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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

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

Friday, October 14, 2016  
WELL WORK PERMIT  
Vertical / Plugging

ICG TYGART VALLEY, LLC  
100 TYGART DR

GRAFTON, WV 26354

Re: Permit approval for J-1198  
47-091-00488-00-00

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: J-1198  
Farm Name: RIDENOUR, FRANK  
U.S. WELL NUMBER: 47-091-00488-00-00  
Vertical / Plugging  
Date Issued: 10/14/2016

Promoting a healthy environment.

10/14/2016

## 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.

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WW-4B  
Rev. 2/01

1) Date September 8, 2016  
2) Operator's  
Well No. J-1198  
3) API Well No. 47-91 - 00488

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 1510 Watershed Sandy Creek  
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 Name Kenneth Greynolds  
Address 613 Broad Run Road  
Jane Lew, WV 26378  
9) Plugging Contractor Name Coastal Drilling East, LLC  
Address 130 Meadows Ridge Road  
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

*ICG Tygart Valley, LLC* (488)  
Leer Mine (MSHA ID# 46-09192)  
MSHA 101-C Docket No. M-2012-065-C  
Approximate coal seam top ~ 590.59  
Approximate coal seam bottom ~ 595.22

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

Work order approved by inspector [Signature] Date 9-9-16  
SEP 14 2016

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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".

FILED  
Office of Oil and Gas

SEP 14 2016

West Virginia Department of  
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10/14/2016

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). PBD.
- 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. ≈ 3000'
- 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 the bottom of the 8 5/8" casing. ≈ 1119'
- If necessary cut and pull any free casing.
- Perforate, cut, rip or mill any remaining casing at depths determined by MSHA's 101C Petition.

Office of Oil and Gas  
 SEP 14 2016  
 WV Department of  
 Environmental Protection

10/14/2016

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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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Office of Oil and Gas

SEP 14 2016

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Environmental Protection  
  
COASTAL  
DRILLING & BART

10/14/2016

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IV-35 (Rev 8-81)

RECEIVED JUL 15 1985

OIL & GAS DIVISION DEPT. OF MINES

State of West Virginia Department of Mines Oil and Gas Division

Date July 11, 1985 Operator's Well No. J-1198 Farm Ridenour API No. 47 - 091 - 0488

WELL OPERATOR'S REPORT OF DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil / Gas x / Liquid Injection / Waste Disposal / (If "Gas," Production x / Underground Storage / Deep / Shallow x /)

LOCATION: Elevation: 1510 Watershed Sandy Creek District: Knottsville County Taylor Quadrangle Thornton

COMPANY J&J Enterprises, Inc. ADDRESS P.O. Box 48, Buckhannon, WV 26201 DESIGNATED AGENT Richard Reddecliff ADDRESS P.O. Box 48, Buckhannon, WV 26201 SURFACE OWNER Franklin M. Ridenour ADDRESS Rt. # 1, Box 397, Grafton, WV 26354 MINERAL RIGHTS OWNER Same as surface ADDRESS OIL AND GAS INSPECTOR FOR THIS WORK Donald Ellis ADDRESS 2604 Crab Apple Lane Fairmont, WV 26554 PERMIT ISSUED 4/29/85 DRILLING COMMENCED 5/20/85 DRILLING COMPLETED 5/29/85 IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED CN

Table with 4 columns: Casing Tubing, Used in Drilling, Left in Well, Cement fill up Cu. ft. Rows include sizes 20-16 Cond., 13-10", 9 5/8, 8 5/8, 7, 5 1/2, 4 1/2, 3, 2, and Liners used.

GEOLOGICAL TARGET FORMATION Haverty Depth 5650-90 feet Depth of completed well 5911 feet Rotary x / Cable Tools Water strata depth: Fresh 50,560, 1020 feet; Salt 0 feet Coal seam depths: 90-92, 440-43 Is coal being mined in the area? No

OPEN FLOW DATA Producing formation Haverty Pay zone depth 5793-97 feet Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d Combined Final open flow 1,008 Mcf/d Final open flow Bbl/d Time of open flow between initial and final tests 4 hours Static rock pressure 1350 psig (surface measurement) after 96 hours shut in (If applicable due to multiple completion--)

TAY 0488

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Haverty: Perforations: 5793-97 (16 holes) FOAM FRAC  
 3rd Elk: Perforations: 5113-17 (16 holes)  
 Fracturing: 450 sks. 20/40 sand: 500 gal. acid: 674 Bbls. fluid.  
 Benson: Perforations: 4493-96 (12 holes)  
 Fracturing: 415 sks. 20/40 sand: 500 gal. acid: 552 Bbls. fluid.  
 Riley: Perforations: 4257-59 (7 holes) 4154-56 (6 holes)  
 Fracturing: 500 gal. acid: 612 Bbls. fluid.

BOTTOM HOLE PRESSURE Pf=Pwe XGLS

$$t=6- + (0.0075 \times 5888) + 459.7 = 564 \quad X = \frac{1}{53.35} \times 564 = \frac{1}{30082} = 0.000033 \quad Pf = 1350 \times 2.72^{(0.000033)}$$

$$(0.619)(4976)(0.9) = 1350 \times 2.72^{0.09} = 1350 \times 1.09$$

Pf= 1472 psi

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all free and salt water, coal, oil and g
KB - Ground Level			0	10	1" stream @ 50'
Soil & Clay			10	40	
Sand & shale			40	90	1/2" stream @ 560'
Coal			90	92	
Sand & shale			92	200	1/2" stream @ 1020
Black shale			200	220	
Sand & shale			220	300	Gas ck @ 1609 No show
White sand			300	330	
Sand & shale			330	440	Gas ck @ 2272 No show
Coal			440	443	
Sand & shale			443	565	Gas ck @ 2621 No show
Sand & shale			565	818	
Sand & shale			818	970	Gas ck @ 2873 No show
Sand, shale & red rock			970	1135	
Sand & shale			1135	1330	Gas ck @ 3159 No show
Little Lime			1330	1350	
Sand, shale & red rock			1350	1400	Gas ck @ 3350 No show
Big Lime			1400	1495	
Injun			1495	1580	Gas ck @ 4139 10/10-1" w/water
Sand & shale			1580	1835	23,814 cu.ft.
Sand & shale			1835	2830	
Sand & shale			2830	4154	Gas ck @ 4295 4/10-1" w/water
Riley			4154	4259	15,041 cu.ft.
Sand & shale			4259	4493	
Benson			4493	4496	Gas ck @ 4453 4/10-1" w/water
Sand & shale			4496	5113	15,041 cu.ft.
3 rd Elk			5113	5117	
Sand & Shale			5117	5793	
Haverty			5793	5797	
Sand & shale			5797	5911	
				5911	T.D.
					Brallier @
					T.D.

(Attach separate sheets as necessary)

J&J Enterprises, Inc.

Well Operator

By:

Date: 7/11/85

Robert Dahlin-Geologist

SEP 14 2016

Note: Regulation 2.02(i) provides as follows:  
 "The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."



WW-4A  
Revised 6-07

1) Date: September 8, 2016  
2) Operator's Well Number J-1198

3) API Well No.: 47 - 91 - 00488

**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 <u>Linda O'Connor (1/2)</u>	Name <u>CoalQuest Development, LLC</u> <i>Waived</i>
Address <u>2324 Flag Run Road</u>	Address <u>100 Tygart Drive</u>
<u>Grafton, West Virginia 26354</u>	<u>Grafton, West Virginia 26354</u>
(b) Name <u>John E. III &amp; Layne Lee (1/2)</u>	(b) Coal Owner(s) with Declaration
Address <u>2410 Avenel Avenue</u>	Name _____
<u>Roanoke, Virginia 24015</u>	Address _____
(c) Name _____	Name _____
Address _____	Address _____
6) Inspector <u>Kenneth Greynolds</u>	(c) Coal Lessee with Declaration
Address <u>613 Broad Run Road</u>	Name _____
<u>Jane Lew, WV 26378</u>	Address _____
Telephone <u>(304) 206-6613</u>	


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

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

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

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

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



Subscribed and sworn before me this 8<sup>th</sup> day of September, 2016

My Commission Expires December 22, 2019



Oil and Gas Privacy Notice

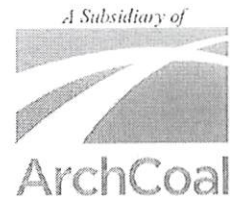
The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory 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 [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

10/14/2016

Notary Public  
State of West Virginia  
Thomas Gregory Hart  
324 West Street, Morgantown, WV 26501  
My Commission Expires December 31, 2018



91004889



## ICG TYGART VALLEY, LLC

100 Tygart Drive, Grafton, West Virginia 26354

September 8, 2016

John E. III & Layne Lee  
2410 Avenel Avenue  
Roanoke, Virginia 24015

Re: Plugging Permit – API # 47-91-00488 – J-1198

Dear Mr. & Mrs. Lee:

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

RECEIVED  
Office of Oil and Gas

SEP 29 2016

WV Department of  
Environmental Protection

CERTIFIED MAIL NO. 7015 3010 0001 7053 2010  
RETURN RECEIPT REQUESTED

10/14/2016

WW-4B

API No.	47-91-00488
Farm Name	Ridenour
Well No.	J-1198

**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: 9/8/16

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

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Office of Oil and Gas

SEP 14 2016

WV Department of  
Environmental Protection

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 Sandy Creek Quadrangle Thornton (638)

Elevation 1510 County Taylor District Knottsville

Description of anticipated Pit Waste: N/A NO PITS

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

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Office of Oil and Gas  
SEP 14 2016  
WV Department of  
Environmental Protection

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 hereto 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]

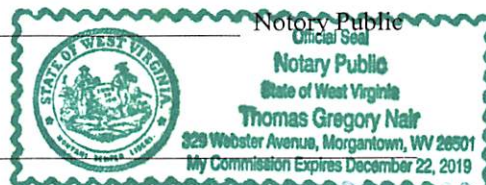
Company Official (Typed Name) Charles E. Duckworth

Company Official Title Designated Agent

Subscribed and sworn before me this 8 day of September, 2016

[Signature]

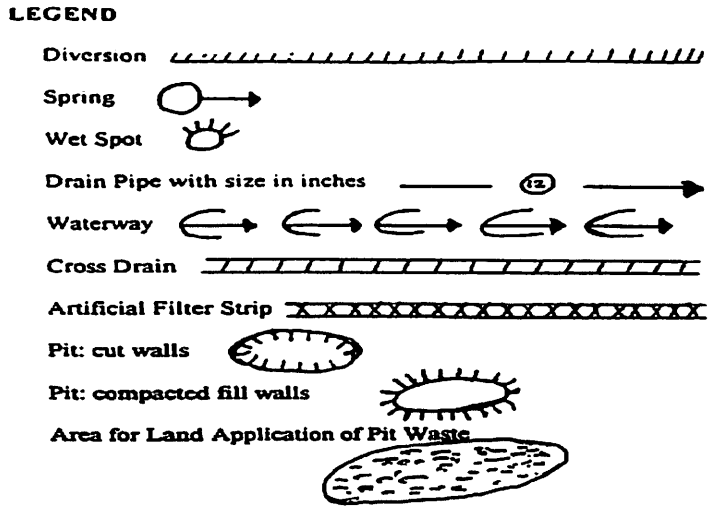
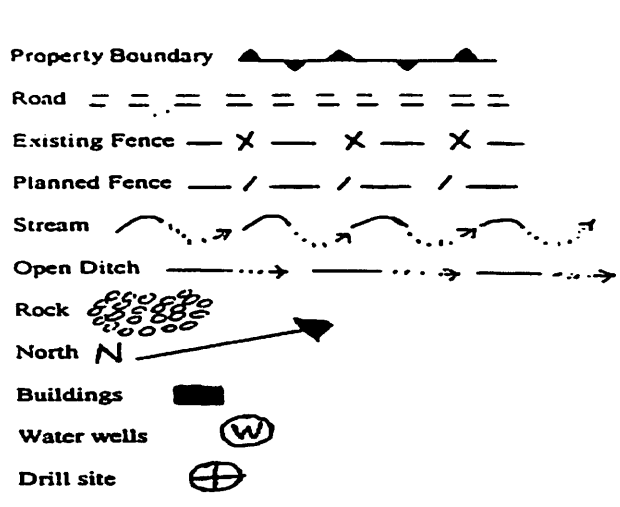
My commission expires December 22, 2019



10/14/2016



10/14/2016



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

Area I		Area II	
Seed Type	lbs/acre	Seed Type	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: *Ernest Haywood*

Comments: RECLAIM, RESEED AND MULCH PSAP

RECEIVED  
Office of Oil and Gas  
SEP 14 2016

Title: OIL AND GPS INSPECTION

Date: 9-9-16 WV Department of Environmental Protection

Field Reviewed? ( ) Yes (  ) No

9100488P



## ICG TYGART VALLEY, LLC

100 Tygart Drive, Grafton, West Virginia 26354

September 8, 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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Office of Oil and Gas  
SEP 14 2016  
WV Department of  
Environmental Protection

10/14/2016



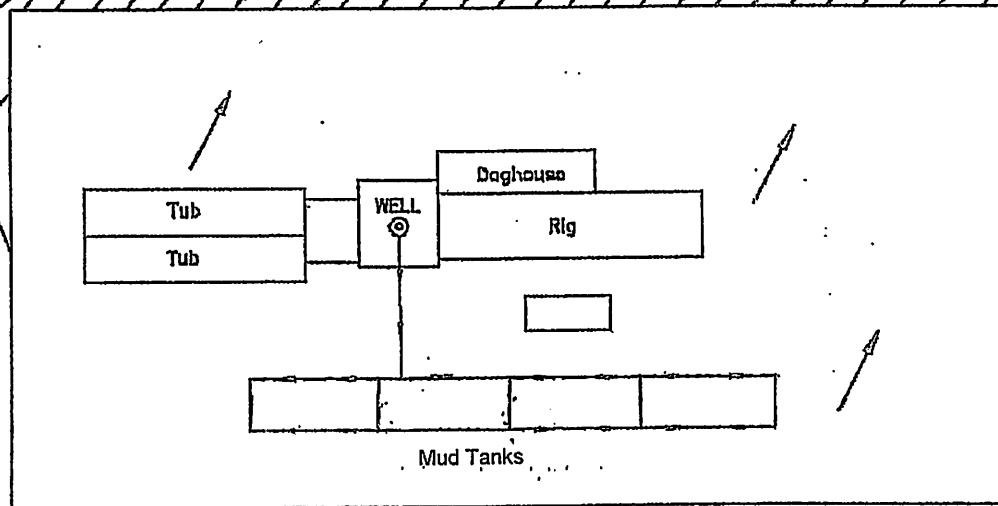
ICG TYGART VALLEY, LLC

Diversion Ditch (as Needed)

Typical Drawing  
Of Well Plugging Site  
Plan

CUT

Cut Mulched if Slope  
Less than 1 to 1



Sediment  
Catch Basin

Sediment  
Catch Basin

Mud Tanks

Compacted and Layed

FILL

Original Ground Keywayed

Bales  
or  
Sediment Fence

SEP 14 2016

REMOVED  
Office of  
Hazardous  
Waste  
Management  
and  
Pollution  
Control

ENVIRONMENTAL PROTECTION

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LATITUDE: 39° 17' 41"  
 LONGITUDE: 79° 59' 11"  
 NEAREST WATERCOURSE: Sandy Creek  
 NEAREST TOWN: Knottsville

OPERATOR'S WELL NO. \_\_\_\_\_  
 API WELL NO. J-1198

STATE 47 COUNTY 091 PERMIT 00488

WELL TYPE: OIL \_\_\_\_\_ GAS  LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
 (IF "GAS") PRODUCTION  STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW   
 LOCATION: ELEVATION 1510 WATERSHED Sandy Creek  
 DISTRICT Knottsville COUNTY Taylor

SURFACE OWNER: Union O'Connor O'Connor ACREAGE 98.5  
 QUADRANGLE Franklin 7-12 LEASE NO. J-11947 LEASE ACREAGE 98.5  
 OIL & GAS ROYALTY OWNER Union O'Connor O'Connor

PROPOSED WORK: DRILL  CONVERT \_\_\_\_\_ 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 Haverly ESTIMATED DEPTH 5900'  
 WELL OPERATOR ICG Tygart Valley, LLC DESIGNATED AGENT Charles E. Duckworth  
 ADDRESS 100 Tygart Drive, Grifton, WV 26354 ADDRESS \_\_\_\_\_

REVISED BY:	DATE:	API WELL NO. <b>47-091-00488</b>
		J-1198
		ICG TYGART VALLEY, LLC
		SCALE: 1" = 2000'
		DATE ORIGINATED: April, 2016
		WV. OIL & GAS PERMIT 144257
		DRAWING NO. <u>47-091-00488</u>
		J-1198-001
		PLOTTING \$24725



Prepared by: Department of  
 Eastern Operations  
 300 Tygart Drive, Grifton, WV 26354  
 Phone: 304-265-9700 Fax: 304-265-2564

WW-7  
8-30-06



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

API: 47-091- 00488 WELL NO.: J-1198

FARM NAME: Ridenour

RESPONSIBLE PARTY NAME: ICG Tygart Valley, LLC

COUNTY: Taylor DISTRICT: Knottsville

QUADRANGLE: Thornton

SURFACE OWNER: Linda O'Connor (1/2); John E. III & Layne Lee (1/2)

ROYALTY OWNER: Linda O'Connor (1/2); John E. III & Layne Lee (1/2)

UTM GPS NORTHING: 4349984.158

UTM GPS EASTING: 587417.610 GPS ELEVATION: 1517.49

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:

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

Survey grade GPS  : Post Processed Differential \_\_\_\_\_  
Real-Time Differential

Mapping Grade GPS \_\_\_\_\_ : Post Processed Differential \_\_\_\_\_  
Real-Time Differential \_\_\_\_\_

- 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]  
Signature

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

SEP 14 2016  
September 8, 2016

West Virginia Department of Environmental Protection

10/14/2016