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

Tuesday, September 20, 2016
WELL WORK PERMIT
Vertical / Plugging

ICG TYGART VALLEY, LLC
100 TYGART DR

GRAFTON, WV 26354

Re: Permit approval for CNGD-WN-2248
47-091-00527-00-00

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: CNGD-WN-2248
Farm Name: HAESSLY, W.J. & RITA
U.S. WELL NUMBER: 47-091-00527-00-00
Vertical / Plugging
Date Issued: 9/20/2016

Promoting a healthy environment.

9100527P

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 August 3, 2016
2) Operator's Well No. CNGD-WN-2248
3) API Well No. 47- 91 - 00527

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 1311 Watershed Flag Run
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

Received
Office of Oil & Gas
AUG 19 2016

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 8-17-16

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FORM IV-35
(REVERSE)

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

Perforated 3rd Elk 4961-4969, 8 holes; 4934-4942, 8 holes; 4844-4848, 5 holes; 4832-4836, 5 holes; .39 HSC. Foam Frac (55Q) 3rd Elk - Break 2500, Avg TPSI 3300, Avg Rate 20 BPM, HHP used 1023, ISI 2300, 3 min 2300, Max Sand Conc. 4#/gal, used 5000# 80/100 Sand, 45,000# 20/40 Sand, used 500 gals 15% FE Acid & 460,000 $SCFN_2$

Perforated Benson 4170-4175, 24 holes, .39 HSC; Foam Frac (70Q) Benson - Break 2600, Avg TPSI 3300, Avg Rate 20 BPM, HHP used 1089, ISI 2300, 3 min 2300, Max Sand Conc. 6#/gal, used 5000# 80/100 Sand, 75,000# 20/40 Sand, used 500 gals 15% FE Acid & 683,000 $SCFN_2$

Perforated Riley 3947-3950, 6 holes; 3936-3943, 24 holes, .39 HSC
Foam Frac Riley (70Q) - Break 1800, Avg TPSI 2900, Avg Rate 20 BPM, HHP used 955, ISI 1850, Max Sand Conc. 6#/gal, used 5000# 80/100 Sand, 90,000# 20/40 Sand, used 500 gals 15% FE Acid & 620,000 $SCFN_2$

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fre and salt water, coal, oil and c
Cond.	0	26	1" stream water @ 50'
Sand & Shale	26	269	2" stream water @ 110'
Coal	269	274	
Sand & Shale & RR	274	1176	
Lime	1176	1190	
R.R.	1190	1220	
B. Lime	1220	1305	
Sand & Shale	1305	5150 TD. Elk @ TD.	
LOG TOPS			
B. Lime/B. Inj.	1235	1410	
Pocono	1493	1589	
50'	1734	1816	
5th/L. 5th	2222	2346	
Speechley	2943	2994	
Balltown	3115	3289	
Bradford	3400	3510	
Riley	3844	3966	
Benson	4162	4176	
1st Elk	4362	4498	
2nd Elk	4570	4787	
3rd Elk	4807	4982	

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Office of Oil & Gas
AUG 19 2016

(Attach separate sheets as necessary)

CNG DEVELOPMENT COMPANY
Well Operator

By: [signature]

Date: Dec. 16, 1986

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."

9100527 P

IV-35
(Rev 8-81)

RECEIVED
DEC 22 1986
DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

State of West Virginia
Department of Mines
Oil and Gas Division

Date Dec. 16, 1986
Operator's
Well No. CNGD WN 2248
Farm Young & Haessly
API No. 47 - 091 - 0527
091-0527

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: 1311 Watershed Flag Run
District: Knottsville County Taylor Quadrangle Thornton

COMPANY CNG Development Company
ADDRESS P. O. Box 15746 Pittsburgh, PA 15244
DESIGNATED AGENT Gary A. Nicholas
ADDRESS Rt. 2 Box 698 Bridgeport, WV 26330
SURFACE OWNER Rita Haessly
ADDRESS 2165 Bassett Road Westlake, OH 44155
MINERAL RIGHTS OWNER A.M.Young & Rita Haessly
ADDRESS
OIL AND GAS INSPECTOR FOR THIS WORK
Donald Ellis ADDRESS 2604 Crab Apple Lane Fairmont, WV 26554
PERMIT ISSUED January 3, 1986
DRILLING COMMENCED Nov. 17, 1986
DRILLING COMPLETED Nov. 22, 1986
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"			
9 5/8			
8 5/8	929	929	To Surf.
7			
5 1/2			
4 1/2	5060	5060	325 sks
3			
2 1-½	4810	4810	---
Liners used			

GEOLOGICAL TARGET FORMATION 3rd Elk Depth 5300 feet
Depth of completed well 5150 feet Rotary X / Cable Tools
Water strata depth: Fresh 110 feet; Salt feet
Coal seam depths: 269 - 274 Is coal being mined in the area? No

OPEN FLOW DATA
Producing formation 3rd Elk, Benson, Riley Pay zone depth 4969 - 4832, 4775 - 4670, 3950 - 3936 feet
Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d
Final open flow 531 Mcf/d Final open flow Bbl/d
Time of open flow between initial and final tests 4 hours
Static rock pressure 840 psig (surface measurement) after 24 hours shut in
(If applicable due to multiple completion--)
Second producing formation Pay zone depth 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)

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FORM IV-35
(REVERSE)

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

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Balltown	3115	3289	
Bradford	3400	3510	
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Benson	4162	4176	
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3rd Elk	4807	4982	

(Attach separate sheets as necessary)

CNG DEVELOPMENT COMPANY
Well Operator

By: [signature]

Date: Dec. 16, 1986

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."

GS 12-23-85

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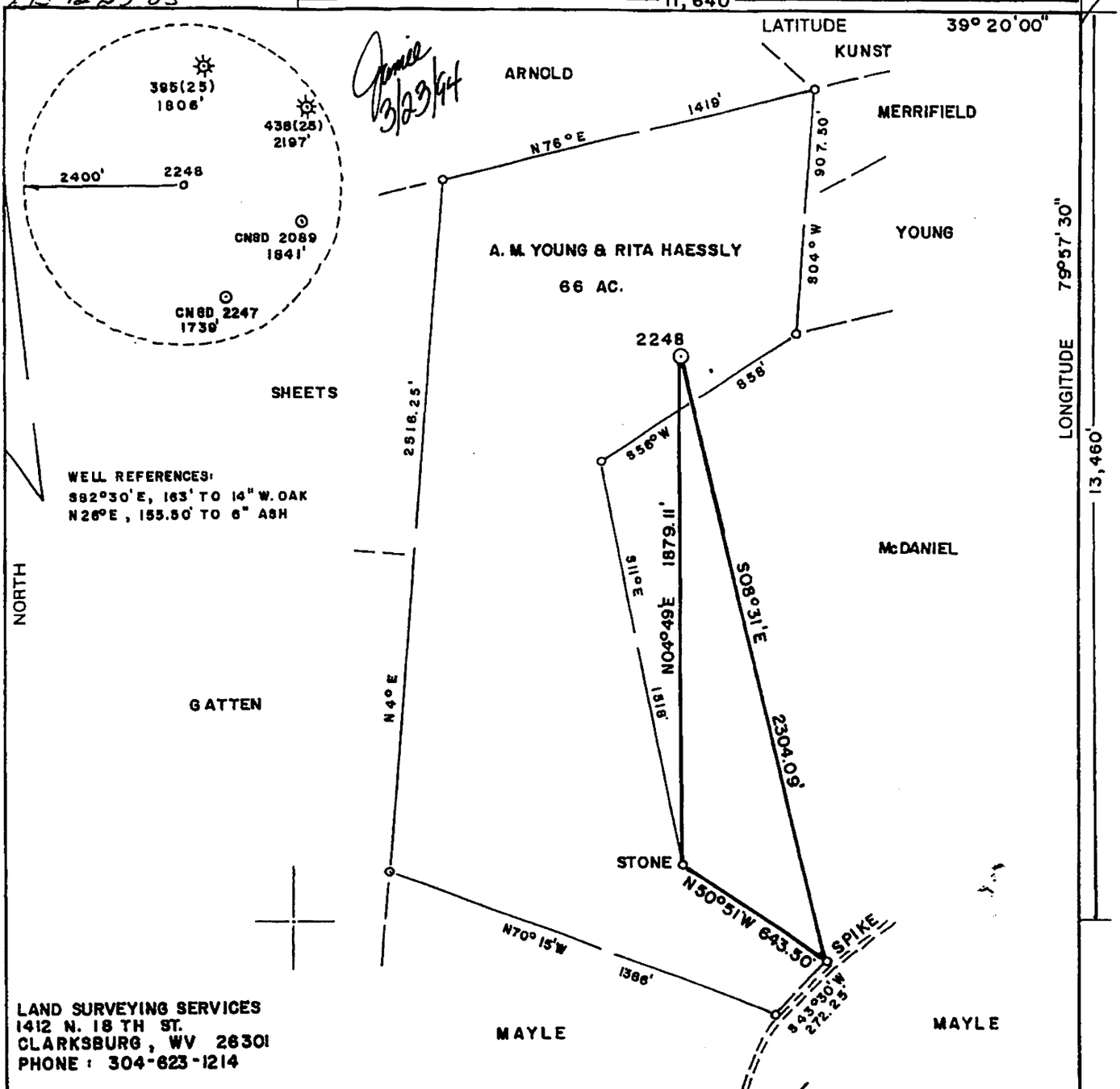

LAND SURVEYING SERVICES
1412 N. 18 TH ST.
CLARKSBURG, WV 26301
PHONE: 304-623-1214

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS L.R.4 11-6-85

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 500'
MINIMUM DEGREE OF ACCURACY 1 in 200
PROVEN SOURCE OF ELEVATION TOP OF KNOB 1800' N. OF LOCATION ELEV. - 1570'

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT 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 DEPARTMENT OF MINES.
(SIGNED) Stephen D. Losh
R.P.E. _____ L.L.S. 674
STEPHEN D. LOSH

STEPHEN D. LOSH LICENSED No. 674 STATE OF WEST VIRGINIA LAND SURVEYOR
PLACE SEAL HERE

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

DATE OCTOBER 23, 1985
OPERATOR'S WELL NO. 2248
API WELL NO.
47 - 091 - 0527-W
STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
Cancelled
LOCATION: ELEVATION 1311' WATER SHED FLAG RUN
DISTRICT KNOTTSVILLE COUNTY TAYLOR
QUADRANGLE THORNTON 7.5 min.
SURFACE OWNER RITA HAESSLY ACREAGE 66
OIL & GAS ROYALTY OWNER A.M. YOUNG & RITA HAESSLY LEASE ACREAGE 66
LEASE NO. DV-15745, DV-284
PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) New Formation
Benson, Riley Keener 1068
PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
TARGET FORMATION 3 RD ELK ESTIMATED DEPTH ~~5300'~~ 5150'

W
A

CNG Producing Company
Rt.2, Box 698
Bridgeport, WVa. 26330-0698

Rodney Biggs
Same Address
PH: 304-623-8840

TAY
COUNTY NAME

0527-W CANC.
PERMIT

FORM IV-6 (8-78)
H.I. HALL

9100527P

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 REMOVE 2 1/2" TUBING SET @ 4810'
- Attempt to clean out well to original ~~total depth (TD)~~. PBTD @ ≈ 5020'. gNM
- Run cement bond log on 4 ½" casing to determine top of cement ≈ 3500'.
- 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 the bottom of the 8 5/8" casing. RECORDS INDICATE 8 5/8" WAS CEMENTED TO SURFACE
- If necessary cut and pull any free casing.
- Perforate, cut, rip or mill any remaining casing at depths determined by MSHA's 101C Petition.

(INSERT) CEMENT INSIDE 8 5/8" CASING TO A DEPTH OF 200' BELOW LOWEST MINEABLE COAL.

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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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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".

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

Approximate coal seam top ~ 432.0'
Approximate coal seam bottom ~ 436.2'

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WW-4A
Revised 6-07

1) Date: August 3, 2016
2) Operator's Well Number
CNGD-WN-2248

3) API Well No.: 47 - 91 - 00527

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: Rita Haessly
Address: 106 Kendal Drive
Oberling, Ohio 44074
(b) Name
Address
(c) Name
Address

5) (a) Coal Operator
Name: CoalQuest Development, LLC W
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.

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Office of Oil & Gas
AUG 19 2016

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

Received
Office of Oil & Gas
AUG 19 2016

Subscribed and sworn before me this 3rd day of August 2016
Thomas Gregory Nair
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

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.

9100527 P

WW-4B

API No. 47-91-00527
Farm Name Young & Haessly
Well No. CNGD-WN-2248

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: 8/3/16

CoalQuest Development, LLC

By: Greg Nair

Its Power of Attorney

Received
Office of Oil & Gas
AUG 19 2016

9100527P

POWER OF ATTORNEY

COALQUEST DEVELOPMENT LLC
TO
GREG NAIR

Dated: January 1, 2016

Expires: December 31, 2016

KNOW ALL MEN BY THESE PRESENTS: That CoalQuest Development LLC ("Company"), a limited liability company organized and existing under the laws of the State of Delaware, acting by and through Robert G. Jones, its duly authorized Secretary, has and does hereby appoint Greg Nair its true and lawful Attorney-in-Fact with power and authority, for and on behalf, and in the name of the Company, during the period herein specified, and subject to the restrictions and limitations set forth in this Power, to execute, acknowledge and deliver in the ordinary and regular course of the Company's business, applications for mining, environmental, safety, and health permits, permit transfers, or permit bond releases or bond adjustments, amendments, supplements or modifications to such permits, certificates, gas well plugging applications, shallow well drilling permit applications, or other instruments directly related to such amendments, supplements or modifications, monthly production reports, air quality, water quality or other environmental reports, quarterly discharge monitoring reports and any other like or similar reports required to be filed with any local, state or federal governmental agency.

The Attorney herein appointed shall be authorized to act pursuant to this Power from the date hereof only so long as such Attorney shall remain an employee of Arch Coal, Inc. or any subsidiary thereof, or until December 31, 2016, or until such earlier time as this instrument has been revoked, annulled, rescinded or set aside by an instrument of revocation filed with the Secretary of the Company, whichever first occurs.

IN WITNESS WHEREOF, the Company has caused this Power of Attorney to be executed on its behalf, and its seal to be hereunto affixed as of the day and year first above written, by the undersigned, Robert G. Jones, duly authorized Secretary of the Company.

COALQUEST DEVELOPMENT LLC

By: _____
Robert G. Jones
Secretary

Received
Office of Oil & Gas
AUG 19 2016

9100527P

STATE OF MISSOURI)
) ss
COUNTY OF ST. LOUIS)

On this 16th day of December, 2015, before me, the undersigned notary public, personally appeared Robert G. Jones, known to me to be the person whose name is subscribed to the within instrument and acknowledged that he executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Peggy Feldmann
Notary Public

My Commission Expires: December 1, 2017

PEGGY FELDMANN
Notary Public - Notary Seal
State of Missouri
Commissioned for St. Louis County
My Commission Expires: December 01, 2017
Commission Number: F13552693

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Office of Oil & Gas
AUG 19 2016

WW-9
Rev. 5/08

9100527P

Page _____ of _____
API Number 47 - 91 - 00527
Operator's Well No. CNGD WN 2248

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 Flag Run Quadrangle Thornton (638)

Elevation 1311 County Taylor District Knottsville

Description of anticipated Pit Waste: N/A

Will a synthetic liner be used in the pit? N/A. NO PIT. JWM

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 _____ Swabbing
_____ Workover X Plugging
_____ Other (Explain _____

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

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AUG 19 2016

Subscribed and sworn before me this 3RD day of August, 20 16

Thomas Gregory Nair
Notary Public

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Office of Oil & Gas
AUG 19 2016

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

9100527P

Form WW-9

Operator's Well No. CNGD WN 2248

LEGEND

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

Diversion
Spring
Wet Spot
Drain Pipe with size in inches
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

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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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Title: OIL & GAS INSPECTOR Date: 8-17-16

Field Reviewed? ( ) Yes (✓) No

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A Subsidiary of

ArchCoal

ICG TYGART VALLEY, LLC

100 Tygart Drive, Grafton, West Virginia 26354

August 3, 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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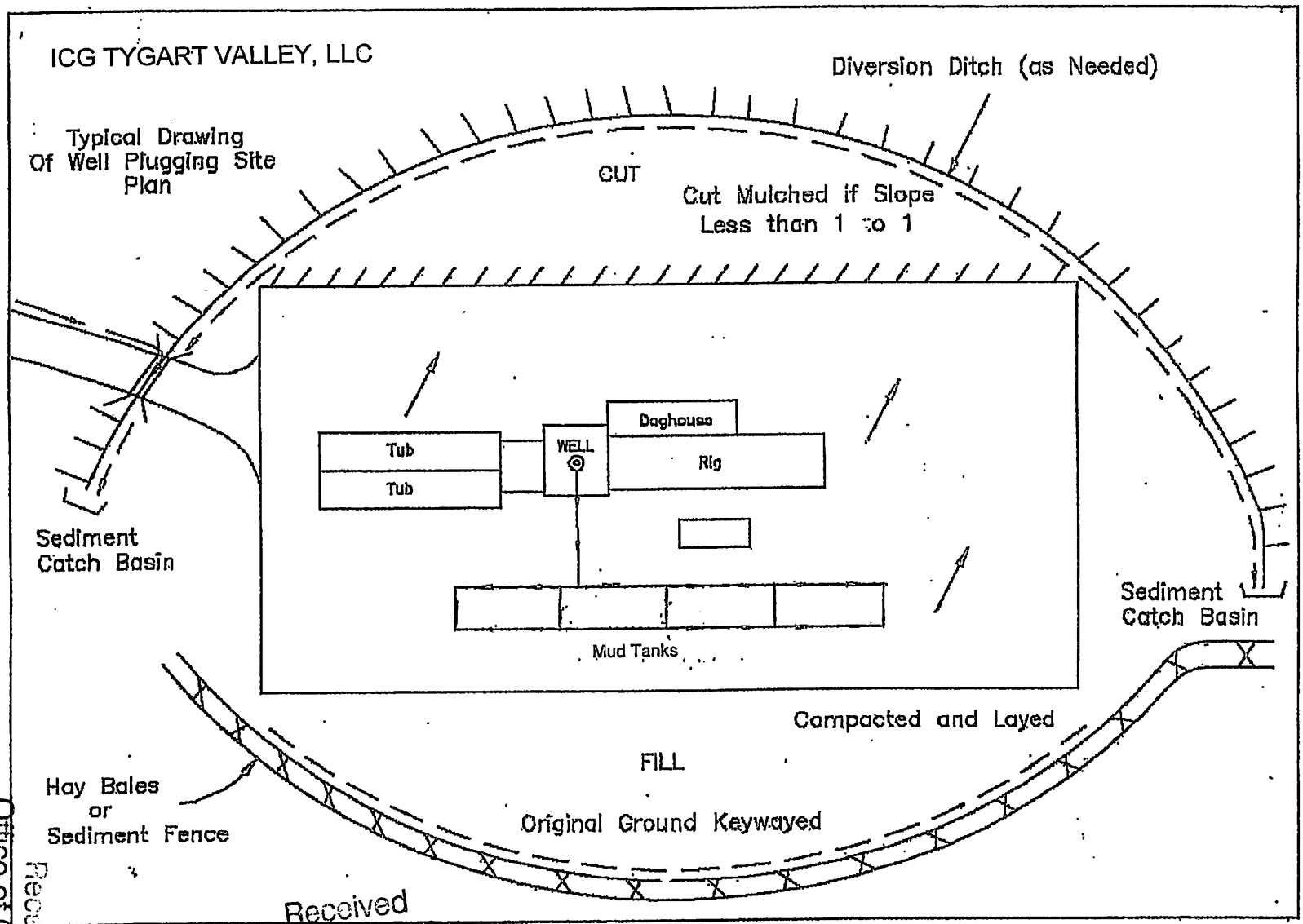
ICG TYGART VALLEY, LLC

Typical Drawing
Of Well Plugging Site
Plan



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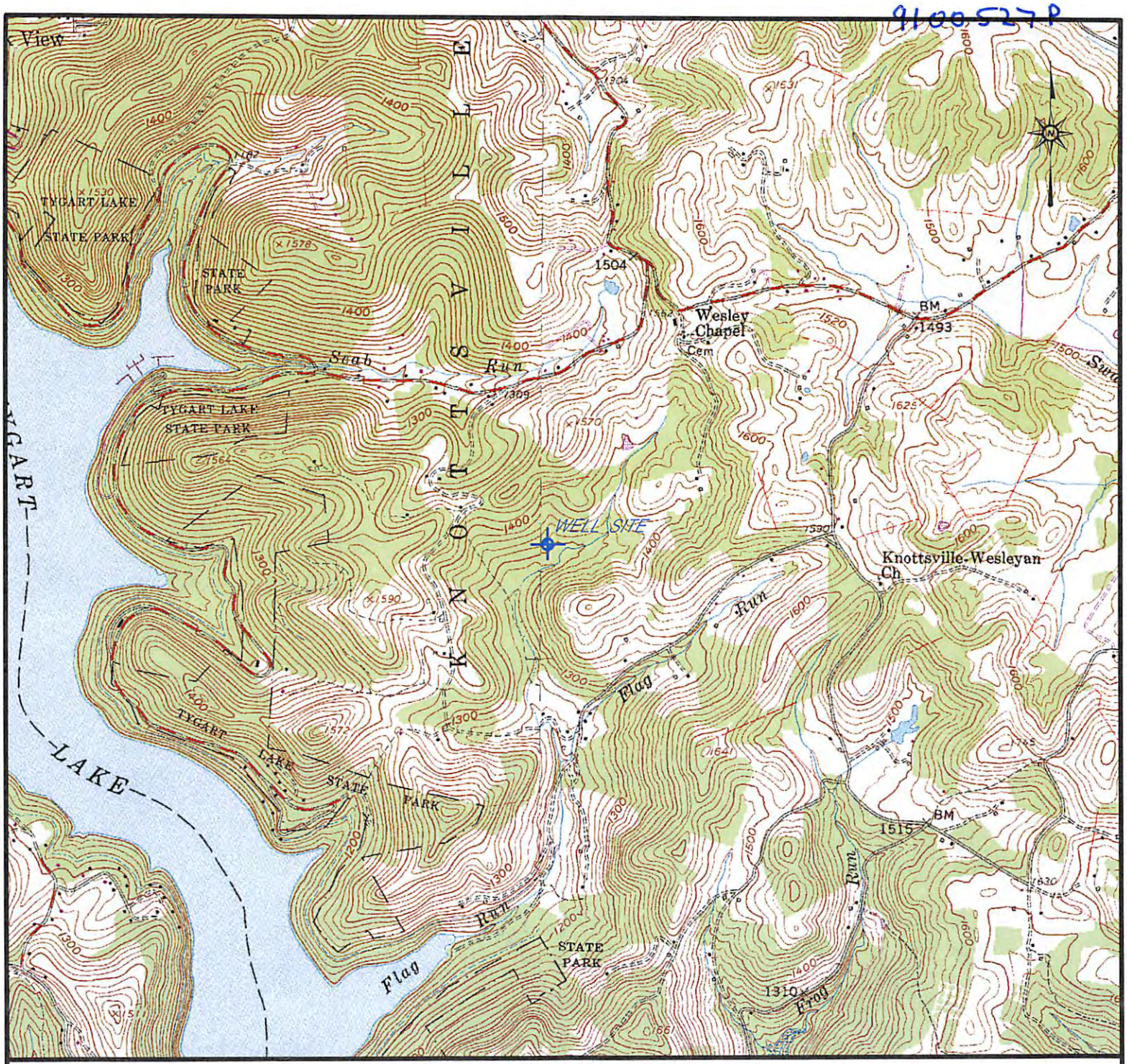

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KLC 8-17-16

LATITUDE: 39° 17' 45"
LONGITUDE: 79° 59' 58"
NEARTEST WATERCOURSE: Flag Run
NEAREST TOWN: Knottsville

OPERATOR'S WELL NO.
API WELL NO. CNGD-2248

47 – 091 – 00527
STATE COUNTY PERMIT

WELL TYPE: OIL ____ GAS X LIQUID INJECTION ____ WASTE DISPOSAL ____
(IF "GAS") PRODUCTION X STORAGE ____ DEEP ____ SHALLOW X
LOCATION: ELEVATION 1311 WATERSHED Flag Run
DISTRICT Knottsville COUNTY Taylor
QUADRANGLE Thornton 7 1/2'
SURFACE OWNER: Rita Haessly ACREAGE 66
OIL & GAS ROYALTY OWNER A.M. Young & Rita Haessly LEASE ACREAGE 66
LEASE NO. DV-15745, DV-284
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 Benson, Riley, 3rd Elk ESTIMATED DEPTH 5300'
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. 47-091-00527 CNGD-2248	
		ICG TYGART VALLEY, LLC	
		DRAWN BY: Jerry A. Nair	SCALE: 1" = 2000'
		DIRECTORY: DWG\TYGTYG #1\ WV OIL & GAS PERMIT MAPS\	DATE ORIGINATED: April, 2016
		DRAWING NO.: 47-091-00527 CNGD-2248.dgn	PLOTTING $DATE$

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

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WW-7
8-30-06

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

API: 47-091-000527 **WELL NO.:** CNGD-WN-2248

FARM NAME: Young & Haessly

RESPONSIBLE PARTY NAME: ICG Tygart Valley, LLC

COUNTY: Taylor **DISTRICT:** Knottsville

QUADRANGLE: Thornton

SURFACE OWNER: Rita Haessly

ROYALTY OWNER: A.M. Young & Rita Haessly

UTM GPS NORTHING: 4350123.516

UTM GPS EASTING: 586277.881 **GPS ELEVATION:** 1309.07

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 _____

Office of Oil & Gas
AUG 19 2016

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	August 3, 2016 Date