



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

Harold D. Ward, Cabinet Secretary
www.dep.wv.gov

Monday, March 15, 2021
WELL WORK PLUGGING PERMIT
Coal Bed Methane Well Plugging

CNX GAS COMPANY LLC
1000 CONSOL ENERGY DR
CANONSBURG, PA 15370

Re: Permit approval for 4N AC
47-051-01026-00-00

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.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, 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: 4N AC
Farm Name: RAE MAC CORPORATION
U.S. WELL NUMBER: 47-051-01026-00-00
Coal Bed Methane Well Plugging
Date Issued: 3/15/2021

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4705101026P

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.
4. This well is under a consent order and must be plugged within two years of the date of issuance of this permit.

03/19/2021

1) Date 12-1, 2020
2) Operator's
Well No. 4NAC
3) API Well No. 47-051 - 01028

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 ___

5) Location: Elevation 1342 Watershed Little Tribble Creek
District Washington County Marshall Quadrangle Powhattan point

6) Well Operator CNX Gas Company LLC 7) Designated Agent Anthony Kendziora
Address 1000 Consol Energy Dr. Address 1000 Consol Energy Dr
Canonsburg, PA 15317 Canonsburg PA 15317

8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name James Nicholson Name Coastal Drilling East LLC
Address P.O. Box 44 Address 70 Gums springs road
Moundsville, WV 26041 Morgantown WV 26508

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

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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 *James Nicholson* Date 12/7/2020

03/19/2021

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Well: RAE Mac Corp. (4N AC)

API#: 47-051-01026

District: Franklin

County: Marshall

Elevation: 1342'

RAE Mac Corp. (4N AC) Proposed Plugging and Abandonment Procedure

1. Run in with gauge ring and find TD along with hole size. (Make call to CNX if tagging high to come up with game plan)
2. Once TD has been reached, Run Collar Locator and determine bottom of 4 1/2" casing
3. Once bottom of casing has been located RIH with bridge plug and set in bottom joint of casing
4. Once CIBP has been set load hole with water and Bond Log 4 1/2" casing. If cement top is found to not be at surface notify CNX and prepare to pull uncemented casing.
5. If cement on 4 1/2" is at surface or once uncemented has been pulled prepare to cement well to surface
6. TIH with work string to CIBP and cement well to surface
7. TOOH w/ work string and top off well with cement
8. Install 6"x14' monument (10' below grade, 4' above grade). Monument must contain API#, Well Name, Company Name and Date Plugged

Note: All cement will be Class A. All spacers will be 6% gel

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ST-01026

Page 2 of 4

Attachment 13 (b)

Production will be from the Pittsburgh Coal Seam.

When production ceases, the well will be plugged.

The proposed plugging, dependent on hole conditions, will be as follows:

Set a bridge plug at the bottom of the casing and fill the well bore to the surface with cement. (See Attached Drawing)



47051010269

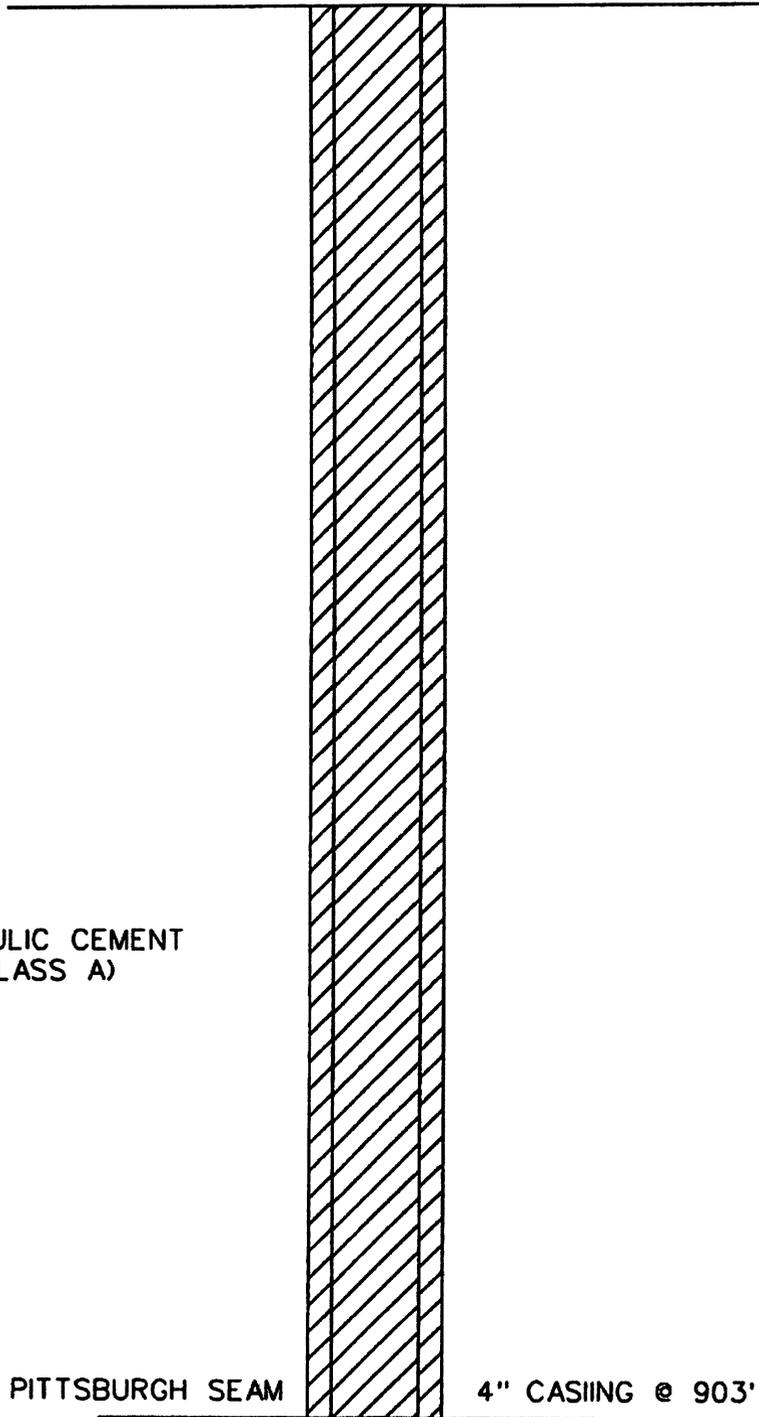
FIGURE 1
CNX GAS COMPANY LLC

CBM-4N AC

EXISTING CASING

PROPOSED PLUGGING AND ABANDONMENT SCHEMATIC

SURFACE



HYDRAULIC CEMENT
(CLASS A)

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PITTSBURGH SEAM

4" CASING @ 903'

TOTAL DEPTH - 903'

NOT TO SCALE

2/10/06

03/19/2021

EXISTING

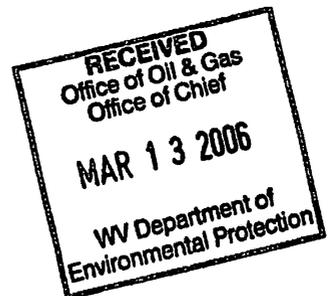
CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT	
	Size	Grade	Weight per ft.	For Drilling	Left in Well	Fill-up (cu. ft.)
Conductor	4"			<i>B. N. [Signature]</i> 3-10-06	903'	Surface
Fresh Water	4"				903'	Surface
Coal	4"				903'	Surface
Intermediate						
Production	4"				903'	Surface
Tubing						
Liners						

PACKERS:

For Office of Oil and Gas Use Only

Fee(s) paid:
 Well Work Permit
 Reclamation Fund
 WPCP
 Plat
 WW-9
 WW-5B
 Bond _____
 Agent
(Type)



PREDICT

4705101026P
57-07026

HOLE:	ESTIMATED EASTING	ESTIMATED NORTHING	ESTIMATED ELEVATION
4NAC	1647307	492510	1341

SEAM	DEPTH FROM (FEET)	DEPTH TO (FEET)	ELEVATION (TOSE)	THICKNESS (FEET)
TOPO	0.00	0.00	1341.28	0.00
SW	814.43	818.23	526.85	3.80
RC	871.48	872.38	468.90	0.90
*PG	897.98	903.28	443.30	5.30

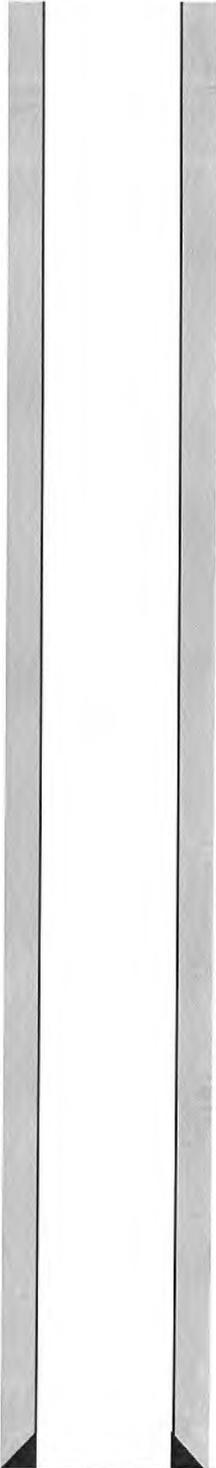
* Coal seam subject to coalbed methane production.

15:30:24 02/10/06

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RAE Mac Corp. 4N AC
Franklin District, Marshall WV
Original Completion : ?
API #47-051-01026
Elevation = 1342'



4 1/2" Casing @ 903'
Cemented to Surface

Pittsburgh Seam

TD @ (903')

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WR-35
Rev. 8/23/13

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

API 47-051-01026 County Marshall District Franklin
Quad Powhatan Point Pad Name RAE Mac Corp. 4N AC Field/Pool Name _____
Farm name RAE Mac Corp. Well Number 4N AC
Operator (as registered with the OOG) CNX Gas Company LLC
Address 1000 Consol Energy Drive City Canonsburg State PA Zip 15317

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4410637.4 Easting 520873.2
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing _____ Easting _____

Elevation (ft) 1341 GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine
Mud Type(s) and Additive(s)

Date permit issued _____ Date drilling commenced _____ Date drilling ceased _____
Date completion activities began _____ Date completion activities ceased _____
Verbal plugging (Y/N) _____ Date permission granted _____ Granted by _____

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft _____ Open mine(s) (Y/N) depths _____
Salt water depth(s) ft _____ Void(s) encountered (Y/N) depths _____
Coal depth(s) ft 903 Cavern(s) encountered (Y/N) depths _____
Is coal being mined in area (Y/N) _____

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Reviewed by:
03/19/2021

WR-35
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API 47-051 - 01026 Farm name RAE Mac Corp. Well number 4N AC

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor							
Surface							
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production		4.5	903				
Tubing							
Packer type and depth set							

Comment Details _____

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor							
Surface							
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production							
Tubing							

Drillers TD (ft) 903 Loggers TD (ft) _____
 Deepest formation penetrated _____ Plug back to (ft) _____
 Plug back procedure _____

Kick off depth (ft) _____

Check all wireline logs run caliper density deviated/directional induction
 neutron resistivity gamma ray temperature sonic

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____

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WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

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WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

WW-4A
Revised 6-07

1) Date: 12-1-2020
2) Operator's Well Number
4NAC
3) API Well No.: 47 - 051 - 01026

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: (a) Name Jason Miller, et al, Address 167 Bakers Lane, Proctor, WV 26055. (b) Name, Address. (c) Name, Address. 5) (a) Coal Operator Name, Address. (b) Coal Owner(s) with Declaration Name Consolidated Coal Company, Address 46226 National Road, Saint Clairsville, OH 43950. (c) Coal Lessee with Declaration Name, Address. 6) Inspector Name James Nicholson, Address P.O. Box 44, Moundsville, WV 26041, Telephone 304-552-3874.

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 CNX Gas Company LLC
By: Raymond Hoon (Signature)
Its: Senior Project Manager
Address: 1000 Consol Energy Dr, Canonsburg, PA 15317
Telephone: 724-485-4000

Subscribed and sworn before me this 3RD day of December 2020

My Commission Expires (Signature)

Notary Public Seal: Vicki L. Smith, Notary Public, Indiana County, My commission expires June 19, 2022, Commission number 1155912

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Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information... 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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<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
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Total Postage and Fees	\$6.35

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City, State, ZIP+4®

Consolidated Coal Company
46226 National Road
Saint Clairsville, OH 43950

PS Form 3800

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12/03/2020
15317

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Proctor, WV 26055

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<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Postage	\$1.20
Total Postage and Fees	\$4.75

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Jason Miller, et al (4NAC)
167 Bakers Lane
Proctor, WV 26055

PS Form 3800

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12/03/2020

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WW-9
(5/16)

4705101026 P

API Number 47 - 051 - 01026
Operator's Well No. 4NAC

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name CNX Gas Company, LLC OP Code 494458046

Watershed (HUC 10) Little Tribble Creek Quadrangle Powhatan Point

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No

Will a pit be used? Yes No ANY WELL EFFLUENT WILL BE CONTAINED IN TANKS BEFORE DISPOSING OFF-SITE.

If so, please describe anticipated pit waste: _____

Will a synthetic liner be used in the pit? Yes No If so, what ml.? _____

Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain Waste Management or Ryan Environmental will use Vacuum trucks and properly dispose of any fluid or waste return)

Will closed loop system be used? If so, describe: no

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. na

-If oil based, what type? Synthetic, petroleum, etc. na

Additives to be used in drilling medium? na

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. na

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) na

-Landfill or offsite name/permit number? na

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, 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 Raymond Hoon

Company Official (Typed Name) Raymond Hoon

Company Official Title Senior Project Manager

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Subscribed and sworn before me this 3RD day of December, 2020

Vicki L. Smith

Commonwealth of Pennsylvania - Notary Seal
Vicki L. Smith, Notary Public
Indiana County
My commission expires June 19, 2022
Commission number 1155912

Notary Public

My commission expires _____

03/19/2021

Proposed Revegetation Treatment: Acres Disturbed .4 acres Prevegetation pH _____

Lime 2-3 Tons/acre or to correct to pH _____

Fertilizer type 10-20-20 or equivalent

Fertilizer amount 500 lbs/acre

Mulch hay or straw 2 Tons/acre

Seed Mixtures

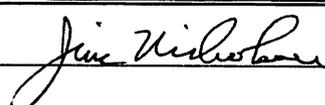
Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Tall Fescue	40	Tall Fescue	40
Landino Clover	5	Landino Clover	5

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: _____



Comments: _____

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Title: Oil & Gas Inspector

Date: _____

Field Reviewed? () Yes () No

WW-7
8-30-06



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

API: 4705101026 WELL NO.: 4N AC

FARM NAME: RAE Mac Corp.

RESPONSIBLE PARTY NAME: CNX

COUNTY: Marshall DISTRICT: Franklin

QUADRANGLE: Powhatan

SURFACE OWNER: Jason Miller, et al

ROYALTY OWNER: Jason Miller, et al

UTM GPS NORTHING: 4410648.82

UTM GPS EASTING: 520876.84 GPS ELEVATION: 1342.00

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.

Raymond
Signature

Project MANAGER
Title

12-3-20
Date

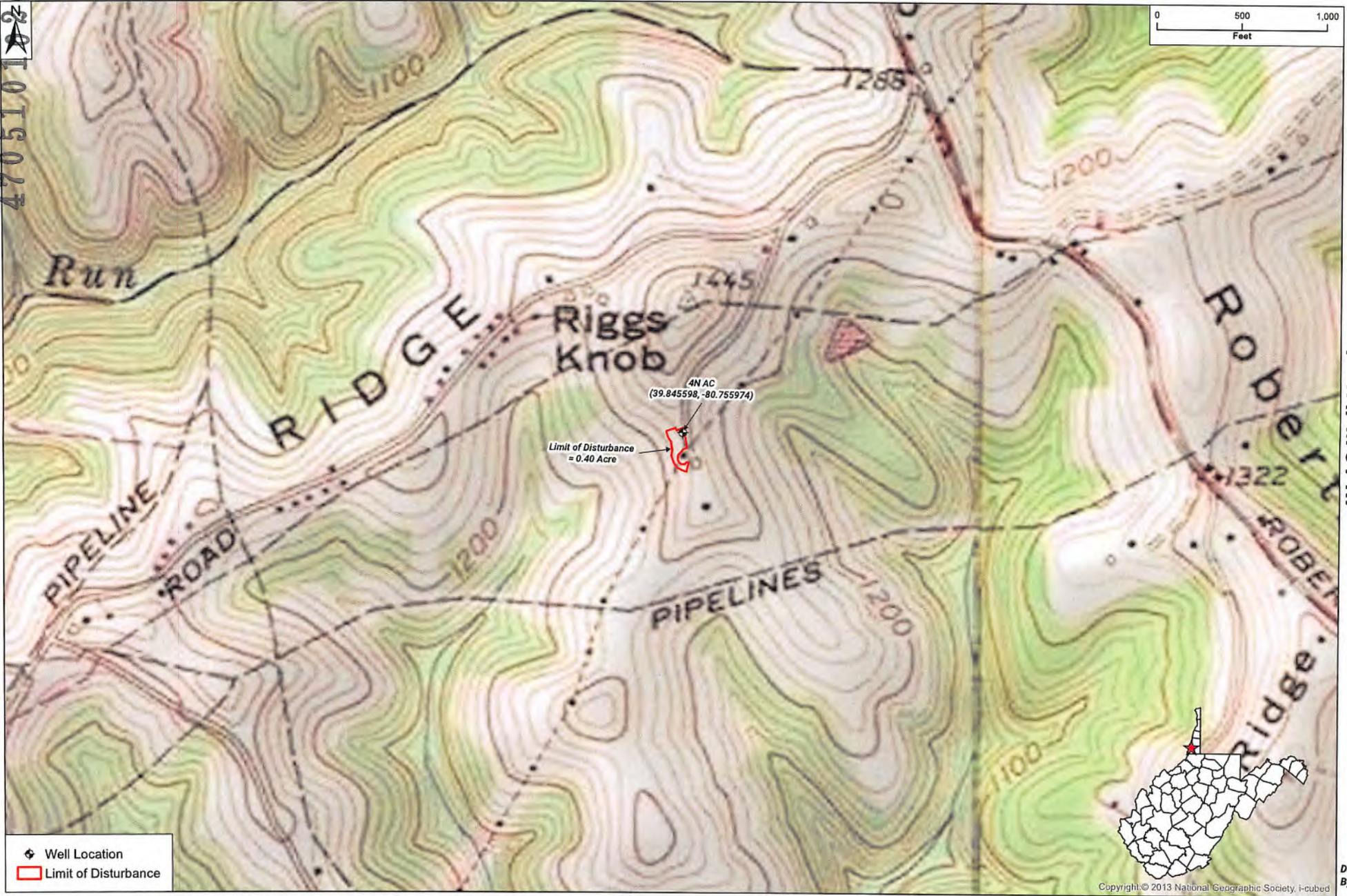
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4N AC Well Head
Site Location Topographic Map
Marshall County, West Virginia



Date: 11/19/21
By: R. Kenner

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