west virginia department of environmental protection

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

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

9100488P

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

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
Address 100 Tygart Drive
Grafton, WV 26354

7) Designated Agent Charles E. Duckworth
Address 100 Tygart Drive
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

488

ICG Tygart Valley, LLC
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

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EXHIBIT NO. 1

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".

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EXHIBIT No. 2

COASTAL DRILLING EAST

"A Shaft Drillers International Company"

Coastal Drilling East LLC • 130 Meadow Ridge Road, Mt. Morris, PA 15349
Phone 304-296-1120 Fax 304-413-0061

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)~~. PBTD.
- 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.

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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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COASTAL DRILLING EAST

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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 ON

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"	30	0	0 sks.
9 5/8			
8 5/8	1093.85	1093.85	270 sks.
7			
5 1/2			
4 1/2	5888.30	5888.30	460 sks.
3			
2			
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--)
Second producing formation Elk, Benson & Riley Pay zone depth 4257-59 4154-56 4493-96 5113-17 feet
Gas: Initial open flow ___ Mcf/d Oil: Initial open flow ___ Bbl/d
Final open flow ___ Mcf/d Oil: Final open flow ___ Bbl/d
Time of open flow between initial and final tests ___ hours
Static rock pressure ___ psig (surface measurement) after ___ hours shut in

(Continue on reverse side)

TAY C486

FORM IV-35
(REVERSE)

9100488P

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)
Fractuirng: 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 $Pf=Pwe^{XGLS}$

$t=6- + (0.0075 \times 5888) + 459.7 = 564$ $X=\frac{1}{53.35} \times 564 = \frac{1}{30082} = 0.000033$ $Pf=1350 \times 2.72^{(0.00($

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

Pf= 1472 psi

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fre and salt water, coal, oil and g
KB - Ground Level	0	10	
Soil & Clay	10	40	1" stream @ 50'
Sand & shale	40	90	
Coal	90	92	½" stream @ 560'
Sand & shale	92	200	
Black shale	200	220	½" stream @ 1020
Sand & shale	220	300	
White sand	300	330	Gas ck @ 1609 No show
Sand & shale	330	440	
Coal	440	443	Gas ck @ 2272 No show
Sand & shale	443	565	
Sand & shale	565	818	Gas ck @ 2621 No show
Sand & shale	818	970	
Sand, shale & red rock	970	1135	Gas ck @ 2873 No show
Sand & shale	1135	1330	
Little Lime	1330	1350	Gas ck @ 3159 No show
Sand, shale & red rock	1350	1400	
Big Lime	1400	1495	Gas ck @ 3350 No show
Injun	1495	1580	
Sand & shale	1580	1835	Gas ck @ 4139 10/10-1" w/water 23,814 cu.ft.
Sand & shale	1835	2830	
Sand & shale	2830	4154	Gas ck @ 4295 4/10-1" w/water 15,041 cu.ft.
Riley	4154	4259	
Sand & shale	4259	4493	
Benson	4493	4496	Gas ck @ 4453 4/10-1" w/water 15,041 cu.ft.
Sand & shale	4496	5113	
3 rd Elk	5113	5117	
Sand & Shale	5117	5793	
Haverty	5793	5797	
Sand & shale	5797	5911 T.D.	
		Brallier @ T.D.	

(Attach separate sheets as necessary)

J&J Enterpirses, Inc.
Well Operator

By:

Date: 7/11/85

Robert Dahlin-Geologist

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SEP 14 2016
WV Department of Environmental Protection

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."

9100488P

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 0F APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:
(a) Name: Linda O'Connor (1/2) ✓
Address: 2324 Flag Run Road
Grafton, West Virginia 26354
(b) Name: John E. III & Layne Lee (1/2)
Address: 2410 Avenel Avenue
Roanoke, Virginia 24015
(c) Name:
Address:

5) (a) Coal Operator
Name: CoalQuest Development, LLC Waived
Address: 100 Tygart Drive
Grafton, West Virginia 26354
(b) Coal Owner(s) with Declaration
Name:
Address:
Name:
Address:
(c) Coal Lessee with Declaration
Name:
Address:

6) Inspector: Kenneth Greynolds
Address: 613 Broad Run Road
Jane Lew, WV 26378
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
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 day of September, 2016

Notary Public

Official Seal
Notary Public
State of West Virginia
Thomas Gregory Nair
329 Webster Avenue, Morgantown, WV 26501
My Commission Expires December 22, 2019

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.

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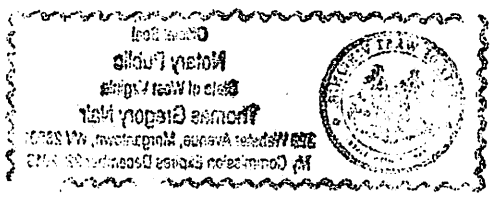
SEP 14 2016
WV Department of
Environmental Protection



Official Seal
Notary Public
State of West Virginia
Thomas Gregory Hair
[illegible] Webster Avenue, Morgantown, WV [illegible]
My Commission Expires December [illegible]

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A Subsidiary of

ArchCoal

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.

Sincerely,

Greg Nair
Manager Surface Mine Planning

RECEIVED
Office of Oil and Gas

SEP 29 2016

WV Department of
Environmental Protection

Enclosures

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

9100488 P

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 then 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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SEP 14 2016
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WW-9
Rev. 5/08

Page _____ of _____
API Number 47 - 91 - 00488
Operator's Well No. J-1198

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 Dispposal (Supply form WW-9 for disposal location)
X Other (Explain Tanks - See attached letter

Proposed Work For Which Pit Will Be Used:

_____ Drilling
_____ Workover
_____ Other (Explain _____
_____ Swabbing
X 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 _____

Company Official (Typed Name) Charles E. Duckworth

Company Official Title Designated Agent

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

_____ Notary Public

My commission expires December 22, 2019

Official Seal
Notary Public
State of West Virginia
Thomas Gregory Nair
329 Webster Avenue, Morgantown, WV 26501
My Commission Expires December 22, 2019

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Official Seal
Notary Public
State of West Virginia
Thomas Gregory Nair
325 Webster Avenue, Morgantown, WV 26501
My Commission Expires December 22, 2019

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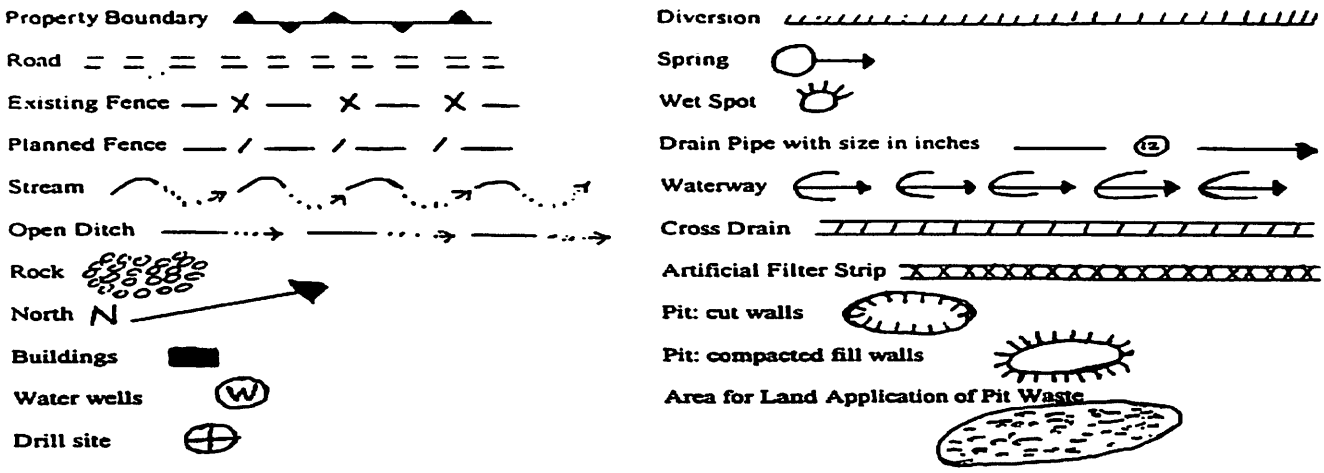
Form WW-9

Operator's Well No. J-1198

LEGEND

Property Boundary
Road
Existing Fence
Planned Fence
Stream
Open Ditch
Rock
North N
Buildings
Water wells W
Drill site

Diversion
Spring
Wet Spot
Drain Pipe with size in inches 12
Waterway
Cross Drain
Artificial Filter Strip
Pit: cut walls
Pit: compacted fill walls
Area for Land Application of Pit Waste



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 Seed Type	lbs/acre	Area II 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: [signature]

Comments: RECLAIM, RESEED AND MULCH ASAP

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SEP 14 2016
WV Department of Environmental Protection

Title: OIL AND GAS INSPECTOR Date: 9-9-16

Field Reviewed? (_____) Yes (✓) No

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A Subsidiary of

ArchCoal

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 – 57th 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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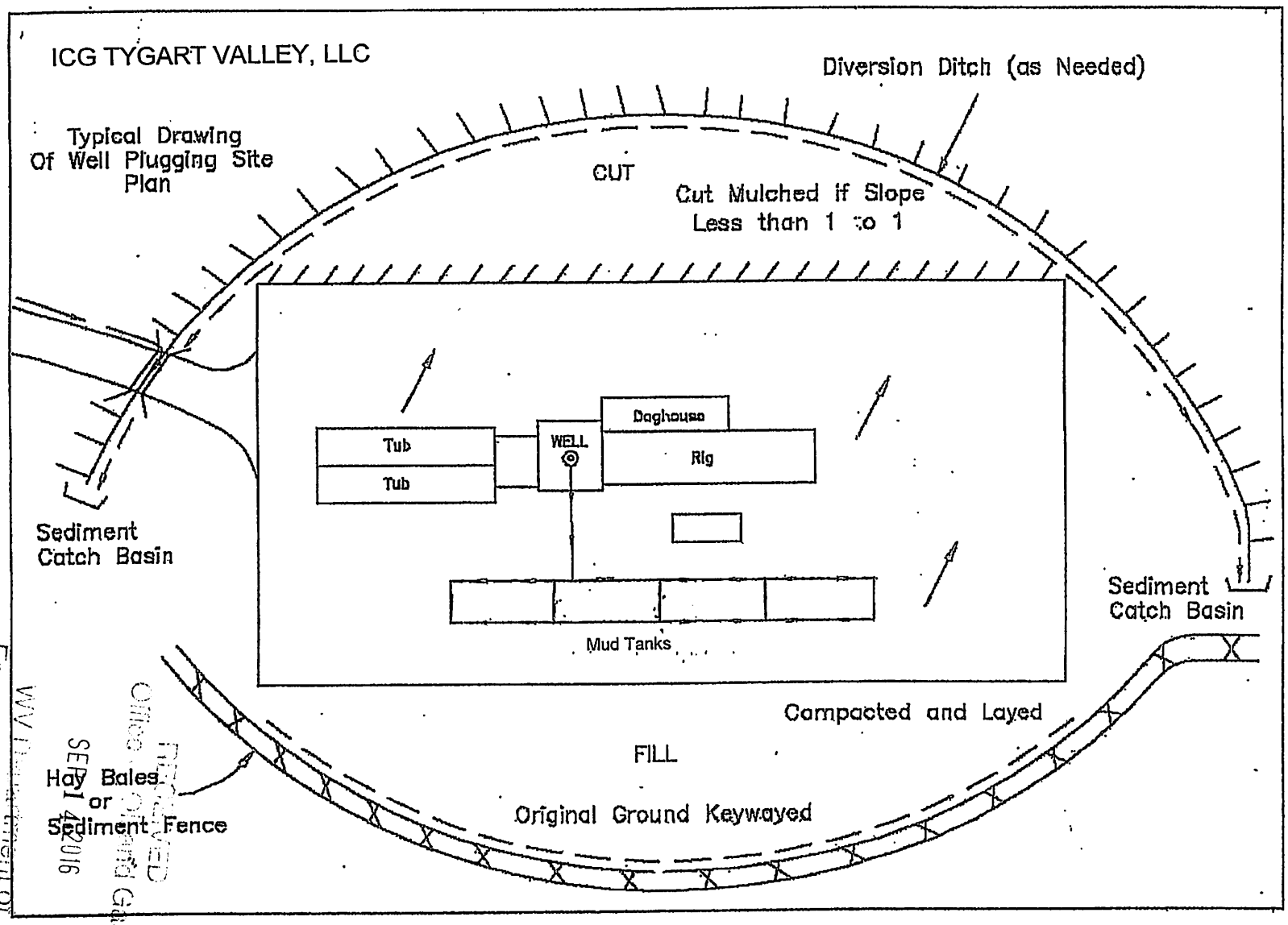

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91 00488P

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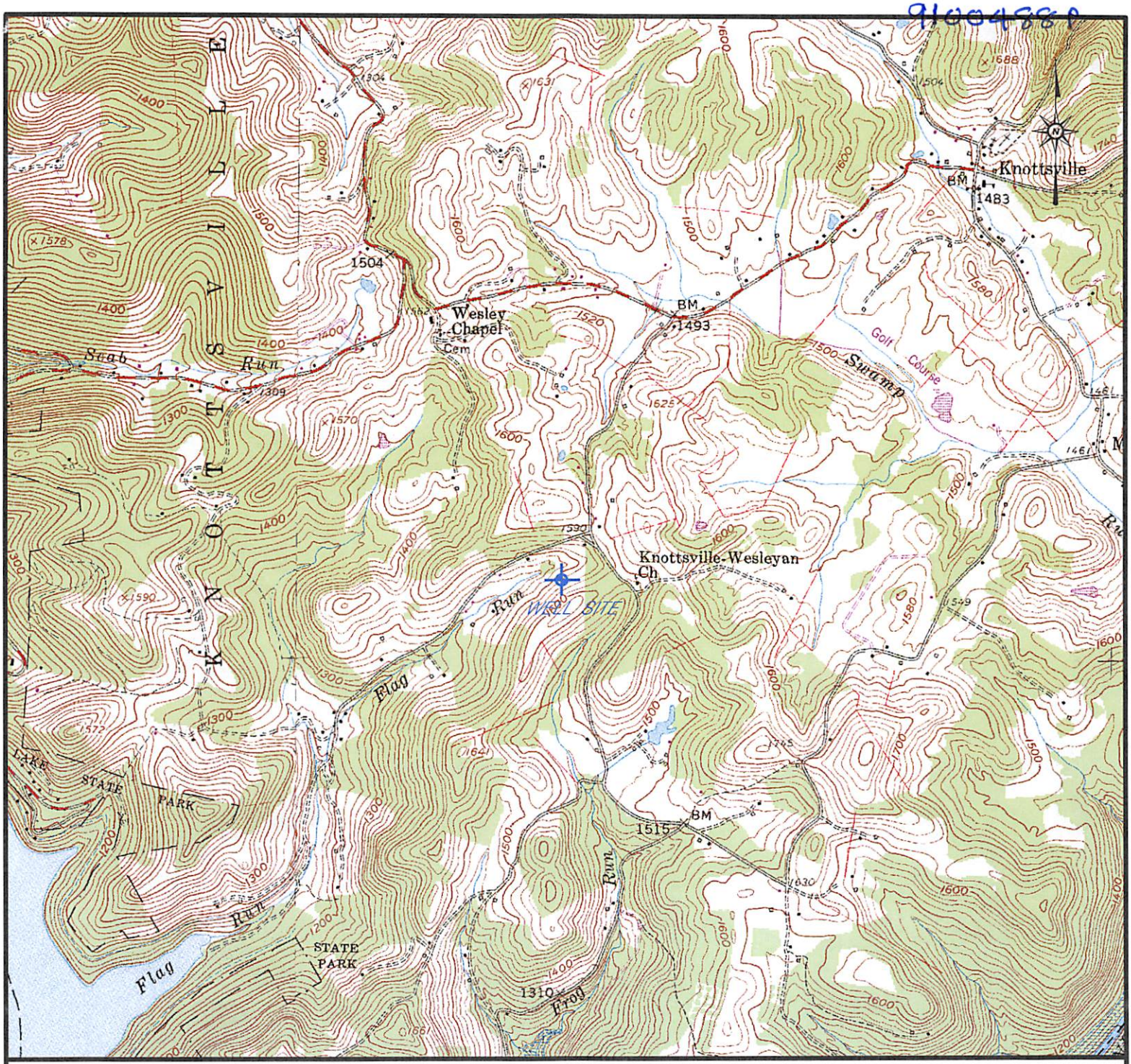

LATITUDE: 39° 17' 41"
LONGITUDE: 79° 59' 11"
NEARTEST WATERCOURSE: Sandy Creek
NEAREST TOWN: Knottsville

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

47 — 091 — 00488
STATE COUNTY PERMIT

WELL TYPE: OIL ____ GAS X LIQUID INJECTION ____ WASTE DISPOSAL ____
(IF "GAS") PRODUCTION X STORAGE ____ DEEP ____ SHALLOW X
LOCATION: ELEVATION 1510 WATERSHED Sandy Creek
DISTRICT Knottsville COUNTY Taylor
QUADRANGLE Thornton 7 1/2'
SURFACE OWNER: Linda O'Conner ACREAGE 98.5
OIL & GAS ROYALTY OWNER Linda O'Conner LEASE ACREAGE 98.5
LEASE NO. JJ-1947
PROPOSED WORK: DRILL X CONVERT ____ DRILL DEEPER ____ REDRILL ____ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ____ PERFORATE NEW FORMATION ____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) ____

PLUG AND ABANDON X CLEAN OUT AND REPLUG ____
TARGET FORMATION Haverty ESTIMATED DEPTH 5900'
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:	API WELL NO. 47-091-00488 J-1198	
		ICG TYGART VALLEY, LLC	
		DRAWN BY: Jason A. Mate	SCALE: 1" = 2000'
		DIRECTORY: DWG\TYGTYG #V WV OIL & GAS PERMIT MAPS\	DATE ORIGINATED: April, 2016
		DRAWING NO.: 47-091-00488 J-1198.dgn	PLOTTING: $DATE$

PREPARED BY:
ArchCoal
Eastern Operations
100 Tygart Drive, Grafton, WV 26354
Phone: 304-265-9700 Fax: 304-265-2564

RECEIVED Office of Oil and Gas WV Department of Environmental Protection

91 00488 P

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:

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 ___X___: Post Processed Differential _____

Real-Time Differential ___X___

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.

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

Signature	Power of Attorney	September 8, 2016
	Title	Date