



west virginia department of environmental protection

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

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

October 22, 2013

WELL WORK PERMIT

Pit Only Permit

This permit, API Well Number: 47-8704726, issued to HARD ROCK EXPLORATION, INC., is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days 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.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-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) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: HR-476
Farm Name: ELLISON, JOHN
API Well Number: 47-8704726
Permit Type: Pit Only Permit
Date Issued: 10/22/2013

Promoting a healthy environment.

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

1) Well Operator: Hard Rock Exploration, Inc.

494464205	Roane	Reedy	Reedy, WV 7.5'
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Operator ID County District Quadrangle

2) Operator's Well Number: HR-476 3) Elevation: 686'

4) Well Type: (a) Oil _____ or Gas X _____
 (b) If Gas: Production X / Underground Storage _____
 Deep _____ / Shallow X _____

Check # 3614
\$ 100.00

5) Proposed Target Formation(s): Lower Huron Proposed Target Depth: 4274' TVD

6) Proposed Total Depth: 7144 Feet Formation at Proposed Total Depth: Lower Huron

7) Approximate fresh water strata depths: 40', 260'

8) Approximate salt water depths: 1269', 1830'

9) Approximate coal seam depths: None noted in offset wells

10) Approximate void depths,(coal, Karst, other): None

11) Does land contain coal seams tributary to active mine? No

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)
 Clean out frac balls, cuttings and completion sleeves inside existing 4.5" production casing by means of tubing and mill.

13) **CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor	13 3/8"	LS	37#	78'	78'	CTS
Fresh Water	9 5/8"	LS	26#	612'	612'	312 Cuft CTS
Coal						
Intermediate	7"	LS	19#	2337'	2337'	534 Cuft CTS
Production	4 1/2"	N-80	11.6#	7054'	7054'	130 Cuft
Tubing						
Liners						

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OCT 24 2013

Packers: Kind: Peake - Dual Element Hydraulic set - 10k diff
 Sizes: _____
 Depths Set _____

WW-2A Surface Waiver

SURFACE OWNER WAIVER

County Roane

Operator Hard Rock Exploration, Inc.
Operator well number HR-476

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW2-A

The well operator named on page WW2A is applying for a permit from the State to do oil or gas well work. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.

WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:

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

Time Limits and methods for filing comments. The law requires these materials to be served on or before the date the operator files his Application. You have **FIFTEEN (15) 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 a adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

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

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

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

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

List of Water Testing Laboratories. The Office maintains a list of water testing laboratories which you can hire to test your water to establish water quality prior to and after drilling. Contact the Chief to obtain a copy.

VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application for a Well Work Permit on Form WW2-A, and attachments consisting of pages 1 through ___ including a work order on Form WW2-B, a survey plat, and a soil and erosion plan, all for proposed well work on my surface land as described therein.

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

FOR EXECUTION BY A NATURAL PERSON

FOR EXECUTION BY A CORPORATION, ETC.

John Ellison
Signature

Date 10-21-13

Company Name
By
Its

Received

OCT 22 2013

Date

JOHN ELLISON

Print Name

Office of Oil and Gas
Signature WV Dept. of Environmental Protection

Date

8704726J

WW-2A Coal Waiver

COAL OPERATOR, OWNER, OR LESSEE WAIVER

County Roane

Operator Hard Rock Exploration, Inc.

Operator's Well Number HR-476

INSTRUCTIONS TO COAL OPERATOR, OWNER, OR LESSEE

To the coal operator, owner, or lessee named on page WW2-A. You are hereby notified that any objection you wish to make or are required to make by WV Code 22-6-15, 16 or 17, must be filed with the Chief of the Office of Oil and Gas within fifteen (15) days after the receipt of this application by the Office. Mail objections to:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0499 extension 1654

WAIVER

The undersigned coal operator ____ / owner ____ / lessee ____ / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

FOR EXECUTION BY A NATURAL PERSON

FOR EXECUTION BY A CORPORATION, ETC.

John Ellison
Signature

Date 10-21-13

Company
Name
By
Its

Date

Signature _____ Date _____

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Office of Oil and Gas
WV Dept. of Environmental Protection

PIT CULVERT PERMIT



[Handwritten signature]
10/21/13

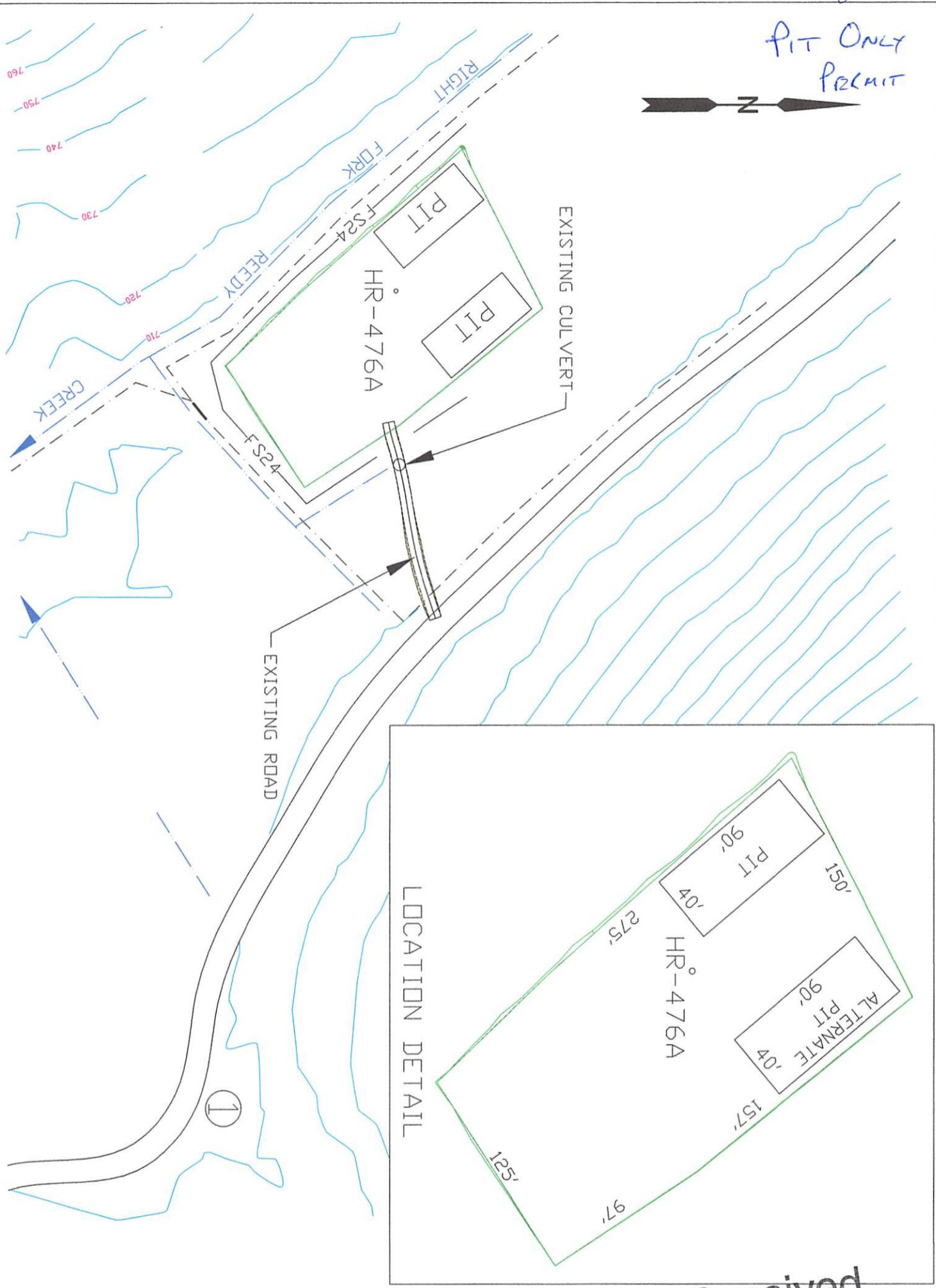
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Office of Oil and Gas
WV Dept. of Environmental Protection

DISTURBED AREAS		LEGEND		SITE PLAN	
WELL PAD CONSTRUCTION	0.86 AC.		STREAM	HARD ROCK EXPLORATION WELL # HR-476A (WORKOVER)	
EXISTING ACCESS ROAD	0.04 AC.		PROPERTY LINE	REEDY DISTRICT, ROANE COUNTY REEDY QUAD, WV 7.5'	
ADDITIONAL CLEARING			SLOPE AREA	OCTOBER 16, 2013	
			WETLAND	TRUE LINE SURVEYING 6211 FAIRVIEW DR. HUNTINGTON, WV 25705	
TOTAL DISTURBED AREA	0.90 AC.		BUFFER AREA	PAGE 1 OF 1	

PIT ONLY
PERMIT



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Office of Oil and Gas
WV Dept. of Environmental Protection

LEGEND

	PROVIDE FLEXTERRA HIGH PERFORMAMNCE FLEXABLE GROWTH MEDIUM (HP-FLM) ON CUT AND FILL SLOPES
	LEVEL SPREADER
	DIVERSION DITCH
	BERM OUTLET

	STREAM
	PROPERTY LINE
	SLOPE AREA
	WETLAND
	24' COMPOST FILTER SOCK AS REQUIRED

EROSION AND SEDIMENT CONTROL PLAN

HARD ROCK EXPLORATION WELL # HR-476A (WORKOVER) REEDY DISTRICT, ROANE COUNTY REEDY QUAD, WV 7.5'
OCTOBER 16, 2013
TRUE LINE SURVEYING 6211 FAIRVIEW DR. HUNTINGTON, WV 25705
PAGE 1 OF 1



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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

PIT ONLY
PERMIT

Operator Name Hard Rock Exploration, Inc. OP Code 494464205

Watershed (HUC 10) Right Fork of Reedy Creek Quadrangle Reedy, WV 7.5'

Elevation 686' County Roane District Reedy

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

Will a pit be used for drill cuttings? Yes X No _____

If so, please describe anticipated pit waste: cuttings /wellbore debree - Fresh water soap and Clay stabilization

Will a synthetic liner be used in the pit? Yes X No _____ If so, what ml.? 10 or greater
20

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number UIC2D0190460, 3416729685)
- _____ Reuse (at API Number _____)
- _____ Off Site Disposal (Supply form WW-9 for disposal location)
- _____ Other (Explain _____)

Will closed loop system be used? No

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. Air & Soap water

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

Additives to be used in drilling medium? Soap, KCl, or Clay Stay

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

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

-Landfill or offsite name/permit number? _____

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

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature _____

Company Official (Typed Name) James L. Stephens

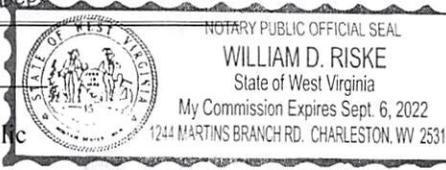
Company Official Title President

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Office of Oil and Gas
WV Dept. of Environmental Protection

Subscribed and sworn before me this 17th day of OCTOBER, 2013

William D. Riske
Notary Public



My commission expires 9-6-2022

PIT ONLY PERMIT 8704726

Form WW-9

Operator's Well No. HR-476

Proposed Revegetation Treatment: Acres Disturbed 1.10 Prevegetation pH 5.5

Lime 3 Tons/acre or to correct to pH 6.5

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

Mulch Hay/Straw/Paper (Paper at 1600 lbs/acre) Tons/acre

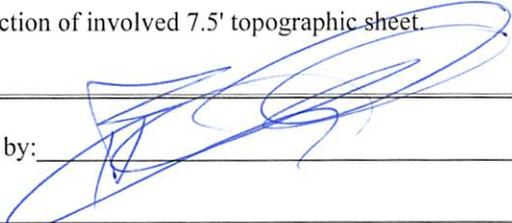
Seed Mixtures

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
Red Top	15	Red Top	15
Orchard Grass	25	Orchard Grass	25
Perennial Rye/Crimson Red Clover	25 Each	Perennial Rye/Crimson Red Clover	25 Each
Annual Rye	40	Annual Rye	40

Attach:

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: 

Comments:

Title: Inspector

Date: 10/21/13

Field Reviewed? Yes

No

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WV Dept. of Environmental Protection