

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.dcp.wv.gov

Monday, March 8, 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 WE WV 5402 47-061-01325-00-00

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.

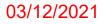
Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, is to be submitted to this office within 90 days of completion of permitted well work, as 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:WE WV 5402Farm Name:COWELL, ARTHUR & BESSIEU.S. WELL NUMBER:47-061-01325-00-00Coal Bed Methane WellPluggingDate Issued:3/8/2021

Promoting a healthy environment.



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. <u>Failure to adhere to the specified</u> permit conditions may result in enforcement action.

CONDITIONS

1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.

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- 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.

	47-041-01325 P
WW-4B Rev. 2/01	1) Date 12-1 , 20 20 2) Operator's Well No. 4right 3 3) API Well No. 47-001 - 01325
DEPARTMENT OF ENVI OFFICE OF	VEST VIRGINIA IRONMENTAL PROTECTION OIL AND GAS RMIT TO PLUG AND ABANDON
4) Well Type: Oil/ Gas ×/ Liqui	ld injection/ Waste disposal/ nderground storage) Deep/ Shallow×
5) Location: Elevation 1187	Watershed Honey Run
District Battelle	County Monongalia Quadrangle Wadestown
6) Well Operator Address Company LLC 1000 Consol Energy Dr.	7) Designated Agent Anthony Kendziora Address 1000 Consol Energy Dr
Canonsburg, PA 15317	Canonsburg PA 15317
8) Oil and Gas Inspector to be notified Name Bryan Harris	9) Plugging Contractor _{Name} Coastal Drilling East LLC
Address P.O. Box 157	Address 70 Gums springs road
Volga, WV 26238	Morgantown WV 26508

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

> RECEIVED Office of Oil and Gas

> > DEC 1 0 2020

WV Department of Environmental Protection

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

Work	order	approved	by	inspector	Buyan	Harri	Date	12.2-2	0
					/				0.000

47061013256

Well: 5402 (4R3) Cowell District: Battelle Elevation: 1187' <u>API#:</u> 47-061-01325 <u>County:</u> Monongalia

5402 Cowell (4R3) Proposed Plugging and Abandonment Procedure

- Run in and tag TD (908') with wireline and CCL to find TD and confirm top of perforated pipe. Confirm TD is inside slotted casing. (Make call to CNX if tagging high to come up with game plan)
- 2. Once TD has been reached, proceed to fill slotted casing with pea gravel. (1 ton= ~20 Cu. Ft. fill)
- 3. Once pea gravel has been placed in casing verify top of gravel
- 4. Once top of pea gravel has been verified TIH with tubing and prepare to cement
- Place 50' cement plug on top of pea gravel
- 6. TOOH with cement string
- 7. Rig up wireline and tag cement plug
- 8. TOOH and prepare to run Bond Log on 7" casing if Bond Log tool will go to bottom
- 9. Run Bond Log from top of cement to surface to verify casing is cemented to surface. If cement top if found to not be at surface notify CNX and prepare to pull uncemented casing
- If cement on 7" is at surface or once uncemented has been pulled prepare to cement well to surface
- 11. TIH with work string to cement plug and cement well to surface
- 12. TOOH w/ work string and top off well with cement
- 13. Install 6"x14' monument (10' below grade, 4' above grade). Monument must contain API#, Well Name, Company Name and Date Plugged Office of Oil and Gas

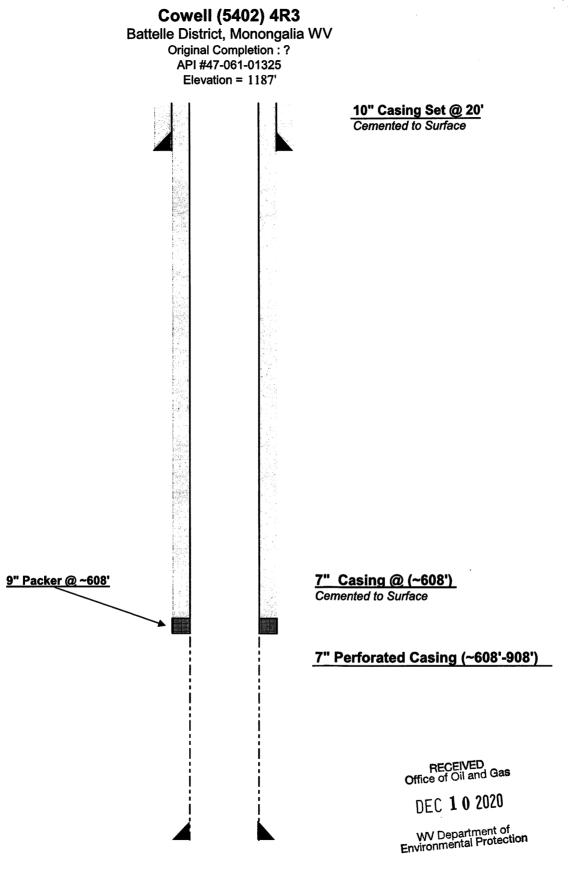
DEC 1 0 2020

Environmental Protection

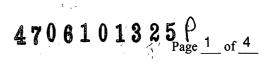
12-2-20

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

4706101325P



TD @ (908')



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

API <u>47</u> 061	_ 01325	_{County} Mononga	lia	Dist	trict Battelle		
Quad Wadestown		Pad Name Cowell	5402		ld/Pool Name		
Farm name Arthur G. 8					ell Number 54		
Operator (as registered v	with the OOG) CN	IX Gas Company	/ LLC				
Address 1000 Consol					State PA	Zip	, 15317
	op hole North	Attach an as-drilled ning 4392154.7 ning		Easting	viation survey 558189.5	- · · · ·	
Botto	om Hole North	ing		Easting			
Elevation (ft) 1191	GL	Type of Well	New 🛚 E	kisting	Type of Repo	ort □Interim	Final
Permit Type 🛛 Devi	ated 🗆 Horizo	ntal 🗆 Horizonta	al 6A 🛛 🛔	Vertical	Depth Type	🗆 Deep	Shallow
Type of Operation C	onvert 🗆 Deepe	n 🗆 Drill 🗆 I	Plug Back	□ Redrilling	g 🗆 Rework	c □ Stimu	late
Well Type □ Brine Dis	posal 🛢 CBM 🗆 🤅	Gas □ Oil □ Seco	ndarv Reco	verv 🗆 Soluti	on Mining	Storage D	Other
Type of Completion ■ Drilled with □ Cable Drilling Media Surface Production hole ■ Air Mud Type(s) and Addit	■ Rotary e hole ■ Air □] □ Mud □ Free	Mud □Fresh Wate		ermediate hole	RECEIVED ce of Oil and Ga	ud □ Fresh s	n Water □ Brine
					ec 102020		
Date permit issued]	Date drilling comme	enced	V Envi	W Department ronmental Prote _ Date drillin	of ection g ceased	
Date completion activitie	es began		Date comp	letion activitie	es ceased		
Verbal plugging (Y/N)	Date j	permission granted			Granted by		
Please note: Operator is	required to submit	a plugging applicat	ion within :	o days of verba	l permission to	o plug	
Freshwater depth(s) ft			Open mine	s) (Y/N) depth	IS		
Salt water depth(s) ft							
Coal depth(s) ft							
Is coal being mined in ar	rea (Y/N)						

Reviewed by:

WR-35 Rev. 8/23/13

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API 47-061	01325	Farm na	me_Arthur G	. & Bessie	T. Cowell	Well nu	umber 540	2	
CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft		sket oth(s)	Did cement circulate (Y/ I * Provide details below*	
Conductor		10	~20						
Surface									
Coal									
Intermediate 1									
Intermediate 2									
Intermediate 3									
Production		7"	908						
Tubing									
Packer type and d	epth set	9" Packer @ ~608'							
Comment Details									
CEMENT DATA Conductor	Class/Type of Cement				Yield t ³ /sks)	Volume (ft)	Cemer Top (M		
Surface									
Coal									
Intermediate 1									
Intermediate 2									
Intermediate 3									
Production									
Tubing								· · ·	
Drillers TD (ft	t) <u>908</u>			Loggers T	D (ft)				
	-	1		Plug back	to (ft)				
Plug back pro	cedure					-			
Kick off depth	(ft)								
Check all wire	line logs run	□ caliper □ neutron	□ density □ resistivity		ed/direction a ray		ection perature	□sonic	
Well cored	Yes 🗆 No	Conventio	nal Side [.]	wall	Wer	e cuttings co	ollected 🗆	Yes 🗆 No	
DESCRIBE T	HE CENTRAI	LIZER PLACEME	NT USED FC	OR EACH CA	ASING STF				
						Office of	EIVED Oil and Gas		
WAS WELL (COMPLETED	AS SHOT HOLE	□ Yes □	No DI	ETAILS	nfC	102020		
						WV D	epartment of hental Protect	tion	
WAS WELL C	COMPLETED	OPEN HOLE?	□Yes □ N	lo DET.	AILS	Environm	Jeniar 1 1 - 22		
WERE TRAC	ERS USED	⊐Yes □ No	TYPE OF T	RACER(S)	USED				
								03/12/2021	_

WR-35 Rev. 8/23/13

4706101325P Page 3_ of 4_

API 47-061 _ 01325

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
						RECEIVED Frice of Oil and C	as	
L					0		n	
L						DEC 10 202	.•	
						WV Departmen	t of tection	

Please insert additional pages as applicable.

WV Department C Environmental Prote

WR-35 Rev. 8/23/13

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API 47- 061	_ 01325	Farm	name Arthur G	a. & Bessi	e T. Cowell	Well numb	_{ber} 5402	
PRODUCING	FORMATION(<u>S)</u>	<u>DEPTHS</u>					
Pittsburgh Coal	l Seam			TVD		MD		
						MID		
Please insert ac	lditional pages a	s applicable.						
GAS TEST	🗆 Build up 🗆	Drawdown	Open Flow	1	OIL TEST	Flow 🗆 Pun	np	
SHUT-IN PRE	SSURE Surf	àce	_psi Botto	m Hole	psi	DURATION	OF TEST	hrs
OPEN FLOW		Oil ind 1	NGL		Water			Pilot
					opu			
LITHOLOGY/	TOP	BOTTOM	TOP	BOTTOM				
FORMATION	DEPTH IN FT	DEPTH IN FT	DEPTH IN FT	DEPTH IN I			ID RECORD QU	
	NAME TVD 0	TVD	MD 0	MD	TYPE OF FL	UID (FRESHW)	ATER, BRINE, O	IL, GAS, H ₂ S, ETC)
			Ŭ					
	······							
						· · · · · · ·	······	
D 1	1	<u> </u>						
	lditional pages a							
Drilling Contra	ctor					a		
Address			City			State	Zip	
Logging Comp	any							
Address			City			State	Zip	
Cementing Con	npany				FOR LAND	3		
Address			City	Offic	RECEIVED be of Oil and Gat	State	Zip	
Stimulating Con	mpany			r	FC 10 2020			
Address			City		nanartment	of ectionite	Zip	
Please insert ad	ditional pages a	s applicable.		Fn	WV Department wronmental Prof	-		
Completed by	Patrick Taylor			Ľ.		724-485-4150		
			Title Sr	E t			8/27/2020	

Submittal of Hydraulic Fracturing Chemical Disclosure Information

Attach copy of FRACFOCUS Registry03/12/2021

WW-4A Revised 6-07 47061013256

061

1)	Date:	12-1-2020

2) Operator's Well Number

4 right 3

3) API Well No.: 47 -

- 01325

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS <u>NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL</u>

	mer(s) to be served:	5) (a) Coal Operator		
(a) Name	Lowell A. Cowell & Jacqualine C. Cowell	Name		
Address	3632 Smithtown Rd.	Address		
	Morgantown, WV 26508			
(b) Name		(b) Coal Owr	ner(s) with Declaration	
Address		Name	Phoenix Energy Resources LLC	
		Address	803 Quail Vally Drive	
			Princeton WV, 24640	
(c) Name		Name	Jacqualine C. Cowell	
Address		Address	3632 Smithtown Rd.	
			Morgantown, WV 26508	
6) Inspector	Bryan Harris	(c) Coal Less	ee with Declaration	
Address	P.O. Box 157	Name		
	Volga, WV 26238	Address		
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		Qffice of Oil and Gav	
	By:	Raymond Hoon	anne Mte	Office of Oil and	
	Its:	Senior Project Manager		DEC 10 YRYN	
	Address	1000 Consol Energy Dr		•	
		Canonsburg, PA 15317		IN Departipro	
	Telephone	724-485-4000		WV Deparation Environmental Pro	
Subscribed and sworn before the th	Hit of Doop	evivania - Notary Seal	Mar 20 Notary Pr	<u>)20</u>	
My Commission Expires	Vicki L. Smiul,	County	1100ary 11	ubiic	
Oil and Gas Privacy Notice	My commission exp Commission nu Member, Pennayivania	ires June 19, 2022 mber 1155912			
	Member, Pennsylvania	A330Cialion of the			

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 <u>depprivacyoffier@wv.gov</u>.



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4706101325P

WW-9 (5/16)

API Number 47 - 061 - 01325 Operator's Well No. 4 right 3

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
Watershed (HUC 10) Honey Run Qua	adrangle
Do you anticipate using more than 5,000 bbls of water to complete the p	roposed well work? Yes No
Will a pit be used? Yes No 🔽	
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:	
Off Site Disposal (Supply form WW-9 for dis)
Will closed loop systembe used? If so, describe: <u>no</u>	
Drilling medium anticipated for this well (vertical and horizontal)? Air,	
-If oil based, what type? Synthetic, petroleum, etc. na	
Drill cuttings disposal method? Leave in pit, landfill, removed offsite, et	
-If left in pit and plan to solidify what medium will be used? (co	
-Landfill or offsite name/permit number?	
Permittee shall provide written notice to the Office of Oil and Gas of any West Virginia solid waste facility. The notice shall be provided within 24	load of drill cuttings or associated waste rejected at any 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

		RECEIVED Office of Oil and Gas	
Company Official Signature	n/too	DEC 1 0 2020	
Company Official (Typed Name) Raymond H		DECTO	
Company Official Title Senior Project Manager		WV Department of Environmental Protection	
		Environina	
Subscribed) and sworn before me this 3 R	day of December	, 20 <i>20</i>	
Achif Smith	Commonwealth of Pennsylvania - Notary Seal Vicki L. Smith, Notary Public Indiana County	Notary Public	
My commission expires	My commission expires June 19, 2022		03/12/2021
	Member, Pennsylvania Association of Notaries		

47061013250

Operator's Well No. 4 right 3

5

Proposed Revegetation Trea	tment: Acres Disturbe	ed_1 acrePreveg et	tation pH
Lime 2-3	Tons/acre or to 20-20 or equivalent	correct to pH	
Fertilizer amount 5 Mulch hay or stra	00	Ibs/acre Tons/acre	
		Seed Mixtures	
Te	mporary		Permanent
Seed Type	lbs/acre	Seed Type	lbs/acre
Tall Fescue	40	Tall Fescue	40
Landino Clover	5	Landino Clover	5

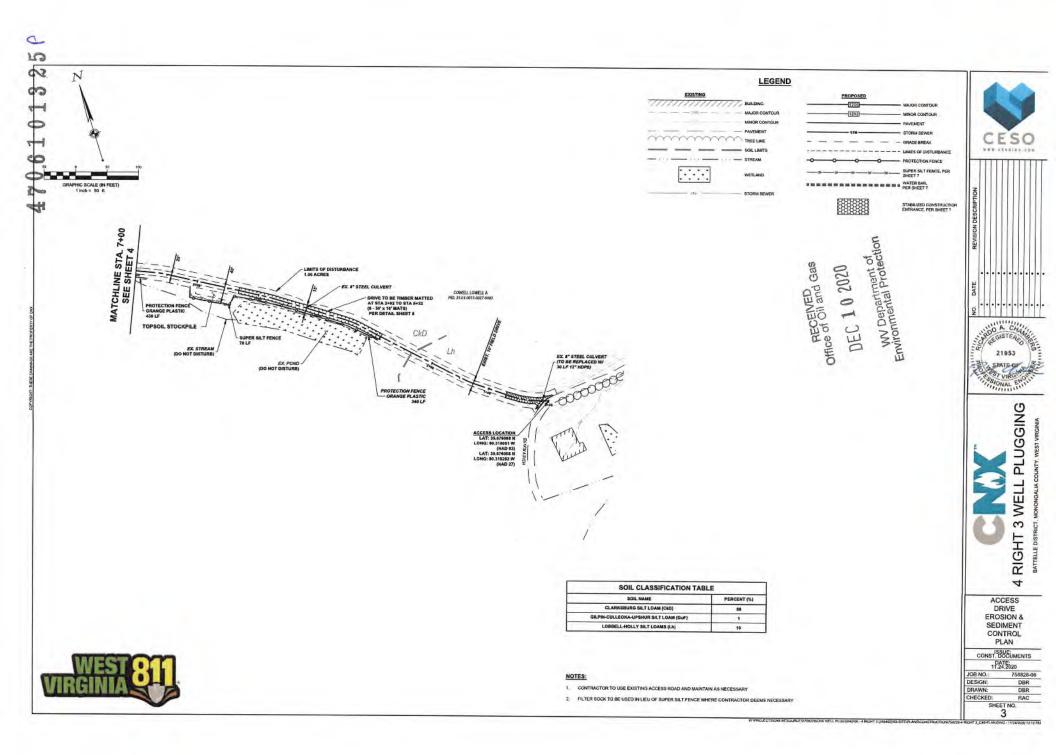
Attach:

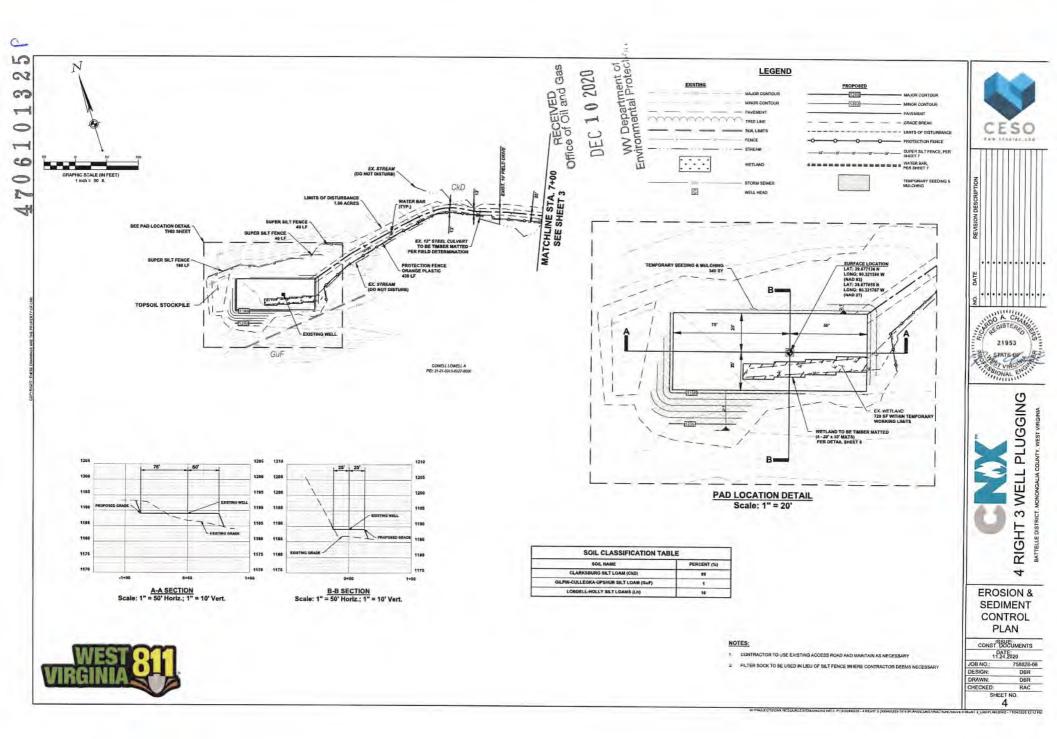
Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application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

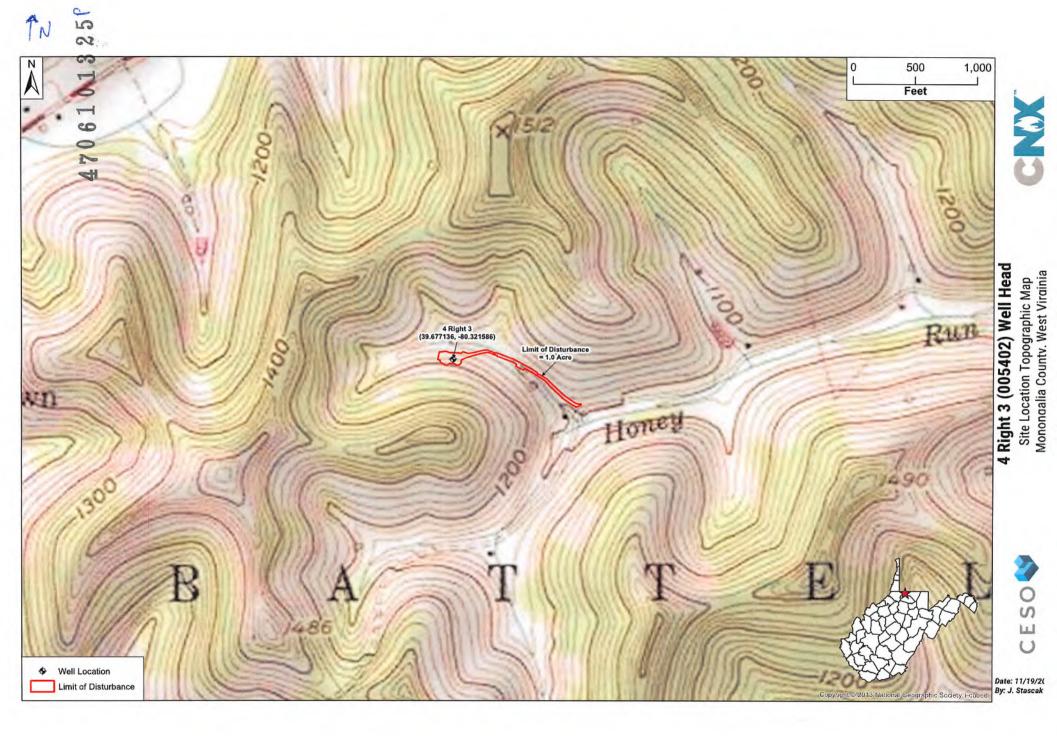
Landino Clover

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by:	Guyan Haren			
Comments:	•/			
Title: <u>Insp</u>	edoe	Date:	12-2-20	
Field Reviewed?	() Yes	(_X)№	RECEIVED Office of Oil and Gas DEC 10 2020 WV Department of Environmental Protection	







WW-7	
8-30-06	



West Virginia Department of Office of Oil	
WELL LOCATION	N FORM: GPS
_{API:} 4706101325	WELL NO.: 005402
FARM NAME: Arthur G. & Bessie 7	F. Cowell
RESPONSIBLE PARTY NAME: CNX	
COUNTY: Monongalia	DISTRICT: Battelle
QUADRANGLE: Wadestown	
SURFACE OWNER: Cowell Lowell	A
ROYALTY OWNER: Cowell Lowell	
UTM GPS NORTHING: 4392143.40	
UTM GPS EASTING: 558181.28	GPS ELEVATION: 1186.80

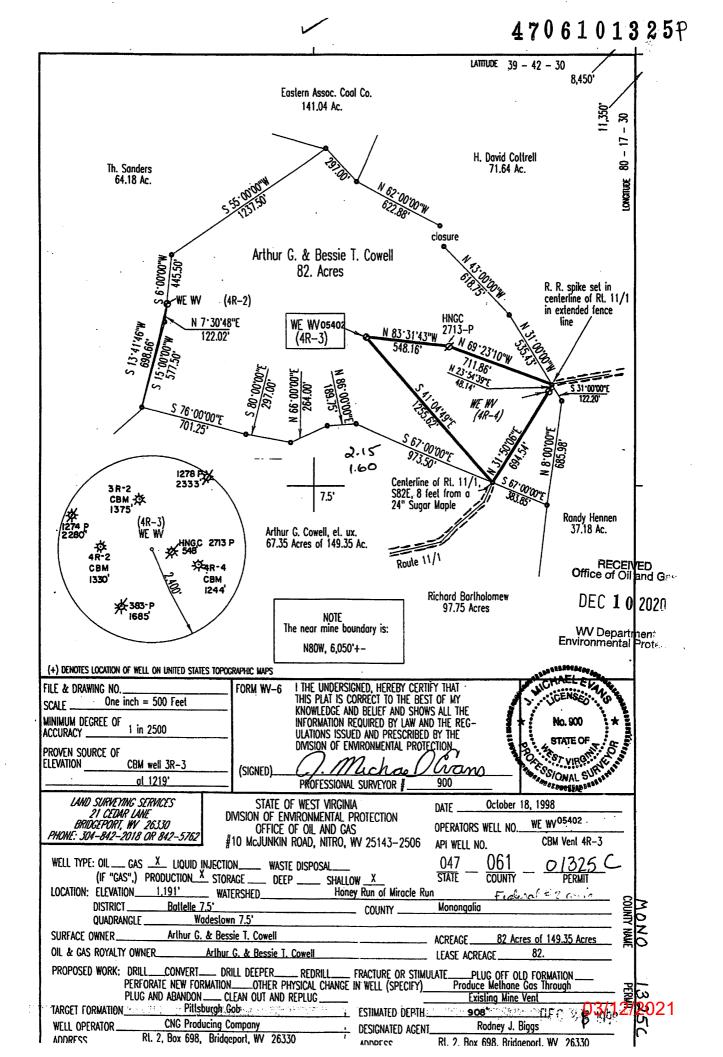
The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

- 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	RECEIVED Office of Oil and Gas
	Real-Time Differential X	DEC 1 0 2020
Mapping Grade GPS _	: Post Processed Differential	WV Department of Environmental Protection
	Real-Time Differential	Environmenta

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.

Amp	PROject MARAGER	12-3-20
Signature	Title	Date 03/12/2021



4RJ

11/10/2016

PLUGGING PERMIT CHECKLIST

Plugging Permit



WW-4B signed by inspector

WW-4A

SURFACE OWNER WAIVER or PROOF THAT APPLICATION WAS SENT BY REGISTERED OR CERITFIED MAIL

COAL OWNER/COAL OPERATOR/COAL LESSEE WAIVERS or PROOF THAT APPLICATION WAS SENT BY REGISTERED OR CERTIFIED MAIL

× WW-9 PAGE 1 (NOTARIZED)

_ WW-9 PAGE 2 with attached drawing of road, location, pit and proposed area for land application

WW-9 GPP PAGE 1 and 2 if well effluent will be land applied

RECENT MYLAR PLAT OR WW-7

WELL RECORDS/COMPLETION REPORT

TOPOGRAPHIC MAP OF WELL, SHOWING PIT IF PIT IS USED

MUST HAVE VALID BOND IN OPERATOR'S NAME

CHECK FOR \$100 IF PIT IS USED

BECEIVED Office of Cil and Gas DEC 10 2020 WV Department of Environmental Protection