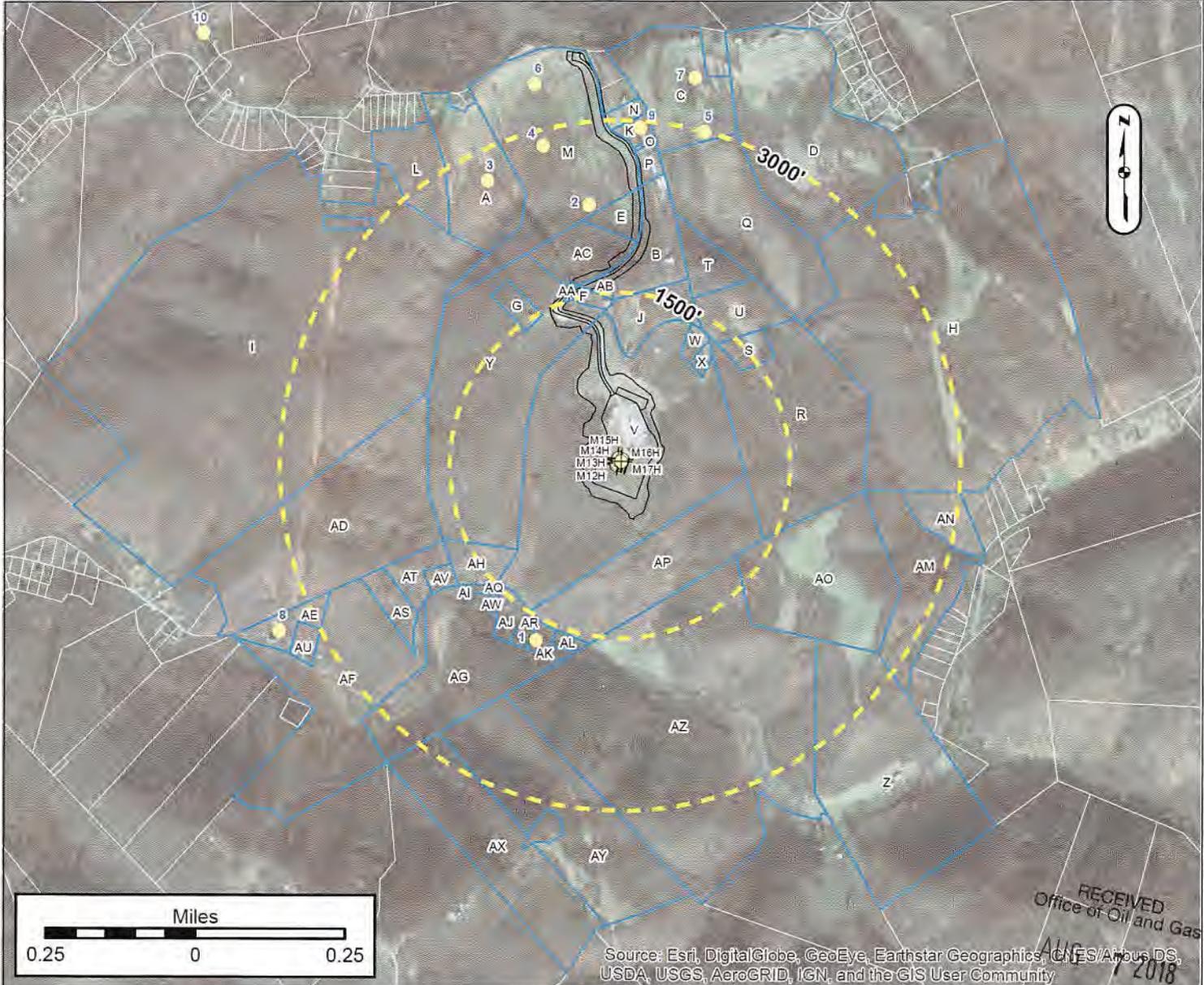
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WATER SUPPLY EXHIBIT HAZLETT PAD A BATCH #2705102107



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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LOT OWNERS

Label	Owner	TM	Label	Owner	TM	Label	Owner	TM	Label	Owner	TM
A	KEY GLADYS E - LIFE	25-13 12002700000000	N	OTTE MICHAEL P	25-13 12003100000000	AB	CALISSIE TIMOTHY J	25-13 12005000050000	AD	OTTE HUBERT C ET AL	25-13 12004300000000
B	OTTE MARK DOUGLAS ET UX	25-13 12005000040000	O	OTTE HUBERT CHAS & JANIE E	25-13 12003200010000	AC	KIDNEY JARROD S & TIMMI L	25-13 12005000060000	AP	HAZLETT IRENE - LIFE	25-13 12004700000000
C	OTTE MICHAEL P & DENISE A	25-13 12003500010000	P	OTTE MARK D	25-13 12003300000000	AD	MAST LEVI E ET AL	25-13 12005100000000	AD	KOSKI TEDDY F & EMMA JANE	25-13 12004800030000
D	ANGEL ADAM S JR	25-13 11006100000000	Q	OTTE MARK D & KELLY J	25-13 12003500000000	AE	MCCLINTOCK LARRY L & ALICIA S	25-14 10016000400000	AR	RHODES LISA & NORMAN L	25-13 12004800040000
E	LEACH CHARLES L JR	25-13 12005000070000	R	GLENDALE CITY OF	25-13 12004400000000	AF	YODER ELI A ET AL	25-14 10016000000000	AS	YODER ELI A ET AL	25-14 10016000100000
F	CALISSIE TIMOTHY J ET UX	25-13 12005000020000	S	GLEN DALE TOWN OF	25-13 12004500000000	AG	KOSKI TEDDY F ET UX	25-14 10017000000000	AT	YODER ELI A ET AL	25-14 10016000200000
G	KIDNEY JARROD S & TIMMI L	25-13 12005000080000	T	HAZLETT IRENE - LIFE	25-13 12004600000000	AH	SPRINGER BARBARA K	25-13 12005000010000	AU	NGUYEN LAMSON N ET UX	25-14 10016000300000
H	KURELAC PATRICIA A	25-13 12003600000000	U	HAZLETT FLORENCE IRENE - LIFE	25-13 12004600010000	AI	VOELLINGER JOHN & LORI	25-13 12005000090000	AV	SPRINGER BARBARA K	25-14 10016000500000
I	REILLY JOHN WILLIAM III ET AL	25-13 12001400000000	V	HAZLETT IRENE - LIFE	25-13 12004900000000	AJ	LINZY LINDA A	25-13 12004800020000	AW	LINZY LINDA A	25-14 10017000100000
J	HAZLETT FLORENCE IRENE - LIFE	25-13 12004900030000	W	HAZLETT MICHAEL C - LIFE	25-13 12004900010000	AK	VICKERS MARY E EST	25-13 12004800000000	AX	MARSHALL COUNTY PARK & REC	25-14 20008000000000
K	OTTE HUBERT CHAS & JANIE E	25-13 12003200000000	X	HAZLETT MICHAEL C - LIFE	25-13 12004900020000	AL	VICKERS THOMAS D & JANET E	25-13 12004800010000	AY	MARSHALL COUNTY PARK & REC	25-14 30001000000000
L	BURCH LESTER M ET UX	25-13 12002600000000	Y	CALISSIE TIMOTHY J ET UX	25-13 12005000000000	AM	ROBINSON GARY A	25-13 12004300010000	AZ	OTTE HUBERT C ET AL	25-14 30002000000000
M	OTTE THOMAS L ET AL - LIFE	25-13 12002800000000	AA	CALISSIE TIMOTHY J ET UX	25-13 12005000030000	AN	RICHARDS CHRISTINE	25-13 12004200010000	Z	OTTE HUBERT C ET AL	25-14 30003000000000

WV Department of
Environmental Protection

Surface Owner: IRENE HAZLETT
 Oil/Gas Owner: IRENE HAZLETT
 Well Operator: CHEVRON APPALACHIA, LLC
 Address: 700 CHERRINGTON PARKWAY
CORAOPOLIS, PA 15108
 Phone: 724-564-3700

County: MARSHALL
 Township: GLEN DALE, WV
GROUNDWATER & ENVIRONMENTAL
 Surveyor: SERVICES, INC.
 Address: 301 COMMERCE PARK DR
CRANBERRY TOWNSHIP, PA 16066
 Phone: 800-267-2549

NOTICE: THE INTENT OF THIS EXHIBIT IS TO IDENTIFY EXISTING WATER SUPPLIES IN THE VICINITY OF A PROPOSED GAS WELL, AND IS NOT A COMPLETE BOUNDARY SURVEY. PROPERTY LINES AND OWNER INFORMATION WERE OBTAINED FROM DEEDS, TAX RECORDS, AERIAL PHOTOGRAPHY, GIS, AND FIELD SURVEYED EVIDENCE.



Water Supply Exhibit
Hazlett Pad A Batch #2



4705102107

No.	WATER PURVEYOR	SUPPLY	ELEV.	ADDRESS	PHONE #
1	VICKERS THOMAS D & JANET E	Creek	766	1526 LITTLE GRAVE CREEK DRIVE	304-845-4568
2	OTTE, MICHAEL; OTTE, MARK; OTTE, HUBERT & JANE; KEY, GLADYS	Spring	1,167	224 MARKEY HILL LANE	304-232-0478
3	KEY GLADYS E - LIFE	Spring	1,179	1875 GLEN DALE HIGHTS ROAD	304-312-1408
4	OTTE, MICHAEL; OTTE, MARK; OTTE, HUBERT & JANE; KEY, GLADYS	Spring	1,169	224 MARKEY HILL LANE	304-232-0478
5	OTTE MICHAEL P & DENISE A	Spring	1,192	26 JOHN DEERE DRIVE	304-312-9337
6	OTTE, MICHAEL; OTTE, MARK; OTTE, HUBERT & JANE; KEY, GLADYS	Spring	1,173	224 MARKEY HILL LANE	304-232-0478
7	OTTE MICHAEL P & DENISE A	Spring	1,199	26 JOHN DEERE DRIVE	304-312-9337
8	MCCCLINTOCK LARRY L & ALICIA S	Well	718	1456 LITTLE GRAVE CK DRIVE	304-810-0571
9	OTTE MICHAEL P	Well	1,349	26 JOHN DEERE DRIVE	304-312-9337
10	REILLY JOHN WILLIAM III ET AL	Well	1,160	80 RED FARM LANE	304-233-7824

No.	SUPPLY COORDINATES	M12H	M13H	M14H	M15H	M16H	M17H		
1	39°57'23.25240"N 80°43'11.50320"W	1,677	1,693	1,723	1,738	1,740	1,725		
2	39°58'00.68520"N 80°43'06.23640"W	2,271	2,258	2,230	2,217	2,231	2,245		
3	39°58'02.65440"N 80°43'17.77080"W	2,719	2,708	2,687	2,676	2,698	2,709		
4	39°58'05.77200"N 80°43'11.60400"W	2,854	2,842	2,816	2,804	2,821	2,834		
5	39°58'07.12560"N 80°42'53.30160"W	2,998	2,983	2,953	2,938	2,941	2,956		
6	39°58'11.03880"N 80°43'12.64800"W	3,392	3,379	3,353	3,341	3,357	3,370		
7	39°58'11.79480"N 80°42'54.45000"W	3,440	3,425	3,395	3,380	3,385	3,400		
8	39°57'23.72400"N 80°43'40.66680"W	3,305	3,316	3,338	3,349	3,370	3,359		
9	39°58'07.43880"N 80°43'00.60240"W	2,943	2,928	2,899	2,885	2,894	2,908		
10	39°58'15.08160"N 80°43'50.22120"W	5,238	5,232	5,219	5,212	5,240	5,246		

RECEIVED
Office of Oil and Gas
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Environmental Protection

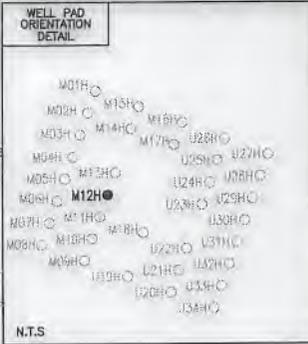
*ELEVATIONS SHOWN ARE INTERPOLATED FROM LIDAR TOPO AND SUPPLY COORDINATES ARE FROM OTHERS.

BHL is located on topo map 8,043 feet south of Latitude: 40° 00' 00"
 SHL is located on topo map 14,328 feet south of Latitude: 40° 00' 00"

LINE	BEARING	DISTANCE
R1	N 37°17'07" W	205.86'
R2	N 49°31'38" W	177.92'
R3	N 68°28'01" W	183.14'
R4	S 50°27'03" W	1184.11'
R5	N 03°05'15" W	1277.44'
R6	S 84°41'24" E	1138.89'

NOTES:

1. There are no water wells or developed springs within 250' of proposed well.
2. Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
3. There are no native trout streams within 300' of proposed well.
4. Proposed well is greater than 1000' from surface groundwater intake or public water supply.
5. It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted hereon. The location of the boundary lines, as shown, are based on record deed descriptions, field evidence found and/or tax map position, unless otherwise noted.
6. There are no existing buildings within 625' of proposed well.



SURFACE HOLE LOCATION (SHL)
UTM 17-NAD83(M)
N:4423430.00
E:524134.09
 NAD83, WV NORTH
 N:534338.070
 E:1627250.866

APPROX. LANDING POINT
UTM 17-NAD83(M)
N:4423512.46
E:523496.19
 NAD83, WV NORTH
 N:534643.674
 E:1622155.609

BOTTOM HOLE LOCATION (BHL)
UTM 17-NAD83(M)
N:4425339.96
E:522549.44
 NAD83, WV NORTH
 N:540692.620
 E:1622155.609

LEGEND

- TOPO MAP POINT
- WELL
- ALL ARE POINTS UNLESS OTHERWISE NOTED.
- MINERAL TRACT BOUNDARY
- PARCEL LINES
- WELL REFERENCE
- PROPOSED HORIZONTAL WELL
- ROAD
- STREAM CENTER LINE
- LESSORS
- SURFACE OWNERS
- DETAIL

GAS WELLS

- EXISTING WELLS
- PLUGGED WELLS

BHL is located on topo map 7,729 feet west of Longitude: 80° 42' 30"
 SHL is located on topo map 2,549 feet west of Longitude: 80° 42' 30"



Blue Mountain
 11023 MASON DIXON HIGHWAY
 BURTON, WV 26562
 PHONE: (304) 662-6486

SEE PAGE 2 FOR SURFACE OWNERS AND LESSORS

FILE #: HAZLETT M12H
 DRAWING #: HAZLETT M12H
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1/2500
 PROVEN SOURCE OF ELEVATION: U.S.G.S. MONUMENT THOMAS 1498.81'

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT 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 DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed: *George D. Six*
 R.P.E.: _____ L.L.S.: P.S. No. 2000



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP
 OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25304



DATE: NOVEMBER 15, 2018
 OPERATOR'S WELL #: HAZLETT M12H
 API WELL #: 47 51 02107
 STATE COUNTY PERMIT

Well Type: Oil Waste Disposal Production Deep Gas Liquid Injection Storage Shallow

WATERSHED: SHORT CREEK-OHIO RIVER ELEVATION: 1148.00'

COUNTY/DISTRICT: MARSHALL / UNION QUADRANGLE: MOUNDSVILLE, WV 7.5'

SURFACE OWNER: IRENE HAZLETT-LIFE ACREAGE: 77.24±

OIL & GAS ROYALTY OWNER: DONALD BOYD YOHO, KELLY ANN MEASE, ZANE EDWARD NEILSEN, NANCY A. BAKER, LARRY JOHN MCCrackEN, PATRICIA ANN MCCrackEN, ROBERT JAY MCCrackEN, FLORENCE HAZLETT ET AL ACREAGE: 495.034±

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION PLUG & ABANDON CLEAN OUT & REPLUG OTHER CHANGE

(SPECIFY): _____

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,200'± TMD: 14,120.95'±

WELL OPERATOR CHEVRON APPALACHIA, LLC DESIGNATED AGENT KENNETH E. TAWNEY
 Address 700 CHERRINGTON PARKWAY Address 500 LEE STREET, EAST SUITE 1600
 City CORAOPOLIS State PA Zip Code 15108 City CHARLESTON State WV Zip Code 25301-3202

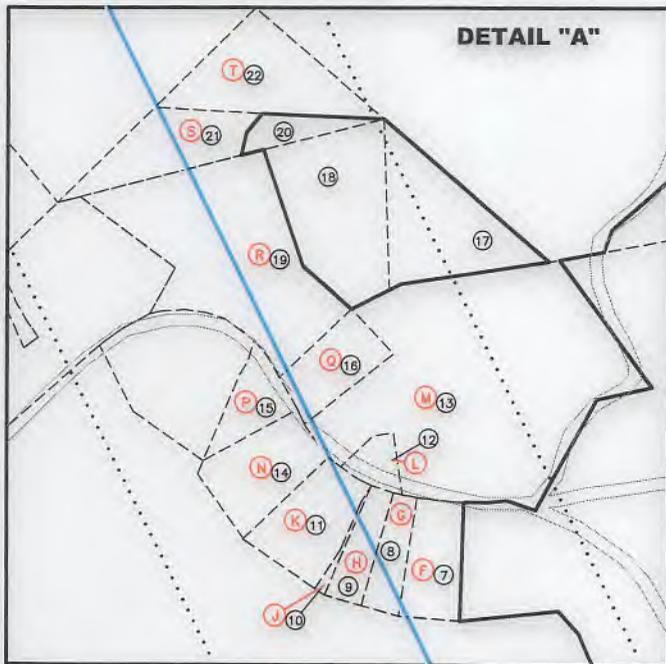
HAZLETT

M12H

PAGE 2 OF 2

	SURFACE OWNER	DIST-TM/PAR
1	IRENE HAZLETT -- LIFE	13-12/49
2	LEVI E. MAST ET AL	13-12/51
3	TIMOTHY J. CALISSIE ET UX	13-12/50
4	TIMMI L. KIDNEY	13-12/50.8
5	JOHN WILLIAM REILLY III ET AL	13-12/14
6	JOHN WILLIAM REILLY III ET AL	13-12/1
7	RITA A. GUZEK	13-12/6
8	MARK T. NAUMANN	13-12/5
9	JOHN B. GUZEK ET UX	13-12/5.1
10	JOHN B. & ELIZABETH A. GUZEK	13-12/4.1
11	TIMOTHY J. & JENNA L. COOK	13-12/4
12	*CITY OF GLEN DALE	13-11/79.8
13	TIMOTHY F. REILLY SR.	13-11/79.1
14	JOHN A. DEPTO ET UX	13-12/3
15	*KEVIN BROWN & SAMANTHA DURRAH	13-12/2
16	TIMOTHY F. REILLY	13-11/79
17	TIMOTHY F. REILLY SR.	13-11/77.2
18	JOHN WILLIAM REILLY III	13-11/79.3
19	JOHN WILLIAM REILLY III	13-11/79.7
20	MICHAEL J. REILLY ET UX	13-11/79.6
21	MICHAEL J. REILLY ET UX	13-11/79.5
22	MICHAEL JOSEPH REILLY	13-11/79.4
23	FREDERICK L. BRAUTIGAN ET UX	13-11/77
24	MARSHALL LAND LLC	8-6/2
25	MARSHALL LAND LLC	8-6/3

	LESSOR	DIST-TM/PAR
A	DONALD BOYD YOHO	13-12/49
	KELLY ANN MEASE	
	ZANE EDWARD NEILSEN	
	NANCY A. BAKER	
	LARRY JOHN MCCRACKEN	
	PATRICIA ANN MCCRACKEN	
	ROBERT JAY MCCRACKEN	
FLORENCE HAZLETT ET AL		
B	LEVI E. MAST ET AL	13-12/51
	BOUNTY MINERALS LLC	
	ELI A. YODER	
	DAVID H. MILLER	
C	TIMOTHY J. CALISSIE ET UX	13-12/50
D	MARY ANN YOHO	13-12/14
	MICHAEL J. REILLY	
	THERESA J. REYNOLDS	
	TIMOTHY F. REILLY	
	PATRICIA K. DORAN	
	JOHN W. REILLY III	
E	MARY ANN YOHO	13-12/1
	MICHAEL J. REILLY	
	THERESA J. REYNOLDS	
	TIMOTHY F. REILLY	
	PATRICIA K. DORAN	
JOHN W. REILLY III		
F	RITA A. GUZEK	13-12/6
G	MARK T. NAUMANN JR.	13-12/5
H	JOHN B. GUZEK ET UX	13-12/5.1
J	GREGORY GANTZER	13-12/4.1
K	GREGORY GANTZER	13-12/4
L	*CITY OF GLENDALE	13-11/79.8
M	TIMOTHY F. REILLY SR.	13-11/79.1
N	JOHN A. DEPTO	13-12/3
P	*KEVIN C. BROWN	13-12/2
Q	TIMOTHY F. REILLY SR.	13-11/79
R	JOHN WILLIAM REILLY III ET UX	13-11/79.7
S	MICHAEL JOSEPH REILLY ET UX	13-11/79.5
T	MICHAEL JOSEPH REILLY ET UX	13-11/79.4
U	BRAUTIGAN FAMILY TRST DTD 11/27/2017	13-11/77
V	RALEIGH LAND LLC	8-6/2
	GREENBRIER LAND CO LLC	
	RALEIGH LAND LLC	
W	RALEIGH LAND LLC	8-6/3
	GREENBRIER LAND CO LLC	



SURFACE HOLE LOCATION (SHL)
UTM 17-NAD83(M)
 N:4423430.00
 E:524134.09
 NAD83, WV NORTH
 N:534338.070
 E:1627250.866

APPROX. LANDING POINT
UTM 17-NAD83(M)
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 N:534643.674
 E:1625162.115

BOTTOM HOLE LOCATION (BHL)
UTM 17-NAD83(M)
 N:4425339.96
 E:522549.44
 NAD83, WV NORTH
 N:540692.620
 E:1622155.609

NOVEMBER 15, 2018

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6A, Section 5(a)(5)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
See Attached				

**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: Chevron Appalachia, LLC
 By: Jenny Hayes *Jenny Hayes*
 Its: Permitting Team Lead

4705102107

Hazlett Unit #12H - MARC - BATCH 2 MLS - FINAL

QIS NO	% Owned	Piat ID	Parcel	Lessor	Lessee	Royalty	Book/Page	Assignment #1	Assignment #2	Assignment #3	Assignment #4
934442	6.25%	1	13-0012-0049-0000-0000	Yoho, Donald Boyd	Chevron U.S.A. Inc.	0.18	854/74	-	-	-	-
934443	6.25%	1	13-0012-0049-0000-0000	Mease, Kelly Ann	Chevron U.S.A. Inc.	0.18	859/86	-	-	-	-
934444	12.50%	1	13-0012-0049-0000-0000	Nelisen, Zane Edward	Chevron U.S.A. Inc.	0.18	848/632	-	-	-	-
934837	12.50%	1	13-0012-0049-0000-0000	Baker, Nancy A.	Chevron U.S.A. Inc.	0.18	911/615	-	-	-	-
934842	4.17%	1	13-0012-0049-0000-0000	McCracken, Larry John	Chevron U.S.A. Inc.	0.18	848/581	-	-	-	-
934843	4.17%	1	13-0012-0049-0000-0000	McCracken, Patricia Ann	Chevron U.S.A. Inc.	0.18	848/586	-	-	-	-
934846	4.17%	1	13-0012-0049-0000-0000	McCracken, Robert Jay	Chevron U.S.A. Inc.	0.18	848/591	-	-	-	-
951834	50.00%	1	13-0012-0049-0000-0000	Hazlett, Florence et al	Chevron U.S.A. Inc.	0.1875	949/19	-	-	-	-
								21/642	27/50	30/427	30/461
				Mast, Levi E. et al	Mountaineer Natural gas Company	0.15	674/515	Mountaineer Gas Company to Chesapeake Appalachia, LLC	Chesapeake Appalachia, LLC to Statoil USA Onshore Properties, Inc.	Statoil U.S.A. Onshore Properties, Inc. to Chevron U.S.A. Inc.	Chesapeake Appalachia, L.L.C. to Chevron U.S.A. Inc.
953839	16.67%	2	13-0012-0051-0000-0000								
953839	50.00%	2	13-0012-0051-0000-0000	Bounty Minerals LLC	Chevron U.S.A. Inc.	0.2	950/193	-	-	-	-
955106	16.67%	2	13-0012-0051-0000-0000	Yoder, Eli A.	Chevron U.S.A. Inc.	0.18	961/1	-	-	-	-
955713	16.67%	2	13-0012-0051-0000-0000	Miller, David H.	Chevron U.S.A. Inc.	0.18	961/9	-	-	-	-
948207	100.00%	3	13-0012-0050-0000-0000	Calissie, Timothy J. et ux	Chevron U.S.A. Inc.	0.18	901/16	-	-	-	-
934990	100.00%	4	13-0012-0050-0000-0000	Kidney, Timmi L.	Chevron U.S.A. Inc.	0.18	848/496	-	-	-	-
933970	16.67%	5	13-0012-0014-0000-0000	Yoho, Mary Ann	Chevron U.S.A. Inc.	0.18	847/278	-	-	-	-
933971	16.67%	5	13-0012-0014-0000-0000	Reilly, Michael J.	Chevron U.S.A. Inc.	0.18	847/305	-	-	-	-
933972	16.67%	5	13-0012-0014-0000-0000	Reynolds, Theresa J.	Chevron U.S.A. Inc.	0.18	847/257	-	-	-	-
933973	16.67%	5	13-0012-0014-0000-0000	Reilly, Timothy F.	Chevron U.S.A. Inc.	0.18	847/241	-	-	-	-
933974	16.67%	5	13-0012-0014-0000-0000	Doran, Patricia K.	Chevron U.S.A. Inc.	0.18	847/287	-	-	-	-
933976	16.67%	5	13-0012-0014-0000-0000	Reilly, John W. III	Chevron U.S.A. Inc.	0.18	847/296	-	-	-	-
933970	16.67%	6	13-0012-0001-0000-0000	Yoho, Mary Ann	Chevron U.S.A. Inc.	0.18	847/278	-	-	-	-
933971	16.67%	6	13-0012-0001-0000-0000	Reilly, Michael J.	Chevron U.S.A. Inc.	0.18	847/305	-	-	-	-
933972	16.67%	6	13-0012-0001-0000-0000	Reynolds, Theresa J.	Chevron U.S.A. Inc.	0.18	847/257	-	-	-	-
933973	16.67%	6	13-0012-0001-0000-0000	Reilly, Timothy F.	Chevron U.S.A. Inc.	0.18	847/241	-	-	-	-
933974	16.67%	6	13-0012-0001-0000-0000	Doran, Patricia K.	Chevron U.S.A. Inc.	0.18	847/287	-	-	-	-
933976	16.67%	6	13-0012-0001-0000-0000	Reilly, John W. III	Chevron U.S.A. Inc.	0.18	847/296	-	-	-	-
934748	100.00%	7	13-0012-0006-0000-0000	Guzek, Rita A.	Chevron U.S.A. Inc.	0.18	847/443	-	-	-	-
936613	100.00%	8	13-0012-0005-0000-0000	Naumann, Mark T. Jr.	Chevron U.S.A. Inc.	0.18	861/592	-	-	-	-
934747	100.00%	9	13-0012-0005-0001-0000	Guzek, John B. et ux	Chevron U.S.A. Inc.	0.18	847/210	-	-	-	-
935307	100.00%	10	13-0012-0004-0001-0000	Gantzer, Gregory	Chevron U.S.A. Inc.	0.18	859/103	-	-	-	-
935507	100.00%	11	13-0012-0004-0000-0000	Gantzer, Gregory	Chevron U.S.A. Inc.	0.18	859/103	-	-	-	-
Pending	100.00%	12	13-0011-0079-0008-0000	City of Glen Dale	Chevron U.S.A. Inc.	0.19	UNRECORDED	-	-	-	-
949380	100.00%	13	13-0011-0079-0001-0000	Reilly, Timothy F. Sr.	Chevron U.S.A. Inc.	0.18	907/301	-	-	-	-
935244	100.00%	14	13-0012-0003-0000-0000	Depto, John A.	Chevron U.S.A. Inc.	0.18	853/499	-	-	-	-
952578	100.00%	15	13-0012-0002-0000-0000	Brown, Kevin C.	Chevron U.S.A. Inc.	0.18	940/415	-	-	-	-
949380	100.00%	16	13-0011-0079-0000-0000	Reilly, Timothy F. Sr.	Chevron U.S.A. Inc.	0.18	907/301	-	-	-	-
949380	100.00%	17	13-0011-0077-0002-0000	Reilly, Timothy F. Sr.	Chevron U.S.A. Inc.	0.18	907/31	-	-	-	-
949170	100.00%	18	13-0011-0079-0003-0000	Reilly, John William III et ux	Chevron U.S.A. Inc.	0.18	907/55	-	-	-	-
949170	100.00%	19	13-0011-0079-0007-0000	Reilly, John William III et ux	Chevron U.S.A. Inc.	0.18	907/55	-	-	-	-
949171	100.00%	20	13-0011-0079-0006-0000	Reilly, Michael Joseph et ux	Chevron U.S.A. Inc.	0.18	907/58	-	-	-	-
949171	100.00%	21	13-0011-0079-0005-0000	Reilly, Michael Joseph et ux	Chevron U.S.A. Inc.	0.18	907/58	-	-	-	-
949171	100.00%	22	13-0011-0079-0004-0000	Reilly, Michael Joseph et ux	Chevron U.S.A. Inc.	0.18	907/58	-	-	-	-
955060	100.00%	23	13-0011-0077-0000-0000	Brautigam Family Trst DTD 11/27/2017	Chevron U.S.A. Inc.	0.19	967/452	-	-	-	-
Pending	100.00%		Route 250	The West Virginia Department of Transportation, Division of Highways	Chevron U.S.A. Inc.	0.2	968/489	-	-	-	-
954010	50.00%	24	08-0006-0002-0000-0000	Raleigh Land LLC	Chevron U.S.A. Inc.	0.18	952/3	-	-	-	-
954016	50.00%	24	08-0006-0002-0000-0000	Greenbrier Land Co LLC	Chevron U.S.A. Inc.	0.18	952/6	-	-	-	-

RECEIVED
Office of Oil and Gas
NOV 27 2018
WV Department of
Environmental Protection

4705102107

Hazlett Unit #12H - MARC - BATCH 2 MLS - FINAL

QLS NO	% Owned	Plat ID	Parcel	Lessor	Lessee	Royalty	Book/Page	Assignment #1	Assignment #2	Assignment #3	Assignment #4
954010	50.00%	25	08-0006-0003-0000-0000	Raleigh Land LLC	Chevron U.S.A. Inc.	0.18	952/3	-	-	-	-
954016	50.00%	25	08-0006-0003-0000-0000	Greenbrier Land Co LLC	Chevron U.S.A. Inc.	0.18	952/6	-	-	-	-

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Mitchell G. Limbert
Land Representative, AMBU

4705 02107

June 4, 2018

West Virginia D.E.P.
Office of Oil & Gas
601 57th Street SE
Charleston, WV 25304-2345

RE: Hazlett 1H, 2H, 3H, 4H, 5H, 6H, 7H, 8H, 12H, 13H, 14H, 15H, 16H, 17H

To Whom It May Concern,

This letter is to confirm that Chevron U.S.A., Inc. has the rights to access minerals under any road along the above referenced laterals. If you should have any further questions or need additional documentation, please feel free to contact me.

Sincerely,

Mitchell G. Limbert
Land Representative

4705-02107

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE CERTIFICATION

Date of Notice Certification: 06/07/2018

API No. 47- _____
Operator's Well No. M12H
Well Pad Name: Hazlett

Notice has been given:

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>524134.092</u>
County:	<u>Marshall</u>		Northing:	<u>4423430.001</u>
District:	<u>Union</u>	Public Road Access:	<u>CR 10 Markey Lane</u>	
Quadrangle:	<u>Moundsville, WV 7.5'</u>	Generally used farm name:	<u>Hazlett</u>	
Watershed:	<u>Short Creek - Ohio River</u>			

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

<p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input checked="" type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p style="padding-left: 100px;"><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>	<p>OOG OFFICE USE ONLY</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input checked="" type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input checked="" type="checkbox"/> RECEIVED</p> <p><input checked="" type="checkbox"/> RECEIVED</p> <p><input checked="" type="checkbox"/> RECEIVED</p>
<p>RECEIVED Office of Oil and Gas</p> <p>AUG 7 2018</p> <p>WV Department of Environmental Protection</p>	

Required Attachments:
 The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

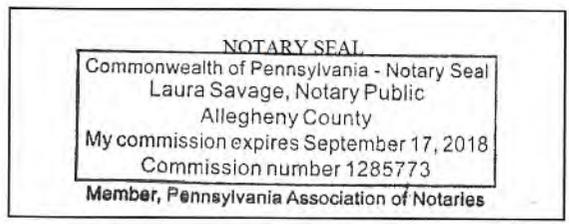
4705 02107

Certification of Notice is hereby given:

THEREFORE, I Jenny Hayes, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all 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. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator: Chevron Appalachia, LLC
By: Jenny Hayes
Its: Permitting Team Lead
Telephone: 412-865-1533

Address: 700 Cherrington Parkway
Coraopolis, PA 15108
Facsimile: 412-865-2403
Email: JZYK@chevron.com



Jenny Hayes COMMONWEALTH OF PENNSYLVANIA
COUNTY OF ALLEGHENY
Subscribed and sworn before me this 7th day of June 2018.
Laura Savage Notary Public
My Commission Expires September 17, 2018

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at deprivacyofficer@wv.gov.

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STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS 4705 + 02107
NOTICE OF APPLICATION

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notice: 6/7/18 Date Permit Application Filed: 8/6/18

Notice of:

- PERMIT FOR ANY WELL WORK
- CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Application Notice WSSP Notice E&S Plan Notice Well Plat Notice is hereby provided to:

SURFACE OWNER(s)
Name: Florence Irene Hazlett (Life Estate Interest)
Address: 648 Markey Hill Lane
Glen Dale, WV 26038

Name: Michael C. Hazlett (Remainder Interest)
Address: 648 Markey Hill Lane
Glen Dale, WV 26038

SURFACE OWNER(s) (Road and/or Other Disturbance)

Name: _____
Address: _____

Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments or Pits)

Name: _____
Address: _____

COAL OWNER OR LESSEE
Name: Consol Mining Company, LLC
Address: 1000 Consol Energy Drive
Canonsburg, PA 15317

COAL OPERATOR
Name: _____
Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Name: See Attached
Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: _____
Address: _____

*Please attach additional forms if necessary

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4705 02107

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

This Notice Shall Include:

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

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Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

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examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

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Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

Written Comment:

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

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

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Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. **NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

Time Limits and Methods for Filing Comments.

The law requires these materials to be served on or before the date the operator files its Application. You have **THIRTY (30) 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.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

Comment Requirements

Your comments must be in writing and 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.

Disclaimer: All comments received will be placed on our web site <http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx> and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

Permit Denial or Condition

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

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WW-6A
(8-13)

API NO. 47-_____
OPERATOR WELL NO. M12H
Well Pad Name: Hazlett

Notice is hereby given by:

Well Operator: Chevron Appalachia, LLC
Telephone: 412-865-1533
Email: jzyk@chevron.com

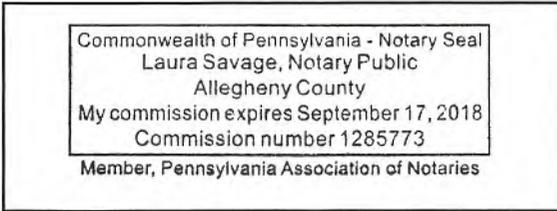
Address: 700 Cherrington Parkway
Coraopolis, PA 15108 **4705 * 02107**
Facsimile: 412-865-2403

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

Jenny Hays

*Commonwealth of Pennsylvania
County of Allegheny*



Subscribed and sworn before me this 7th day of June, 2018.

Laura Savage Notary Public

My Commission Expires September 17, 2018

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Attachment to WW-6A

API No. 47- _____ - _____

OPERATOR WELL NO. M12H

Well Pad Name: Hazlett

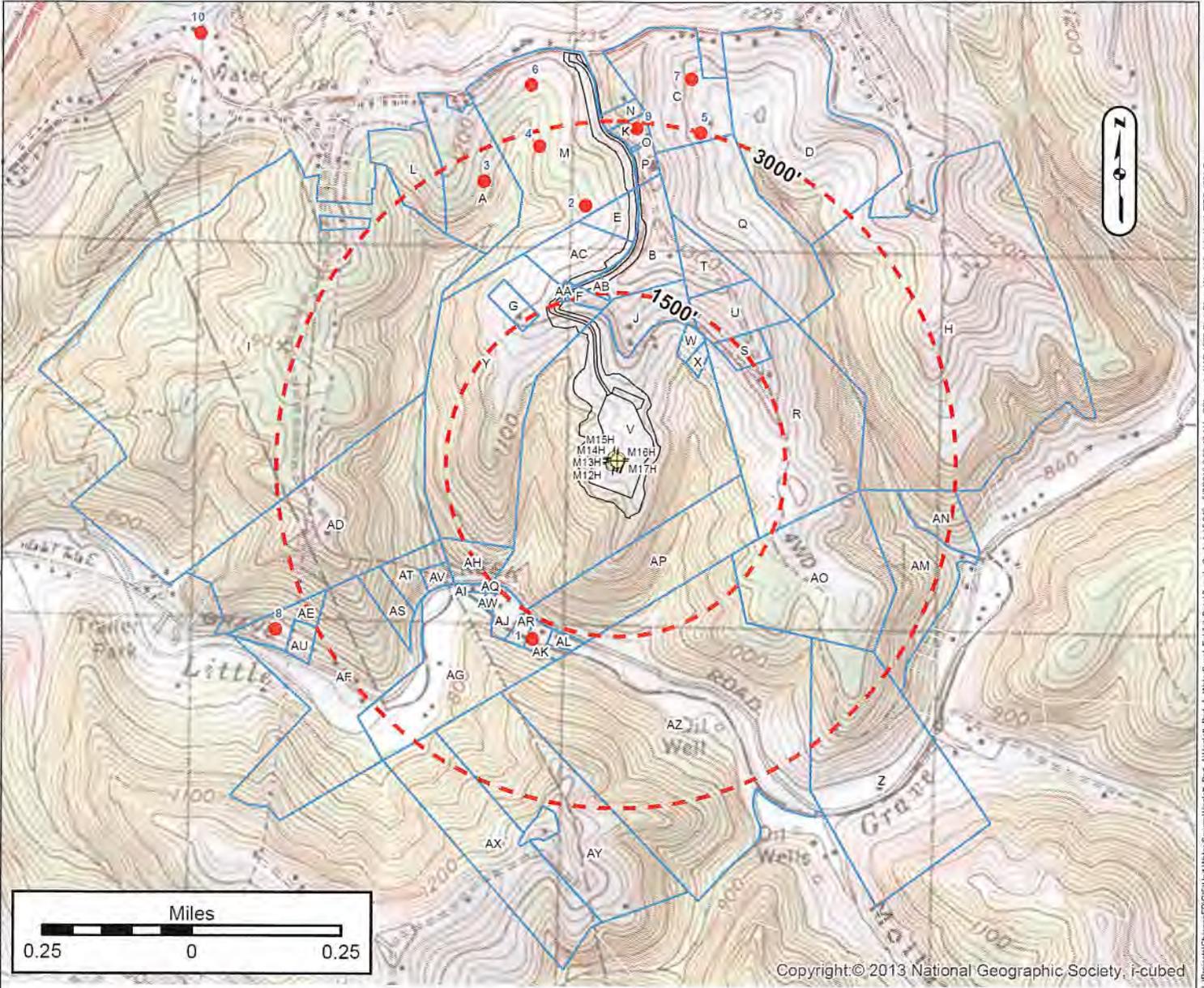
- SURFACE OWNER**
Name: Loretta Kay Wallace (Remainder Interest)
Address: 1485 Missy Court
Hamilton, OH 45013
- COAL OWNER OR LESSEE**
Name: Consol Mining Company, LLC
Address: 1000 Consol Energy Drive
Canonsburg, PA 15317
- COAL OPERATOR**
Name:
Address:
- SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR**
Name: Thomas D & Janet E. Vickers
Address: 1526 Little Grave Creek Drive
Glen Dale, WV 26038
- SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR**
Name:
Address:
- SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR**
Name:
Address:
- SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR**
Name:
Address:
- SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR**
Name:
Address:

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WATER SUPPLY EXHIBIT HAZLETT PAD A BATCH #2

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LOT OWNERS

Label	Owner	TM	Label	Owner	TM	Label	Owner	TM
A	KEY GLADYS E - LIFE	25-13 12002700000000	N	OTTE MICHAEL P	25-13 12003100000000	AB	CALLISSIE TIMOTHY J	25-13 12005000000000
B	OTTE MARK DOUGLAS ET UX	25-13 12005000040000	O	OTTE HUBERT CHAS & JANE E	25-13 12003200010000	AC	KIDNEY JARROD S & TIMMI L	25-13 12005000060000
C	OTTE MICHAEL P & DENISE A	25-13 12003500010000	P	OTTE MARK D	25-13 12003300000000	AD	MAST LEVI E ET AL	25-13 12005100000000
D	ANGEL ADAM S JR	25-13 11006100000000	Q	OTTE MARK D & KELLY J	25-13 12003500000000	AE	MCCLINTOCK LARRY L & ALICIA S	25-14 10016000400000
E	LEACH CHARLES L JR	25-13 12005000070000	R	GLEN DALE CITY OF	25-13 12004400000000	AF	YODER ELI A ET AL	25-14 10016000000000
F	CALLISSIE TIMOTHY J ET UX	25-13 12005000020000	S	GLEN DALE TOWN DP	25-13 12004500000000	AG	KOSKI TEDDY F ET UX	25-14 10017000000000
G	KIDNEY JARROD S & TIMMI L	25-13 12005000080000	T	HAZLETT IRENE - LIFE	25-13 12004600000000	AH	SPRINGER BARBARA K	25-13 12005000010000
H	KURELAC PATRICIA A	25-13 12003500000000	U	HAZLETT FLORENCE IRENE - LIFE	25-13 12004600010000	AI	VOELLINGER JOHN & LORI	25-13 12005000090000
I	REILLY JOHN WILLIAM III ET AL	25-13 12001400000000	V	HAZLETT IRENE - LIFE	25-13 12004900000000	AJ	LINZY LINDA A	25-13 12004800020000
J	HAZLETT FLORENCE IRENE - LIFE	25-13 12004900030000	W	HAZLETT MICHAEL C - LIFE	25-13 12004900010000	AK	VICKERS MARY E EST	25-13 12004800000000
K	OTTE HUBERT CHAS & JANE E	25-13 12003200000000	X	HAZLETT MICHAEL C - LIFE	25-13 12004900020000	AL	VICKERS THOMAS D & JANET E	25-13 12004800010000
L	BURCH LESTER M ET UX	25-13 12002600000000	Y	CALLISSIE TIMOTHY J ET UX	25-13 12005000000000	AM	ROBINSON GARY A	25-13 12004300010000
M	OTTE THOMAS L ET AL - LIFE	25-13 12002800000000	AA	CALLISSIE TIMOTHY J ET UX	25-13 12005000030000	AN	RICHARDS CHRISTINE	25-13 12004200010000
						AO	OTTE HUBERT C ET AL	25-13 12004300000000
						AP	HAZLETT IRENE - LIFE	25-13 12004700000000
						AQ	KOSKI TEDDY F & EMMA JANE	25-13 12004800030000
						AR	RHODES LISA & NORMAN L	25-13 12004800040000
						AS	YODER ELI A ET AL	25-14 10016000100000
						AT	YODER ELI A ET AL	25-14 10016000200000
						AU	NGUYEN LAMSON N ET UX	25-14 10016000300000
						AV	SPRINGER BARBARA K	25-14 10016000500000
						AW	LINZY LINDA A	25-14 10017000100000
						AX	MARSHALL COUNTY PARK & REC	25-14 20008000000000
						AY	MARSHALL COUNTY PARK & REC	25-14 20009000000000
						AZ	OTTE HUBERT C ET AL	25-14 30002000000000
						Z	OTTE HUBERT C ET AL	25-14 30003000000000

Surface Owner: IRENE HAZLETT
 Oil/Gas Owner: IRENE HAZLETT
 Well Operator: CHEVRON APPALACHIA, LLC
 Address: 700 CHERRINGTON PARKWAY
CORAOPOLIS, PA 15108
 Phone: 724-564-3700

County: MARSHALL
 Township: GLEN DALE, WV
 Surveyor: SERVICES, INC.
 Address: 301 COMMERCE PARK DR
CRANBERRY TOWNSHIP, PA 16066
 Phone: 800-267-2549

AUG 7 2018

WV Department of Environmental Protection

NOTICE: THE INTENT OF THIS EXHIBIT IS TO IDENTIFY EXISTING WATER SUPPLIES IN THE VICINITY OF A PROPOSED GAS WELL, AND IS NOT A COMPLETE BOUNDARY SURVEY. PROPERTY LINES AND OWNER INFORMATION WERE OBTAINED FROM DEEDS, TAX RECORDS, AERIAL PHOTOGRAPHY, GIS, AND FIELD SURVEYED EVIDENCE.

4705102107

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF INTENT TO DRILL

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Requirement: Notice shall be provided at least TEN (10) days prior to filing a permit application.
Date of Notice: 06/07/2018 **Date Permit Application Filed:** 8/6/18

Delivery method pursuant to West Virginia Code § 22-6A-16(b)

- HAND DELIVERY CERTIFIED MAIL RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Notice is hereby provided to the SURFACE OWNER(s):

Name: Florence Irene Hazlett (Life Estate Interest)
Address: 1078 Markey Hill Lane
Glen Dale, WV 26038

Name: Michael C. Hazlett (Remainder Interest)
Address: 1078 Markey Hill Lane
Glen Dale, WV 26038

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: West Virginia UTM NAD 83 Easting: 524134.092
County: Marshall Northing: 4423430.001
District: Union Public Road Access: CR 10 Markey Lane
Quadrangle: Moundsville, WV 7.5' Generally used farm name: Hazlett
Watershed: Short Creek - Ohio River

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: Chevron Appalachia, LLC
Address: 700 Cherrington Parkway
Coraopolis, PA 15108
Telephone: 412-865-2504
Email: slaird@chevron.com
Facsimile: 412-865-2403

Authorized Representative: _____
Address: _____
Telephone: _____
Email: _____
Facsimile: _____

RECEIVED
Office of Oil and Gas
AUG 7 2018

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

WV Department of
Environmental Protection

4705102107

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF INTENT TO DRILL

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Requirement: Notice shall be provided at least TEN (10) days prior to filing a permit application.

Date of Notice: 06/07/2018 **Date Permit Application Filed:** 8/6/18

Delivery method pursuant to West Virginia Code § 22-6A-16(b)

- HAND DELIVERY
- CERTIFIED MAIL RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Notice is hereby provided to the SURFACE OWNER(s):

Name: Loretta Kay Wallace (Remainder Interest)
Address: 1485 Missy Court
Hamilton, OH 45013

Name: _____
Address: _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83 Easting:	<u>524134.092</u>
County:	<u>Marshall</u>	Northing:	<u>4423430.001</u>
District:	<u>Union</u>	Public Road Access:	<u>CR 10 Markey Lane</u>
Quadrangle:	<u>Moundsville, WV 7.5'</u>	Generally used farm name:	<u>Hazlett</u>
Watershed:	<u>Short Creek - Ohio River</u>		

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: Chevron Appalachia, LLC
Address: 700 Cherrington Parkway
Coraopolis, PA 15108
Telephone: 412-865-2504
Email: slaird@chevron.com
Facsimile: 412-865-2403

Authorized Representative: _____
Address: _____
Telephone: _____
Email: _____
Facsimile: _____

RECEIVED
Office of Oil and Gas
AUG 7 2018

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

WV Department of
Environmental Protection

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF PLANNED OPERATION 4705 02107

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 06/07/2018 **Date Permit Application Filed:** 8/16/18

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

- CERTIFIED MAIL HAND
RETURN RECEIPT REQUESTED DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)

(at the address listed in the records of the sheriff at the time of notice):

Name: Florence Irene Hazlett (Life Estate Interest)
Address: 648 Markey Hill Lane
Glen Dale, WV 26038

Name: Michael C. Hazlett (Remainder Interest)
Address: 648 Markey Hill Lane
Glen Dale, WV 26038

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: <u>West Virginia</u>	UTM NAD 83 Easting: <u>524134.092</u>
County: <u>Marshall</u>	Northing: <u>4423430.001</u>
District: <u>Union</u>	Public Road Access: <u>CR 10 Markey Road</u>
Quadrangle: <u>Moundsville, WV 7.5'</u>	Generally used farm name: <u>Hazlett</u>
Watershed: <u>Short Creek - Ohio River</u>	

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by **W. Va. Code § 22-6A-10(b)** to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: Chevron Appalachia, LLC
Telephone: 412-865-2504
Email: slaird@chevron.com

Address: 700 Cherrington Parkway
Coraopolis, PA 15108
Facsimile: 412-865-2403

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

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ABLE contact
7 2018
WV Department of
Environmental Protection

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
VOLUNTARY STATEMENT OF NO OBJECTION

Instructions to Persons Named on Page WW-6A

The well operator named on page WW-6A is applying for a permit from the State of West Virginia to conduct oil or gas well work. Well work permits are valid for twenty-four (24) months. Please contact the listed well operator and the Office of Oil and Gas if you do not own any interest in the listed surface tract.

Comment and Waiver Provisions

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary.

Pursuant to West Virginia Code § 22-6A-8(b) No permit may be issued less than thirty days after the filing date of the application for any well work except plugging or replugging; and no permit for plugging or replugging may be issued less than five days after the filing date of the application except a permit for plugging or replugging a dry hole: *Provided*, That if the applicant certifies that all persons entitled to notice of the application under the provisions of subsection (b), section ten of this article have been served in person or by certified mail, return receipt requested, with a copy of the well work application, including the erosion and sediment control plan, if required, and the well plat, and further files written statements of no objection by all such persons, the secretary may issue the well work permit at any time.

VOLUNTARY STATEMENT OF NO OBJECTION

I, _____, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through _____, including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>524134.092</u>
County:	<u>Marshall</u>		Northing:	<u>4423430.001</u>
District:	<u>Union</u>	Public Road Access:	<u>CR 10 Markey Lane</u>	
Quadrangle:	<u>Moundsville, WV 7.5'</u>	Generally used farm name:	<u>Hazlett</u>	
Watershed:	<u>Short Creek/Ohio River</u>			

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.

<p>*Please check the box that applies</p> <p><input checked="" type="checkbox"/> SURFACE OWNER</p> <p><input type="checkbox"/> SURFACE OWNER (Road and/or Other Disturbance)</p> <p><input type="checkbox"/> SURFACE OWNER (Impoundments/Pits)</p> <p><input type="checkbox"/> COAL OWNER OR LESSEE</p> <p><input type="checkbox"/> COAL OPERATOR</p> <p><input type="checkbox"/> WATER PURVEYOR</p> <p><input type="checkbox"/> OPERATOR OF ANY NATURAL GAS STORAGE FIELD</p>	<p>FOR EXECUTION BY A NATURAL PERSON</p> <p>Signature: <u>Jane Hazlett</u></p> <p>Print Name: <u>Jane Hazlett</u></p> <p>Date: <u>7-1-18</u></p>
	<p>FOR EXECUTION BY A CORPORATION, ETC.</p> <p>Company: _____</p> <p>By: _____</p> <p>Its: _____</p> <p>Signature: _____</p> <p>Date: _____</p>

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Office of Oil and Gas
AUG 7 2018
WV Department of
Environmental Protection

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
VOLUNTARY STATEMENT OF NO OBJECTION

Instructions to Persons Named on Page WW-6A

The well operator named on page WW-6A is applying for a permit from the State of West Virginia to conduct oil or gas well work. Well work permits are valid for twenty-four (24) months. Please contact the listed well operator and the Office of Oil and Gas if you do not own any interest in the listed surface tract.

Comment and Waiver Provisions

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary.

Pursuant to West Virginia Code § 22-6A-8(b) No permit may be issued less than thirty days after the filing date of the application for any well work except plugging or replugging; and no permit for plugging or replugging may be issued less than five days after the filing date of the application except a permit for plugging or replugging a dry hole: *Provided*, That if the applicant certifies that all persons entitled to notice of the application under the provisions of subsection (b), section ten of this article have been served in person or by certified mail, return receipt requested, with a copy of the well work application, including the erosion and sediment control plan, if required, and the well plat, and further files written statements of no objection by all such persons, the secretary may issue the well work permit at any time.

VOLUNTARY STATEMENT OF NO OBJECTION

I, Loretta K Wallace hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through _____, including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>524134.092</u>
County:	<u>Marshall</u>		Northing:	<u>4423430.001</u>
District:	<u>Union</u>	Public Road Access:	<u>CR 10 Markey Lane</u>	
Quadrangle:	<u>Moundsville, WV 7.5'</u>	Generally used farm name:	<u>Hazlett</u>	
Watershed:	<u>Short Creek/Ohio River</u>			

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.

<p>*Please check the box that applies</p> <p><input type="checkbox"/> SURFACE OWNER</p> <p><input type="checkbox"/> SURFACE OWNER (Road and/or Other Disturbance)</p> <p><input type="checkbox"/> SURFACE OWNER (Impoundments/Pits)</p> <p><input type="checkbox"/> COAL OWNER OR LESSEE</p> <p><input type="checkbox"/> COAL OPERATOR</p> <p><input type="checkbox"/> WATER PURVEYOR</p> <p><input type="checkbox"/> OPERATOR OF ANY NATURAL GAS STORAGE FIELD</p>	<p>FOR EXECUTION BY A NATURAL PERSON</p> <p>Signature: <u>Loretta K Wallace</u></p> <p>Print Name: <u>Loretta K. Wallace</u></p> <p>Date: <u>June 24, 2018</u></p> <p>FOR EXECUTION BY A CORPORATION, ETC.</p> <p>Company: _____</p> <p>By: _____</p> <p>Its: _____</p> <p>Signature: _____</p> <p>Date: _____</p>
---	--

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Office of Oil and Gas
AUG 7 2018
WV Department of
Environmental Protection

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
VOLUNTARY STATEMENT OF NO OBJECTION

Instructions to Persons Named on Page WW-6A

The well operator named on page WW-6A is applying for a permit from the State of West Virginia to conduct oil or gas well work. Well work permits are valid for twenty-four (24) months. Please contact the listed well operator and the Office of Oil and Gas if you do not own any interest in the listed surface tract.

Comment and Waiver Provisions

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary.

Pursuant to West Virginia Code § 22-6A-8(b) No permit may be issued less than thirty days after the filing date of the application for any well work except plugging or replugging; and no permit for plugging or replugging may be issued less than five days after the filing date of the application except a permit for plugging or replugging a dry hole: *Provided*, That if the applicant certifies that all persons entitled to notice of the application under the provisions of subsection (b), section ten of this article have been served in person or by certified mail, return receipt requested, with a copy of the well work application, including the erosion and sediment control plan, if required, and the well plat, and further files written statements of no objection by all such persons, the secretary may issue the well work permit at any time.

VOLUNTARY STATEMENT OF NO OBJECTION

I, Casey V. Saunders, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through _____, including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows:

State: West Virginia UTM NAD 83 Easting: 524134.092
County: Marshal Northing: 4423430.001
District: Union Public Road Access: _____
Quadrangle: _____ Generally used farm name: _____
Watershed: _____

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.

<p>*Please check the box that applies</p> <p><input type="checkbox"/> SURFACE OWNER</p> <p><input type="checkbox"/> SURFACE OWNER (Road and/or Other Disturbance)</p> <p><input type="checkbox"/> SURFACE OWNER (Impoundments/Pits)</p> <p><input checked="" type="checkbox"/> COAL OWNER OR LESSEE</p> <p><input checked="" type="checkbox"/> COAL OPERATOR</p> <p><input type="checkbox"/> WATER PURVEYOR</p> <p><input type="checkbox"/> OPERATOR OF ANY NATURAL GAS STORAGE FIELD</p>	<p>FOR EXECUTION BY A NATURAL PERSON</p> <p>Signature: _____</p> <p>Print Name: _____</p> <p>Date: _____</p> <p>FOR EXECUTION BY A CORPORATION, ETC.</p> <p>Company: <u>CONSOL Energy</u></p> <p>By: <u>Casey V. Saunders</u></p> <p>Its: <u>Manager Coal/Gas Coordination</u></p> <p>Signature: <u>Casey V. Saunders</u></p> <p>Date: <u>03/21/2018</u></p> <p style="text-align: right;">RECEIVED Office of Oil and Gas AUG 7 2018</p>
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WV Department of Environmental Protection

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.



4705 02107

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

1900 Kanawha Boulevard East • Building Five • Room 110
Charleston, West Virginia 25305-0430 • (304) 558-3505

Thomas J. Smith, P. E.
Secretary of Transportation/
Commissioner of Highways

June 13, 2018

Jill M. Newman
Deputy Commissioner

James A. Martin, Chief
Office of Oil and Gas
Department of Environmental Protection
601 57th Street, SE
Charleston, WV 25304

Subject: DOH Permit for the Hazlett Pad A Well Site, Marshall County
Hazlett A Unit 12H

Dear Mr. Martin,

The West Virginia Division of Highways has issued Permit #06-2018-0433 for the subject site to Chevron Appalachia, LLC for access to the State Road for the well site located off of Marshall County Route 10 SLS.

The operator has signed a STATEWIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

Very Truly Yours,

Gary K. Clayton, P.E.
Regional Maintenance Engineer
Central Office Oil & Gas Coordinator

Cc: Mandy Fordyce
Chevron Appalachia, LLC
CH, OM, D-6
File

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Hydraulic Fracturing Fluid Additives

Supplier	Name	Purpose
Universal	7.5% HCl Acid	Acid - To open perforations
Universal	Unislick ST50	Friction Reducer for Water and Brine (Anionic)
Universal	Scale Inhibitor A	Scale Inhibitor
Universal	Iron Control A	Iron Control
Universal	Unihib G	Corrosion Inhibitor for Acid
Universal	K-Bac 1020	Biocide/Bactericide
Universal	CMHPG (Polyfrac Gel)	Gel
Universal	LEB 10X	Gel Breaker
Universal	100 Mesh White Sand	Proppant
Universal	40-70 Mesh White Sand	Proppant

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WV Department of
Environmental Protection

HAZLETT WELL PAD EROSION AND SEDIMENT CONTROL PLAN

MARKEY LANE (C.R.-10)
UNION DISTRICT, MARSHALL COUNTY, WEST VIRGINIA

PREPARED FOR:
CHEVRON APPALACHIA, LLC
700 CHERRINGTON PARKWAY
CORAOPOLIS, PA 15108



CONSULTANTS
CHEFF & ENVIRONMENTAL CONSULTANTS, INC.
4000 TRIANGLE LANE, SUITE 200
EXPORT, PA 15632
PHONE: 724-337-6500

CIVIL/SITE ENGINEER CONTACT: KRISHNA A. MADARCEE
EMAIL ADDRESS: kmadarcee@cheff.com
GEO-TECHNICAL ENGINEER CONTACT: MARRI H. LAWACE
EMAIL ADDRESS: mlawace@cheff.com

SITE COORDINATES AND WATERBESH
START OF ACCESS ROAD
LATITUDE: 32.824928° N, LONGITUDE: 80.719023° W
END OF ACCESS ROAD
LATITUDE: 32.262533° N, LONGITUDE: 80.717559° W
APPROXIMATE CENTER OF WELL PAD
LATITUDE: 39.901081° N, LONGITUDE: 80.717080° W
APPROXIMATE CENTER OF WELL PAD
LATITUDE: 32.850661° N, LONGITUDE: 80.717312° W

*BASED ON DMI 83, WEST VIRGINIA NORTH ZONE
WATERSHED NAME: UPPER OHIO SOUTH
RECEIVING STREAM: UNIMATED TRIBUTARIES TO LITTLE OHIO
CREEK

STREAM AND WETLAND PERMANENT IMPACTS
(SUBJECT TO USACE NATIONWIDE PERMIT 20)
UNIT 3 TO LITTLE OHIO CREEK (EPM) - 72 LF
UNIT 2 TO LITTLE OHIO CREEK (EPM) - 170 LF
UNIT 4 TO LITTLE OHIO CREEK (EPM) - 50 LF
WETLAND 1A (PEM) - 0.008 AC
WETLAND 1B (PEM) - 0.002 AC
WETLAND 2 (PEM) - 0.002 AC
WETLAND 3A (PEM) - 0.076 AC

WETLANDS WITHIN 100 LF OF THE LIMIT OF DISTURBANCE (SUBJECT TO WETLAND WAIVER REQUEST)
WETLAND 1A (PEM) - 0 FT FROM LOD
WETLAND 3A (PEM) - 0 LF FROM LOD
WETLAND 3B (PEM) - 53 LF FROM LOD
WETLAND 4 (PEM) - 1 LF FROM LOD

REFERENCES
1. STREAMS AND WETLANDS BOUNDARIES BY CHEFF & ENVIRONMENTAL CONSULTANTS, INC. DATED 05/23/2017.
2. UNDERGROUND UTILITIES LOCATED BY A DEEPENSON, SURVEY CONDUCTED BY THE DEPARTMENT OF WATER RESOURCES ON 05/23/2017 TO 05/23/2017.
3. TOPOGRAPHY WITHIN THE PROPOSED AREA AND ADJACENT TOWN FEATURES SUPPLIED BY CHEFF & ENVIRONMENTAL CONSULTANTS, INC. DATED 02/28/2017 TO 02/28/2017 AND 02/23/2017 TO 02/23/2017. TOPOGRAPHY OUTSIDE OF THE PROJECT AREA IS SUPERIMPOSED WITH WEST VIRGINIA LOCAL DATUM 2005.
4. BATHYMETRIC DATA FROM 0000001 WITH PMS DATED 2016.
5. PROPERTY BOUNDARIES WERE PROVIDED BY CHEVRON.

Wellpad No.	Northing	Easting	Latitude (North)	Longitude (West)
M001	54804.7071	163724.0453	39.860251	80.717458
M002	54810.5983	162733.5505	39.860112	80.717477
M003	548175.4500	162732.6366	39.860773	80.717494
M004	54822.2223	162732.7618	39.860754	80.717512
M005	54828.2141	162732.8477	39.860806	80.717531
M006	54834.1657	162732.9335	39.860858	80.717549
M007	54840.0673	162733.0193	39.860910	80.717567
M008	54845.9491	162733.1051	39.860962	80.717585
M009	54851.8308	162733.1909	39.861014	80.717603
M010	54857.7126	162733.2767	39.861066	80.717621
M011	54863.5943	162733.3625	39.861118	80.717639
M012	54869.4761	162733.4483	39.861170	80.717657
M013	54875.3578	162733.5341	39.861222	80.717675
M014	54881.2396	162733.6199	39.861274	80.717693
M015	54887.1213	162733.7057	39.861326	80.717711
M016	54893.0031	162733.7915	39.861378	80.717729
M017	54898.8848	162733.8773	39.861430	80.717747
M018	54904.7666	162733.9631	39.861482	80.717765
M019	54910.6483	162734.0489	39.861534	80.717783
M020	54916.5301	162734.1347	39.861586	80.717801
M021	54922.4118	162734.2205	39.861638	80.717819
M022	54928.2936	162734.3063	39.861690	80.717837
M023	54934.1753	162734.3921	39.861742	80.717855
M024	54940.0571	162734.4779	39.861794	80.717873
M025	54945.9388	162734.5637	39.861846	80.717891
M026	54951.8206	162734.6495	39.861898	80.717909
M027	54957.7023	162734.7353	39.861950	80.717927
M028	54963.5841	162734.8211	39.862002	80.717945
M029	54969.4658	162734.9069	39.862054	80.717963
M030	54975.3476	162734.9927	39.862106	80.717981
M031	54981.2293	162735.0785	39.862158	80.717999
M032	54987.1111	162735.1643	39.862210	80.718017
M033	54992.9928	162735.2501	39.862262	80.718035
M034	54998.8746	162735.3359	39.862314	80.718053
M035	55004.7563	162735.4217	39.862366	80.718071
M036	55010.6381	162735.5075	39.862418	80.718089
M037	55016.5198	162735.5933	39.862470	80.718107
M038	55022.4016	162735.6791	39.862522	80.718125
M039	55028.2833	162735.7649	39.862574	80.718143
M040	55034.1651	162735.8507	39.862626	80.718161
M041	55040.0468	162735.9365	39.862678	80.718179
M042	55045.9286	162736.0223	39.862730	80.718197
M043	55051.8103	162736.1081	39.862782	80.718215
M044	55057.6921	162736.1939	39.862834	80.718233
M045	55063.5738	162736.2797	39.862886	80.718251
M046	55069.4556	162736.3655	39.862938	80.718269
M047	55075.3373	162736.4513	39.862990	80.718287
M048	55081.2191	162736.5371	39.863042	80.718305
M049	55087.1008	162736.6229	39.863094	80.718323
M050	55092.9826	162736.7087	39.863146	80.718341
M051	55098.8643	162736.7945	39.863198	80.718359
M052	55104.7461	162736.8803	39.863250	80.718377
M053	55110.6278	162736.9661	39.863302	80.718395



SITE LIMITS OF DISTURBANCE (AC)	
WELL PAD	12.9
ACCESS ROAD	3.5
STOCKPILES	2.1
TOTAL AREA	18.5
WOODED AREA DISTURBED	2.1
LIMIT OF DISTURBANCE IMPACTS (ROW/FORMAL LANDOWNERS) (AC)	
WELL PAD	12.9
ACCESS ROAD	3.5
STOCKPILES	2.1
TOTAL AREA	16.7
WOODED AREA DISTURBED	1.4
IMPACTS TO FLORENCE RIVER HAZLETT (AC)	
WELL PAD	12.9
ACCESS ROAD	2.3
STOCKPILES	1.7
TOTAL AREA	16.7
WOODED AREA DISTURBED	1.4
IMPACTS TO TIMOTHY L. CAUSHE (AC)	
WELL PAD	0.0
ACCESS ROAD	1.2
STOCKPILES	0.0
TOTAL AREA	1.2
WOODED AREA DISTURBED	0.0
IMPACTS TO JARROLD L. THAM BOWEN (AC)	
WELL PAD	0.0
ACCESS ROAD	0.8
STOCKPILES	0.0
TOTAL AREA	0.8
WOODED AREA DISTURBED	0.0

DWG. NO.	SHEET TITLE	INCLUDED	LAST REVISED
ES 000	COVER SHEET	X	11/01/2018
ES 002	EXISTING TOPOGRAPHIC PLAN	X	11/01/2018
ES 100	OVERALL EROSION AND SEDIMENT CONTROL PLAN	X	11/01/2018
ES 104	EROSION AND SEDIMENT CONTROL PLAN (1 OF 2)	X	11/01/2018
ES 200	EROSION AND SEDIMENT CONTROL PLAN (2 OF 2)	X	11/01/2018
ES 501	STOCKPILE CROSS-SECTIONS	X	11/01/2018
ES 204	WELL PAD PLAN VIEW	X	11/01/2018
ES 105	WELL PAD CROSS-SECTIONS	X	11/01/2018
ES 106	EROSION AND SEDIMENT CONTROL DETAILS (1 OF 6)	X	11/01/2018
ES 107	EROSION AND SEDIMENT CONTROL DETAILS (2 OF 6)	X	11/01/2018
ES 108	EROSION AND SEDIMENT CONTROL DETAILS (3 OF 6)	X	11/01/2018
ES 208	EROSION AND SEDIMENT CONTROL DETAILS (4 OF 6)	X	11/01/2018
ES 110	EROSION AND SEDIMENT CONTROL DETAILS (5 OF 6)	X	11/01/2018
ES 111	EROSION AND SEDIMENT CONTROL DETAILS (6 OF 6)	X	11/01/2018
ES 112	ACCESS ROAD PLAN AND PROFILE	X	11/01/2018
ES 113	ACCESS ROAD CROSS-SECTIONS (1 OF 2)	X	11/01/2018
ES 114	ACCESS ROAD CROSS-SECTIONS (2 OF 2)	X	11/01/2018
ES 300	GEO-TECHNICAL SURFACE SUMMARY	X	11/01/2018
ES 501	GEO-TECHNICAL SITE PLAN WITH 2005 AERIAL	X	11/01/2018
ES 502	GEO-TECHNICAL SITE PLAN WITH 2013 AERIAL	X	11/01/2018
ES 503	GEO-TECHNICAL SITE PLAN WITH 2016 AERIAL	X	11/01/2018
ES 504	CROSS-SECTIONS	X	11/01/2018
ES 505	GEO-TECHNICAL TABLES AND NOTES	X	11/01/2018
ES 506	GEO-TECHNICAL DETAILS	X	11/01/2018
ES 600	SITE PLAN WITH AERIAL	X	11/01/2018
ES 801	POST-CONSTRUCTION RECLAMATION PLAN	X	11/01/2018
ES 802	POST-CONSTRUCTION RECLAMATION DETAILS	X	11/01/2018

LEGEND

— EXISTING PROPERTY LINE	— PROPOSED EDGE OF ACCESS ROAD	— 1:200 — PROPOSED HMOI CONTOUR	— PROPOSED CHAINED PILEL JACK TRAP	— EXISTING CHANNEL (TO BE FILLED)
— EXISTING HMOI CONTOUR	— PROPOSED LIMIT OF DISTURBANCE	— PROPOSED INTERMEDIATE CONTOUR	— PROPOSED 18-IN COMPOST FILTER SOCK	— PROPOSED CHANNEL
— EXISTING INTERMEDIATE CONTOUR	— PROPOSED WELL HEAD AND CELLAR	— PROPOSED HMOI CONTOUR	— PROPOSED 24-IN COMPOST FILTER SOCK	— PROPOSED STORMWATER DUCTILE
— EXISTING PROPERTY BOUNDARY	— PROPOSED GOVERNMENT BORN	— PROPOSED HMOI LIMIT ELEVATION	— PROPOSED 30-IN COMPOST FILTER SOCK	— PROPOSED HOLE
— EXISTING IMPACTED ROADWAY	— PROPOSED CHANNEL		— PROPOSED IMPACTED ROADWAY	— PROPOSED RETAIN APRON
— EXISTING GAS LINE	— PROPOSED ASPHALT PAVEMENT			— PROPOSED UNDERDRAIN
— EXISTING WATER MAIN				
— EXISTING UTILITY POLE				
— EXISTING TELECOMMUNICATIONS LINE				
— EXISTING OVERHEAD ELECTRIC LINE				
— EXISTING UNDERGROUND ELECTRIC LINE				
— EXISTING STORMWATER DUCTILE				
— EXISTING FENCE				
— EXISTING DRAINAGE				
— EXISTING WETLAND				
— EXISTING FILLING				
— EXISTING SIGNAGE				
— EXISTING STRUCTURE				
— EXISTING UTILITY POLE				
— EXISTING WATER METER				
— EXISTING WATER MAIN/POLE				
— EXISTING GAS MET				

MISS UTILITY OF WEST VIRGINIA
1-800-245-4648
West Virginia State Law
Section 20-2-2(a) Chapter 20-2-C requires that you and your contractor locate utility lines before you dig in the state of West Virginia.
IT'S THE LAW

HAZLETT WELL PAD
UNION DISTRICT, MARSHALL COUNTY, WEST VIRGINIA
PREPARED FOR:
CHEVRON APPALACHIA, LLC
700 CHERRINGTON PARKWAY
CORAOPOLIS, PA 15108

COVER SHEET

Project Manager: M.A. TSC
Drawing Scale: 1"=500'
Date Issued: 01/02/2019
Title: (blank)
Drawn By: RES
Checked By: M.A.T.
Project Manager: M.A. TSC

CS 000



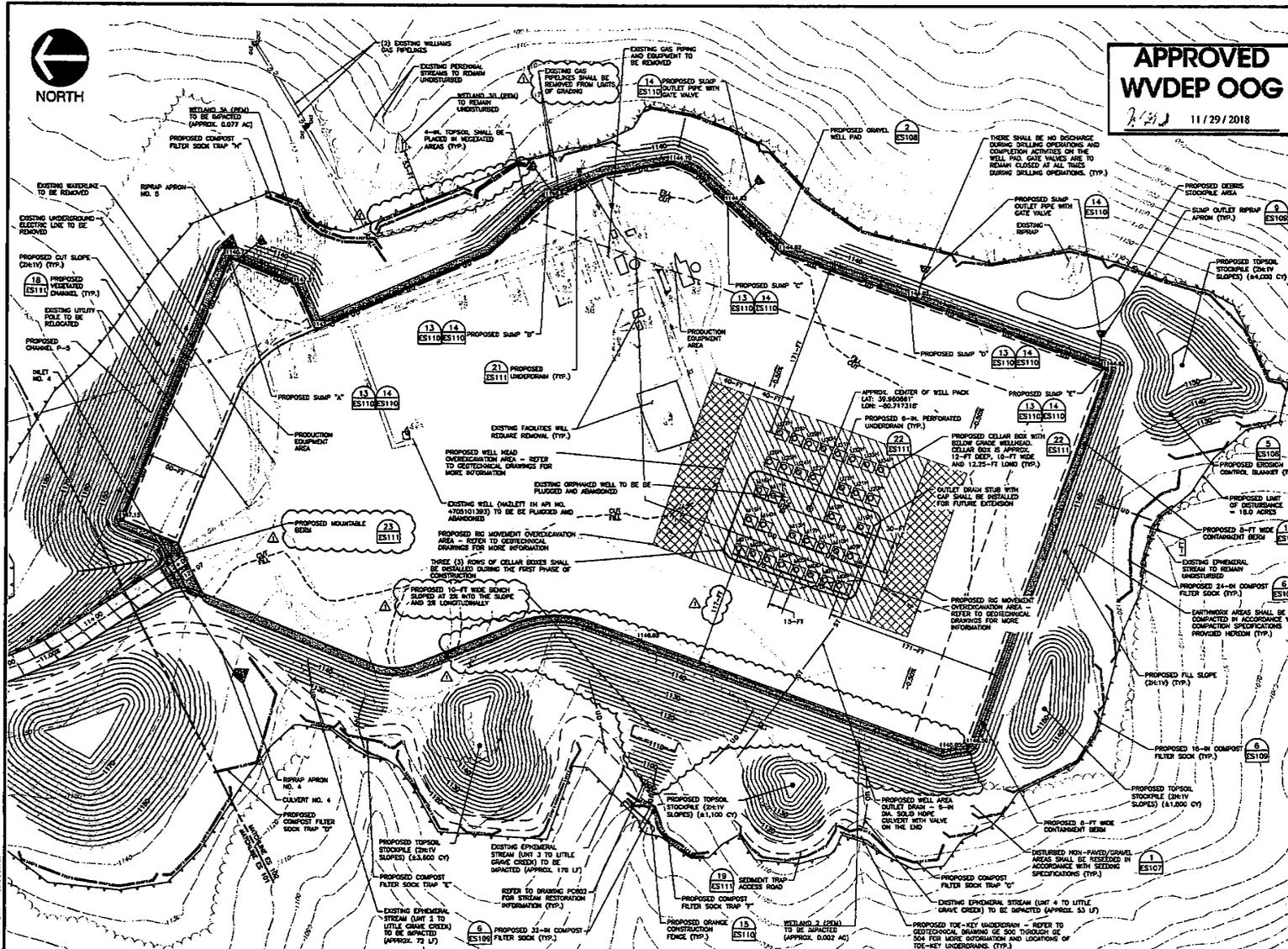
NORTH

APPROVED
WVDEP OOG
11/29/2018

- LEGEND**
- EXISTING INCH RIGHT-OF-WAY
 - EXISTING PROPERTY LINE
 - EXISTING SHOCK CONTOUR
 - EXISTING INTERMEDIATE CONTOUR
 - EXISTING POWER ROADWAY
 - EXISTING UNPAVED ROADWAY
 - EXISTING GAS LINE
 - EXISTING WATERLINE
 - EXISTING TELECOMMUNICATIONS LINE
 - 0-W-E EXISTING ELECTRIC LINE
 - 0-E-E EXISTING UNDERGROUND ELECTRIC LINE
 - EXISTING STORMWATER DRAINAGE
 - EXISTING FENCE
 - EXISTING STREAM
 - EXISTING WETLAND
 - EXISTING FUELLINE
 - EXISTING RIPRAP
 - EXISTING STRUCTURE
 - EXISTING UTILITY POLE
 - EXISTING WATER METER
 - EXISTING WATER MANHOLE
 - EXISTING GAS WELL
 - PROPOSED EDGE OF ACCESS ROAD
 - PROPOSED LIMIT OF DISTURBANCE
 - PROPOSED WELL HEAD AND CELLAR
 - PROPOSED CONTAINMENT BERM
 - PROPOSED CHANNEL
 - PROPOSED ASPHALT PAVEMENT
 - PROPOSED INDEX CONTOUR
 - PROPOSED INTERMEDIATE CONTOUR
 - PROPOSED WELL PAD CUT/FILL LINE
 - PROPOSED SPOT ELEVATION
 - PROPOSED COMPOST FILTER SOCK TRAP
 - PROPOSED 15-IN COMPOST FILTER SOCK
 - PROPOSED 24-IN COMPOST FILTER SOCK
 - PROPOSED 32-IN COMPOST FILTER SOCK
 - PROPOSED ORANGE CONSTRUCTION FENCE
 - PROPOSED ROCK CONSTRUCTION ENTRANCE
 - PROPOSED BUILT PROTECTION
 - PROPOSED EROSION CONTROL BLANKET
 - EXISTING CHANNEL (TO BE UTILIZED)
 - EXISTING CHANNEL
 - PROPOSED STORMWATER DRAINAGE
 - PROPOSED INLET
 - PROPOSED RIPRAP APRON
 - PROPOSED UNDERDRAIN
 - DETAIL NUMBER
 - DRAWING DESIGNATION

- STREAM AND WETLAND NOTES**
1. WETLAND BARRIERS ARE BEING REQUESTED FOR THE FOLLOWING FOUR (4) WETLANDS THAT ARE LOCATED WITHIN 150-FT OF THE LIMIT OF DISTURBANCE. WETLANDS 1A, 1B, 2A, AND 2B ARE PARTIALLY PERMANENTLY IMPACTED.
 2. THE FOLLOWING FOUR (4) WETLANDS AND (3) EROSION STREAMS ARE LOCATED WITHIN THE LIMIT OF DISTURBANCE AND ARE SUBJECT TO THE USACE MATTERING PERMIT OR FOR PERMANENT BENEFIT. WETLANDS 1A, 1B, 2A, AND 2B ARE PARTIALLY PERMANENTLY IMPACTED.
 3. THE STREAMS SHOWN HEREON OUTSIDE THE LIMIT OF DISTURBANCE ARE EPHEMERAL OR INTERMITTENT. AS SUCH, A PERMIT IS NOT BEING REQUESTED FOR PERMANENT STREAMS.
 4. COMPOSTS SHOWN HEREON ARE ASSUMED FROM THE EDGE OF THE WETLAND TO THE PROPOSED LIMIT OF DISTURBANCE.

- COMPACTION SPECIFICATIONS**
1. PLACE SOIL FILL MATERIALS USING COMPACTION EQUIPMENT WITHIN 10-TO-15-TON WEIGHT IN COMPACTED LIFTS NOT EXCEEDING 12 INCHES THICK. USE A REDUCED LOADS LIFT WEIGHTS OF 5-TON WEIGHTS. MAXIMUM PARTICLE SIZE SHOULD NOT EXCEED 8 INCHES IN STRUCTURAL FILL AREAS WHERE HEAVY SELF-PROPELLED COMPACTORS ARE UTILIZED. A REDUCED MAXIMUM PARTICLE SIZE OF 4 INCHES SHOULD BE USED IN AREAS WHERE HEAVY HAND-OPERATED COMPACTORS ARE USED. WASTE OVERIZED PHENOLICS (EXCEEDING THE MAXIMUM PARTICLE SIZE INDICATED ABOVE) OUTSIDE OF THE PROPOSED FILL AREAS OR IN DEEPER AREAS OF FILL OVERIZED ROCK PARTICLES (LARGER THAN 18 INCHES) SHOULD BE PLACED IN LIFTS NOT EXCEEDING 14 INCHES. LIFTS SHOULD BE COMPACTED IN SEVERAL PASSES USING HEAVY COMPACTION EQUIPMENT.
 2. CONTACT ALL PAD AND ROADWAY SUBGRADE AND EACH LIFT OF FILL MATERIAL TO A MINIMUM OF 95 PERCENT OF ITS MAXIMUM DRY DENSITY WITHIN 4.5 FEET OF THE OPTIMUM MOISTURE CONTENT. DETERMINE MAXIMUM DRY DENSITY AND OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D698 (STANDARD PROCTOR).



- REFERENCES**
1. STREAMS AND WETLANDS DELINEATED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 05/24/2017.
 2. UNDERGROUND UTILITIES LOCATED BY A GEOPHYSICAL SURVEY CONDUCTED BY THE GEOPHYSICS LTD. DATED 02/17/2017 TO 02/23/2017.
 3. TOPOGRAPHY WITHIN THE PROJECT AREA AND MARKED UTILITY FEATURES SURVEYED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 03/29/2017 TO 03/30/2017 AND 03/23/2017 TO 03/24/2017. TOPOGRAPHY OUTSIDE OF THE PROJECT AREA IS SUPPLEMENTED WITH WEST VIRGINIA LDMR, DATED 2011.
 4. PROPERTY BOUNDARIES WERE PROVIDED BY OWNER.

MISS UTILITY OF
WEST VIRGINIA
1-800-245-4848
West Virginia State Law
(Section XV, Chapter 24-C requires that you call two business days before you dig in the state of West Virginia.)
IT'S THE LAW

CEL
Civil & Environmental Consultants, Inc.
4000 Herring Lane, Suite 100 • Herring, PA 17033
717-577-0000 • cel@celinc.com



REVISION RECORD

Date	By	Rev.	Desc.
11/29/2018	JAH	1	ISSUED FOR PERMIT

HAZLETT WELL PAD
UNION DISTRICT COMMUNITY, WEST VIRGINIA
PREPARED FOR:
CHEVRON APPALACHIA, LLC
700 CERRINGTON PARKWAY
CONROPSVILLE, PA 15308

EROSION AND SEDIMENT CONTROL PLAN (2 OF 2)

Project Number: 164-755
Drawing Scale: 1"=50'
Date Issued: 11/29/2018
Index Number:
Drawn By: JAH
Checked By: JAH
Project Manager: JAH

ES 102