BEFORE THE VIRGINIA GAS AND OIL BOARD

APPLICANT: Keyrock Energy, LLC

DIVISION OF GAS AND OIL
DOCKET NO: VGOB 22-1115-4252

RELIEF SOUGHT: Creation of sealed gob drilling unit and Pooling

LOCATION: See "Exhibit A"

HEARING DATE: 12-20-22

UNIT NUMBER: 5

IN DICKENSON COUNTY, VIRGINIA

APPLICATION

1) **Parties:** Applicant is Keyrock Energy, LLC, 207 East Main Street, Suite 2-D, PO Box 2223, Johnson City, TN 37605. Respondents are listed on "Exhibit B", attached hereto and made a part hereof. Set forth in "Exhibit B" are the names and last-known addresses of each owner of record identified by the Applicant as having or claiming an interest in the coalbed methane gas underlying the drilling unit sought to be created and pooled herein. Each of the individuals named in "Exhibit B" if living, is made a party hereto. If any such individual is deceased, then the known and unknown heirs, executors, administrators, devisees, trustees and assigns, both immediate and remote, of any such deceased individual are made parties hereto. Each of the legal entities named in "Exhibit B", if such entity continues to have legal existence, is made a party hereto. If any such legal entity is dissolved, then the known and unknown successors, trustees, and assigns, both immediate and remote, of such entity are made parties hereto.

2) **Facts:**

a) Applicant owns or claims to own oil and gas leases, coalbed methane gas leases, and/or coal leases and claims the right thereunder to explore for, develop and produce coalbed methane gas from the Mined Out Jawbone Coal Seam (hereinafter "Subject Formation") in the Contura Deep Mine 41 in Dickenson County, Virginia (hereinafter "Subject Lands"), which Subject Lands are more particularly described in "Exhibit A" attached hereto and made a part hereof. The purpose of this endeavor is to combust the coalbed methane gas to generate carbon credits for marketing purposes. To further this purpose, Applicant has entered into a lease, which is attached to the applicant as "Exhibit N", with Enervest XIV-A Nora LLC, Enervest Energy Institutional Fund XIV-Al, LP, and Enervest IV-WIC Nora LLC, to develop and produce coalbed methane in the area shown on "Exhibit A". "Exhibit A" is a map certified by licensed professional engineer showing the size and shape of the drilling unit to be created and pooled, as well as Applicant's interest in the subject drilling unit. Applicant attests to the fact that it believes said map conforms to existing orders issued by the Board. The undersigned certifies that the matters set forth in this application, to the best of his knowledge, information and belief, are true and correct.

b) On "Exhibit A", "Exhibit B", and the Tract Identification Page, Applicant has shown 1) the percentage of ownership in the drilling unit of each acreage (tract) being pooled, 2) the status of ownership of each acreage (tract) being pooled (including a description of the interest of each owner or claimant as disclosed by the examination of record title), i.e. whether leased to Applicant, leased to another person or unleased, and 3) the approximate percentage of interest in the drilling unit to be escrowed, if any, under Va. Code 45.2-1620(D) for each unidentifiable owner or claimant of a conflicting interest, if any.

c) The Virginia Gas and Oil Board (hereinafter "Board") heretofore has established drilling units in the Nora Gas Field underlying and comprised of the Subject Lands pursuant to its Orders and those of the Virginia Oil and Gas Conservation Board. However, said Field Rules and orders specifically provide that they do not apply to production of coalbed methane gas from sealed gob areas which production is contemplated by this application. Annexed hereto as "Exhibit L" which is an Underground Mine Map.

d) It is estimated by applicant that the total amount of recoverable gas is 586 mmcf.

e) Applicant has proposed 1 well bore as shown on "'Exhibit A" for production of coalbed methane from the sealed gob and "Subject Formation." The estimated costs for development contemplated by this Application are as set forth in "Exhibit C" attached hereto and made part hereof which are Applicant's Estimate of Allowable Costs.

f) Applicant has exercised diligence to locate each person owning or claiming an interest in coalbed methane gas in the subject drilling unit underlying the Subject Lands. It is necessary to prevent waste, to protect correlative rights and to ensure the safe and efficient development and production of gas and oil resources in the Commonwealth that the Board hear this matter and adjudicate the rights and equities as between Applicant and the herein named persons.

g) Simultaneously with filing of this application pursuant to Va. Code § 45.2-1618(A). Applicant is providing notice by certified mail, return receipt requested to each person named as a Respondent in the Notice of Hearing having or claiming an interest in the coalbed methane gas, underlying the Subject Lands pooled herein. Applicant hereby notifies Board that where the identity or location of any person is shown as "unknown" on "Exhibit B", then Applicant is unable to provide said person with written notice of the application herein by mail.

g) Applicant does not request the Board establish an escrow account pursuant to Va. Code Ann. § 45.2- 1622(A), Board Rules, and prior Orders of the Board, into which the payment of costs or proceeds attributable to conflicting interests (to the extent they are subject to escrow) shall be deposited and held for the interests of the claimants.

3) **Legal Authority:** Va. Code § 45.2-1600, ***et seq.*** *4 VAC 25-160-10,* ***et seq.*** and such other regulations promulgated pursuant to law.

4) **Relief Sought:** Applicant requests the Board issue an order providing as follows:

Creating a sealed gob drilling unit consisting of **234.30** +/- acres for the drilling, development, and production of coalbed methane gas from the sealed gob sometimes referred to herein as the "Subject Formation", which drilling unit is further described and depicted in "Exhibit A" annexed hereto and which drilling unit is described as follows: BEGINNING at a point having Virginia State Plane NAD 83 coordinates of N: 3,580,800.21 AND E: 10,360,452.96. Thence N 59°06'14" E 161.63 feet to a point; thence N 40°19'17" W 1975.58 feet to a point; thence N 45°00'16" E 73.52 feet to a point; thence N 41°14'57" W 1229.04 feet to a point; thence S 58°54'44" W 212.55 feet to a point; thence N 39°02'59" W 91.25 feet to a point; thence N 53°05'25" E 2153.94 feet to a point; thence S 41°32'23" E 644.70 feet to a point; thence N 59°13'26" E 488.70 feet to a point; thence S 41°09'16" E 311.31 feet to a point; thence N 78°24'22" E 173.07 feet to a point; thence N 49°04'08" E 387.09 feet to a point; thence S 42°11'56" E 2457.53 feet to a point; thence S 48°45'15" W 3270.86 feet to a point; thence N 40°52'20" W 443.80 feet to the point of BEGINNING, containing +/- 234.30 acres.

a) Voluntary pooling interest of Respondents named in Exhibit B.

b) Establishing the percentages for division of interest for production, revenue and costs for all Respondents in accordance with those percentages as are set forth at "Exhibit B".

c) Designating Keyrock Energy, LLC, as Unit Operator; providing that the operator shall have the right to drill, develop, produce, market and sell coalbed methane gas from the subject drilling unit and shall further have the right to generate and market carbon credits; granting the operator the right to market and sell the coalbed methane gas from the subject drilling unit which is attributable to the conflicting claims and interests pooled herein; providing that the operator shall have an operator's lien on the coalbed methane gas estate and rights owned or claimed by the persons named herein in the subject drilling unit; and granting the operator the right to drill at any legal or specially permitted location on subject drilling unit; and granting the operator the right to drill wells at any legal or specially permitted location on the subject drilling unit.

d) Providing that the order to be entered herein shall expire two (2) years from the date of its issuance if operations have not commenced by said date; but further providing that if operations have commenced

during said two year period, then said order shall remain in effect for so long as operations continue on the subject drilling unit. However, in the event an appeal is taken from the order issued, the time between the mailing of the notice of appeal and the final order of the Circuit Court shall be excluded in calculating the two year period referred to herein.

e) With respect to separately owned tracts and separately owned interests in the drilling unit, joining all the interests within the drilling unit to produce coalbed methane gas so that each owner in the drilling unit will share in all production and costs regarding the drilling unit in the proportion that the acreage owned by each owner bears to the entire acreage in the unit.

f) Granting such other relief as is merited by the evidence and is just and equitable, whether or not such relief has been specifically requested herein.

Dated: November 10, 2022

Keyrock Energy, LLC
Applicant

By:

Morgan Pate, Geologist
Keyrock Energy, LLC
207 East Main St., Suite 2-D
PO Box 2223
Johnson City, TN 37605

BEFORE THE VIRGINIA GAS AND OIL BOARD

APPLICANT: Keyrock Energy, LLC

DIVISION OF GAS AND OIL
DOCKET NO: VGOB 22-1115-4252

RELIEF SOUGHT: Creation of sealed gob drilling unit and Pooling

LOCATION: See "Exhibit A"

HEARING DATE: 12-20-22

UNIT NUMBER: 5

IN DICKENSON COUNTY, VIRGINIA

HEARING DATE: **December 20, 2022**

PLACE: **Virginia Dept. of Energy**
3405 Mountain Empire Rd.
Big Stone Gap, VA 24219

TIME: **10:00 a.m.**

NOTICE OF HEARING

COMMONWEAL TH OF VIRGINIA: To all persons owning or claiming an interest in oil and gas, coalbed methane gas, coal or other minerals and to all other persons who have or claim to have an interest in the coalbed methane underlying and within the Keyrock Energy, LLC Unit #4 and the lands described on "Exhibit A" to the Application, which is attached to this Notice, in the Ervinton District of Dickenson County, Virginia (hereinafter "Subject Lands") and adjacent lands, and in particular to the following persons, their known and unknown heirs, executors, administrators, devisees, assigns and successors, both immediate and remote:

NOTICE IS HEREBY GIVEN that Applicant is requesting that the Virginia Gas and Oil Board (hereinafter "Board") issue an order creating a sealed gob unit and pooling all the rights, interests, and estates of the above named persons pursuant to Virginia Code Ann. § 45.2-1600, et seq., in regard to the drilling, development and production of coalbed methane gas from said drilling Unit **#5** containing approximately 234.30 acres**,** for the mined-out Jawbone Coal Seam (hereinafter "Subject Formation"). Applicant requests that the Board issue an order providing as follows:

a) Creating a sealed gob drilling unit consisting of 234.30 +/- acres for the drilling, development and production of coalbed methane gas from the sealed gob sometimes referred to herein as the "Subject Formation", which drilling unit is further described and depicted in Exhibit "A" annexed hereto and which drilling unit is described as follows: BEGINNING at a point having Virginia State Plane NAD 83 coordinates of N: 3,580,800.21 AND E: 10,360,452.96. Thence N 59°06'14" E 161.63 feet to a point; thence N 40°19'17" W 1975.58 feet to a point; thence N 45°00'16" E 73.52 feet to a point; thence N 41°14'57" W 1229.04 feet to a point; thence S 58°54'44" W 212.55 feet to a point; thence N 39°02'59" W 91.25 feet to a point; thence N 53°05'25" E 2153.94 feet to a point; thence S 41°32'23" E 644.70 feet to a point; thence N 59°13'26" E 488.70 feet to a point; thence S 41°09'16" E 311.31 feet to a point; thence N 78°24'22" E 173.07 feet to a point; thence N 49°04'08" E 387.09 feet to a point; thence S 42°11'56" E 2457.53 feet to a point; thence S 48°45'15" W 3270.86 feet to a point; thence N 40°52'20" W 443.80 feet to the point of BEGINNING, containing 234.30 acres, more or less.

b) Voluntary pooling interest of Respondents named in Exhibit B.

c) Establishing the percentages for division of interest for production, revenue and costs for all Respondents in accordance with those percentages as are set forth at "Exhibit B".

d) Designating Keyrock Energy, LLC, as Unit Operator; providing that the operator shall have the right to drill, develop, produce, market and sell coalbed methane gas from the subject drilling unit; and shall further have the right to generate and market carbon credits; granting the operator the right to market and sell the coalbed methane gas from the subject drilling unit which is attributable to the conflicting claims and interests pooled herein; providing that the operator shall have an operator's lien on the coalbed methane gas estate and rights owned or claimed by the persons named herein in the subject drilling unit; and granting the operator the right to drill at any legal or specially permitted location on subject drilling unit; and granting the operator the right to drill wells at any legal or specially permitted location on the subject drilling unit.

e) Providing that the order to be entered herein shall expire two (2) years from the date of its issuance if operations have not commenced by said date; but further providing that if operations have commenced during said two year period, then said order shall remain in effect for so long as operations continue on the subject drilling unit. However, in the event an appeal is taken from the order issued, the time between the mailing of the notice of appeal and the final order of the Circuit Court shall be excluded in calculating the two year period referred to herein.

f) With respect to separately owned tracts and separately owned interests in the drilling unit, joining all the interests within the drilling unit for the production of coalbed methane gas so that each owner in the drilling unit will share in all production and costs regarding the drilling unit in the proportion that the acreage owned by each owner bears to the entire acreage in the unit.

g) Granting such other relief as is merited by the evidence and is just and equitable, whether or not such relief has been specifically requested herein.

NOTICE IS FURTHER GIVEN that this cause has been set for hearing and the taking of evidence before the Board at 10:00 AM, on December 20, 2022, at the offices of the Virginia Department of Energy at 3405 Mountain Empire Road, Big Stone Gap, VA 24219, and that notice will be published as required by law and the rules of the Board.

NOTICE IS FURTHER GIVEN that you may attend this hearing, with or without an attorney, and offer evidence or state any comments you have. For further information or a copy of the application and exhibits, either contact the Virginia Gas and Oil Board, State Oil and Gas Inspector, Department of Mines, Minerals and Energy, Division of Gas and Oil, P. O. Box 159, Lebanon, Virginia 24266, 276/415-9650 or the Applicant at the address shown below.

Dated: November 8, 2022

Keyrock Energy, LLC
Applicant

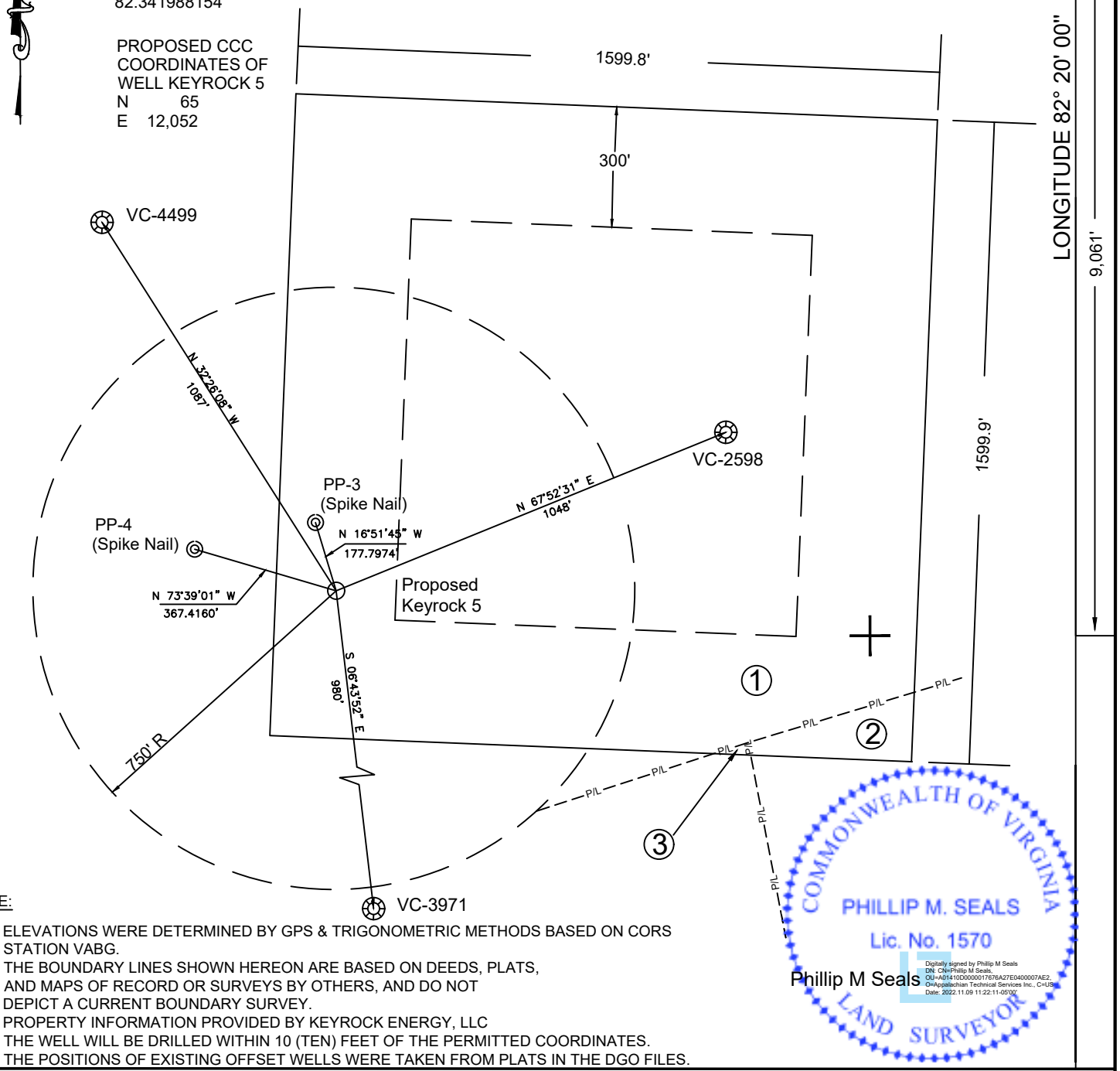
By: _____

Morgan Pate, Geologist
Keyrock Energy, LLC
207 East Main St., Suite 2-D
PO Box 2223
Johnson City, TN 37605

EXHIBIT A

PROPOSED LAT. & LONG.
(NAD 83 DECIMAL DEGREES)
OF KEYROCK 5
37.100233538
82.341988154

PROPOSED CCC
COORDINATES OF
WELL KEYROCK 5
N 65
E 12,052



NOTE:

ELEVATIONS WERE DETERMINED BY GPS & TRIGONOMETRIC METHODS BASED ON CORS STATION VABG.
THE BOUNDARY LINES SHOWN HEREON ARE BASED ON DEEDS, PLATS, AND MAPS OF RECORD OR SURVEYS BY OTHERS, AND DO NOT DEPICT A CURRENT BOUNDARY SURVEY.
PROPERTY INFORMATION PROVIDED BY KEYROCK ENERGY, LLC
THE WELL WILL BE DRILLED WITHIN 10 (TEN) FEET OF THE PERMITTED COORDINATES.
THE POSITIONS OF EXISTING OFFSET WELLS WERE TAKEN FROM PLATS IN THE DGO FILES.

COMMONWEALTH OF VIRGINIA
PHILLIP M. SEALS
Lic. No. 1570
LAND SURVEYOR
Phillip M Seals
Digitally signed by Phillip M Seals
DN: CN=Phillip M Seals, OU=A01410D0000017676A27E0400007AE2, O=Appalachian Technical Services Inc., C=US
Date: 2022.11.09 11:22:11-05'00'

WELL LOCATION PLAT (Nora Grid BA-45)

COMPANY Keyrock Energy LLC
WELL NAME OR NUMBER KEYROCK 5
TRACT NO. T-101
QUADRANGLE NORA
DISTRICT Ervinton
WELL COORDINATES (VIRGINIA STATE PLANE 83) N 3,582,849.29 E 10,362,764.22
ELEVATION 1,989.69
METHOD USED TO DETERMINE ELEVATION: GPS & TRIG.
COUNTY Dickenson
SCALE: 1" = 400'
DATE 9-19-2022
THIS PLAT IS A NEW PLAT X ; AN UPDATED PLAT ____ ; OR A FINAL LOCATION PLAT ____

+ DENOTES THE LOCATION OF A WELL ON UNITED STATES TOPOGRAPHIC MAPS, SCALE 1 TO 24,000, LATITUDE AND LONGITUDE LINES BEING REPRESENTED BY BORDER LINES AS SHOWN.

1892.01
Form DGO-GO-7
Rev. 1-98

LICENSED LAND SURVEYOR

(AFFIX SEAL)

EXHIBIT PL-1

Property Ownership Information for Well # KEYROCK 5

TRACT IDENTIFICATION

(1)

T-101
JOSHUA PRESSLEY
951.73 AC.
CF HIGHLANDS LLC -Surface
ACIN LLC - coal
PARAMONT CONTURA, LLC - coal lessee
WBRD LLC - coal
DICKENSON-RUSSELL CONTURA, LLC- coal lessee
ENERVEST XIV-A NORA LLC
ENERVEST ENERGY INSTITUTIONAL FUND XIV-1A, L.P. &
ENERVEST XIV-WIC NORA LLC
1/4 interest oil, gas (cbm)

GAS 57.77AC. 98.31 %

(2)

TRACT NO. T-7
G. M. BLAIR
280.00 ACRES
ACIN LLC - coal
PARAMONT CONTURA, LLC - coal lessee
WBRD LLC - coal
DICKENSON-RUSSELL CONTURA, LLC- coal lessee
ENERVEST XIV-A NORA LLC
ENERVEST ENERGY INSTITUTIONAL FUND XIV-1A, L.P. &
ENERVEST XIV-WIC NORA LLC
1/4 interest oil, gas (cbm)

GAS 0.97AC. 1.64 %

(3)

T-186
NOAH A. SKEEN
327.39 ACRES
ACIN LLC - coal
PARAMONT CONTURA, LLC - coal lessee
WBRD LLC - coal
DICKENSON-RUSSELL CONTURA, LLC- coal lessee
ENERVEST XIV-A NORA LLC
ENERVEST ENERGY INSTITUTIONAL FUND XIV-1A, L.P. &
ENERVEST XIV-WIC NORA LLC
1/4 interest oil, gas (cbm)

GAS 0.03 AC. 0.05 %

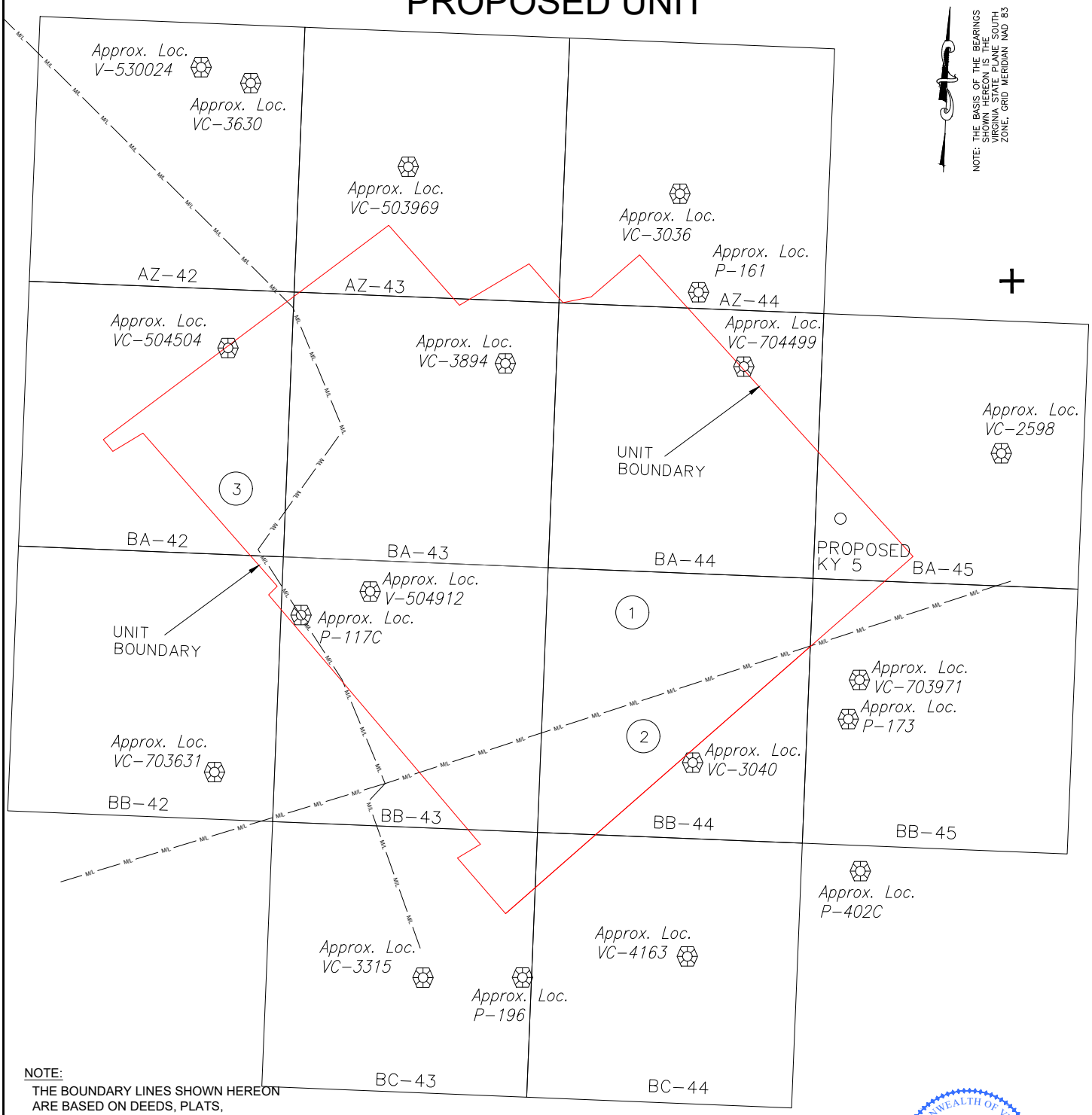
LATITUDE 37° 05' 00"

2,563'

9,061'

LONGITUDE 82° 20' 00"

PROPOSED UNIT



NOTE:
THE BOUNDARY LINES SHOWN HEREON ARE BASED ON DEEDS, PLATS, AND MAPS OF RECORD OR SURVEYS BY OTHERS, AND DO NOT DEPICT A CURRENT BOUNDARY SURVEY.
PROPERTY INFORMATION PROVIDED BY KEYROCK ENERGY LLC.
THE WELL WILL BE DRILLED WITHIN 10 (TEN) FEET OF THE PERMITTED COORDINATES.
EXISTING WELL POSITIONS WERE TAKEN FROM PLATS IN THE DGO FILES.
SEE ATTACHED EXHIBIT PL-1 FOR TRACT OWNERSHIP SCHEDULE.

TOTAL UNIT AREA
= 234.30 ACRES

COMMONWEALTH OF VIRGINIA
PHILLIP M. SEALS
Lic. No. 1570
Phillip M Seals
LAND SURVEYOR

WELL LOCATION PLAT (Nora Grid N/A)

DGO FILE NO.: Unknown At This Time

COMPANY Keyrock Energy LLC WELL NAME OR NUMBER KY 5
TRACT NO. T2-101 QUADRANGLE Nora
DISTRICT Ervinton
WELL COORDINATES (VIRGINIA STATE PLANE 83) N 3,582,89.29 E 10,362,764.22
ELEVATION 1,989.69 METHOD USED TO DETERMINE ELEVATION: GPS & TRIG.
COUNTY Dickenson SCALE: 1" = 400' DATE 9-19-2022
THIS PLAT IS A NEW PLAT X ; AN UPDATED PLAT ___ ; OR A FINAL LOCATION PLAT ___
+ DENOTES THE LOCATION OF A WELL ON UNITED STATES TOPOGRAPHIC MAPS, SCALE 1 TO 24,000, LATITUDE AND LONGITUDE LINES BEING REPRESENTED BY BORDER LINES AS SHOWN.

_____ (AFFIX SEAL)
LICENSED LAND SURVEYOR

1892.01
Form DGO-GO-7
Rev. 1-98

EXHIBIT PL–1

Property Ownership Information for Keyrock 5

09–19–2022

TRACT IDENTIFICATION

①

T–101
Joshua Pressley
951.73 ACRES
C. F. Highlands – Surface
ACIN LLC – coal
PARAMONT CONTURA, LLC – coal lessee
WBRD LLC – coal
DICKENSON–RUSSELL CONTURA, LLC– coal lessee
ENERVEST XIV–A NORA LLC
ENERVEST ENERGY INSTITUTIONAL FUND XIV–1A, L.P. &
ENERVEST XIV–WIC NORA LLC
oil, gas & cbm

Keyrock Energy - cbm lessee

GAS 182.20 AC. 77.76%

②

T–186
Noah A. Skeen
327.39 ACRES
ACIN LLC – coal
PARAMONT CONTURA, LLC – coal lessee
WBRD LLC – coal
DICKENSON–RUSSELL CONTURA, LLC– coal lessee
ENERVEST XIV–A NORA LLC
ENERVEST ENERGY INSTITUTIONAL FUND XIV–1A, L.P. &
ENERVEST XIV–WIC NORA LLC
oil, gas & cbm

Keyrock Energy – cbm lessee

GAS 27.50 AC. 11.74%

③

T–129
Jasper Sutherland
641 ACRES
ACIN LLC – coal
PARAMONT CONTURA, LLC – coal lessee
WBRD LLC – coal
DICKENSON–RUSSELL CONTURA, LLC– coal lessee
ENERVEST XIV–A NORA LLC
ENERVEST ENERGY INSTITUTIONAL FUND XIV–1A, L.P. &
ENERVEST XIV–WIC NORA LLC
oil, gas & cbm

Keyrock Energy - cbm lessee

GAS 24.60 AC. 10.50%

Exhibit B
Unit # 5
VGOB Docket # 22-1115-4252
List of all Owners/Claimants
(234.30 Acre Unit)

	Acres in Unit	Interest in Unit
Tract #T-101; Joshua Presley (951.73 Acres)		
(1) ENERVEST XIV-A NORA LLC ENERVEST ENERGY INSTITUTIONAL FUND XIV-1A, L.P. ENERVEST XIV-WIC NORA LLC - Oil, Gas & CBM 1001 Fannin Street Ste 800 Houston, TX 77002	**182.20 acres**	**77.76 %**
Tract #T-186; Noah A. Skeen (327.39 Acres)		
(1) ENERVEST XIV-A NORA LLC ENERVEST ENERGY INSTITUTIONAL FUND XIV-1A, L.P. ENERVEST XIV-WIC NORA LLC - Oil, Gas & CBM - 1001 Fannin Street Ste 800 Houston, TX 77002	**27.50 acres**	**11.74 %**
Tract #T-129; Jasper Sutherland (641 Acres)		
(1) ENERVEST XIV-A NORA LLC ENERVEST ENERGY INSTITUTIONAL FUND XIV-1A, L.P. ENERVEST XIV-WIC NORA LLC - Oil, Gas & CBM - 1001 Fannin Street Ste 800 Houston, TX 77002	**24.60 acres**	**10.50 %**

EXHIBIT C

Authorization For Expenditure (AFE)

AFE #	1002	**Property #**		**Version #**	
Well Name:	Keyrock No. 5	**Field:**		**Completed By:**	Morgan Pate
Location:	N 3,582,849.29 E 10,362,764.22	**Operator:**	Keyrock Energy	**Date:**	9/23/2022
Expected Pay Zones:	Mined-out Jawbone Coal Seam	**Estimated Total Depth:**	804 ft	**AAPG Class:**	
Proposed Work:	Drill Gob well into mined-out Jawbone Seam	**Participant:**	None	**W.I.**	**Amount**
					$0

	Gen	Sub	Description	Casing Point	Completion	Total Cost
			Leasehold Costs	$0	$0	$25,900
			Permit / Title Opinion / Survey / Insurance	$0	$0	$15,000
			Building Location	$0	$0	$30,000
			Roads / Stone / Culverts	$0	$0	$5,000
			Surface Damages	$0	$0	$0
			Drilling - Footage	$0	$0	$17,550
			Drilling - Mobilization	$0	$0	$7,000
			Drilling - Dayrate	$0	$0	$19,800
			Mud & Chemicals (Drilling)	$0	$0	$0
			Fuel	$0	$0	$4,500
I			Cement Surface casing	$0	$0	$0
N			Cement Intermediate casing	$0	$0	$7,000
T			Open Hole Logging & Testing	$0	$0	$3,406
A			Trucking / Dozer (Drilling)	$0	$0	$0
N			Rental Tools & Equipment (Drilling)	$0	$0	$0
G			Drilling - Bits	$0	$0	$0
I			Technical Supervision (Drilling)	$0	$0	$0
B			Fresh Water Hauling (Drilling)	$0	$0	$1,460
L			Overhead Rate	$0	$0	$0
E			Misc. & Contingincies	$0	$0	$5,000
S			Location Rds/Stone/Culverts	$0	$0	$4,000
			Trucking / Dozer (Completion)	$0	$0	$0
			Technical Supervision (Completion)	$0	$0	$0
			Cased Hole Logging / Perforating	$0	$0	$0
			Stimulation / Fracturing	$0	$0	$0
			Completion Rig	$0	$0	$0
			Reclaimation & Damages	$0	$0	$1,000
			Haul Pit Water / Disposal	$0	$0	$2,280
			Cement Production Casing	$0	$0	$8,400
			Rental Tools & Equipment (Completion)	$0	$0	$0
			Fresh Water Hauling (Completion)	$0	$0	$540
			Roustabout Labor	$0	$0	$0
			TOTAL INTANGIBLES	**$0**	**$0**	**$157,836**

	Code	Code		Casing Point	Completion	Total Cost
			13 3/8" Surface Casing	$50	$4,750	$4,800
			7" R1 T&C Black Steel Csg	$700	$24,500	$25,200
T			Wellhead Equipment / Fittings	$0	$0	$2,500
A			Tank Battery	$0	$0	$0
N			Separator / Heater / Treater	$0	$0	$0
G			Gas Lift Equipment	$0	$0	$4,000
I			Rods / Stuffing Box	$0	$0	$0
B			Downhole Pump	$0	$0	$0
L			Pumping Unit / Motor	$0	$0	$0
E			SS EQT-Packer,PF,FC,Nip	$0	$0	$0
S			Valves & Fittings	$0	$0	$800
			Flow Line labor/material	$0	$0	$0
			Sales line labor/mat/row	$0	$0	$0
			TOTAL TANGIBLES	$0	$0	**$37,300**
			GRAND TOTAL WELL COST	**$0**	**$0**	**$195,136**
	153	115	Plugging & Abandonment	$0		
				Production Costs :	**$195,136**	**Dry Hole Costs :** **$0**

Operations Bruce Horman Date 9/23/2022 Geology Morgan Pate Date: 9/23/2022

Engineering Bruce Horman Date 9/23/2022 Land Morgan Pate Date: 9/23/2022

Management Approval	Approved by:	Title Operations Manager	Date
Management Approval	Approved by:	Title Senior Geologist	Date 11/5/22

THIS IS AN ESTIMATE OF PROJECTED WELL DRILLING, COMPLETION, EQUIPMENT AND PIPELINE COSTS. THESE ESTIMATES ARE PROJECTIONS ONLY AND ACTUAL BILLED COSTS MAY VARY FROM WELL TO WELL DEPENDING UPON ACTUAL FINAL DEPTH AND OTHER FACTORS INCLUDING, BUT NOT LIMITED TO, SEASONAL MATERIAL COSTS, WEATHER CONDITIONS, AND UNFORESEEN RIGHT-OF-WAY PROBLEMS.

NOTE:
Mine Works shown as provided by Alpha Metallurgical Resources

0 400 800 1600 2400
FEET

UNIT BOUNDARY

VA. S.P. NAD 83
N:3584620.15
E:10360037.69

VA. S.P. NAD 83
N:3584137.60
E:10360465.22

VA. S.P. NAD 83
N:3584441.65
E:10361551.96

UNIT BOUNDARY

VA. S.P. NAD 83
N:3583326.59
E:10358315.43

EXISTING MINE SEALS

VA. S.P. NAD 83
N:3582621.07
E:10363202.69

EXISTING MINE SEALS

VA. S.P. NAD 83
N:3580464.62
E:10360743.37

Appalachian Technical Services,Inc.
Engineering, Architecture, Surveying, Ecology & Environmental Science
Abingdon Office
P.O. Box 1897
475 West Main Street
Abingdon, VA 24212
(276) 676-4262
Wise Office
P.O. Box 3537
6741 Indian Creek Road
Wise, VA 24293
(276) 328-4200

KEYROCK ENERGY LLC

DEEP MINE 41 UNDERGROUND MINE MAP KY5 EXHIBIT L

Designed By:	Drawn By:	Checked By:	Date:
JMC	JMC	PMS	10/14/22

Project Number:	Scale:	Quadrangle:
1892.01	1" = 800'	NORA

Coordinate System: VA Nad 83 South Zone

Drawing Name: Mineworks Only 24x36 With Well Units 10-14-22

Sheet/Layout: KY5 EXHIBIT L 11X17

01 / 01

Exhibit D
Unit # 5
VGOB Docket # 22-1115-4252
Leased Parties in a Sealed Gob
(234.30 Acre Unit)

	Acres in Unit	Interest in Unit

Tract #T-101; Joshua Pressley (951.73 Acres)

(1) CF Highlands LLC – Surface
C T Corporation System
4701 Cox Rd.
Ste 285
Glen Allen, VA 23060

(2) ACIN LLC – Coal
Capitol Corporate Services, Inc.
10 South Jefferson St.
Ste 1400
Roanoke, VA 24011

(3) Paramont Contura, LLC - Coal Lessee
Corporation Service Company
100 Shockoe Slip
FL 2
Richmond, VA, 23219-4100

(4) WBRD LLC - Coal
Capitol Corporate Services, Inc.
10 South Jefferson St
Ste. 1400
Roanoke, VA 24011

(5) Dickenson-Russell Contura, LLC - Coal Lessee
Corporation Service Company
100 Shockoe Slip
FL 2
Richmond, VA, 23219-4100

(6) ENERVEST XIV-A NORA LLC — **182.20 acres** — **77.76%**
ENERVEST ENERGY INSTITUTIONAL
FUND XIV-1A, L.P.
ENERVEST XIV-WIC NORA LLC
- Oil, Gas & CBM -
Capitol Corporate Services, Inc.
10 South Jefferson St.
Ste 1400
Roanoke, VA, 24011

(7) Keyrock Energy - CBM Lessee
Corporate Creations Network Inc.
425 W Washington St.
Ste 4
Suffolk, VA, 23434 - 5320

Exhibit D
Unit # 5
VGOB Docket # 22-1115-4252
Leased Parties in a Sealed Gob
(234.30 Acre Unit)

	Acres in Unit	Interest in Unit

Tract #T-186; Noah A. Skeen (327.39 Acres)

(1) ACIN LLC – Coal
Capitol Corporate Services, Inc.
10 South Jefferson St.
Ste 1400
Roanoke, VA 24011

(2) Paramont Contura, LLC - Coal Lessee
Corporation Service Company
100 Shockoe Slip
FL 2
Richmond, VA, 23219-4100

(3) WBRD LLC - Coal
Capitol Corporate Services, Inc.
10 South Jefferson St
Ste. 1400
Roanoke, VA 24011

(4) Dickenson-Russell Contura, LLC - Coal Lessee
Corporation Service Company
100 Shockoe Slip
FL 2
Richmond, VA 23219-4100

(5) ENERVEST XIV-A NORA LLC — **27.50 acres** — **11.74%**
ENERVEST ENERGY INSTITUTIONAL
FUND XIV-1A, L.P.
ENERVEST XIV-WIC NORA LLC
- Oil, Gas & CBM -
Capitol Corporate Services, Inc.
10 South Jefferson St.
Ste 1400
Roanoke, VA, 24011

(6) Keyrock Energy - CBM Lessee
Corporate Creations Network Inc.
425 W Washington St.
Ste 4
Suffolk, VA, 23434 - 5320

Exhibit D
Unit # 5
VGOB Docket # 22-1115-4252
Leased Parties in a Sealed Gob
(234.30 Acre Unit)

	Acres in Unit	Interest in Unit

Tract #T-129; Jasper Sutherland (641 Acres)

(1) ACIN LLC – Coal
Capitol Corporate Services, Inc.
10 South Jefferson St.
Ste 1400
Roanoke, VA 24011

(2) Paramont Contura, LLC - Coal Lessee
Corporation Service Company
100 Shockoe Slip
FL 2
Richmond, VA, 23219-4100

(3) WBRD LLC - Coal
Capitol Corporate Services, Inc.
10 South Jefferson St
Ste. 1400
Roanoke, VA 24011

(4) Dickenson-Russell Contura, LLC - Coal Lessee
Corporation Service Company
100 Shockoe Slip
FL 2
Richmond, VA 23219-4100

(5) ENERVEST XIV-A NORA LLC — **24.60 acres** — **10.50%**
ENERVEST ENERGY INSTITUTIONAL
FUND XIV-1A, L.P.
ENERVEST XIV-WIC NORA LLC
- Oil, Gas & CBM -
Capitol Corporate Services, Inc.
10 South Jefferson St.
Ste 1400
Roanoke, VA, 24011

(6) Keyrock Energy - CBM Lessee
Corporate Creations Network Inc.
425 W Washington St.
Ste 4
Suffolk, VA, 23434 - 5320

		Exhibit I		
		Unit # 5		
	VGOB Docket # 22-115-4252			
	List of all Wells Incl. the Sealed Gob			
(234.30 Acre Unit)				
UNIT NUMBER	**WELL NUMBER**	**DGO FILE NUMBER**	**STATUS**	**TYPE WELL**
AZ-42	V- 530024	DI-2119	Producing	Conventional
AZ-42	VC-3630	DI-0832	Producing	Coalbed Methane
AZ-43	VC- 503969	DI-1470	Producing	Coalbed Methane
AZ-44	VC- 3036	DI-0735	Producing	Coalbed Methane
AZ-44	P-161	DI-0226	Producing	Conventional
BA-42	VC- 504504	DI-1040	Producing	Coalbed Methane
BA-43	VC- 3894	DI-0903	Producing	Coalbed Methane
BA-44	VC- 704499	DI-1013	Producing	Coalbed Methane
BA-45	VC- 2598	DI-0666	Producing	Coalbed Methane
BB-42	VC- 703631	DI-0939	Producing	Coalbed Methane
BB-43	P- 117C	DI-0005	Producing	Coalbed Methane
BB-43	V- 504912	DI-1081	Producing	Conventional
BB-44	VC- 3040	DI-0736	Producing	Coalbed Methane
BB-45	VC- 703971	DI-0933	Producing	Coalbed Methane
BB-45	P- 173	DI-0229	Producing	Conventional
BC-43	VC-3315	DI-0907	Producing	Coalbed Methane
BC-43	P- 196	DI-0242	Producing	Conventional
BC-43	VC- 4163	DI-0965	Producing	Coalbed Methane

RE: KY 5 Exhibit I

Boyd, Bradley (Energy) <Brad.Boyd@energy.virginia.gov>
Wed 11/30/2022 10:30 PM

To: Gilmer, Sarah (Energy) <Sarah.Gilmer@energy.virginia.gov>

Sarah,
The wells DI-0903 and DI-1470 were shown to be producing Jawbone Gas before mining took place in the area near them. There were temporary plugs placed in these wells across the Jawbone seam to allow mining in the area (see attached plugging affidavits). The perforations in the Jawbone seam were cemented during the temporary plugging operations. We have no record that they were opened back up after the mining operations took place in the area. It does not appear that these wells are producing gas from the Jawbone seam now.
Just let me know if you have any questions.
Thank you,
Brad

Brad Boyd | Gas and Oil Programs Manager
Virginia Department of Energy
brad.boyd@energy.virginia.gov
Office: 276-415-9700 | Cell: 276-639-6095

From: Gilmer, Sarah (Energy) <Sarah.Gilmer@energy.virginia.gov>
Sent: Wednesday, November 30, 2022 9:51 AM
To: Boyd, Bradley (Energy) <Brad.Boyd@energy.virginia.gov>
Subject: KY 5 Exhibit I

Brad,
Have you reviewed attached exhibit? I am thinking that you did. Just doublechecking.

***Sarah Gilmer** | Board and Permitting Specialist*

Virginia Department of Energy | Gas and Oil

3405 Mountain Empire RD

Big Stone Gap, VA 24219

Mobile: 276-393-5507

Commonwealth of Virginia
Department of Mines, Minerals, and Energy
Division of Gas and Oil
P.O. Drawer 159, Lebanon, VA 24266
Telephone: (276) 415-9700

Tracking Number: 546
Company: EnerVest Operating, LLC
File Number: DI-0903
Operations Name: VC-3894

PLUGGING AFFIDAVIT (DGO-GO-18)

Plugging Purpose: Temporary Plug
Date Commenced: 5/4/2018
Date Completed: 5/10/2018
Depth from: 1205.0 **feet**
To: 1099.0 **feet**

Plugging Details - Types of Materials Used

Description	FileName
VC-3894 Coal	703894 Coals.xlsx
VC-3894 Final Plugging	Final Plugging Procedure 703894 5 29 18.xlsx
Plugging Schematic	VC-703894 Final Temporary Plugging Schematic.pdf

Permanent Markers

Finally, if this affidavit concerns a well that was abandoned after plugging, a permanent marker or permanent offset marker:

☐ has or ☐ has not been erected.

Signed Affidavit

Description	FileName
VC-3894 Affidavit	VC-3894 Plugging Affidavit.pdf

Comments:

INTERNAL USE ONLY

Submit Date: 5/30/2018 3:26:36 PM

Commonwealth of Virginia
Department of Mines, Minerals and Energy
Division of Gas and Oil
P.O. Box 159,135 Highland Drive
Lebanon, VA 24266
Telephone: (276) 415-9700

Operations Name: VC-3894

Permit Number: 3817

PLUGGING AFFIDAVIT

First Signature: C. M. Randolph **Date:** 5/30/18

Second Signature: Ian Landon **Date:** 5/30/2018

State of Virginia

County of Washington

Subscribed and sworn before me this 30th (Day) **day of** May (Month) 2018 (Year), **by** Mike Randolph & Ian Landon.

Notary Public Laura W. Murray

SEAL

Notary Registration Number: 7673585

My Commission Expires: November 30, 2020

LAURA W MURRAY
COMMONWEALTH OF VIRGINIA
NOTARY PUBLIC
REGISTRATION #
7673585
MY COMM. EXP
11/30/20

Form DGO-GO-18
Rev. 02/18

Coal seams			Well #	703894		
Names	Depth Top	Depth Bottom	Thickness	Mining in Area Yes	No	Mined Out
Aily	869.40	871.40	2.00		No	No
Raven	947.50	949.60	2.10		No	No
Jawbone Rider	1098.80	1099.30	0.50		No	No
Jawbone	1123.00	1127.00	4.00		Yes	No
Tiller	1218.00	1219.40	1.40		No	No
Upper Seaboard A	Not Present				No	No
Upper Seaboard	1348.00	1351.00	3.00		No	No
Greasy Creek	1497.00	1497.50	0.50		No	No
Middle Seaboard	1534.00	1534.90	0.90		No	No
Lower Seaboard	1565.00	1565.90	0.90		No	No
Unamed A	1629.00	1629.20	0.20		No	No
Unamed B	Not Present				No	No
Upper Horsepen	1688.00	1689.20	1.20		No	No
Middle Horsepen	1722.00	1723.60	1.60		No	No
C Seam	1793.00	1793.40	0.40		No	No
War Creek Rider	1826.30	1826.40	0.10		No	No
War Creek	1845.00	1847.00	2.00		No	No
Unnamed C	Not Present				No	No
Beckley	1878.00	1878.90	0.90		No	No
Beckley	1893.00	1894.00	1.00		No	No
Lower Horsepen	1953.00	1955.50	2.50		No	No
X Seam	Not Present				No	No
Pocahontas #9	2049.00	2049.30	0.30		No	No
Pocahontas #8	Not Present				No	No
Pocahontas #7	2162.00	2162.50	0.50		No	No

Final Plugging Procedure

Operation Name: 703894 Permit: 3817 File: DI-0903

Interval From Bottom		Formation(s)	Materials to be Used (Cement Gel, Bridges, Etc.)	Open Hole Diameter	Casing Size
From	To				
2231.0	2162.5	sandy shale	fill		4 ½”
2162.5	2162.0	Poca #7 seam	fill		4 ½”
2162.0	2150.0	sandy shale	fill		4 ½”
2150.0	2049.3	sandy shale			4 ½”
2049.3	2049.0	Poca #9 seam			4 ½”
2049.0	1955.5	sandy shale			4 ½”
1955.5	1953.0	Lower Horsepen seam			4 ½”
1953.0	1894.0	sandy shale			4 ½”
1894.0	1893.0	Beckley seam			4 ½”
1893.0	1878.9	sandy shale			4 ½”
1878.9	1878.0	Beckley seam			4 ½”
1878.0	1847.0	sandy shale			4 ½”
1847.0	1845.0	War Creek seam			4 ½”
1845.0	1826.4	sandy shale			4 ½”
1826.4	1826.3	War Creek Rider seam			4 ½”
1826.3	1793.4	sandy shale			4 ½”
1793.4	1793.0	C seam			4 ½”
1793.0	1723.6	sandy shale			4 ½”
1723.6	1722.0	Middle Horsepen seam			4 ½”
1722.0	1689.2	sandy shale			4 ½”
1689.2	1688.0	Upper Horsepen seam			4 ½”
1688.0	1629.2	sandy shale			4 ½”
1629.2	1629.0	Unnamed A seam			4 ½”
1629.0	1565.9	sandy shale			4 ½”
1565.9	1565.0	Lower Seaboard seam			4 ½”
1565.0	1534.9	sandy shale			4 ½”
1534.9	1534.0	Middle Seaboard seam			4 ½”
1534.0	1497.5	sandy shale			4 ½”
1497.5	1497.0	Greasy Creek seam			4 ½”
1497.0	1351.0	sandy shale			4 ½”
1351.0	1348.0	Upper Seaboard seam			4 ½”
1348.0	1219.4	sandy shale			4 ½”

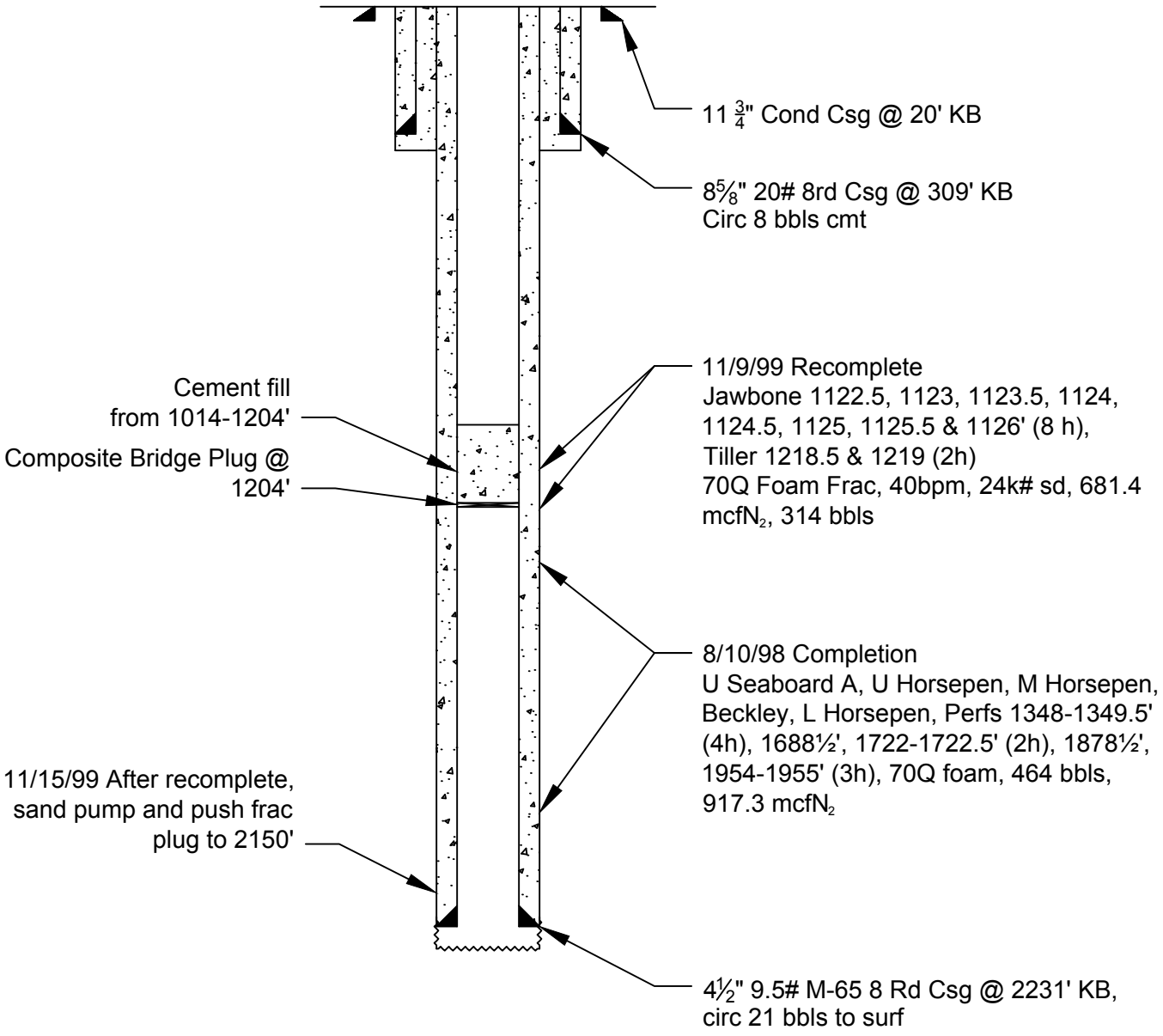
1219.4	1218.0	Tiller seam			4 ½”
1218.0	1205.0	sandy shale			4 ½”
1205.0	1204.0	sandy shale	composite bridge plug		4 ½”
1204.0	1127.0	sandy shale	cement		4 ½”
1127.0	1123.0	Jawbone seam	cement		4 ½”
1123.0	1099.3	sandy shale	cement		4 ½”
1099.3	1098.8	Jawbone Rider Seam	cement		4 ½”
1098.8	1014.0	sandy shale	cement		4 ½”
1014.0	949.6	sandy shale			4 ½”
949.6	947.5	Raven seam			4 ½”
947.5	871.4	sandy shale			4 ½”
871.4	869.4	Aily seam			4 ½”
869.4	0.0	sandy shale			4 ½”

VC-703894 FINAL TEMPORARY PLUGGING SCHEMATIC

File # DI-0903 Permit # 3817

4/10/18

COMPLETION DATE 8/10/98



Scale - 1"=400'

Hole & Casing Exaggerated

Commonwealth of Virginia
Department of Mines, Minerals, and Energy
Division of Gas and Oil
P.O. Drawer 159, Lebanon, VA 24266
Telephone: (276) 415-9700

Tracking Number: 545
Company: EnerVest Operating, LLC
File Number: DI-1470
Operations Name: VC-503969 W/PL

PLUGGING AFFIDAVIT (DGO-GO-18)

Plugging Purpose: Temporary Plug
Date Commenced: 4/23/2018
Date Completed: 5/3/2018
Depth from: 1220.0 **feet**
To: 1038.0 **feet**

Plugging Details - Types of Materials Used

Description	FileName
VC-503969 Coals	503969 Coals version 2.xlsx
Final Plugging Procedure	Final Plugging Procedure 503969 5 14 18.xlsx
Plugging Schematic	VC-503969 Downhole Schematic.pdf

Permanent Markers

Finally, if this affidavit concerns a well that was abandoned after plugging, a permanent marker or permanent offset marker:

☐ has or ☐ has not been erected.

Signed Affidavit

Description	FileName
VC-503969 Plugging Affidavit	VC-503969 Plugging Affidavit.pdf

Comments:

INTERNAL USE ONLY

Submit Date: 5/30/2018 3:30:24 PM
Status: Date: 6/6/2018

Virginia Department of Mines Minerals and Energy

Commonwealth of Virginia
Department of Mines, Minerals and Energy
Division of Gas and Oil
P.O. Box 159,135 Highland Drive
Lebanon, VA 24266
Telephone: (276) 415-9700

Operations Name: VC-503969

Permit Number: 7107

PLUGGING AFFIDAVIT

First Signature: C.M. Randolph **Date:** 5/30/18

Second Signature: Ian Landon **Date:** 5/30/2018

State of Virginia

County of Washington

Subscribed and sworn before me this 30th (Day) **day of** May (Month) 2018 (Year) **, by** Mike Randolph & Ian Landon.

Notary Public Laura W. Murray

SEAL

Notary Registration Number: 7673585

My Commission Expires: November 30, 2020

LAURA W MURRAY
COMMONWEALTH OF VIRGINIA
REGISTRATION #
7673585
MY COMM. EXP
11/30/20
NOTARY PUBLIC

Form DGO-GO-18
Rev. 02/18

Coal seams			Well #	503969		
Names	Depth Top	Depth Bottom	Thickness	Mining in Area Yes	No	Mined Out
Aily	879.50	881.40	1.90		No	No
Raven	950.50	951.00	0.50		No	No
Jawbone	1132.00	1135.50	3.50		Yes	No
Tiller	1241.50	1243.00	1.50		No	No
Upper Seaboard	1374.00	1378.00	4.00		No	No
Greasy Creek	1516.50	1517.70	1.20		No	No
Middle Seaboard	1548.00	1549.00	1.00		No	No
Unamed A	1650.00	1650.20	0.20		No	No
Upper Horsepen	1707.00	1708.30	1.30		No	No
Middle Horsepen	1747.50	1749.50	2.00		No	No
War Creek Rider	1826.30	1826.40	0.10		No	No
War Creek	1845.00	1847.00	2.00		No	No
Beckley	1884.30	1885.00	0.70		No	No
Beckley	1893.00	1894.00	1.00		No	No
Lower Horsepen	1964.00	1966.25	2.25		No	No
Pocahontas #9	2062.00	2062.80	0.80		No	No
Pocahontas #8	2101.00	2101.20	0.20		No	No
Pocahontas #7	2194.00	2195.00	1.00		No	No

Jawbone Rider	Not Present			No	No
Upper Seaboard A	Not Present			No	No
Lower Seaboard	Not Present			No	No
Unamed B	Not Presen			No	No
C Seam	Not Present			No	No
Unnamed C	Not Present			No	No
X Seam	Not Present			No	No
Pocahontas #6	Not Presen			No	No
Pocahontas #5	Not Present			No	No
Pocahontas #4	Not Present			No	No
Pocahontas #3	Not Present			No	No
Pocahontas #2	Not Present			No	No
Pocahontas #1	Not Present			No	No

Final Plugging Procedure

Operation Name: 503969 Permit: 7107 File: DI-1470

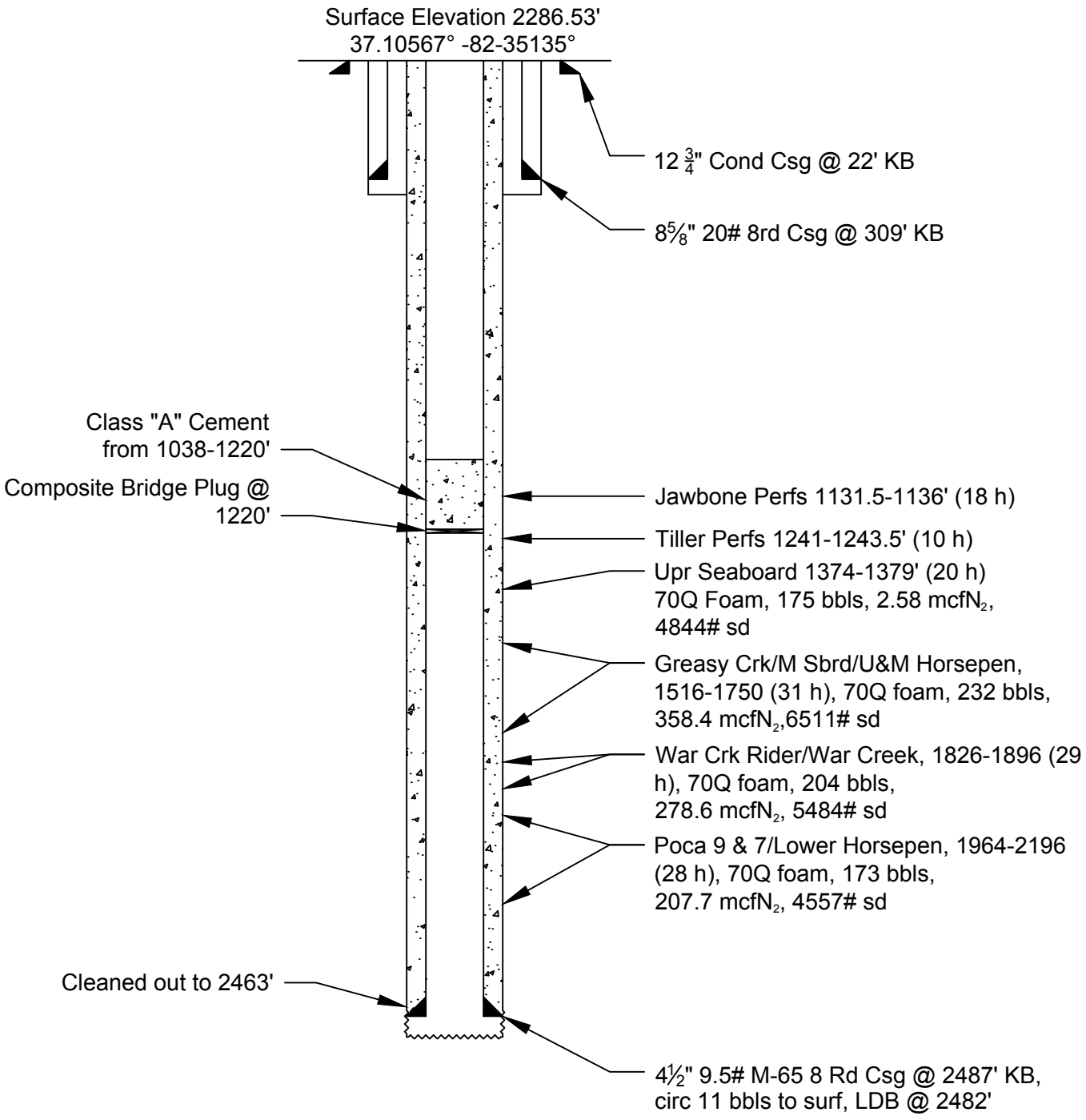
Interval From Bottom		Formation(s)	Materials to be Used (Cement Gel, Bridges, Etc.)	Open Hole Diameter	Casing Size
From	To				
2487.0	2463.0	sandy shale	fill		4 ½”
2463.0	2195.0	sandy shale			4 ½”
2195.0	2194.0	Poca #7			4 ½”
2194.0	2101.2	sandy shale			4 ½”
2101.2	2101.0	Poca #8 seam			4 ½”
2101.0	2062.8	sandy shale			4 ½”
2062.8	2062.0	Poca #9 seam			4 ½”
2062.0	1966.2	sandy shale			4 ½”
1966.2	1964.0	Lower Horsepen seam			4 ½”
1964.0	1894.0	sandy shale			4 ½”
1894.0	1893.0	Beckley seam			4 ½”
1893.0	1885.0	sandy shale			4 ½”
1885.0	1884.3	Beckley seam			4 ½”
1884.3	1847.0	sandy shale			4 ½”
1847.0	1845.0	War Creek seam			4 ½”
1845.0	1826.4	sandy shale			4 ½”
1826.4	1826.3	War Creek Rider seam			4 ½”
1826.3	1749.5	sandy shale			4 ½”
1749.5	1747.5	Middle Horsepen seam			4 ½”
1747.5	1708.3	sandy shale			4 ½”
1708.3	1707.0	Upper Horsepen seam			4 ½”
1707.0	1650.2	sandy shale			4 ½”
1650.2	1650.0	Unnamed A seam			4 ½”
1650.0	1549.0	sandy shale			4 ½”
1549.0	1548.0	Middle Seaboard seam			4 ½”
1548.0	1517.7	sandy shale			4 ½”
1517.7	1516.5	Greasy Creek seam			4 ½”
1516.5	1378.0	sandy shale			4 ½”
1378.0	1374.0	Upper Seaboard seam			4 ½”
1374.0	1243.0	sandy shale			4 ½”
1243.0	1241.5	Tiller seam			4 ½”
1241.5	1221.0	sandy shale			4 ½”
1221.0	1220.0	sandy shale	composite bridge plug		4 ½”

1220.0	1135.0	sandy shale	cement		4 ½”
1135.5	1132.0	Jawbone seam	cement		4 ½”
1132.0	1038.0	sandy shale	cement		4 ½”
1038.0	951.0	sandy shale			4 ½”
951.0	950.5	Raven seam			4 ½”
950.5	881.4	sandy shale			4 ½”
881.4	879.5	Aily seam			4 ½”
879.5	0.0	sandy shale			4 ½”

VC-503969 DOWNHOLE SCHEMATIC

File # DI-1470 Permit # 7107

4/6/18
COMPLETION DATE 3/2/06



No Rig Work since Original Completion in file

Scale - 1"=400'
Hole & Casing Exaggerated

EXHIBIT N DB 591 PG579

PIN# n/a
Not mapped

MEMORANDUM OF PAID UP METHANE GAS LEASE

ENERVEST XIV-A NORA LLC (50.10494%), ENERVEST ENERGY INSTITUTIONAL FUND XIV-A1, LP. (15.00000%) and ENERVEST XIV-W/C NORA LLC (34.89506%), each a Delaware limited partnership c/o EnerVest Operating, LLC. (herein called "Lessor"), whose address is 408 W. Main Street, Abingdon, VA 24210, and **Keyrock Energy LLC** (herein called "Lessee"), whose address is 207 E. Main Street, Suite 2-D, Johnson City, Tennessee 37605, hereby acknowledge and give notice that Lessor has executed and delivered to Lessee a Paid Up Methane Lease (herein after "Lease") under date of January 12th, 2022, covering the premises situated between the waters of the Buffalo Creek and Caney Creeks of Dickenson County, Virginia, commonly known as Deep Mine 41, to wit:

See attached Exhibit A for map of leased premise.

Said Lease provides for a primary term of three (3) years from January 12, 2022, and as long thereafter as CBM is produced in paying quantities from the lands covered by the Lease, or said Lease is maintained in force in any other manner therein provided. An executed copy of said Lease is in the possession of both Lessor and Lessee, and said Lease with all of its terms, covenants and provisions, is incorporated herein by reference and made a part hereof for all purposes.

The purpose of this Memorandum of Paid Up Methane Gas Lease is to evidence the existence of said Lease, and this Memorandum is given in lieu of filing said Lease in full for record with the office of the Recorder in the county or counties in which said Land is located.

This instrument may be executed in counterparts, which can be combined in one or more instruments for recordation.

IN WITNESS WHEREOF this instrument is executed on this 19th day of January 2022, but to be effective January 12, 2022.

LESSOR:

EnerVest Operating, L.L.C.

By: [signature]

Its: Vice President - Land

LESSEE

Keyrock Energy, LLC

[signature]

Managing Director

Lessors:

Enervest Operating, LLC

By: _____
Name: Kevin Miller
Title: Vice President – Land

*Enervest Operating, LLC as agent for Enervest XIV-A Nora LLC, Enervest XIV-WIC Nora LLC, & Enervest Energy Institutional Fund XIV-A1, L.P.

Acknowledgement

COMMONWEALTH OF VIRGINIA)
)
COUNTY OF WASHINGTON)

The foregoing instrument was acknowledged before me this 19th day of January, 2022 by Kevin Miller, as the Vice President – Land of Enervest Operating, LLC, as agent and attorney-in-fact for Enervest XIV-A Nora LLC, Enervest XIV-WIC Nora LLC, & Enervest Energy Institutional Fund XIV-A1, L.P. on behalf of the limited partnerships.

Larry K. Reeves II
Notary Public
Reg #7046705
Commonwealth of Virginia

_____
Notary Public

My Commission Expires: November 30, 2023

Lessee

Keyrock Energy LLC

By: Mark Allaman
Name: Mark Allaman
Title: Managing Director

ACKNOWLEDGEMENT

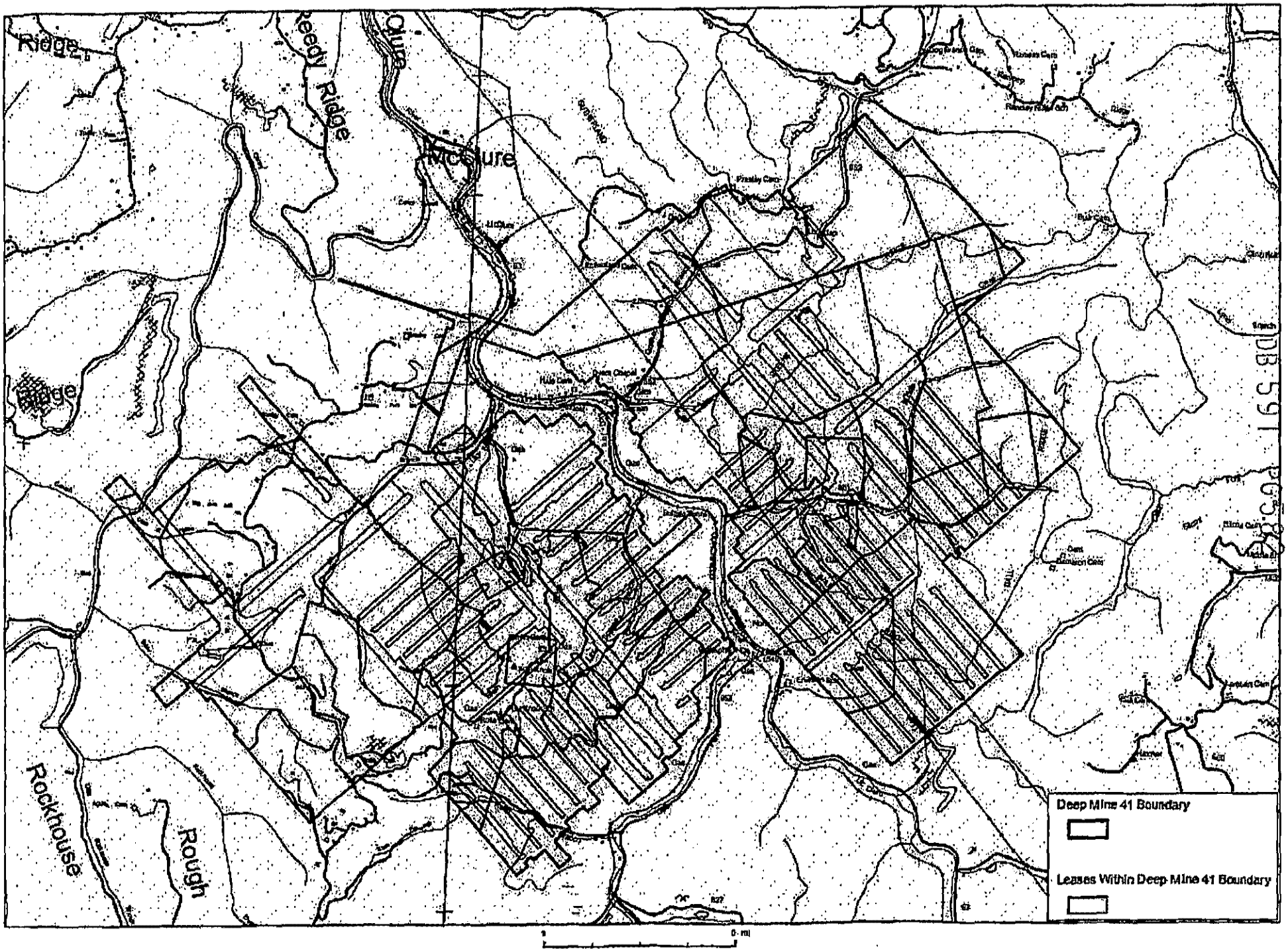
STATE OF PENNSYLVANIA)
) §
COUNTY OF ~~BUTLER~~ Venango)

The foregoing instrument was acknowledged before me this 31st day of January, 2022 by Mark Allaman, as Managing Director of KEYROCK ENERGY, LLC, on behalf of the Limited Liability Company.

My Commission Expires: 12.17.22

Commonwealth of Pennsylvania - Notary Seal
Katie Marie Sottiaux, Notary Public
Venango County
My commission expires December 17, 2022
Commission number 1342247
Member, Pennsylvania Association of Notaries

Exhibit "A"


Ridge
Reedy Ridge
Clure
McClure
Ridge
Rockhouse
Rough
DB 591 PG 342
Deep Mine 41 Boundary
Leases Within Deep Mine 41 Boundary
0 mi

INSTRUMENT 220000155
RECORDED IN THE CLERK'S OFFICE OF
DICKENSON CIRCUIT COURT ON
FEBRUARY 15, 2022 AT 02:39 PM
RICHARD W. EDWARDS, CLERK
RECORDED BY: TJB