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west virginia department of environmental protection

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

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

Wednesday, February 01, 2017  
WELL WORK PERMIT  
Vertical / Plugging

ICG TYGART VALLEY, LLC (A)  
100 TYGART DR

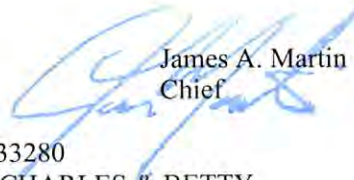
GRAFTON, WV 26354

Re: Permit approval for 33280  
47-091-01113-00-00

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

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

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



James A. Martin  
Chief

Operator's Well Number: 33280  
Farm Name: DRENNAN, CHARLES & BETTY  
U.S. WELL NUMBER: 47-091-01113-00-00  
Vertical / Plugging  
Date Issued: 2/1/2017

Promoting a healthy environment.

02/03/2017

## PERMIT CONDITIONS

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

### CONDITIONS

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

1) Date December 12, 2016  
2) Operator's  
Well No. 33280  
3) API Well No. 47-91-01113P

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil \_\_\_/ Gas \_\_\_/ Liquid injection \_\_\_/ Waste disposal \_\_\_/  
(If "Gas, Production \_\_\_ or Underground storage \_\_\_) Deep \_\_\_/ Shallow X

5) Location: Elevation 1659.10 Watershed Frog Run  
District Knottsville County Taylor Quadrangle Thornton (638)

6) Well Operator ICG Tygart Valley, LLC 7) Designated Agent Charles E. Duckworth  
Address 100 Tygart Drive Address 100 Tygart Drive  
Grafton, WV 26354 Grafton, WV 26354

8) Oil and Gas Inspector to be notified 9) Plugging Contractor  
Name Kenneth Greynolds Name Coastal Drilling East, LLC  
Address 613 Broad Run Road Address 130 Meadows Ridge Road  
Jane Lew, WV 26378 Mt. Morris, PA 15349

10) Work Order: The work order for the manner of plugging this well is as follows:

See Exhibit Nos. 1 and 2

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

Work order approved by inspector Kenneth Greynolds Date 1-5-17

02/03/2017

EXHIBIT No. 2

Coastal Drilling East LLC • 130 Meadow Ridge Road, Mt. Morris, PA 15349

Phone 304-296-1120 Fax 304-413-0061

"A Shaft Drillers International Company"

05/26/2016

Mr. Chuck Duckworth  
 Gas Well & Property Manager  
 Arch Coal, Inc. – Leer Mine Complex  
 100 Tygart Drive  
 Grafton, WV 26354

Mr. Duckworth,

Below is the proposed plugging plan we discussed that can be used on wells similar to the wells we have been plugging for the last few years.

Plugging Plan

- Move to site, rig up, mix mud, drill rathole
- Attempt to clean out well to original total depth (TD).
- Run cement bond log on 4 ½" casing to determine top of cement
- Set bottom hole cement plug as required by the WV DEP from TD to top of cement determined by the bond log.
- Tag top of bottom hole plug to insure plug is at correct depth. Re-cement if necessary.
- Cut and pull 4 ½" casing from the free point determined by the bond log.
- Clean out wellbore to top of remaining 4 ½" casing
- Run suite of logs to determine casing size, bottom of casing, depth of coal seams, deviation of wellbore and cement bond to casing.
- Cement hole from top of bottom hole plug to a depth within 25' of bottom of the 7" casing.
- If necessary cut and pull any free casing.
- Perforate, cut, rip or mill any remaining casing at depths determined by MSHA's 101C Petition.

- 9 5/8" CASING IS CEMENTED TO SURFACE.

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EXHIBIT NO. 1

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From the experience and technology developed since 1970 in plugging oil and gas wells for mining through, ICG Tygart Valley, LLC will utilize the following method to plug all future wells.

**SOLID PLUG METHOD**

- a) If active well: clean out to total depth and plug back according to state regulations to a minimum of 200 feet below lowest minable coal seam.
- b) If abandoned well: clean out to first plug 200 feet below lowest minable coal seam.
- c) Circulate through tubing or drill steel an expanding cement plug from a minimum of 200 feet below minable coal seam to a point 100 feet above minable coal.

Circulate through tubing or drill steel from 100 feet above coal seam to surface.

A monument will be installed with API No. and stating "solid plug".

ICG Tygart Valley, LLC                      1113  
Leer Mine (MSHA ID# 46-09192)  
MSHA 101-C Docket No. M-2012-065-C

Approximate coal seam top ~ 970  
Approximate coal seam bottom ~ 975

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- Cement hole from top of intermediate plug to surface using cement required by MSHA's 101C Petition.
- Rig down and set monument as required by WV DEP.

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State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas  
Well Operator's Report of Well Work

TE: 47-091-01113  
ARI No: 47-091-01113  
Lease No:

9101113P

*Bob*

Farm Name: DRENNAN, CHARLES & BETTY Operator Well No. 33280

LOCATION: Elevation: 1659.1' Quadrangle: Thornton

District: Knottsville County: Taylor

Latitude: 14,820 Feet South of: 39 Deg. 20 Min. 0 Sec.  
Longitude: 6,090 Feet West of: 79 Deg. 57 Min. 30 Sec.

Company: Dominion Exploration & Production, Inc.

	Casing and Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: P.O. Box 1248 Jane Lew, WV 26378				
Agent: Rodney J. Biggs				
Inspector: Bill Hatfield				
Date Permit Issued: 11/5/2008				
Date Well Work Commenced: 6/30/2009	13 3/8"	30'	30'	Sand In
Date Well Work Completed: 7/20/2009				
Verbal Plugging:	9 5/8"	760'	760' ✓	225 sks
Date Permission granted on:				
Rotary X Cable Rig	7"	1276'	1276' ✓	195 sks
Total Depth (feet): 5,288'				
Fresh Water Depth (ft.): 130' ✓	4 1/2"	5258'	5258'	330 sks
Salt Water Depth (ft.): N/A				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): 120'-130'				
Oil Depths (ft.): N/A				

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AUG 31 2009  
WV DEPARTMENT OF ENVIRONMENTAL PROTECTION

**OPEN FLOW DATA**

BALLTOWN (3)	3415'-3423'
BENSON (2)	4496'-4504'
Producing formation <u>3RD ELK (1)</u>	Pay zone depth (ft) <u>5122'-5130'</u>
Gas: Initial open flow <u>odor</u> MCF/d	Oil: Initial open flow <u>show</u> Bbl/d
Final open flow <u>732</u> MCF/d	Final open flow <u>show</u> Bbl/d
Time of open flow between initial and final tests <u>12</u> Hours	
Static rock Pressure <u>840</u> psig (surface pressure) after <u>12</u> Hours	

Second Producing formation	Pay zone depth (ft)
Gas: Initial open flow <u>*</u> MCF/d	Oil: Initial open flow <u>*</u> Bbl/d
Final open flow <u>*</u> MCF/d	Final open flow <u>*</u> Bbl/d
Time of open flow between initial and final tests <u>*</u> Hours	
Static rock Pressure <u>*</u> psig (surface pressure) after <u>*</u> Hours	

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: Rodney J. Biggs  
By: Rodney J. Biggs  
Date: 8/27/09

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02/03/2017

7/20/2009

PERFORMED 3 STAGE FRAC W/ SUPERIOR AND SUPERIOR.  
 3RD ELK (1) 5122'- 5130' (32 HOLES)- 75 QUALITY FOAM FRAC W/ 15# LINEAR  
 GEL - 30,700# 20/40 SAND, 203 BBL CLEAN FLUID, 846,000 SCF N2, BDP 2778#,  
 ATP 3735#, 16 BPM, ISIP 3500#, FG = 0.86  
 BENSON (2) 4496'- 4504' (32 HOLES) - 75 QUALITY FOAM FRAC W/ 15# LINEAR  
 GEL - 48,500# 20/40 SAND, 213 BBL CLEAN FLUID, 804,000 SCF N2, BDP 3726#,  
 ATP 3670#, 22 BPM, ISIP 3310#, FG = 0.92  
 BALLTOWN (3) 3415'- 3423' (24 HOLES)- 75 QUALITY FOAM FRAC W/ 15# LINEAR  
 GEL - 31,800# 20/40 SAND, 193 BBL CLEAN FLUID, 411,000 SCF N2, BDP 2620#,  
 ATP 3018#, 24 BPM, ISIP 1730#, FG = 0.94  
 RECOVERED 2 OF 2 FRAC BALLS. 3/8" CHOKE - 4 HOURS, 1/2" CHOKE - 6 HOURS,  
 1" CHOKE - 8 HOURS CURRENTLY ON 2" CHOKE WITH NO SHOW OF OIL

Fill	0	25
Shale/Sand	25	35
Sand	35	60
Shale	60	120
Coal	120	130
Sand/Shale	130	240
Sand	240	390
Sand/Shale	390	570
Sand	570	630
Sand&Shale	630	650
RedRock	650	690
Sand	690	740
Shale	740	920
Sand	920	1100
Sand&Shale	1100	1230
Shale	1230	1260
Sand&Shale	1260	

GAMMA RAY/ FORMATION			
DEPI #33280	TOPS		47-091-01113
	TOP	BASE	
LITTLE LIME	1426	1440	
BIG LIME	1486	1560	
BIG INJUN SAND	1562	1575	
POCONO	1754	1780	
GANTZ	1930	1945	
FOURTH SAND	2440	2498	
FIFTH SAND	2522	2638	
BAYARD	2692	2712	
ELIZABETH	2914	2922	
SPEECHLEY	3210	3254	
BALLTOWN	3410	3428	
BRADFORD	3710	3840	
RILEY	4182	4360	
BENSON	4480	4550	
FIRST ELK	4710	4760	
SECOND ELK	4868	4890	
THIRD ELK	5100	5140	
LTD		5278	



7/20/2009 PERFORMED 3 STAGE FRAC W/ SUPERIOR AND SUPERIOR.  
 3RD ELK (1) 5122'- 5130' (32 HOLES)- 75 QUALITY FOAM FRAC W/ 15# LINEAR  
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Fill	0	25
Shale/Sand	25	35
Sand	35	60
Shale	60	120
Coal	120	130
Sand/Shale	130	240
Sand	240	390
Sand/Shale	390	570
Sand	570	630
Sand&Shale	630	650
RedRock	650	690
Sand	690	740
Shale	740	920
Sand	920	1100
Sand&Shale	1100	1230
Shale	1230	1260
Sand&Shale	1260	

GAMMA RAY/ FORMATION		
DEPI #33280	TOPS	
	TOP	BASE
LITTLE LIME	1426	1440
BIG LIME	1488	1560
BIG INJUN SAND	1582	1575
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BENSON	4480	4550
FIRST ELK	4710	4760
SECOND ELK	4868	4880
THIRD ELK	5100	5140
LTD		5278

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910113P

WW-4A  
Revised 6-07

1) Date: December 12, 2016  
2) Operator's Well Number  
33280  
3) API Well No.: 47 - 91 - 01113

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

4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name Charles F Drennan, Jr. & Betty L. Drennan	Name CoalQuest Development, LLC <i>Wagner</i>
Address 651 Haislip Farm Road / Grafton, West Virginia 26354	Address 100 Tygart Drive Grafton, West Virginia 26354
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name _____
(c) Name _____	Address _____
Address _____	Name _____
6) Inspector Kenneth Greynolds	(c) Coal Lessee with Declaration
Address 613 Broad Run Road	Name _____
Jane Lew, WV 26378	Address _____
Telephone (304) 206-6613	_____

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

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

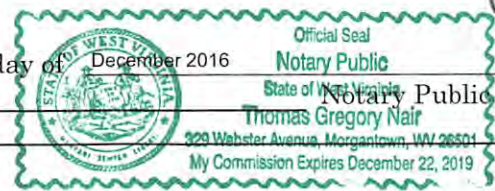
The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

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

Well Operator ICG Tygart Valley, LLC *[Signature]*  
 By: Charles E. Duckworth  
 Its: Designated Agent  
 Address 100 Tygart Drive  
 Grafton, West Virginia 26354  
 Telephone (304) 265-9704

**RECEIVED**  
**Office of Oil and Gas**  
**JAN 06 2017**  
**WV Department of Environmental Protection**

Subscribed and sworn before me this 13 day of December 2016  
*Thomas Gregory Nair*  
 My Commission Expires December 22, 2019



Oil and Gas Privacy Notice

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

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API No. 47-91-01113 P  
Farm Name Drennan, Charles & Betty  
Well No. 33280

**INSTRUCTIONS TO COAL OPERATORS  
OWNERS AND LESSEE**

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

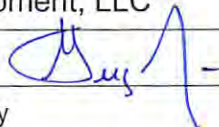
This notice and application is given to you in order that your respective representatives may be present at the plugging and filling of said well. You are further notified that whether you are represented or not the operator will proceed to plug and fill said well in the manner required by Section 24,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

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

**WAIVER**

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

Date: 12/13/16

CoalQuest Development, LLC  
By: Greg Nair   
Its Power of Attorney

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910113P



# ICG TYGART VALLEY, LLC

100 Tygart Drive, Grafton, West Virginia 26354

December 13, 2016

Charles F. Drennan, Jr.  
Betty L. Drennan  
651 Haislip Farm Road  
Grafton, West Virginia 26354

Re: Plugging Permit – API # 47-91-01113 – 33280

Dear Mr. & Mrs. Drennan:

As required by the permit process of the WV Department of Environmental Protection – Office of Oil and Gas enclosed please find a copy of the plugging permit application for the above referenced well that ICG Tygart Valley, LLC plans to submit to the WV Department of Environmental Protection, Office of Oil and Gas.

If you have no objection to the plugging permit application, please sign the page titled Surface Owner Waiver and return in the enclosed self-addressed stamped envelope.

If you should have any questions concerning this application please feel free to contact Charles Duckworth at (304) 265-9704 or me at (304) 265-9778 or via email at [gnair@archcoal.com](mailto:gnair@archcoal.com).

Sincerely,

Greg Nair  
Manager Surface Mine Planning

Enclosures

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CERTIFIED MAIL NO. 7015 3010 0001 7053 2256  
RETURN RECEIPT REQUESTED

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★

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

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

Operator Name ICG Tygart Valley, LLC OP Code \_\_\_\_\_

Watershed Frog Run Quadrangle Thornton (638)

Elevation 1659.10 County Taylor District Knottsville

Description of anticipated Pit Waste: N/A

Will a synthetic liner be used in the pit? N/A

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection ( UIC Permit Number \_\_\_\_\_ )
- Reuse (at API Number \_\_\_\_\_ )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain Tanks - See attached letter)

Proposed Work For Which Pit Will Be Used:

- Drilling
- Workover
- Other (Explain \_\_\_\_\_)
- Swabbing
- Plugging

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

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

Company Official Signature [Signature]

Company Official (Typed Name) Charles E. Duckworth

Company Official Title Designated Agent

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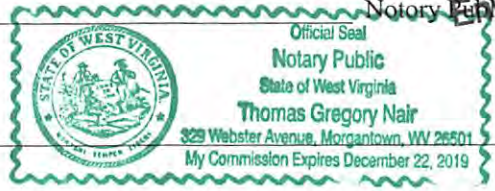
JAN 06 2017

Subscribed and sworn before me this 13 day of December, 2016

WV Department of Environmental Protection

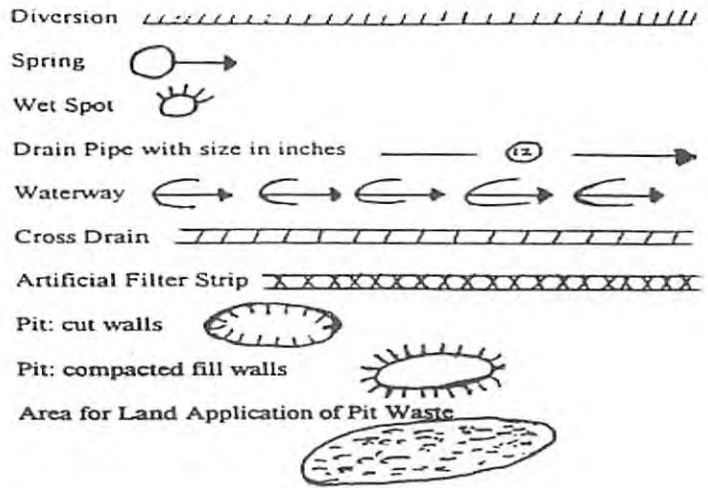
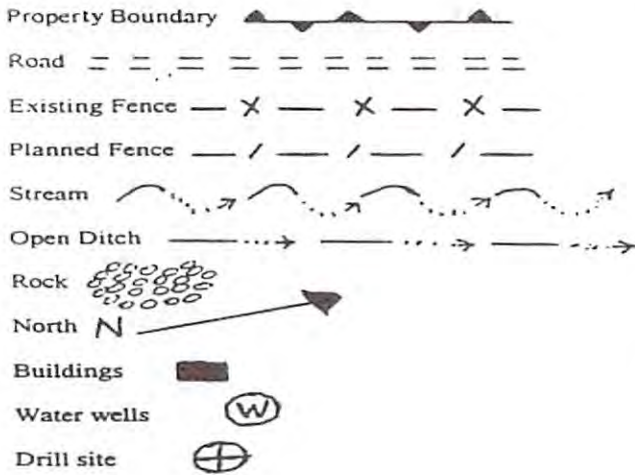
[Signature]

My commission expires December 22, 2019



02/03/2017

**LEGEND**



Proposed Revegetation Treatment: Acres Disturbed 1.50/2.0 Prevegetation pH \_\_\_\_\_  
 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 Bales Tons/acre

Seed Mixtures

Seed Type	Area I	lbs/acre	Seed Type	Area II	lbs/acre
Orchard Grass		12	Orchard Grass		12
Landino Clover		3	Landino Clover		3
Timothy		10	Timothy		10

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

Photocopied section of involved 7.5' topographic sheet.

See attached

Plan Approved by: [Signature]

Comments: RECLAIM, SEED AND MULCH ASAP

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Title: OIL & GAS INSPECTOR

Date: 1-5-17 WV Department of Environmental Protection

Field Reviewed? ( ) Yes (  ) No

91001439



## ICG TYGART VALLEY, LLC

100 Tygart Drive, Grafton, West Virginia 26354

December 12, 2016

WV Department of Environmental Protection  
Office of Oil and Gas  
601 – 57<sup>th</sup> Street, S.E.  
Charleston, West Virginia 25304

To Whom It May Concern:

As per the WV Department of Environmental Protection, Office of Oil and Gas request, ICG Tygart Valley, LLC, submits the following procedures utilizing pit waste.

Upon submitting a well work application (without a general permit for Oil and Gas Pit Waste Discharge Application), ICG Tygart Valley, LLC, will construct no pits, but instead will use mud tanks to contain all drilling muds.

Once the well is completed, that material (minus the cave material) will be trucked to the next well to be plugged or to DEP impoundment facilities O-2017-06 or to an approved facility that can handle the material.

Sincerely,

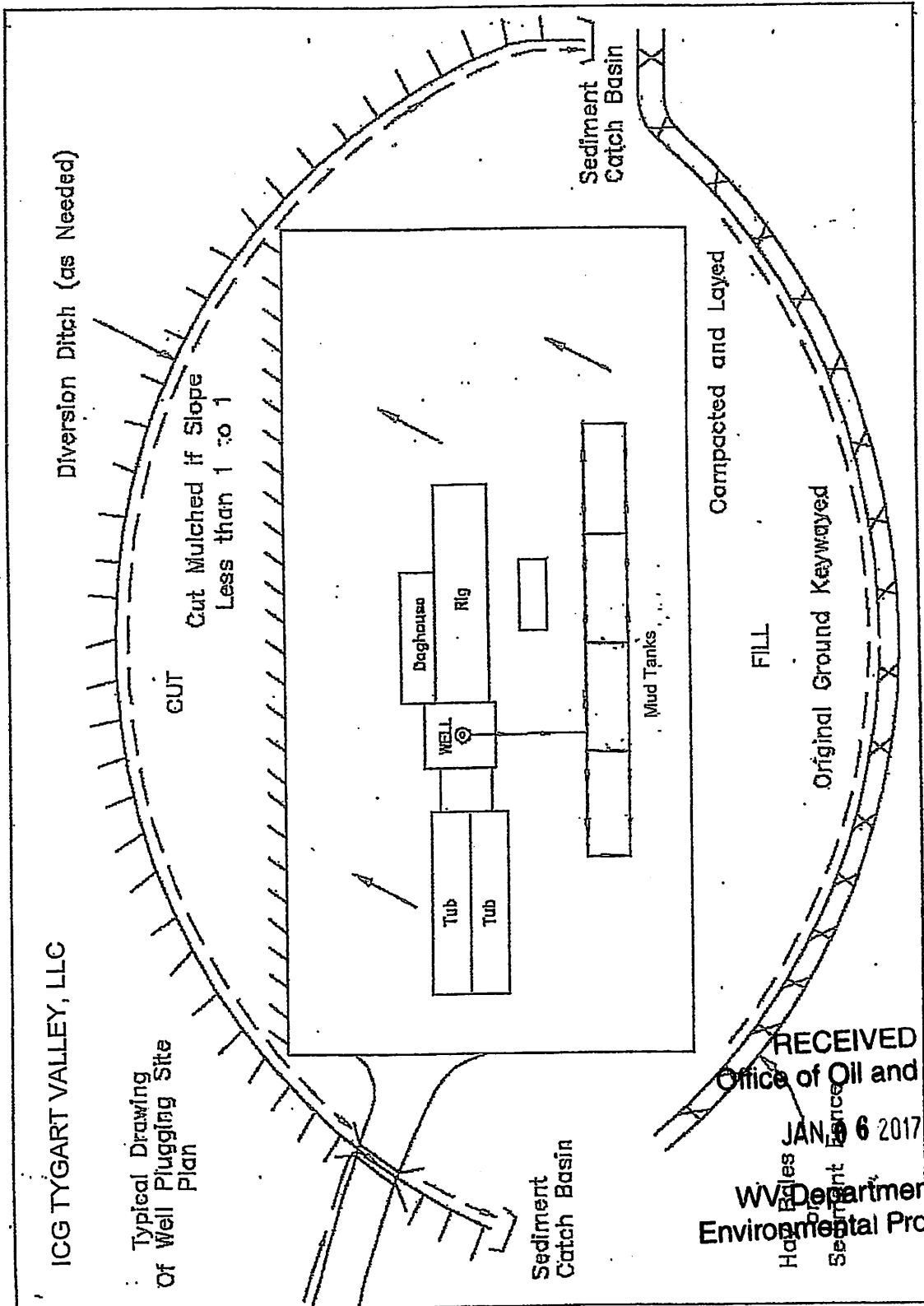
Charles E. Duckworth  
Designated Agent

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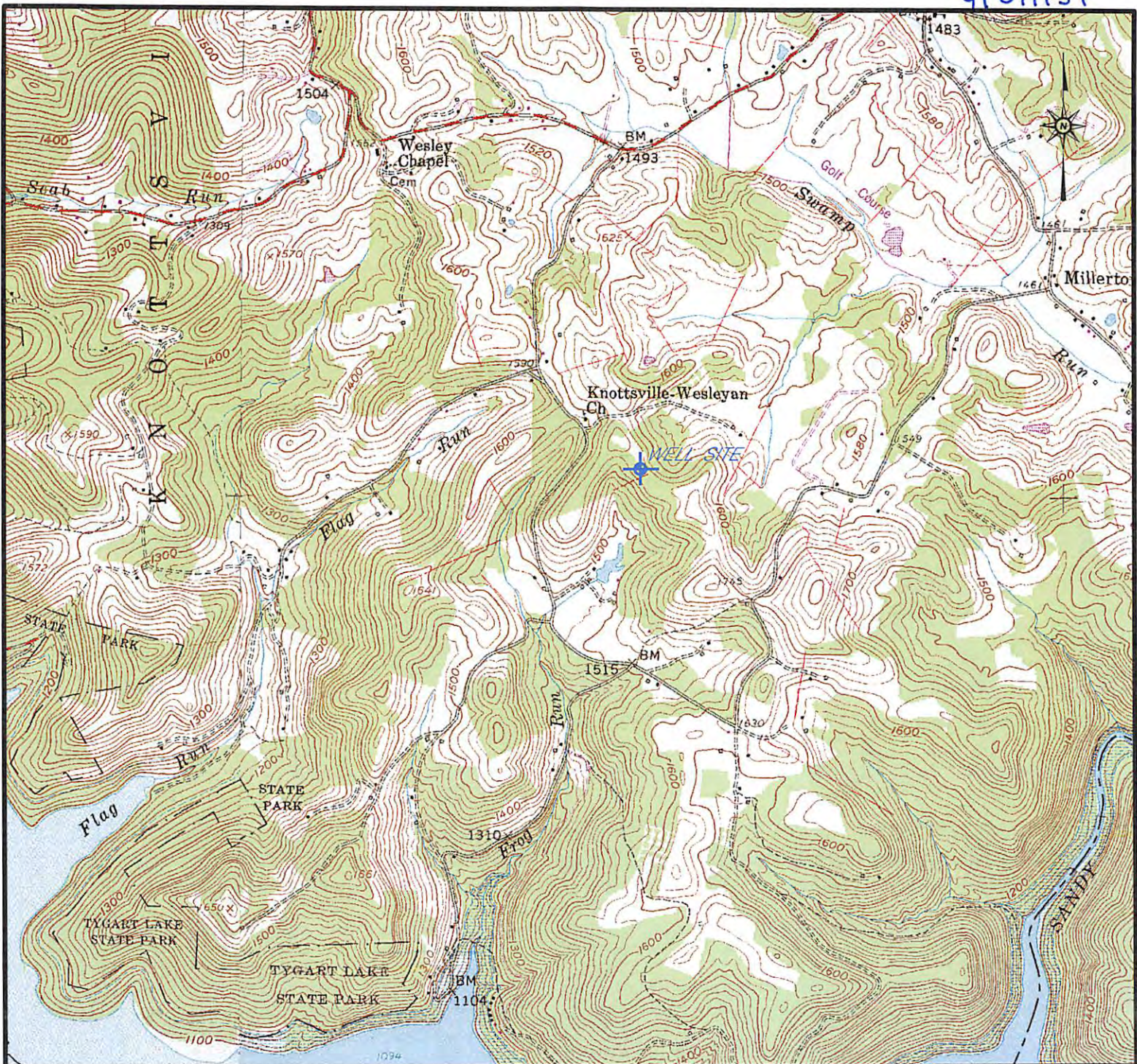
02/03/2017



Typical Drawing  
Of Well Plugging Site  
Plan

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LATITUDE: 39° 17' 33"  
 LONGITUDE: 79° 58' 47"  
 NEAREST WATERCOURSE: Frog Run  
 NEAREST TOWN: Knottsville

OPERATOR'S WELL NO. \_\_\_\_\_  
 API WELL NO. 33280  
 47 - 091 - 01113  
 STATE COUNTY PERMIT

WELL TYPE: OIL \_\_\_\_\_ GAS  LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
 (IF "GAS") PRODUCTION  STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW   
 LOCATION: ELEVATION 1659.14 WATERSHED Frog Run  
 DISTRICT Knottsville COUNTY Taylor

QUADRANGLE Thornton 7 1/2'  
 SURFACE OWNER: Charles F. Drennan, Jr. & Betty L. Drennan ACREAGE 120 (14-55)  
 OIL & GAS ROYALTY OWNER: Charles F. Drennan, Jr. & Betty L. Drennan LEASE ACREAGE 736

LEASE NO. DV-15467  
 PROPOSED WORK: DRILL  CONVERT \_\_\_\_\_ DRILL DEEPER \_\_\_\_\_ REDRILL \_\_\_\_\_ FRACTURE OR  
 STIMULATE  PLUG OFF OLD FORMATION \_\_\_\_\_ PERFORATE NEW  
 FORMATION \_\_\_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON  CLEAN OUT AND REPLUG \_\_\_\_\_  
 TARGET FORMATION 3rd Elk ESTIMATED DEPTH 5270'  
 WELL OPERATOR ICG Tygart Valley, LLC DESIGNATED AGENT Charles E. Duckworth  
 ADDRESS 100 Tygart Drive, Grafton, WV 26354 ADDRESS 100 Tygart Drive, Grafton, WV 26354

REVISED BY:	DATE:	<b>API WELL NO. 47-091-01113 33280</b>
		<b>ICG TYGART VALLEY, LLC</b>
		RECEIVED Oil and Gas
		DRAWN BY: [Signature] SCALE: 1" = 200'
		DATE ORIGINATED: April 2016
		DRAWING NO. 47-091-01113-33280.dgn PLOTTING SDATES

PREPARED BY: ArchCoal

WV Department of Environmental Protection

100 Tygart Drive, Grafton, WV 26354  
 Phone: 304-265-9700 Fax: 304-265-9702

**02/03/2017**

WW-7  
8-30-06



West Virginia Department of Environmental Protection  
Office of Oil and Gas  
**WELL LOCATION FORM: GPS**

API: 47-091-01113 WELL NO.: 33280

FARM NAME: Drennan, Charles & Betty

RESPONSIBLE PARTY NAME: ICG Tygart Valley, LLC

COUNTY: Taylor DISTRICT: Knottsville

QUADRANGLE: Thornton

SURFACE OWNER: Charles F. Drennan, Jr. & Betty L. Drennan

ROYALTY OWNER: Charles F. Drennan, Jr. & Betty L. Drennan

UTM GPS NORTHING: 4349757.309

UTM GPS EASTING: 587997.283 GPS ELEVATION: 1648.67

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

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

Survey grade GPS  : Post Processed Differential \_\_\_\_\_

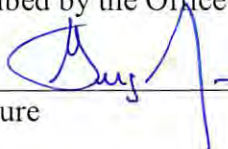
Real-Time Differential

Mapping Grade GPS \_\_\_\_\_ : Post Processed Differential \_\_\_\_\_

Real-Time Differential \_\_\_\_\_

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

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

  
\_\_\_\_\_  
Signature

Power of Attorney  
\_\_\_\_\_  
Title

December 12, 2016

RECEIVED  
Office of Oil and Gas  
Date  
Department of Environmental Protection  
02/03/2017