Operator Well No. _____

OPERATOR:		
PAD NAME:	WELL:	
PAD BUILT:YESNO	DATE REVIEWED:	INT
REVIEWED BY (APPLICANT):		
CONTACT PHONE:	EMAIL:	
APPLICANT SIGNATURE:		

CHECKLIST FOR FILING A PERMIT HORIZONTAL 6A WELL

Please include these required elements in the Horizontal Well 6A applications, in order listed below. Do not use staples.

	First Well	Subseque	nt Well					
	\$10,150.00	\$5,150.00						
Fees								
Checklist / Cover letter								
<u>WW-6B</u> Notice of Application Field Approved								
Cement Additives								
Well Bore Schematic								
<u>WW-9</u> Fluids/Cuttings	Disposal and Reclar	nation Plan		Field Approved				
Site Safety Plan				Field Approved				
Water Management Pla	<u>ın</u>			DWWM Approval				
Topographic Map w/wa	ter purveyors, show	ing access road						
Mylar Plat (Signed and	sealed) (Surface Ov	vner matches W	WW-6A)					
WW-6A1 Lease Inform	nation							
Road Crossing Letter								
WW-PN Application N	lotice by Publicatior	l						
Public Notice (dated co	ppy of advertisement	or affidavit of	publicatio	n)				

Operator Well No. _____

- _____ WW-6AC Notice Certifications, notarized
- <u>_____WW-6A</u> Notice of Application notarized w/ any attachments
- _____Topographic Map with labeled surrounding water wells
- _____ Certified Mail receipts for WW-6A
- <u>_____WW-6A3</u> Notice of Entry for Plat Survey
- _____ Certified Mail receipts for WW-6A3
- _____ <u>WW-6A4</u> Notice of Intent to Drill
- _____ Certified Mail receipts for WW-6A4
- <u>WW-6A5</u> Notice of Planned Operation
- _____ Certified Mail receipts for WW-6A5
- <u>WW-6RW</u> Well Location Restriction Waiver
- <u>WW-6AW</u> Voluntary Statement of No Objection
 - _____Waiver for Surface Owner at Wellhead
 - _____Waiver for Surface Owner for Roads or other Disturbances
 - _____Waiver for Coal Owner, Operator or Lessee
 - _____Waiver for surface owner for Impoundment or Pit
 - _____Waiver for Surface Owner or Water Purveyor within 1500 feet of Center of Pad
 - _____Waiver for Natural gas Storage Field Operator
- _____ Road Bonding Agreement / DOH Certification
- _____ Frac Additives List of Chemical Names & CAS #s
- Site Construction, Reclamation, Erosion & Sediment Control Plans ______ Field Approved
- ____Copy of To Scale Plans
- Inspector packet mailed to inspector (Plat, Topographic Map, WW-6B, WW-9, All Plans)
- _____ Bond (\$250,000)
 - ____Operator is registered with the SOS

- _____Workers Compensation / Unemployment Insurance account is OK
- _____ Professional Engineer/Company has COA
- _____ Check for Mine Data at proposed coordinates
- _____ Check for Floodplain Data at proposed coordinates
- _____ IMP-1A Associated Pit or Impoundment
- <u>_____ WW-6A7</u> Well Restrictions Form w/ Signature
 - _____ At Least 100 Feet from Pad and LOD (including any E&S Control Feature) to any Perennial Stream, Lake, Pond, Reservoir or Wetland
 - _____ DEP Waiver and Permit Conditions
 - At Least 300 Feet from Pad and LOD (including any E&S Control Feature) to any Naturally Producing Trout Stream
 - _____ DEP Waiver and Permit Conditions
 - At Least 1000 Feet from Pad and LOD (including any E&S Control Feature) to any Groundwater Intake or Public Water Supply
 - _____ DEP Waiver and Permit Conditions
 - At Least 250 Feet from an Existing Water Well or Developed Spring to Well Being Drilled
 - _____ Surface Owner Waiver and Recorded with County Clerk, OR
 - _____ DEP Variance and Permit Conditions
 - At Least 625 Feet from an Occupied Dwelling Structure to the Center of the Pad
 - _____ Surface Owner Waiver and Recorded with County Clerk, OR
 - _____ DEP Variance and Permit Conditions
 - _____ At Least 625 Feet from Agricultural Buildings Larger than 2500 Square Feet to the Center of the Pad
 - _____ Surface Owner Waiver and Recorded with County Clerk, OR
 - _____ DEP Variance and Permit Conditions

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

1) Well Operator:						
		Operator ID	County	District	Quadrangle	
2) Operator's Well Number:		Well Pad Name:				
3) Farm Name/Surface Owner:	Public Roa	d Access:				
4) Elevation, current ground:	levation, proposed	post-constructi	on:			
5) Well Type (a) Gas	Unde	rground Stora	ge			
Other						
(b)If Gas Sha	Deep					
Hor	rizontal					
6) Existing Pad: Yes or No						
7) Proposed Target Formation(s				ressure(s):		
8) Proposed Total Vertical Dept	h:					
9) Formation at Total Vertical D	1					
10) Proposed Total Measured D	epth:					
11) Proposed Horizontal Leg Le	on oth ·					
12) Approximate Fresh Water S	trata Depths:					
13) Method to Determine Fresh	Water Depths:					
14) Approximate Saltwater Dep	ths:					
15) Approximate Coal Seam De						
16) Approximate Depth to Possi		· · · · · · · · · · · · · · · · · · ·				
17) Does Proposed well location directly overlying or adjacent to			No			
(a) If Yes, provide Mine Info:	Name:					
-	Depth:					
	Seam:					
	Owner:					

API NO. 47	
OPERATOR WELL NO	
Well Pad Name:	

18)

CASING AND TUBING PROGRAM

ТҮРЕ	<u>Size</u> (in)	<u>New</u> <u>or</u> <u>Used</u>	Grade	<u>Weight per ft.</u> <u>(lb/ft)</u>	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	<u>CEMENT:</u> <u>Fill-up</u> (Cu. Ft.)/CTS
Conductor							
Fresh Water							
Coal							
Intermediate							
Production							
Tubing							
Liners							

ТҮРЕ	Size (in)	<u>Wellbore</u> <u>Diameter (in)</u>	<u>Wall</u> <u>Thickness</u> <u>(in)</u>	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	<u>Cement</u> <u>Type</u>	<u>Cement</u> <u>Yield</u> (cu. ft./k)
Conductor							
Fresh Water							
Coal							
Intermediate							
Production							
Tubing							
Liners							

PACKERS

Kind:		
Sizes:		
Depths Set:		

API NO. 47	
OPERATOR WELL NO.	
Well Pad Name:	

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

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

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

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

23) Describe centralizer placement for each casing string:

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

25) Proposed borehole conditioning procedures:

where it was properly disposed.

(4/16)	API Number 47 Operator's Well No STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS				
	FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN				
Operator Name	OP Code				
Watershed (HUC 10)	Quadrangle				
Do you anticipate using more Will a pit be used? Yes	than 5,000 bbls of water to complete the proposed well work? Yes No				
	be used in the pit? Yes No If so, what ml.?				
-	lethod For Treated Pit Wastes:				
Un Ret Off	nd Application derground Injection (UIC Permit Number) use (at API Number) Site Disposal (Supply form WW-9 for disposal location) her (Explain)				
Will closed loop system be us	ed? If so, describe:				
Drilling medium anticipated f	or this well (vertical and horizontal)? Air, freshwater, oil based, etc.				
-If oil based, what ty	pe? Synthetic, petroleum, etc				
Additives to be used in drillin	g medium?				
Drill cuttings disposal method	? Leave in pit, landfill, removed offsite, etc				
-If left in pit and plar	to solidify what medium will be used? (cement, lime, sawdust)				
-Landfill or offsite na	me/permit number?				
	n notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any lity. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose				

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)			
Company Official Title			
Subscribed and sworn before me this	day of	, 20	
		Notary Public	
My commission expires			

oposed Revegetation Trea	atment: Acres Disturbe	ed	Prevegetation pH	[
Lime	Tons/acre or to	correct to pH		
Fertilizer type				
Fertilizer amount_		lbs/acre		
Mulch		Tons/acre		
		Seed Mixtures		
Т	emporary		Perma	nent
Seed Type	lbs/acre		Seed Type	lbs/acre

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, include dimensions (L x W x D) of the pit, and dimensions (L x W), and area in acreage, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by:				
Comments:				
Title:			Date:	
Field Reviewed?	() Ye	s () No	

Site Safety Plan Table of Contents

For H6A Well Work Permits and Deep Well Work Permits

Please prepare a Site Safety Plan to accompany each applicable H6A and/or Deep well work permit, adhering to the following organizational and informational structure. Plans submitted must contain an index of the content entirety including page-number references.

1. Contacts, Schedules, and Meetings

- A. Emergency point of contact for the well operator covering all phases of activities and including 24 hour contact information (35-8 5.7.b.4)
- B. List of telephone numbers for (35-8 5.6.4):
 - 1) Operator
 - 2) Contractors
 - 3) DEP office and oil/gas inspector
 - 4) Local emergency response units
 - 5) Local ER personnel
 - 6) All schools and public facilities within a one mile radius of proposed well site (35-8 5.7.b.5)
- C. Method of notification of public of H_2S gas presence and how access will be controlled. (applicable horizontal wells include all residents and emergency response personnel who may be affected by an event. Such events may include the presence of H2S, blow-outs, and flaring) (35-8 5.7.f.1)
- D. Pre-spud meeting held prior to drilling operations, including (35-8 5.7.h):
 - 1) Attendance log, including personnel to be employed and involved in drilling operations
 - 2) Notification of County oil and gas inspector or other designated Office of Oil and Gas representative
- E. Describe schedule for conducting regular well site safety meetings. Log attendance at all meetings and also initiate check in check out during drilling, completion, and workover phases. (35-8 5.7.h)

2. Maps and Diagrams

- A. Plan view map of location, access road, pit(s), flare lines, nearby dwellings, note the north direction and the prevailing wind direction (35-8 5.7.b.1)
- B. Topographic map of well location, including
 - 1) 1 mile radius of well location
 - 2) UTM NAD 83 coordinates of well site entrance (35-8 5.7.b.2)
 - 3) UTM NAD 83 coordinates of the point the access road intersects the public route (35-8 5.7.b.2)
 - 4) Identify public route number and/or route name (35-8 5.7.b.2)
- C. Evacuation plan for the removal of personnel from the drilling location and residents in the surrounding area who have the potential to be affected by an emergency. (35-8 5.7.b.3)

3. Well Work

- A. Detailed written descriptions of well work and procedure to be used during the drilling, completion, and production phases, including schematic plan views of each (35-8 5.7.a)
- B. Statement detailing how a copy of the plan will be provided to the local emergency planning committee or county emergency services office within at least 7 days from land disturbance or well work. (35-8 5.7.a)

4. Chemical Inventory & MSDS

- A. Material Safety Data Sheets for all chemicals anticipated to be used in all aspects of the operation (can be provided on CD or USB drive) (35-8 5.7.a)
- B. Statement that all MSDS are to be readily available at the well site and their location indicated in the site safety plan including contact information for person(s) responsible maintaining them on site. (35-8 5.7.g)
- C. Inventory of all materials on site for mixing of mud including numbers and type of mixing units mixed mud amount and weight, amount of weighting material and volume of mixing fluid. (35-8 5.7.d.1 & 5.7.d.2)

5. BOP and Well Control

- A. BOP equipment and casing heads with types, sizes and ratings to be utilized and available during the drilling for both intermediate and lateral drilling phases (35-8 5.7.c.1 & 5.7.c.8)
- B. Procedure and schedule for testing the BOP stack for intermediate drilling phase the BOP tested upon initial set up and the annular tested to 70% of capacity and the ram preventers tested to 80%. Same testing % for bottom and horizontal phase except testing to be done upon initial installation, weekly and after each bit trip (35-8 5.7.c.2)
- C. BOP equipment and assembly installation schedule (35-8 5.7.c.3)
- D. List and names of all personnel with well control training (35-8 5.7.c.4)
- E. Description of system of maintaining detailed records of and for immediate notification to OOG inspector for all significant drilling issues, including but not limited to (35-8 5.7.c.5):
 - 1) Lost circulation
 - 2) Hydrogen sulfide gas
 - 3) Fluid entry
 - 4) Abnormal pressures
- F. Notification of the oil and gas inspector or designated representative as soon as possible of any unusual drilling events, hydrogen sulfide gas* or large kicks that occur during drilling operations).
 *(Mandatory immediate notification is required of any encounter of hydrogen sulfide gas 22-6A wells >10ppm H2S Gasses!) (35-8 5.7.c.5)
- G. Schematic and detailed written description of the wellhead assembly to be placed on the well upon completion (35-8 5.7.c.6)
- H. Method and type of kill procedures as recognized by the IADC Wild Well Control Kill Sheet. (35-8 5.7.d.3)

6. Hydrogen Sulfide (H₂S)

- A. Detection, monitoring and warning equipment including location of the monitoring detection equipment on the site (35-8 5.7.e.1)
- B. Statement of H₂S personnel training provided (35-8 5.7.e.2)
- C. Method to notify the OOG of H_2S presence (35-8 5.7.e.4)
- D. Establish and maintain Protection Zones. Describe detailed written general procedures proposed in drilling phases. (application horizontal wells must include the completion, work-over, and production phases) (35-8 5.7.f.2)
- E. List of personal protective equipment (PPE) and the amount of each piece of PPE that will be maintained and available on site. (35-8 5.7.e.3)

7. Flaring

A. Proposed written description and plan including schematic of installation for duration of flaring activities. (35-8 5.7.f.1)

8. Collision Avoidance Safeguards, Practices and Standards Plans

Protocol and established safeguards designed to prevent underground collisions during any drilling on multi-well pads (35-8 5.7). Collision avoidance plans are measures in keeping wellbores separated and in preventing HSE risk. Such plans describe the survey accuracy and the survey maintenance by systematic management efforts throughout the drilling of the proposed wellbore. These plans submitted shall be well specific to the proposed wellbore and shall address all items within the components section as outlined below. The scope of these plans shall provide survey designs throughout the proposed wellbore including the QC / QA activities and the counter-actions necessary; minimum separation factors (SF), standards and thresholds apply as specified in the components section. These plans shall include proposed counter-actions necessary if a collision occurs or if surveys observe an imminent risk for a collision; all wellbore collisions shall be treated as high-risk events. Approved plans are conditions and terms of the well permit and any modifications are subject to approval by the Office of Oil and Gas (OOG).

- A. Established definitions:
 - 1) Proposed Wellbore Involves sections of the vertical top-hole, the KOP, the lateral landing, and the lateral drilling to the total measured depth TMD.
 - 2) Nudge Technique generally used in the vertical top-hole section. The well path is nudged from vertical to pass areas of possible magnetic interferences and to reduce the risk of collision by maintaining separation with other wellbores.
 - 3) KOP Kick off Point. Diverting a well path from one trajectory to another.
 - 4) MWD Measurement While Drilling.
 - 5) LWD Logging While Drilling.
 - 6) SF Separation Factor or Clearance Factor:
 - $SF^* = CC \div [UR_{ref} + UR_{off}]$

CC - well separation distance (center to center of wellbores)

UR_{ref} - radius ellipse of uncertainty on reference well

UR_{off} - radius ellipse of uncertainty on offset well

Note: ellipses are half-axes or radii.

*Calculation options may be considered

- 7) TMD Total Measured Depth.
- 8) Gyro High accuracy well bore survey instrument unaffected by magnetic interference.
- 9) QC / QA Quality Control and Quality Assurance.
- 10) HSE Health Safety and the Environment.
- B. Established descriptions of risk:
 - 1) SF \leq 1.0 Level 1 Extreme collision risk
 - 2) SF = 1.0 to 1.5 Level 2 High collision risk
 - 3) SF = 1.5 to 2.0 Level 3 Moderate collision risk
 - 4) SF > 2.0 Level 4 Low to no collision risk
- C. Plan components:
 - 1) Describe the scope of work and the type of survey techniques by use of gyros, MWD, LWD, or others and include the following:
 - a) The survey intervals or frequencies proposed as adjustments to address each level of risk covering the vertical top-hole section of the proposed wellbore.

b) Provide TOOL ALIGNMENT and MULESHOE procedures** when drilling in critical areas covering the vertical top-hole section of the proposed wellbore. These procedures are visual verification for alignment and orientation QC/QA purposes. Provide the responsible personnel (minimum two representatives) and their titles of those involved for QC/QA purposes during the drilling activities.

******Provide other orientations or survey methods and procedures if utilized.

- c) Description of any nudge activity proposed in the vertical top-hole section.
- d) The survey tools to be utilized from the KOP to the lateral landing and the lateral section to the TMD.
- e) Description of any software utilized for the directional and anti-collision planning proposed.
- 2) The following shall be addressed in the plan for the proposed wellbore:
 - a) Vertical top-hole section beginning at the surface and to the lateral landing
 - i) Minimum SF standards (thresholds) required -
 - SF \geq 1.5 shall be obtained early as practical and maintained.
 - (Indicate the frequency of survey intervals proposed)
 - ii) Minimum SF standards (thresholds) required -

SF \geq 2.0*** applies when in proximity to <u>any fractured or any producing well</u> that exists on the well pad.

(Indicate the frequency of survey intervals proposed)

***Risk management and technological mitigations, i.e. downhole plugs, are

critical and should be considered along with other safety measures necessary. The OOG may require additional safety measures of a specific well application

for permitting as deemed necessary.

- b) Lateral section beginning at the lateral landing and to the TMD
 - i) Provide a general protocol to declination, grid correction, and magnetic interference correction during the drilling of the proposed lateral. Also provide the responsible personnel (minimum two representatives) and their titles of those involved for QC/QA purposes during the drilling activities.
 - ii) For any existing horizontal or vertical wells found adjacent to this lateral section, provide the protocols for separation safeguards and the spacing planned during the drilling of this section. A reconnaissance review is required for each proposed lateral; OOG may establish a minimum footage for review as deemed necessary.
- 3) Provide a well pad surface diagram depicting the wellhead arrangement (API labeled) of all existing wells adjacent to the proposed wellbore. Indicate the surface footage separation between wellheads and each wellbore status.
- 4) Describe the gyro surveying or other type surveying conducted within each existing wellbore located on the pad.
- 5) Provide descriptive actions if a collision should occur or if surveys should observe imminent risk for a collision.
- 6) Provide method to notify the OOG Oil and Gas Inspector immediately of any underground collision or if the SF Level 1 is determined within the extreme collision risk zone (ellipses of uncertainty overlap).
- 7) Provide other supportive resources or proposed safety measures as needed.

9. Deep Well Additional Requirements

A. List of anticipated freshwater, saltwater, oil and gas, hydrogen sulfide, thief zones, high pressure and volume zones and their expected depths.

- B. Detailed casing and cementing program that employs a minimum of three strings of casing which are sufficient weight and quality for the anticipated conditions.
- C. Flaring activities: Size, construction and length of flare line-anchor method and choke assembly description, Flare lighting system and back up igniters, Notify local fire department (if possible) prior to igniting flares, Minimum clearing distance beyond end of flare.
- D. List of names, addresses, and telephone numbers of all residents, businesses, churches, schools and emergency facilities within 1 mile radius that may be affected by specific events during the drilling process. Such events may include presence of hydrogen sulfide, and flaring, etc.

10. Deep Vertical Well Requirements per Policy Statement (Deep Well

Drilling Procedures and Site Safety Plan Requirements)

The following selections are needed from the above contents:

- 1. A E (E. drilling phase only)
- **2.** A C
- **3.** A (drilling phase only)
- **4.** B C
- **5.** A H
- **6.** A E
- **9.** A D.



west virginia department of environmental protection 601 57th Street SE Charleston, WV 25304-2345 Office of Oil and Gas Phone: (304) 926-0450

WATER MANAGEMENT PLAN/ WATER ADDENDUM

Horizontal Oil and Gas Well
 Permits

Section I - Operator Information

• Horizontal Oil and Gas Well Pads

DEP Office Use only Date Received by Oil & Gas: Administratively Complete – Oil & Gas:

□ Yes □ No:

Date Received by Water Use:

Complete – Water Use: □ Yes □ No

API: 047-____

(for modification requests, list all wells in Section IIb)

Operator Name: *Registered in the Frac Water Reporting Website? Operator ID: *Registered in the Frac Water Reporting Website? Yes No Contact Name/Title (Water Resources Manager): Contact Mailing Address: Contact Phone: Contact Email:

*If no, the operator will be required to register with the WVDEP Water Use Section; contact dep.water.use@wv.gov

Section II(a)– Water Management Plan Overview

Plan Type	Plan Status
□ Well (individual)	□ New (include full application)
□ Well Pad	□ Co-pending (include full application)
	□ Approved (include previously approved pad plan plus sections I - III)
	☐ Modification* (include full application)

*All modifications for well WMPs will be converted to Well Pad WMPs unless otherwise requested

Well Number:		Well Pad Name (if applicable):	
	Well/We	ell Pad Location (decimal degrees, I	NAD83)
	Latitude:	Longitude:	County:

Il Pad Name (for all well and well pad plans):		County:			
			Location (decimal degrees, NAD83)		
WMP (old)	Well Number	API	Lat	Long	

Section II(b) - Water Management Plan Coverage Detail (for pad plans only)

Section III(a) – Source Water Overview

Estimated Water Needs:

	Gallons	Anticipate
Construction (compaction)		Pad Constr
Drilling (cement, mud systems)		
Hydraulic Fracturing		
Post-Fracturing (coil tubing, drill-outs)		Pad Reclar
Reclamation (hydroseeding)		
Incidental Use (dust suppression)		
Total		
Onsite Storage Capacity		

Anticipated Withdrawal Dates
Pad Construction Start:
Pad Reclamation End:

Anticipated water sources (check all that apply)

□ Streams/Rivers	Groundwater		□ Brokered Water		□ Lake/Reservoir/Pond
Centralized Freshwater Impoundment		Centralized Waste Pit		□ Aboveground Storage Tank	
□ Other	Recycled Frac Water				

Section III(b) — **Aquatic Life Protection** (if utilizing surface water, provide the following details)

Describe Entrainment and Impingement Prevention Plan:
Describe Invasive Species Transfer Prevention Plan:

Section IV(a) – Stream/River Source (to be completed for each surface water withdrawal location, print more pages as necessary)

Stream/River Name:				
Landowner name and address:		Phone:		
	ntake Location (decir	nal degrees, NAD83))	
Latitude:	Longitude:		County:	

Proposed Withdrawal Details

Stationary Pump:	Total Maximum Pump Rate (gpm)	
Direct Truck Withdrawal:	Max. Pump Rate per Truck (gpm):	No. Trucks Simultaneously Pumping:

Determination that sufficient flow is available downstream from proposed intake point

Allow passby to be calculated by the DEP (Preferred)?	Yes 🗆	No 🗆	
(If no, advance written authorization by DEP is required.	Attach auth	norization and details.)	

Stream details

1					
	Aquatic Life-Trout Water	Aquatic Life-Warm Wate	er	Drink	ing Water Supply
	Agriculture	Irrigation		Refer	ence Gauge:
Strean	n Final Code:	Regulated by:			
	Sensitive Aquatic Species	Tier 3 Streams	With	nin 1 m	ile upstream of a PSD?
			Yes		No 🗆
Upstream Drainage Area?		Within zone of critical concern?			
		Yes 🗆 No 🗆			
	Stream	Aquatic Life-Trout Water	Aquatic Life-Trout Water Aquatic Life-Warm Water Agriculture Irrigation Stream Final Code: Regulated by: Sensitive Aquatic Species Tier 3 Streams Area? Within zone of critical comparison	Aquatic Life-Trout Water Aquatic Life-Warm Water Agriculture Irrigation Stream Final Code: Regulated by: Sensitive Aquatic Species Tier 3 Streams With Area? Within zone of critical concer	Aquatic Life-Trout Water Aquatic Life-Warm Water Drinki Agriculture Irrigation Refer Stream Final Code: Regulated by: Vithin 1 m Sensitive Aquatic Species Tier 3 Streams Within 1 m Area? Within zone of critical concern?

Section IV(b) - Groundwater Source* (to be completed for each Ground water withdrawal location, print more pages as necessary)

Well Permit # (DHHR):		Well Name:	
Landowner name and address:		Phone:	
W	ell Location (decim	al degrees, NAD83)	
Latitude:	Longitude:		County:
Aquifer (if known):			
 *New well (Drill Date:) Existing well 			

*If drilling a new well, please submit well logs to DEP's Water Use Section; Wells must be drilled and plugged in accordance with DHHR regulations

Total Depth:	Type of Casing:	Casing Diameter:		meter: Screen Interv		Screen Size:
Static Water Elevation:	Top of Casing El	levation: Surface		Surface Elevation:		Type of Well Cap:
		Withdrav	val Details			
Max. Pump Rate (gpm):						

Analysis of potential groundwater impacts

Static Water Level Prior to Test:	feet below grade
Drawdown (Water Level/Elevation During Pump Test):	feet
Duration of Pump Test:	_hours
Gallons Per Minute During Pump Test:	_gpm
Time to Return to Static Water Level After Pump Test:	hours

*All groundwater supply wells must be registered with the Office of Oil and Gas, §22-6A-8(g)(5), additional requirements may apply.

Section IV(c) - Brokered Water Source (to be completed for each water supplier; include each hydrant/tap location, print more pages as necessary)

Supplier Name:						
Supplier name and address:			Phor	ne:		
	Hydrant/	Tap Location(de	ecima	l degr	ees, NAD	083)
Latitude:		Longitude:				County:
		Suppli	er typ	е		
Public Water Provider	□ Waste	□ Waste Water Treatment			□ Indust provided	rial (raw water intake locations must be below)
Commercial Supplier (raw water intake location must be provided below)			□ Private (raw water intake locations must be provided below)			
Purchase Details						
Max. total daily purchase (gal):				ldition	al location	information:

Section IV(d) - Lake/Reservoir/Farm Pond Water Source* (to be completed for each lake/reservoir, print more pages as necessary)

Lake/Reservoir/Farm Pond Name:						
Owner name and address: Phone:						
Owner flame and address.			T HOHE.			
	Intake Location (decimal degrees, NAD83)					
Latitude:		Longitude			County:	
Minimum release, if applica	able (cfs):					
Withdrawal Details						
	Total Maximu	ım Pump Rate (gpm)			
Stationary Pump:						
Diss at Taxala M/ith damasala	Max. Pump F	Rate per Truck (gpm):	No. Truc	ks Simultaneously Pumping:	
Direct Truck Withdrawal:						

Section IV(e) – Centralized Impoundment/Waste Pit (to be completed for each

source, print more pages as necessary)

Centralized Impoundment/	Pit N	ame:					
Referenced WMP#:			CC	COA ID:			
Landowner name and address:			Phone:				
		Facility Location (dec	cimal	-	, NAD83)		
Latitude:		Longitude:		County:		Registered LQU? Yes □ No □	
Operator name and address (if different than applicant):			Pho	ne (if diffe	rent than applicar	nt):	
Withdrawal Details							
Stationary Pump:	Total Maximum Pump Rate (gpm)						
Direct Truck Withdrawal:	Ма	x. Pump Rate per Truck (gpr	n):		No. Trucks Sim	ultaneously Pumping:	

DEP Office Use Only
Within 1 mile upstream of a PSD?
Yes 🗆 No 🗆
Within zone of critical concern?
Yes 🗆 No 🗆

Section IV(f) – Above Ground Storage Tanks (to be completed for each source, print more pages as necessary)

AST Name:						
Referenced WMP#:						
Landowner name and address:			Ph	one:		
		AST Location (decin	mal d	egrees, N	AD83)	
Latitude:	Latitude: Longitude:		County:		County:	Registered LQU? Yes □ No □
Operator name and address (if different than applicant): Phone (if different than applicant):						
Withdrawal Details						
Stationary Pump:	ationary Pump:					
Direct Truck Withdrawal:	Ma	x. Pump Rate per Truck (gpm	ו):		No. Trucks S	Simultaneously Pumping:

Well Pad (where water was obtained from):	Well Pad (where water was obtained from):
Well Pad (where water was obtained from):	Well Pad (where water was obtained from):
Well Pad (where water was obtained from):	Well Pad (where water was obtained from):
Well Pad (where water was obtained from):	Well Pad (where water was obtained from):
Well Pad (where water was obtained from):	Well Pad (where water was obtained from):
Well Pad (where water was obtained from):	Well Pad (where water was obtained from):
Well Pad (where water was obtained from):	Well Pad (where water was obtained from):
Well Pad (where water was obtained from):	Well Pad (where water was obtained from):
Well Pad (where water was obtained from):	Well Pad (where water was obtained from):
Well Pad (where water was obtained from):	Well Pad (where water was obtained from):
Well Pad (where water was obtained from):	Well Pad (where water was obtained from):
Well Pad (where water was obtained from):	Well Pad (where water was obtained from):

Section IV(g) - Reused Frac Water (to be completed for each anticipated source)

Section	V –	Planned	Disposal	Method
---------	-----	---------	----------	--------

		-	Estimate % each facility is to receive			
	Name	Location (decimal degrees, NAD83)	Permit #	Fracturing	Stimulation	Production
UIC		Lat:				
		Long:				
NPDES		Lat:				
(Treatment Plant)		Long:				
Re-Use		Lat:				
		Long:				
Other		Lat:				
		Long:				

Section VI - Planned Additives to be used in Fracturing or Stimulations (attach list to form)

Section VII - Operator Comments

Section VIII – Plan Reviewed By

DEP Office Use only						
API#						
Name:	Signature:	Date:				
DEP Comments:						
DEI Commenta.						

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

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:	
By:	
Its:	

Horizontal Natural Gas Well Work Permit Application Notice By Publication

Notice is hereby given:

Pursuant to West Virginia Code 22-6A-10(e) prior to filing an application for a permit for a horizontal well the applica	nt
shall publish in the county in which the well is located or is proposed to be located a Class II legal advertisement.	

Paper:	
Public Notice Date:	
The following applicant intends to apply for a horizontal natural well work permit which	d

The following applicant intends to apply for a horizontal natural well work permit which disturbs three acres or more of surface excluding pipelines, gathering lines and roads **or** utilizes more than two hundred ten thousand gallons of water in any thirty day period.

Applicant:	_ Well Number:
Address:	

Business Conducted: Natural gas production.

Location -

State:	County:	
District:	Quadrangle:	
UTM Coordinate NAD83 Northing:		
UTM coordinate NAD83 Easting:		
Watershed:		

Coordinate Conversion:

To convert the coordinates above into longitude and latitude, visit: http://tagis.dep.wv.gov/convert/llutm_conus.php

Electronic notification:

To receive an email when applications have been received or issued by the Office of Oil and Gas, visit <u>http://www.dep.wv.gov/insidedep/Pages/DEPMailingLists.aspx</u> to sign up.

Reviewing Applications:

Copies of the proposed permit application may be reviewed at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE Charleston, WV 25304 (304-926-0450). Full copies or scans of the proposed permit application will cost \$15, whether mailed or obtained at DEP headquarters. Copies may be requested by calling the office or by sending an email to <u>DEP.comments@wv.gov</u>.

Submitting Comments:

Comments may be submitted online at <u>https://apps.dep.wv.gov/oog/comments/comments.cfm</u>, or by letter to Permit Review, Office of Oil and Gas, 601 57th Street, SE Charleston, WV 25304. Please reference the county, well number, and operator when using this option.

Regardless of format for comment submissions, they must be received no later than thirty days after the permit application is received by the Office of Oil and Gas.

For information related to horizontal drilling visit: www.dep.wv.gov/oil-and-gas/pages/default.aspx

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS <u>NOTICE CERTIFICATION</u>

Date of Notice Certification:

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

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:	UTM NAD 83	asting:	
County:	UTMINAD 85 N	Northing:	
District:	Public Road Access	s:	
Quadrangle:	Generally used farr	n name:	
Watershed:		_	

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 subsection ten of this article by the applicant.

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:	
*PLEASE CHECK ALL THAT APPLY	OOG OFFICE USE ONLY
□ 1. NOTICE OF SEISMIC ACTIVITY OF □ NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED	□ RECEIVED/ NOT REQUIRED
\Box 2. NOTICE OF ENTRY FOR PLAT SURVEY or \Box NO PLAT SURVEY WAS CONDUCTED	□ RECEIVED
□ 3. NOTICE OF INTENT TO DRILL OF □ NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED OF	□ RECEIVED/ NOT REQUIRED
WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)	
\Box 4. NOTICE OF PLANNED OPERATION	□ RECEIVED
\Box 5. PUBLIC NOTICE	□ RECEIVED
\Box 6. NOTICE OF APPLICATION	□ RECEIVED

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.

Certification of Notice is hereby given:

THEREFORE, I _______, 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:		Address:	
By:			
Its:		Facsimile:	
Telephone:		Email:	
	NOTARY SEAL	Subscribed and sworn before me this day of Notary Public My Commission Expires	C

Oil and Gas Privacy Notice:

WW-6A
(9-13)

API NO. 47	
OPERATOR WELL NO	
Well Pad Name:	

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS <u>NOTICE OF APPLICATION</u>

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

	e of Notice: Da	ate Permit Application	Filed:
	PERMIT FOR ANY WELL WORK		TE OF APPROVAL FOR THE TION OF AN IMPOUNDMENT OR PIT
Deliv	very method pursuant t	o West Virginia Code	§ 22-6A-10(b)
	PERSONAL SERVICE	REGISTERED MAIL	METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION
certifi regists sedin the st oil ar descr opera more well impo have provi propo subse recor provi Code	ficate of approval for the c stered mail or by any methor ment control plan required urface of the tract on which and gas leasehold being dev ribed in the erosion and sec ator or lessee, in the event e coal seams; (4) The owne work, if the surface tract is bundment or pit as describe a water well, spring or wa ide water for consumption osed well work activity is t ection (b) of this section he rds of the sheriff required t ision of this article to the c e R. § 35-8-5.7.a requires,	construction of an impour bod of delivery that require by section seven of this a the the well is or is propose veloped by the proposed we diment control plan subm the tract of land on which ers of record of the surface s to be used for the place ed in section nine of this ther supply source located by humans or domestic a to take place. (c)(1) If mo old interests in the lands, to be maintained pursuan contrary, notice to a lien h	e filing date of the application, the applicant for a permit for any well work or for a adment or pit as required by this article shall deliver, by personal service or by es a receipt or signature confirmation, copies of the application, the erosion and article, and the well plat to each of the following persons: (1) The owners of record of ed to be located; (2) The owners of record of the surface tract or tracts overlying the well work, if the surface tract is to be used for roads or other land disturbance as nitted pursuant to subsection (c), section seven of this article; (3) The coal owner, h the well proposed to be drilled is located [sic] is known to be underlain by one or e tract or tracts overlying the oil and gas leasehold being developed by the proposed ment, construction, enlargement, alteration, repair, removal or abandonment of any article; (5) Any surface owner or water purveyor who is known to the applicant to within one thousand five hundred feet of the center of the well pad which is used to animals; and (6) The operator of any natural gas storage field within which the to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any nolder is not notice to a landowner, unless the lien holder is the landowner. W. Va. shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any patter 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)	COAL OWNER OR LESSEE
Name:	Name:
Address:	Address:
Name:	COAL OPERATOR
Address:	Name:
	Address:
□ SURFACE OWNER(s) (Road and/or Other Disturbance)	
Name:	□ SURFACE OWNER OF WATER WELL
Address:	AND/OR WATER PURVEYOR(s)
	Name:
Name:	Address:
Address:	
	OPERATOR OF ANY NATURAL GAS STORAGE FIELD
□ SURFACE OWNER(s) (Impoundments or Pits)	Name:
Name:	Address:
Address:	
	*Please attach additional forms if necessary

API NO. 47	_
OPERATOR WELL NO	_
Well Pad Name:	_

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 or 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 <u>www.dep.wv.gov/oil-and-gas/pages/default.aspx</u>.

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 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.

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

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.

WW-6A (8-13)

API NO. 47	
OPERATOR WELL NO.	
Well Pad Name:	

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-

<u>Permits/Pages/default.aspx</u> 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.

WW-6A	API NO. 47
(8-13)	OPERATOR WELL NO
	Well Pad Name:
Notice is hereby given by:	
Well Operator:	Address:
Telephone:	
Email:	

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.

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Subscribed and sworn before me this day of,
Notary Public
My Commission Expires

WW-6A3 (1/12)

Operator Well No.

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF ENTRY FOR PLAT SURVEY

Notice Time Requirement: Notice shall be provided at least SEVEN (7) days but no more than FORTY-FIVE (45) days prior to

entry Date of Notice:	Date of Pla	nned Entry:			
Delivery method pursuant to West Virginia Code § 22-6A-10a					
PERSONAL SERVICE	REGISTERED MAIL	METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION			
on to the surface tract but no more than fort beneath such tract tha owner of minerals und and Sediment Control Secretary, which state	to conduct any plat survey y-five days prior to such en thas filed a declaration pur derlying such tract in the co l Manual and the statutes ar	Prior to filing a permit application, the operator shall provide notice of planned entry s required pursuant to this article. Such notice shall be provided at least seven days try to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams rsuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any punty tax records. The notice shall include a statement that copies of the state Erosion nd rules related to oil and gas exploration and production may be obtained from the information, including the address for a web page on the Secretary's web site, to he secretary.			
Notice is hereby pro	vided to:				
□ SURFACE OWN	NER(s)	□ COAL OWNER OR LESSEE			
Name:		Name:			
Address:		Address:			
Name:					
Address:		$_$ MINERAL OWNER(s)			
Name:		Name: Address:			
Address:					
		*please attach additional forms if necessary			
a plat survey on the tr State: County: District: Quadrangle: Copies of the state Er may be obtained from Charleston, WV 2530	ginia Code § 22-6A-10(a), 1 ract of land as follows: osion and Sediment Contro n the Secretary, at the WV I 04 (304-926-0450). Copies	Public Road Access: Watershed:			
Notice is hereby gi	ven by:				
Well Operator:		Address:			
Telephone:					

Oil and Gas Privacy Notice:

Email:

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.

Facsimile:

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: ______ Date Permit Application Filed: _____

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

HAND	CERTIFIED MAIL
DELIVERY	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:	Name:
Address:	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:	 UTM NAD 83	Easting:	
County:	UTMINAD 85	Northing:	
District:	Public Road Acc	ess:	
Quadrangle:	Generally used f	arm name:	
Watershed:			

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 <u>www.dep.wv.gov/oil-and-gas/pages/default.aspx</u>.

Notice is hereby given by:

Well Operator:	Authorized Representative:	
Address:	Address:	
Telephone:	Telephone:	
Email:	Email:	
Facsimile:	Facsimile:	

Oil and Gas Privacy Notice:

WW-6A5 (1/12)

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

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.
Date of Notice: _____ Date Permit Application Filed: _____

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:	Name:
Address:	Address:

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:	1	UTM NAD 83	Easting:	
County:		l l l l l l l l l l l l l l l l l l l	Northing:	
District:	I	Public Road Acces	ss:	
Quadrangle:	(Generally used far	m name:	
Watershed:				

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 <u>www.dep.wv.gov/oil-and-gas/pages/default.aspx</u>.

Well Operator:	Address:
Telephone:	
Email:	Facsimile:

Oil and Gas Privacy Notice:

API NO. 47	
OPERATOR WELL NO.	
Well Pad Name:	

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS WELL LOCATION RESTRICTION WAIVER

The well operator, ________ is applying for a permit from the State of West Virginia to conduct oil or gas well work. Please be advised that well work permits are valid for twenty-four (24) months.

Well Location Restrictions

Pursuant to West Virginia Code § 22-6A-12(a), 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 may include insurance, bonding and indemnification, as well as technical requirements.

WAIVER

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 la	nd as follows:			
State: UTM NAD 83 Easting:				
County: UTM N	IAD 83 Northing:			
District: Public 1	Road Access:			
Quadrangle: General	lly 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 and I therefore waive all well site restrictions listed under West Virginia Code § 22-6A-12(a).				
WELL SITE RESTRICTIONS BEING WAIVED	FOR EXECUTION BY A NATURAL PERSON			
*Please check all that apply	Signature:			
	Print Name:			
□ EXISTING WATER WELLS	Date:			
	FOR EXECUTION BY A CORPORATION, ETC.			

DWELLINGS
DWELLINGS
DWELLEHIOD

□ AGRICULTURAL BUILDINGS

Well Operator:_____

By:_____ Its: Signature:______Telephone: ______

NO	ΓΛΡΥ	SEAL

Subscribed and	d sworn l	before me	this	day of	

Company:_____ By: _____ Its: _____

Signature: ______
Date: ______

_____Notary Public

My Commission Expires

Oil and Gas Privacy Notice:

API NO. 47	
OPERATOR WELL NO.	
Well Pad Name:	

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 ha	ave read the Instructions	to Persons Na	amed on Page WW-6A and the associated
provisions listed above, and that I have received cop	oies of a Notice of Applic	ation, an App	blication for a Well Work Permit on Form
WW-6A and attachments consisting of pages one ((1) through	_, including t	the erosion and sediment control plan, if
required, and the well plat, all for proposed well work	c on the tract of land as fo	llows:	
State:	UTM NAD 83	Easting:	
County:		Northing:	
District:	Public Road Ac	cess:	
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.

*Please check the box that applies	FOR EXECUTION BY A NATURAL PERSON
□ SURFACE OWNER	Signature:
□ SURFACE OWNER (Road and/or Other Disturbance)	Print Name: Date:
□ SURFACE OWNER (Impoundments/Pits)	FOR EXECUTION BY A CORPORATION, ETC.
\Box COAL OWNER OR LESSEE	Company:
\Box COAL OPERATOR	By: Its:
□ WATER PURVEYOR	Signature:
□ OPERATOR OF ANY NATURAL GAS STORAGE FIELD	Date:

Oil and Gas Privacy Notice:

WW-6A7 (6-12)	
OPERATOR:	WELL NO:
PAD NAME:	
REVIEWED BY:	SIGNATURE:

WELL RESTRICTIONS CHECKLIST

HORIZONTAL 6A WELL

Well Restrictions

At Least 100 Feet from Pad and LOD (including any E&S Control Feature) to any
Perennial Stream, Lake, Pond, Reservoir or Wetland; OR

_____ DEP Waiver and Permit Conditions

At Least 300 Feet from Pad and LOD (including any E&S Control Feature) to any Naturally Producing Trout Stream; OR

_____ DEP Waiver and Permit Conditions

____ At Least 1000 Feet from Pad and LOD (including any E&S Control Feature) to any Groundwater Intake or Public Water Supply; OR

DEP Waiver and Permit Conditions

At Least 250 Feet from an Existing Water Well or Developed Spring to Well Being Drilled; OR

Surface Owner Waiver and Recorded with County Clerk, OR

_____ DEP Variance and Permit Conditions

At Least 625 Feet from an Occupied Dwelling Structure to Center of the Pad; OR

_____ Surface Owner Waiver and Recorded with County Clerk, OR

DEP Variance and Permit Conditions

____ At Least 625 Feet from Agricultural Buildings Larger than 2500 Square Feet to the Center of the Pad; OR

_____ Surface Owner Waiver and Recorded with County Clerk, OR

DEP Variance and Permit Conditions

Well Operator:		
Well Number:	Well Pad Name:	
County, District, Quadrangle of Well Location:		

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.

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.

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

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.

- 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.