

**VIRGINIA DEPARTMENT OF ENERGY:
BEFORE THE VIRGINIA GAS AND OIL BOARD**

APPLICANT: Keyrock Energy, LLC DOCKET NUMBER: VGOB 22-1115-4253-01

**RELIEF SOUGHT: Well Location Exception
Pursuant to Virginia Code § 45.2-1616
Well No. Keyrock #5**

LEGAL DESCRIPTION: "Exhibit A"

APPLICATION

1. Parties:

1.1. Applicant herein is Keyrock Energy, LLC, whose address for the purposes hereof is 207 East Main Street, Suite 2-D, PO Box 2223, Johnson City, TN 37605, Telephone: (423) 726-2070. The attorney for Applicant is Freddie E. Mullins, whose address is P. O. Box 951, Clintwood, VA 24228, Telephone: (276) 926-8580.

1.2. Applicant is the owner of the right to develop and produce coalbed methane gas from the Mined Out Jawbone Coal Seam in the Contura Deep Mine 41 in Dickenson County, Virginia, from surface to total depth drilled in accordance with the proposed permit applied for by applicant and located within the Ervinton District of Dickenson County, Virginia, and underlying the lands depicted at "Exhibit A" attached hereto and made a part hereof and to appropriate the coalbed methane gas produced therefrom.

2. Allegation of Facts:

2.1. Applicant has proposed a plan of development and operation of the Mined Out Jawbone Coal Seam in the Contura Deep Mine 41 in Dickenson County underlying the drilling unit involved herein and depicted in "Exhibit A" and has proposed to commence such plan of development and operation of such unit by a coalbed methane well designed to combust gas for establishing marketable carbon credits, designated as Well Number Keyrock #5, to be drilled upon the lands involved herein so as to produce coalbed methane gas from such unit.

2.2. By previous Order, dated March 10, 2023, and of record in Deed Book 602, Page 440 of the Dickenson County Circuit Court Clerk's Office, this Board granted a location exception for the proposed Keyrock No. 5 well location. A copy of said Order is attached here as "Previous Order".

2.3. Due to unforeseen and unanticipated geological issues, attempts to drill Keyrock Well No. 5 were unsuccessful for the purpose of establishing a coalbed methane well for the purpose of combusting gas for establishing marketable carbon credits. As a result, Applicant is moving for a change of location for the proposed Keyrock Well No. 5


2.4. That the unit depicted at "Exhibit K" hereof is subject to statewide spacing as provided under Virginia Code § 45.2-1616. This section provides that "wells drilled in search of gas

shall not be located closer than 1000 feet to any other well completed in the same pool." In consideration of all known conditions, it is the opinion of the Applicant that such distance limitation is not feasible for the unit described in "Exhibit K" because the proposed Keyrock No. 5 well location is located within 1,000' of VC-3971. Taking into consideration the topography, presence of underground water, drainage ditches, distance to public roads, and the removal of underground coal pillars, Applicant requests Board approval for the proposed well location.

- 2.5. Applicant estimates that the total amount of recoverable gas is 586 mmcf.
 - 2.6. That to prevent waste, protect correlative rights, and provide for the maximum safe recovery of the mineral resources underlying the Commonwealth, the Board should allow for an exception to the distance limitation and statewide spacing.
 - 2.7. That the proposed well, at the location requested by Applicant, is necessary to effectively and efficiently drain a portion of the common sources of supply (reservoir) underlying the unit described at "Exhibit A" which cannot be adequately and efficiently drained without an exception to the distance limitations and spacing rules.
 - 2.8. The drilling unit involved herein is a square with the proposed well bore to be located at Well Coordinates: (NAD 83 Decimal Degrees) LAT: 37.099786° LON: 82.343487° in the Nora Quadrangle, Dickenson County, Virginia.
 - 2.9. That EnerVest Operating, LLC, Well No. VC-3971 lies S 33° 58' E 999 feet from proposed Well No. Keyrock #5
 - 2.10. That proposed Well No. Keyrock #5 is located on the Joshua Pressley 951.73 acre Tract and Applicant anticipates producing from the Mined Out Jawbone Coal Seam in the Contura Deep Mine 41 in Dickenson County, Virginia from surface to total depth drilled, 948 feet.
3. Legal Authority: The relief sought by this Application is authorized by Virginia Code § 45.2-1616.
 4. Relief Sought: Applicant requests the Virginia Gas and Oil Board to enter an order to enable Well No. Keyrock #5 to be drilled as depicted on the plat attached as "Exhibit K" and that Applicant be granted the right to produce methane gas from Mined Out Jawbone Coal Seam in the Contura Deep Mine 41 which appears on the well work permit submitted to the Inspector.

Dated: June 5, 2023

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

VERIFICATION

The foregoing Application to the best of my knowledge, information and belief is true and correct.

**VIRGINIA GAS AND OIL BOARD
VIRGINIA DEPARTMENT OF ENERGY
BIG STONE GAP, VIRGINIA**

DOCKET NUMBER: VGOB 22-1115-4253-01

APPLICANT: Keyrock Energy, LLC

RELIEF SOUGHT: Well Location Exception
Pursuant to Virginia Code § 45.2-1616

Well No.: Keyrock #5

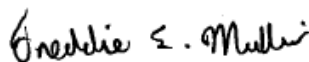
LEGAL DESCRIPTION: “Exhibit A”

NOTICE OF HEARING

TO: See Exhibit B

Notice is hereby given that the Applicant in this cause is requesting the Virginia Gas and Oil Board to authorize the drilling of the proposed well to produce formations from surface to total depth drilled as set forth in the attached application.

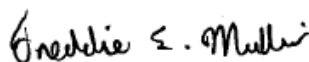
Notice is further given that this matter is set for hearing before the Virginia Gas and Oil Board on the 18th day of July, 2023, at 10:00 a.m. at 3405 Mountain Empire Road, Big Stone Gap, VA 24219 or telephonically, at which time and place all interested persons may appear and be heard. Any questions concerning said hearing may be directed to the Virginia Gas and Oil Board, State Gas and Oil Inspector, Virginia Department of Energy, 3405 Mountain Empire Rd, Big Stone Gap, VA 24219 (276) 523-8100.



Freddie E. Mullins
Counsel for Applicant
P. O. Box 951
Clintwood, VA 24228
(276) 926-8580

CERTIFICATE OF SERVICE

I, Freddie E. Mullins, counsel for Keyrock Energy, LLC, hereby certify that I have on this 6th day of June, 2023, caused the foregoing notice and application to be served upon the parties listed herein, at their address, by certified mail, return receipt requested.



Freddie E. Mullins

Docket Number: VGOB 22-1115-4253-01

EXHIBIT A

3,000'

LATITUDE 37° 07' 30"

Well Coordinates: (VA St. Plane S. Zone, NAD 27 Calculated from NAD 83)
N 301,827.67 E 879,336.75

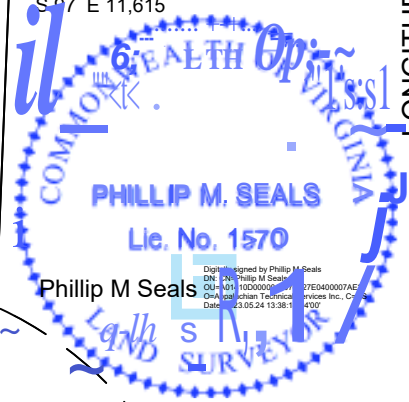
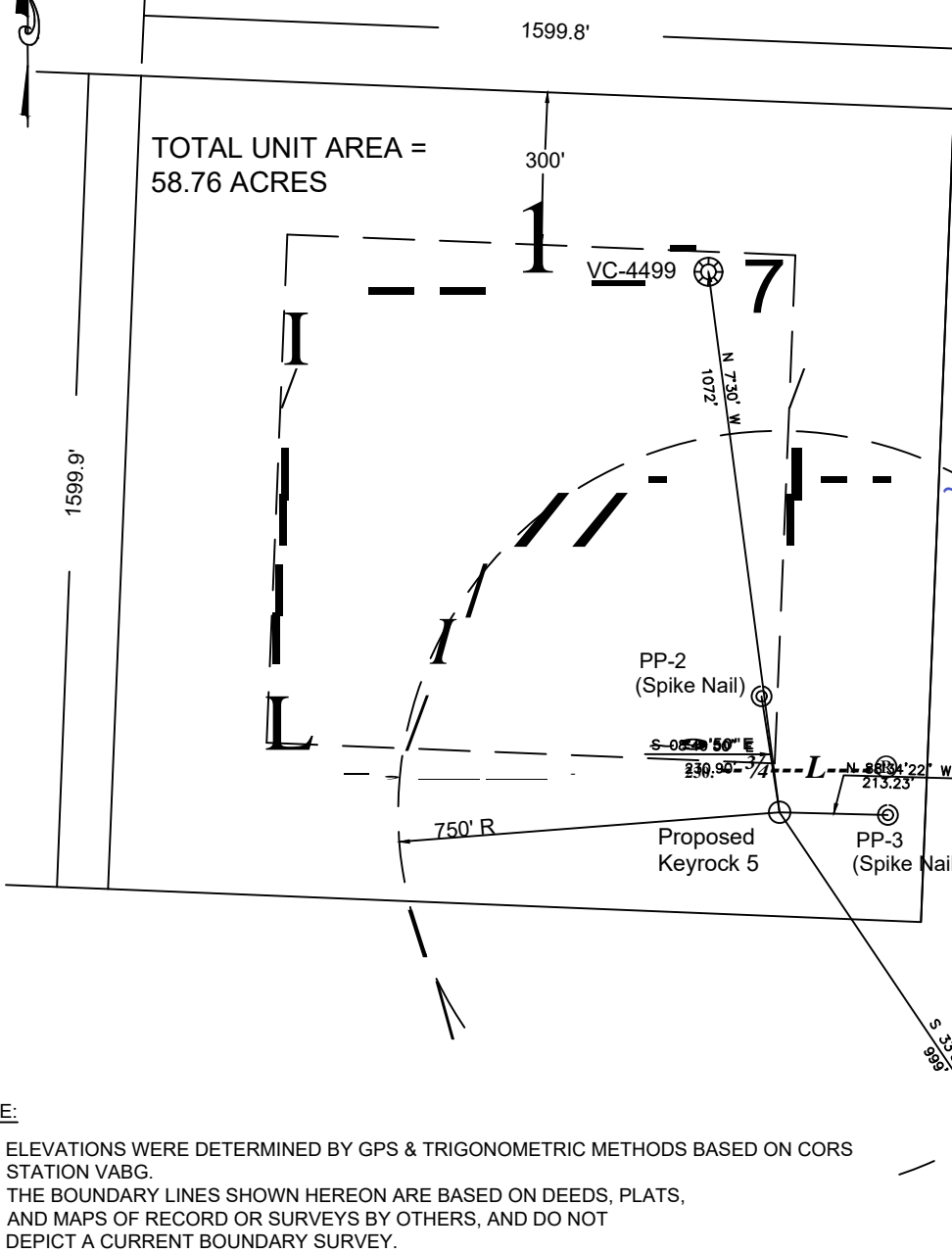
Well Coordinates: (Geographic NAD 83)
LAT: 37.099786° LON: 82.343487°

Well Coordinates: (Clinchfield Coal Co.)
Calculated from NAD 27 LAT/LONG
S 97 E 11,615

LONGITUDE 82° 20' 00"

9,224'

TOTAL UNIT AREA =
58.76 ACRES



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.

WELL LOCATION PLAT (Nora Grid BA-44)

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 3,582,704.39 E 10,362,320.94
ELEVATION 2,134.91' METHOD USED TO DETERMINE ELEVATION: GPS & TRIG.
COUNTY Dickenson SCALE: 1" = 400' DATE 5-24-2023
THIS PLAT IS A NEW PLAT ; 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.

Phillip M. Seals

LICENSED LAND SURVEYOR

EXHIBIT PL-1
Property Ownership Information for Well # KY-5
May 24, 2023



T-11011
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 58.76AC. 100%

LATITUDE 37° 05' 00"

2,563'

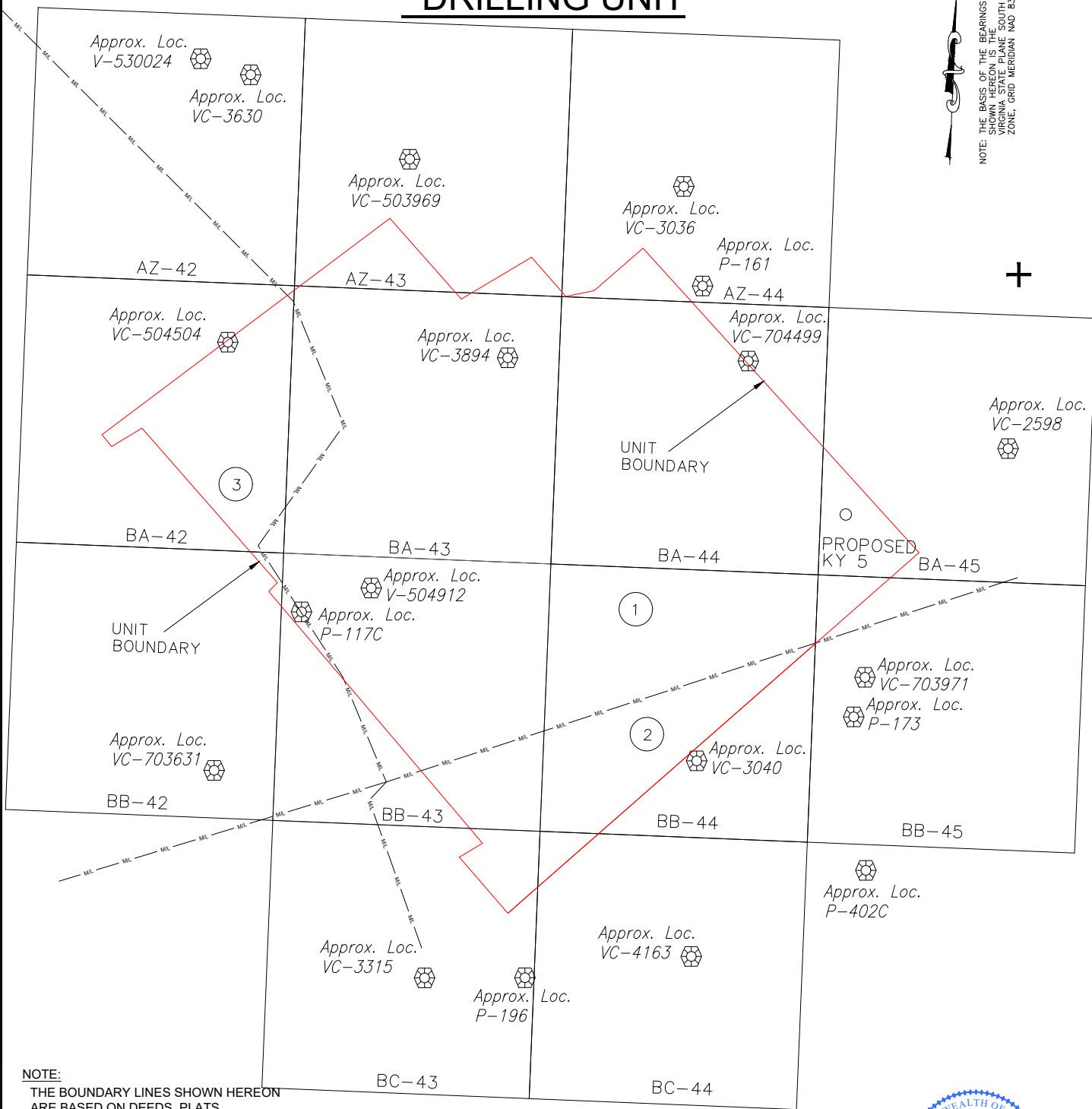
DRILLING UNIT

9,061'

LONGITUDE 82° 20' 00"

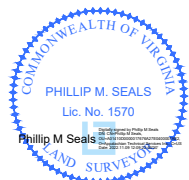


NOTE: THE BASIS OF THE BEARINGS
WAS THE VIRGINIA STATE PLANE
VIRGINIA STATE PLANE SOUTH
ZONE, GRID MERIDIAN NAD 83



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



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 Ervington
 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.

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

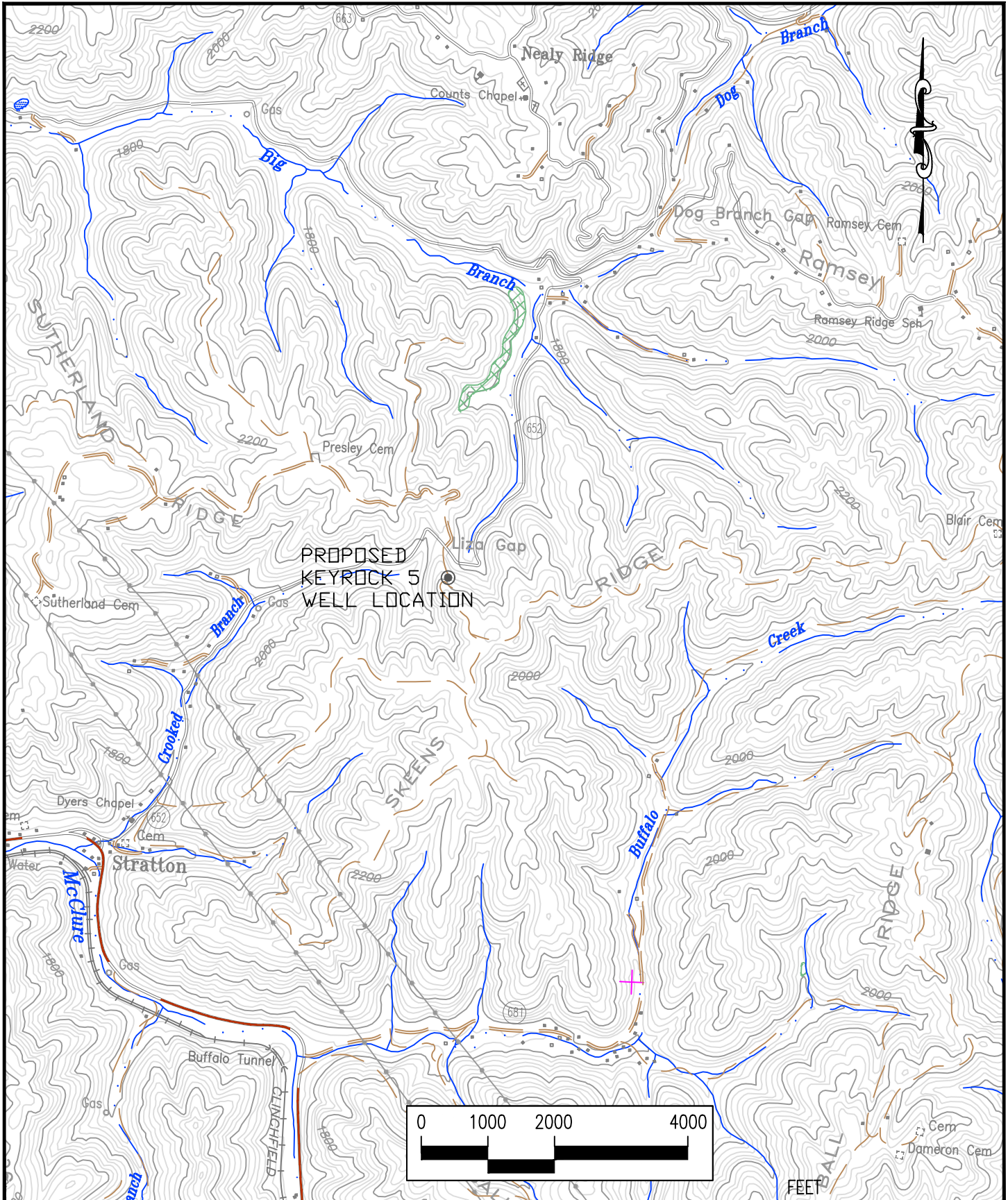
GAS 27.50 AC. 11.74%

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%




Appalachian Technical Services, Inc.
 Engineering, Architecture, Surveying, Ecology & Environmental Science

Abingdon Office: P.O. Box 1897, 475 West Main Street, Abingdon, VA 24212, (276) 876-4262
 Wise Office: P.O. Box 3537, 6741 Indian Creek Road, Wise, VA 24293, (276) 328-4200

KEYROCK ENERGY LLC

GENERAL LOCATION MAP

Designed By PMS	Date 05/24/23	Coordinate System VA83-SF
Drawn By JMC	Drawing Number Keyrock 5 General Location 5-24-23	
Checked By PMS	Project Number 1892.01	Scale 1" = 2000'

**Exhibit B
Unit # 5
VGOB Docket # 22-1115-4253-01
List of all Owners/Claimants
(234.30 Acre Unit)**

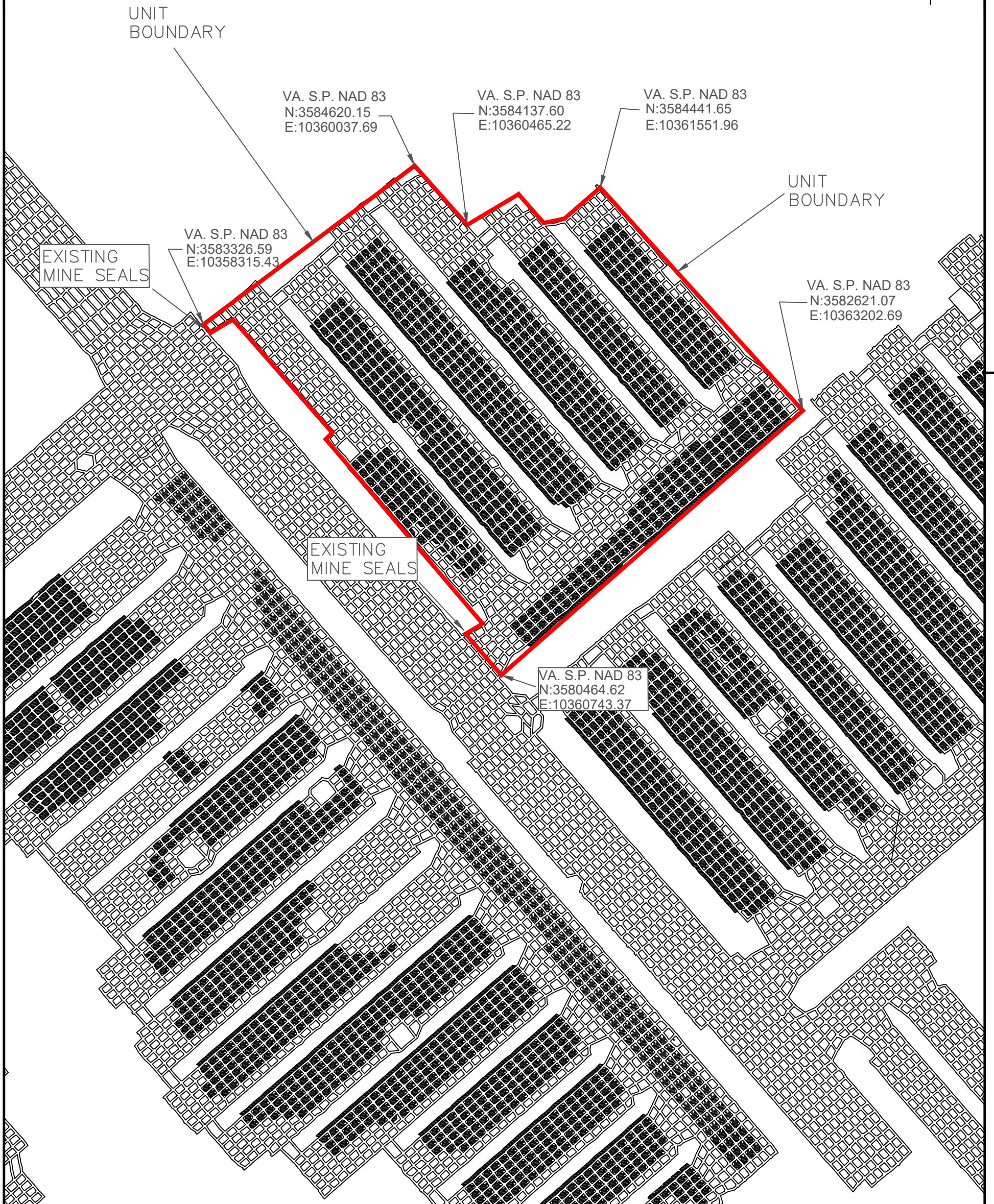
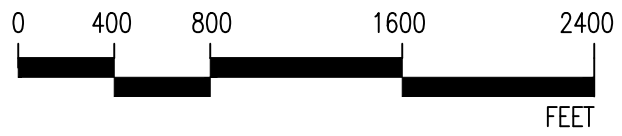
	Acres in Unit	Interest in Unit
<u>Tract #T-101; Joshua Presley (951.73 Acres)</u>		
(1) ENERVEST XIV-A NORA LLC ENERVEST ENERGY INSTITUTIONAL FUND XIV-1A, L.P. ENERVEST XIV-WIC NORA LLC - Oil, Gas & CBM Enervest Operating LLC 1001 Fannin St. Suite 800 Houston, TX 77002	182.20 acres	77.76 %
<u>Tract #T-186;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


EXHIBIT PL-1
Property Ownership Information for Well # KY-5
May 24, 2023

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 58.76AC. 100%

NOTE:
 Mine Works shown as
 provided by Alpha
 Metallurgical Resources



 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		Designed By: JMC	Drawn By: JMC	Checked By: PMS	Date: 10/14/22
	DEEP MINE 41 UNDERGROUND MINE MAP KY5 EXHIBIT L		Project Number: 1892.01	Scale: 1" = 800'	Quadrangle: NORA	
			Coordinate System: VA Nad 83 South Zone			
	Drawing Name: Mineworks Only 24x36 With Well Units 10-14-22					01
Sheet/Layout: KY5 EXHIBIT L 11X17					01	

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:

LESSEE

EnerVest Operating, LLC.

Keyrock Energy, LLC

By: *[Signature]*

[Signature]

Its: *Vicki R. Schmidt = L.C. Del*

managing Director

Lessee

Keyrock Energy LLC

By: Mark Allaman

Name: Mark Allaman

Title: Managing Director

ACKNOWLEDGEMENT

STATE OF PENNSYLVANIA

)

) S

COUNTY OF BUTLER

)

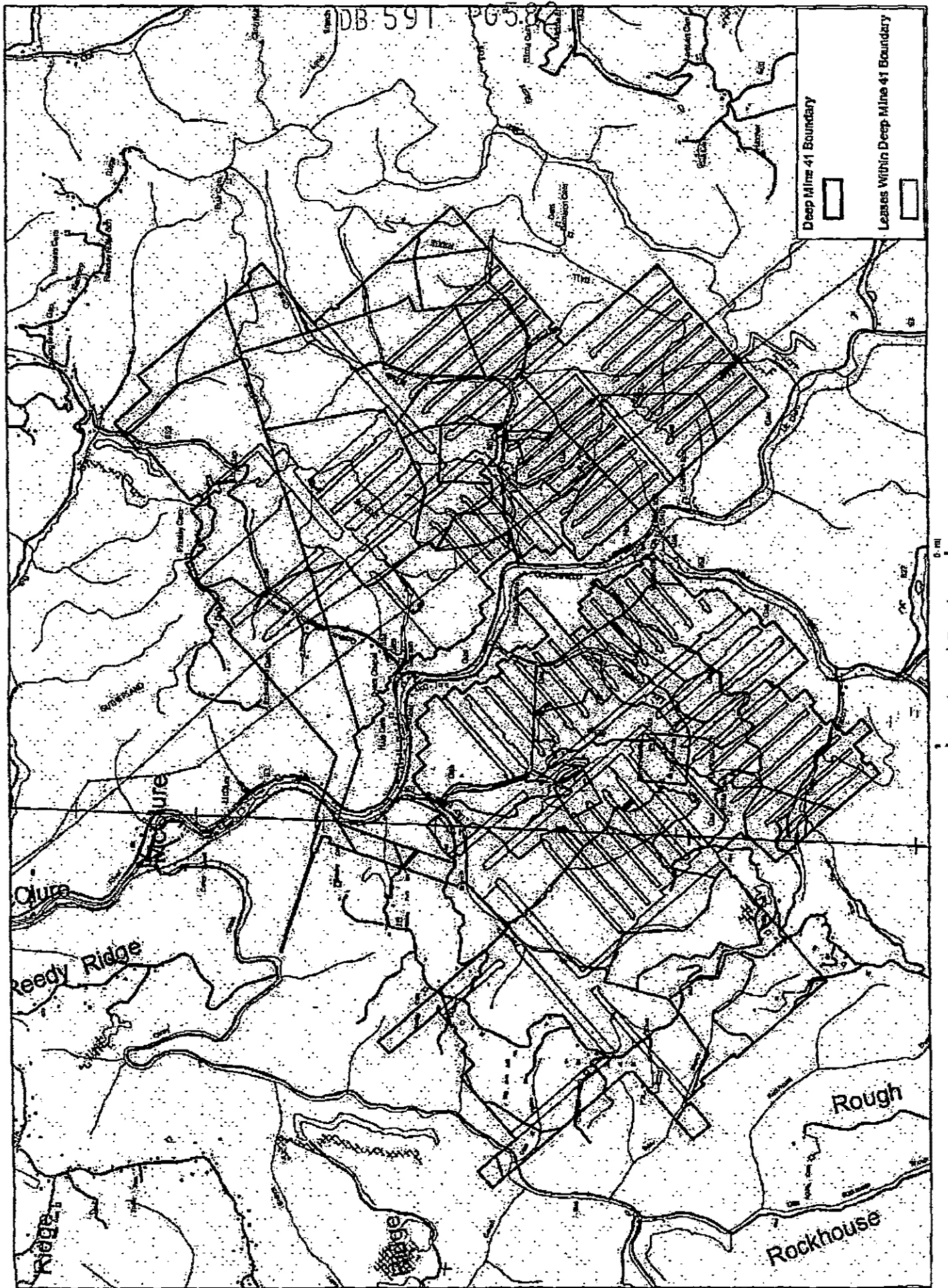
Venango

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"



DB 591 PG583

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

VIRGINIA:

BEFORE THE VIRGINIA DEPARTMENT OF ENERGY

APPLICANT:	Keyrock Energy, LLC)	VIRGINIA GAS
)	AND OIL BOARD
RELIEF SOUGHT	EXCEPTION TO STATEWIDE)	
	SPACING LIMITATIONS PRESCRIBED)	DOCKET NO.
	BY § 45.2-1616 (B) (1) of the Code of)	VGOB 22-1115-4253-01
	Virginia for WELL NO. KEYROCK #5)	
	(herein "Subject Drilling Unit"))	
)	
)	
	DRILLING UNIT SERVED BY WELL)	
	NUMBERED KEYROCK #5)	
	TO BE DRILLED IN THE LOCATION)	
	DEPICTED ON EXHIBIT A HERETO,)	
	JOSHUA PRESSLEY 951.73 ACRE TRACT,)	
	NORA QUADRANGLE)	
	ERVINTON DISTRICT)	
	DICKENSON COUNTY, VIRGINIA)	
	(the "Subject Lands" are more particularly described)	
	on Exhibit "A", attached hereto and made a part hereof))	

REPORT OF THE BOARD

FINDINGS AND ORDER

- HEARING DATE AND PLACE:** This matter came on for hearing before the Virginia Gas and Oil Board (hereafter "Board") at 10:00 a.m. on July 18, 2023, at 3405 Mountain Empire Road, Big Stone Gap, Virginia.
- APPEARANCES:** Freddie E. Mullins appeared for the Applicant.
- JURISDICTION AND NOTICE:** Pursuant to §§ 45.2-1600 *et seq.* of the Code of Virginia, the Board finds that it has jurisdiction over the subject matter. Based upon the evidence presented by Applicant, the Board also finds that the Applicant has (1) exercised due diligence in conducting a meaningful search of reasonably available sources to determine the identity and whereabouts of each gas and oil owner, coal owner, or mineral owner having an interest in Subject Drilling Unit underlying and comprised of Subject Lands; and (2) represented to the Board that it has given notice to those parties (hereafter sometimes "person(s)" whether referring to individuals, corporations, partnerships associations, companies, businesses, trusts, joint ventures or other legal entities) entitled by § 45.2-1618 of the Code of Virginia to notice of this application. Further, the Board has caused notice of this hearing to be published as required by § 45.2-1618 of the Code of Virginia. Whereupon, the Board hereby finds that the notices given herein satisfy all statutory requirements, Board rule requirements and the minimum standards of state due process.

4. AMENDMENTS: None.
5. DISMISSALS: None.
6. RELIEF REQUESTED: Applicant requests an exception to the statewide spacing limitations set forth in § 45.2-1616 (B)(1) of the Code of Virginia for Well No. Keyrock #5.
7. RELIEF GRANTED: The requested relief in this cause shall be and hereby is granted. The Board hereby grants Applicant consent to permit and drill proposed Well No. Keyrock #5 which is 999 feet from EnerVest Operating, LLC, Well No. VC-3971 at the location depicted on the Plat attached hereto as Exhibit A.
8. SPECIAL FINDINGS: The Board specifically and specially finds:
 - 8.1. Applicant is Keyrock Energy, LLC. Applicant is duly authorized and qualified to transact business in the Commonwealth of Virginia;
 - 8.2. Applicant Keyrock Energy, LLC, is an operator in the Commonwealth of Virginia and has satisfied the Board's requirements for operations in Virginia;
 - 8.3. Applicant claims ownership of Coalbed Methane Leases of Subject Drilling Unit and the right to explore for, develop and produce Gas from Well No. Keyrock #5.
 - 8.4. The proposed Well No. Keyrock #5 is located on the Joshua Pressley 951.73 acre tract and the coal, gas, and oil owners have consented to the proposed location for Well No. Keyrock #5 that is depicted on the Plat attached hereto as Exhibit A;
 - 8.5. An exception to the well spacing requirements of § 45.2-1616(B)(1) of the Code of Virginia for Well No. Keyrock #5 is necessary to efficiently drain a portion of the common sources of supply (reservoir) underlying the Subject Drilling Unit, and the Board's granting of the requested location exception is in the best interest of preventing the waste of an as yet undetermined quantum of coalbed methane gas from the Mined Out Jawbone Coal Seam in the Contura Deep Mine 41 underlying the Subject Drilling Unit, and to generally effect the purposes of the Virginia Gas and Oil Act;
 - 8.6. Applicant proposes the drilling of Well No. Keyrock #5 to a depth of 1080 feet on the Subject Drilling Unit at the location depicted on Exhibit A to explore for coalbed methane gas from the Mined Out Jawbone Coal Seam in the Contura Deep Mine 41 underlying the Subject Drilling Unit;
 - 8.7. Applicant proposes to drill Well No. Keyrock #5 999 feet closer to EnerVest Well No. VC-3971 than the 1000 feet mandated by statewide spacing;
 - 8.8. Applicant proposes to complete and operate Well No. Keyrock #5 for the purpose of combusting coalbed methane gas to generate carbon credits for sale on the open market;
9. CONCLUSION: Therefore, the requested relief and all terms and provisions set forth above be and hereby are granted and **IT IS SO ORDERED.**
10. APPEALS: Appeals of this Order are governed by the provisions of §45.2-1609 which provides that any order or decision of the Board may be appealed to the appropriate circuit court. Such appeals must be taken in the manner prescribed in the Administrative Process Act, found in §2.2-4000 *et seq.*, of the Code of Virginia and Rule 2A of the Rules of the Virginia Supreme Court.
11. EFFECTIVE DATE: This Order shall be effective as of the date of the Board's approval of this Application, which is set forth at Paragraph 1 above.

PAID UP COALBED METHANE LEASE

THIS PAID UP COALBED METHANE LEASE ("Lease"), made this _____ day of January, 2022, between ENERVEST XIV-A NORA LLC (50.10494%), ENERVEST ENERGY INSTITUTIONAL FUND XIV-A1, L.P. (15.00000%) and ENERVEST XIV-WIC NORA LLC (34.89506%), each a Delaware limited partnership (collectively referred to as "Lessor") c/o EnerVest Operating, L.L.C. whose address is 408 W Main Street, Abingdon, VA 24210, and Keyrock Energy, L.L.C., a Delaware limited liability corporation, whose address is 207 E. Main Street, Suite 2-D, P.O. Box 2223, Johnson City, TN 37605 ("Lessee").

1. **Grant.** Lessor, in consideration of the sum of One and no/100 dollars (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged and of the covenants and agreements herein contained, does hereby grant unto Lessee all of the coalbed methane ("CBM"), in and under the lands hereinafter described together with the exclusive right to explore, drill and operate for, produce, flare, and market CBM, the right to lay pipeline to transport CBM from the lands leased hereunder and other lands, the right to build and install such tanks, equipment and structures ancillary thereto to carry on operations for CBM, together with the right to enter thereon at all times and to occupy, possess and use so much of said premises as is necessary and convenient for all purposes described herein. Lessee shall have the right to stimulate or fracture the coal seam to facilitate the production of CBM, subject to the depth restrictions in the Addendum attached hereto, and the appropriate regulatory and mineral estate approvals required.

2. **Description.** This Lease covers the premises situated between the waters of the Buffalo Creek and Caney Creek of Dickenson County, Virginia, containing See Exhibit 'A' acres, more or less, being the same lands depicted on Exhibit "A" hereto attached commonly known as Deep Mine 41 (the "Leased Premises").

3. **Term of Lease.** This Lease shall remain in force for a primary term of THREE (3) years and as long thereafter as CBM is being produced or Drilling operations have commenced on the Leased Premises.

4. **Royalty:** Lessee shall pay to Lessor a royalty equal to Twelve and One-Half Percent (12.5 %) of the net amount realized by Lessee from the sale and delivery of all CBM produced and sold from the Leased Premises. Such royalty shall be calculated at the mouth of the well after deducting from such royalties Lessor's pro-rata share of reasonable post-production costs, including without limitation (i) all costs of metering, gathering, marketing, compressing, dehydrating, and transporting the produced volumes; (ii) all costs associated with the processing and removal of natural gas liquids and other liquids or gaseous substances or impurities from the produced volumes; and (iii) all costs of any other treatment or processing such deductions shall not exceed sixty cents (\$0.60) per mmbtu of gas produced. Lessee may also deduct from royalties a pro-rata share of any severance or other tax, fee, or assessment imposed by any governmental agency that is levied upon the value of reserves, production or the severance of CBM produced from the Leased Premises. Royalties shall be paid on the volumes of CBM sold by Lessee, and Lessor shall not be entitled to royalties for any line loss or fuel for compression. Payment of royalties for sales made during any calendar month shall be on or about the 30th day after receipt by Lessee of payment for such sales. At the point that monthly royalty payments average less than \$50.00 per month over a 3-month period, Lessee shall have the right, but not the obligation, to make any or all future royalty payments on an annual basis.

5. **Paid-Up Lease.** This is a "Paid-Up Lease." The initial payment as agreed to in the "Order of Payment" (executed contemporaneously herewith) shall operate as a rental and cover the privilege of deferring the commencement of operations for the full term of this Lease. This and all other payments due under this Lease shall be made by cash or check and shall be deemed tendered when either delivered or mailed to Lessor at the above address. There shall be no requirement to pay additional delay rentals under the Lease. If Lessor owns a lesser interest in the Leased Premises than the entire undivided fee simple estate therein, then the royalties and rentals provided for herein shall be paid to the Lessor only in the proportion that its interest bears to the whole and undivided fee.

6. **Ownership Changes.** Lessee reserves the right to mortgage its interest in whole or part without prior notice to the Lessor.

7. **Regulation and Delay.** This Lease shall be subject to all laws and governmental rules and regulations. This Lease shall not terminate, in whole or in part, nor shall Lessee be held liable for failure to comply herewith, if compliance is prevented would result in the breach of any such law or governmental rule or regulation. Lessor grants Lessee the authority to compromise or settle any disputes with government agencies relating to this Lease or production therefrom. In the event the Lessee is unable

to perform any of the acts to be performed by the Lessee by reason of force majeure including but not limited to acts of God, strikes, riots, and governmental restrictions, this Lease shall nevertheless remain in full force and effect until the Lessee can perform said act or acts.

8. **Pooling:** Lessee is hereby granted the right at any time to unitize or pool the Leased Premises or any portion thereof, subject to the depth restrictions contained herein, with any other lands for the production of CBM. Operations upon and production from the unit shall be treated as if such operations were upon or such production were from the Leased Premises whether or not the well or wells are located thereon, provided, however, that Lessee shall pay Lessor, in lieu of other royalties thereon, only such proportion of the royalties stipulated in Paragraph 4 as the amount of Lessor's acreage placed in the unit, or Lessor's royalty interest therein on an acreage basis, bears to the total acreage in the unit. Lessee shall have the right to amend, alter or correct any such drilling unit or consolidation at any time in the same manner as herein provided.

9. **Entireties.** If the Leased Premises is owned by two or more parties, or the ownership of any interest therein should hereafter be transferred by sale, devise or operation of law, said land, nevertheless, may be held, developed and operated as an entirety, and the rentals and royalties shall be divided among and paid to such several owners in the proportion that the acreage owned by each such owner bears to the entire Leased Premises.

10. **Surface Use.** Following completion of any producing well, Lessee shall (a) fill all the pits used during drilling which are not required either for production purposes or by any government regulations; (b) remove all concrete bases, drilling supplies and drilling equipment; and (c) grade, plant, and seed the area disturbed by drilling that is not required in production of the well, where necessary to bind the soil and prevent substantial erosion and sedimentation.

11. **Access Roads.** Lessee shall have the right, but not the obligation, to use existing access roads currently owned and maintained by Lessor. If Lessee elects to use an access road, Lessee will provide to Lessor a map of the road and the anticipated dates of usage, and Lessor and Lessee will enter into a joint maintenance agreement that is equitable for use of the road. Lessee may upgrade any of Lessor's access roads they may use with prior written consent from the Lessor, and all upgrades and repairs will be performed in accordance with Virginia Department of Energy standards. Under no circumstances will Lessee cause damage or loss to any access road, and will immediately repair any such damage at Lessee's sole expense.

12. **Electricity.** Lessor agrees, to the extent it has an existing source of electricity with excess electricity available in any area where Lessee is engaged in the exploration or production of Methane from the Lands, and to the extent permitted by applicable law or regulation, Lessee shall be permitted to access Lessor's source of electricity to obtain electricity for use in connection with Lessee's methane exploration and production operations. Lessee shall pay any expenses associated with accessing Lessor's electrical grid and with Lessee's use of electricity.

13. **Release of Lease.** Lessee may at any time surrender all or any part of this Lease by recording a release of lease in Dickenson County, Virginia and delivering or mailing a copy of said release with recording reference to Lessor.

14. **Breach or Default.** In the event Lessor believes that the Lessee has not complied with any of its obligations hereunder, Lessor shall notify Lessee in writing, setting out specifically in what respects Lessee has breached this Lease. Lessee shall then have thirty (30) days after receipt of said notice within which to resolve or commence to resolve all or any part of the breaches alleged by Lessor. Lessor shall not bring any cause of action against Lessee for breach of the Lease sooner than thirty (30) days after service of such notice on Lessee, and only if Lessee has failed to resolve or failed to commence to resolve all or any part of the breaches alleged by Lessor. Neither the service of said notice nor the doing of acts by the Lessee aimed to resolve any or all of the alleged breaches shall be deemed an admission or presumption that Lessee has failed to perform all its obligations hereunder.

15. **Agreement.** This Lease and all its terms, conditions, and stipulations shall extend to and be binding on all heirs, successors and assigns of Lessor or Lessee. This Lease contains all of the agreements and understandings of the Lessor and the Lessee respecting the subject matter hereof and no implied covenants or obligations, or verbal representations or promises, have been made or relied upon by Lessor or Lessee supplementing or modifying this Lease or as an inducement thereto. All implied covenants are hereby disclaimed by the Lessor and Lessee, including, but not limited to, any implied duty to market and implied duty to develop the CBM.

Lessee:

Keyrock Energy LLC

By: *Morgan Pate*
Name: Morgan Pate
Title: Authorized Agent

ACKNOWLEDGEMENT

STATE OF TENNESSEE)
) §
COUNTY OF WASHINGTON)

The foregoing instrument was acknowledged before me this 10th day of January, 2022 by Morgan Pate, as Authorized Agent of KEYROCK ENERGY, LLC, on behalf of the limited liability company.

My Commission Expires: 6-27-23



Dina Y. Shirley
Notary Public

Lease Addendum

1. **Indemnification.** Lessee agrees to indemnify, protect, save harmless and defend Lessor from and against any loss, injury, damage, claim, reclamation requirement of the Virginia Department of Mines, and Minerals (DMME), environmental damage or expense occurring as a result of the Lessee's use of the Leased Premises or which would not have occurred but for the Lessee's use of the Leased Premises, except to the extent any such loss, injury, damage, claim or expense is caused by the Lessor's negligence.

2. **Assignment.** This Lease shall not be assigned in part or whole without the expressed written consent of the Lessor.

3. **Existing Coal Agreement.** Lessor acknowledges that the Leased Premises are subject to an unrecorded Letter Agreement dated 9-12-2018 by and between Contura, ACIN, & etc. for the purpose of laying out guidelines for the co-development of the Coal, Oil, Gas, and Coal Bed Methane on jointly owned properties located in Dickenson and Buchanan Counties, Virginia. Lessor further acknowledges that they are subject to said agreement.

4. **Depth Restriction.** The terms of this Lease are confined to the mined interval of Deep Mine No. 41, otherwise defined as the Jawbone Seam. This Lease does not include and there is hereby excepted and reserved unto the Lessor any and all oil, gas, and other mineral bearing strata, as well as all coals and coalbed methane both shallower and deeper than targeted Deep Mine No. 41. contained within the Jawbone Coal Seam.

5. **Royalty on Sale of Electricity or Sale of Carbon Credits.** Lessor shall receive a royalty of Twelve and One-Half Percent (12.5%) of the gross proceeds actually received by Lessee or any of Lessee's affiliates from the sale of electricity generated from combustion of the CBM and/or the sale of Carbon Credits (as defined herein) from the CBM, minus this same percentage share of all Post-Production Costs and minus this same percentage share of all production, severance and ad valorem taxes.

(a) Carbon Credit, as used herein, means a product representing the removal, limitation, reduction, avoidance, sequestration, or migration of greenhouse gas emissions generated or issued under any governmental or non-governmental program. By way of example, this includes California Carbon Offsets ("CCO"), which are credits issued by the California Air Resources Board.

6. **Shut-in Payments.** Lessee may, at its option, cease production from any part or all of the wells located on the Leased Premises, or any wells located on another tract pooled with the Leased Premises for the necessary maintenance or repair of Lessee's equipment, an event of force majeure, or when production from the specific mine as shown in Exhibit "A" has reached its annual production limit as defined by the equations set forth in the Compliance Offset Protocol Mine Methane Capture Projects, California Environmental Protection Agency, Air Resources Board, upon five (5) days written notice to Lessor, without such cessation of production operating to terminate the Lease.

(a) Lessee shall tender to Lessor on the first day of the month following the initial cessation of production a shut-in payment of One Thousand Dollars (\$1,000.00). Lessee shall continue to tender to Lessor shut-in payments of One Thousand Dollars (\$1,000.00) on the first of each month until the well or wells have been returned to production.

(b) After twelve (12) continuous months of no production, the shut-in payment shall be increased to One Thousand Five Hundred Dollars (\$1,500.00) per month, paid in quarterly installments.

(c) The shut-in payments may be suspended at any time by Lessee upon Lessee's written notice to Lessor, accompanied by Lessee's executed release of Lease.

(d) The Lease shall terminate automatically, and Lessee shall record a release of lease in Dickenson County, Virginia, after twenty-four (24) continuous months of no production.

7. **Commingling.** Lessee may commingle the production from the Leased Premises ("Produced CBM") with coal bed or coal mine methane produced from properties other than the Leased Premises ("Other Methane") prior to its sale. In the event the Produced CBM is commingled, Lessee shall install meters capable of measuring all Produced CBM from the Leased Premises, and all Other

Methane commingled with the Produced CBM. Lessor's royalties shall be determined by prorating total sales from Lessee's system according to the ratio of Produced CBM and Other Methane introduced into Lessee's system.

8. **Lessor's Title Information.** Lessor agrees to make available to Lessee for inspection and copying all existing title information in Lessor's possession concerning the Leased Premises. Lessor makes no warranties concerning the completeness or accuracy of any such information and shall have no obligation to extend, update, or supplement any title information for Lessee's use. For purposes of this paragraph, "title information" includes but is not limited to abstracts, title insurance policies and commitments and title opinions.

9. **Leasehold Limitation.**

(a) Lessee has familiarized itself with the deeds and title papers under which Lessor owns the rights granted hereunder, and the parties hereto understand that this Lease only grants such rights as are owned by Lessor as of the effective date and which it has the right to grant.

(b) It is the duty of Lessee to familiarize itself with the exact location of the Leased Premises and to ensure that all development activities are confined to the Leased Premises.

(c) The parties hereto agree that, if mining operations heretofore have been conducted on or under the Leased Premises, Lessor has not made and does not now make any representations concerning the condition of any seam of coal on the Leased Premises, previous mining thereon, or the condition of the surface, structures, or works therein or thereon.

(d) Lessee acknowledges that, prior to the execution of this Lease, it (a) has made an independent examination of data concerning the Leased Premises, (b) has inspected the Leased Premises and is familiar with the physical condition thereof, and (c) has fully informed itself as to all existing conditions and limitations applicable to the Leased Premises. Lessee acknowledges that it has independently analyzed any information provided by Lessor with regard to the Leased Premises and agrees that the furnishing of any information to the Lessee shall not constitute a representation that such information is accurate or complete or a warranty that the Leased Premises confirms thereto. Lessee accepts the CBM and Produced CBM as is and without any warranty, expressed or implied, with regard to the quality of the gas or gas volumes realized by Lessee.

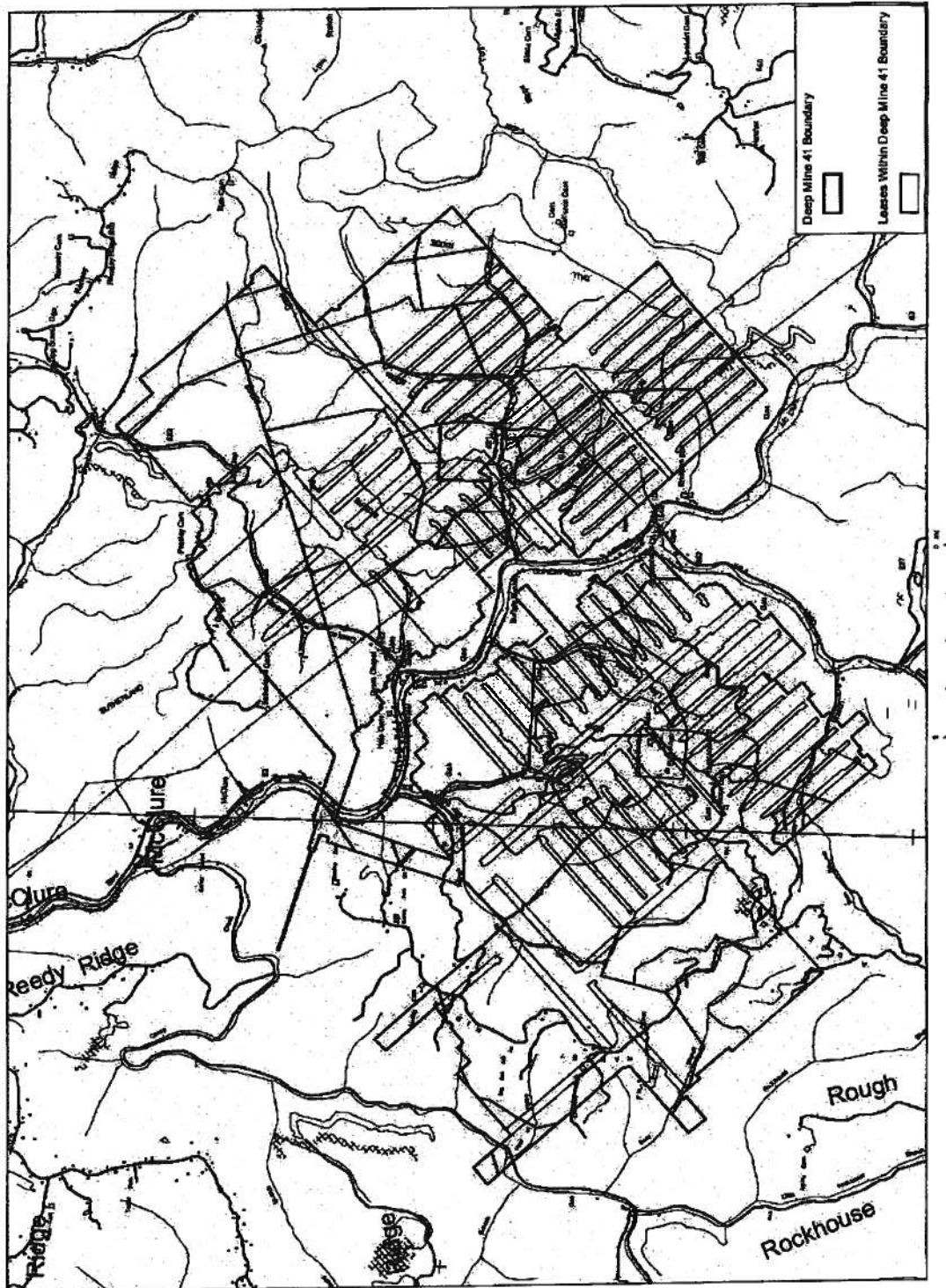
(e) Nothing herein contained shall be deemed or construed to be a covenant for quiet enjoyment or a warranty of title on the part of the Lessor, either express or implied, but Lessee must respect and observe all limitations or defects in the title of Lessor in and to the Leased Premises, said land, coal rights, and all other rights appurtenant thereto. It is likewise understood by Lessee that Lessor gives no warrant as to the quality or quantity of the gas contained in the abandoned mines and assumes no liability due to any deficiency that may exist or develop therein.

(f) To the best of Lessor's knowledge, there are no conflicts between this Lease and any other lease or license issued by Lessor. However, if a conflict arises as to the extent of the boundaries or an overlapping with Lessor's other leases or licenses, then the lease or license that first became effective shall prevail and Lessor shall have no liability or obligation to Lessee as a result thereof.

(g) Lessor does not claim ownership of or any rights to the surface of the Leased Premises other than those surface rights conveyed to Lessor in its deeds.

10. **Insurance.** At all times while operations are conducted upon the Leased Premises, Lessee shall comply with the workers compensation law of the state in which its operations are being conducted. Lessee shall require all contractors engaged by it with respect to any of the operations to comply with the workers compensation law of the state where the applicable operations are being conducted.

Exhibit "A"



PREVIOUS ORDER

DB 602 PG440

VIRGINIA:

BEFORE THE VIRGINIA DEPARTMENT OF ENERGY

APPLICANT: KEYROCK ENERGY, LLC) VIRGINIA GAS
) AND OIL BOARD
)
RELIEF SOUGHT EXCEPTION TO STATEWIDE)
) SPACING LIMITATIONS PRESCRIBED) DOCKET NO.
) BY § 45.2-1616 (B) (1) of the Code of) VGOB 22-1115-4253
) Virginia for WELL NO. KEYROCK #5)
) (herein "Subject Drilling Unit"))
)
)
)
DRILLING UNIT SERVED BY WELL)
NUMBERED KEYROCK #5)
TO BE DRILLED IN THE LOCATION)
DEPICTED ON EXHIBIT A HERETO,)
JOSHUA PRESSLEY 951.73 ACRE TRACT)
NORA QUADRANGLE)
ERVINTON DISTRICT)
DICKENSON COUNTY, VIRGINIA)
(the "Subject Lands" are more particularly described)
on Exhibit "A", attached hereto and made a part hereof))

REPORT OF THE BOARD

FINDINGS AND ORDER

1. HEARING DATE AND PLACE: This matter came for hearing before the Virginia Gas and Oil Board (hereafter "Board") at 10:00 a.m. on February 21, 2023, at 3405 Mountain Empire Road, Big Stone Gap, Virginia.
2. APPEARANCES: Freddie E. Mullins appeared for the Applicant.
3. JURISDICTION AND NOTICE: Pursuant to §§ 45.2-1600 *et seq.* of the Code of Virginia, the Board finds that it has jurisdiction over the subject matter. Based upon the evidence presented by Applicant, the Board also finds that the Applicant has (1) exercised due diligence in conducting a meaningful search of reasonably available sources to determine the identity and whereabouts of each gas and oil owner, coal owner, or mineral owner having an interest in Subject Drilling Unit underlying and comprised of Subject Lands; and (2) represented to the Board that it has given notice to those parties (hereafter sometimes "person(s)" whether referring to individuals, corporations, partnerships associations, companies, businesses, trusts, joint ventures or other legal entities) entitled by § 45.2-1618 of the Code of Virginia to notice of this application. Further, the Board has caused notice of this hearing to be published as required by § 45.2-1618 of the Code of Virginia. Whereupon, the Board hereby finds that the notices given herein satisfy all statutory requirements, Board rule requirements and the minimum standards of state due process.

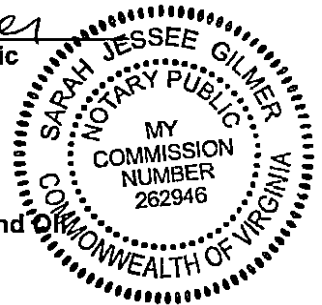
4. AMENDMENTS: None.
5. DISMISSALS: None.
6. RELIEF REQUESTED: Applicant requests an exception to the statewide spacing limitations set forth in § 45.2-1616 (B)(1) of the Code of Virginia for Well No. Keyrock #5.
7. RELIEF GRANTED: The requested relief in this cause shall be and hereby is granted. The Board hereby grants Applicant consent to permit and drill proposed Well No. Keyrock #5 which is 980 feet from EnerVest Operating, LLC, Well No. VC-3971 at the location depicted on the Plat attached hereto as Exhibit A.
8. SPECIAL FINDINGS: The Board specifically and specially finds:
 - 8.1. Applicant is Keyrock Energy, LLC. Applicant is duly authorized and qualified to transact business in the Commonwealth of Virginia;
 - 8.2. Applicant Keyrock Energy, LLC, is an operator in the Commonwealth of Virginia and has satisfied the Board's requirements for operations in Virginia;
 - 8.3. Applicant claims ownership of Coalbed Methane Leases of Subject Drilling Unit and the right to explore for, develop and produce Gas from Well No. Keyrock #5.
 - 8.4. The proposed Well No. Keyrock #5 is located on the Joshua Pressley 951.73 Acre Tract and the coal, gas and oil owners have consented to the proposed location for Well No. Keyrock #5 that is depicted on the Plat attached hereto as Exhibit A;
 - 8.5. An exception to the well spacing requirements of § 45.2-1616(B)(1) of the Code of Virginia for Well No. Keyrock #5 is necessary to efficiently drain a portion of the common sources of supply (reservoir) underlying Subject Drilling Unit, and the Board's granting of the requested location exception is in the best interest of preventing the waste of an as yet undetermined quantum of coalbed methane gas from the Mined Out Jawbone Coal Seam in the Contura Deep Mine 41 underlying the Subject Drilling Unit, and to generally effect the purposes of the Virginia Gas and Oil Act;
 - 8.6. Applicant proposes the drilling of Well No. Keyrock #5 to a depth of 803 feet on the Subject Drilling Unit at the location depicted on Exhibit A to explore for coalbed methane gas from the Mined Out Jawbone Coal Seam in the Contura Deep Mine 41 underlying the Subject Drilling Unit;
 - 8.7. Applicant proposes to drill Well No. Keyrock #5 20 feet closer to EnerVest Well No. VC-3971 than the 1000 feet mandated by statewide spacing;
 - 8.8. Applicant proposes to complete and operate Well No. Keyrock #5 for the purpose of combusting coalbed methane gas to generate carbon credits for sale on the open market;
9. CONCLUSION: Therefore, the requested relief and all terms and provisions set forth above be and hereby are granted and **IT IS SO ORDERED**.
10. APPEALS: Appeals of this Order are governed by the provisions of §45.2-1609 which provides that any order or decision of the Board may be appealed to the appropriate circuit court. Such appeals must be taken in the manner prescribed in the Administrative Process Act, found in §2.2-4000 *et seq.*, of the Code of Virginia and Rule 2A of the Rules of the Virginia Supreme Court.
11. EFFECTIVE DATE: This Order shall be effective as of the date of the Board's approval of this Application, which is set forth at Paragraph 1 above.

DONE AND EXECUTED this 10th day of March, 2023 by a majority of the Virginia Gas and Oil Board.

Interim Chairman, Donald L. Ratliff

COMMONWEALTH OF VIRGINIA
COUNTY OF RUSSELL

Acknowledged on this 10th day of March, 2023, personally before me a notary public in and for the Commonwealth of Virginia, appeared Donald L. Ratliff, being duly sworn did depose and say that he is the Interim Chairman of the Virginia Gas and Oil Board, that he executed the same and was authorized to do so.

Sarah Jessee Gilmer, Notary Public
262946

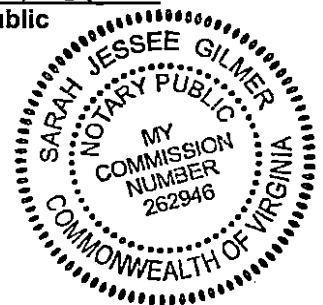
My Commission expires: July 31, 2025

DONE AND PERFORMED this 13 day of March, 2023 by Order of the Virginia Gas and Oil Board.

James P. Skorupa
Principal Executive to the staff,
Virginia Gas and Oil Board

COMMONWEALTH OF VIRGINIA
COUNTY OF RUSSELL

Acknowledged on this 13th day of March, 2023, personally before me a notary public in and for the Commonwealth of Virginia, appeared James P. Skorupa, being duly sworn did depose and say that he is the Principal Executive to the staff of the Virginia Gas and Oil Board, that he executed the same and was authorized to do so.

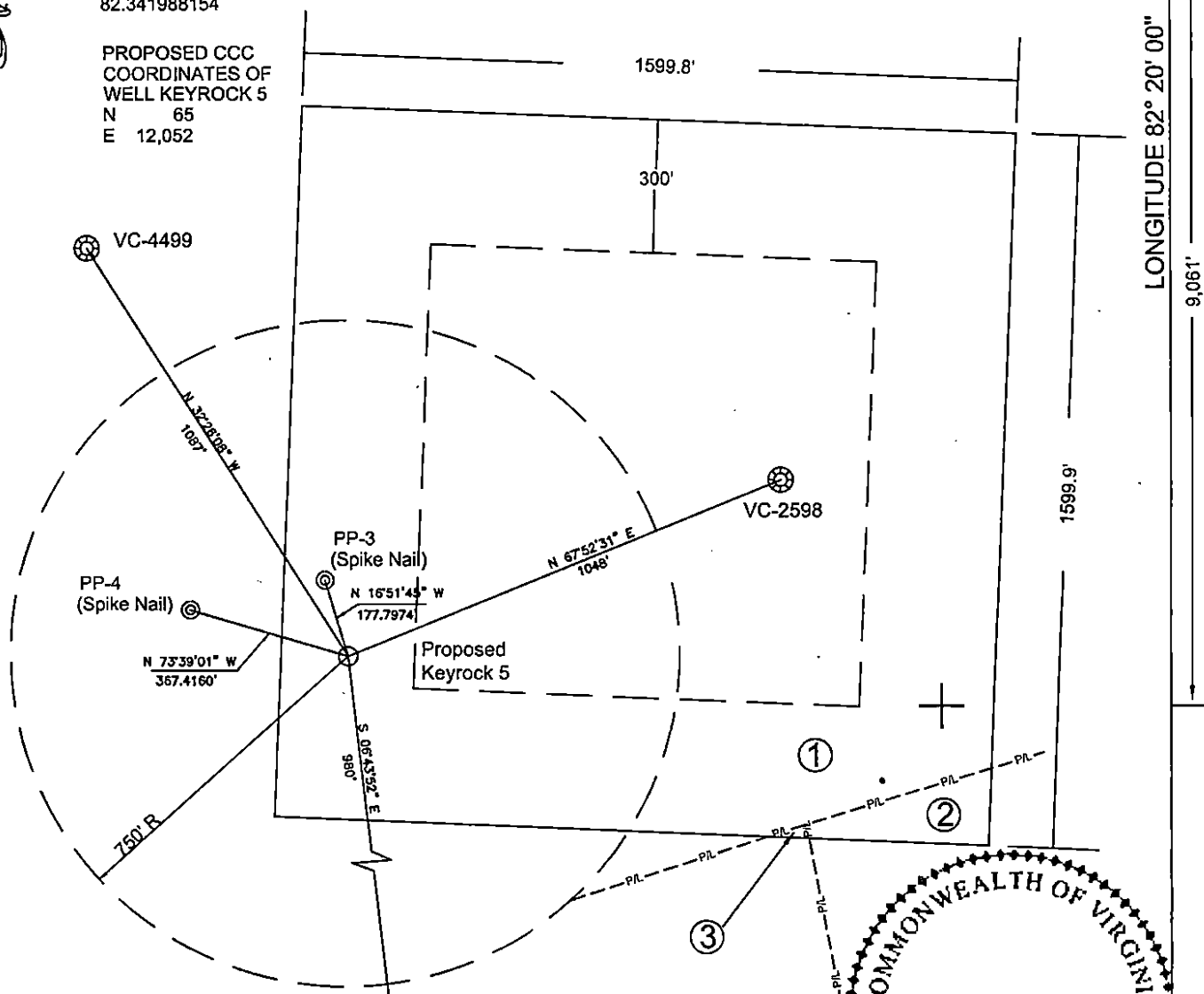
Sarah Jessee Gilmer, Notary Public
262946

My Commission expires: July 31, 2025

EXHIBIT A

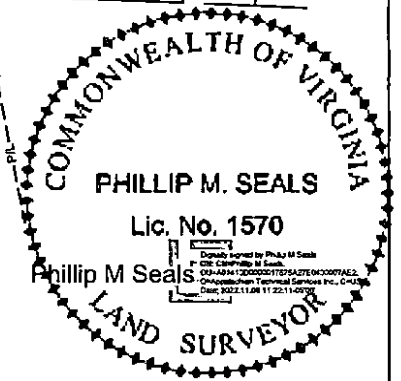
PROPOSED LAT. & LONG.
(NAD 83 DECIMAL DEGREES)
OF KEYROCK 5
37.100233538
82.341988154

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.



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 ; 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.

Phillip M. Seals

LICENSED LAND SURVEYOR

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 %

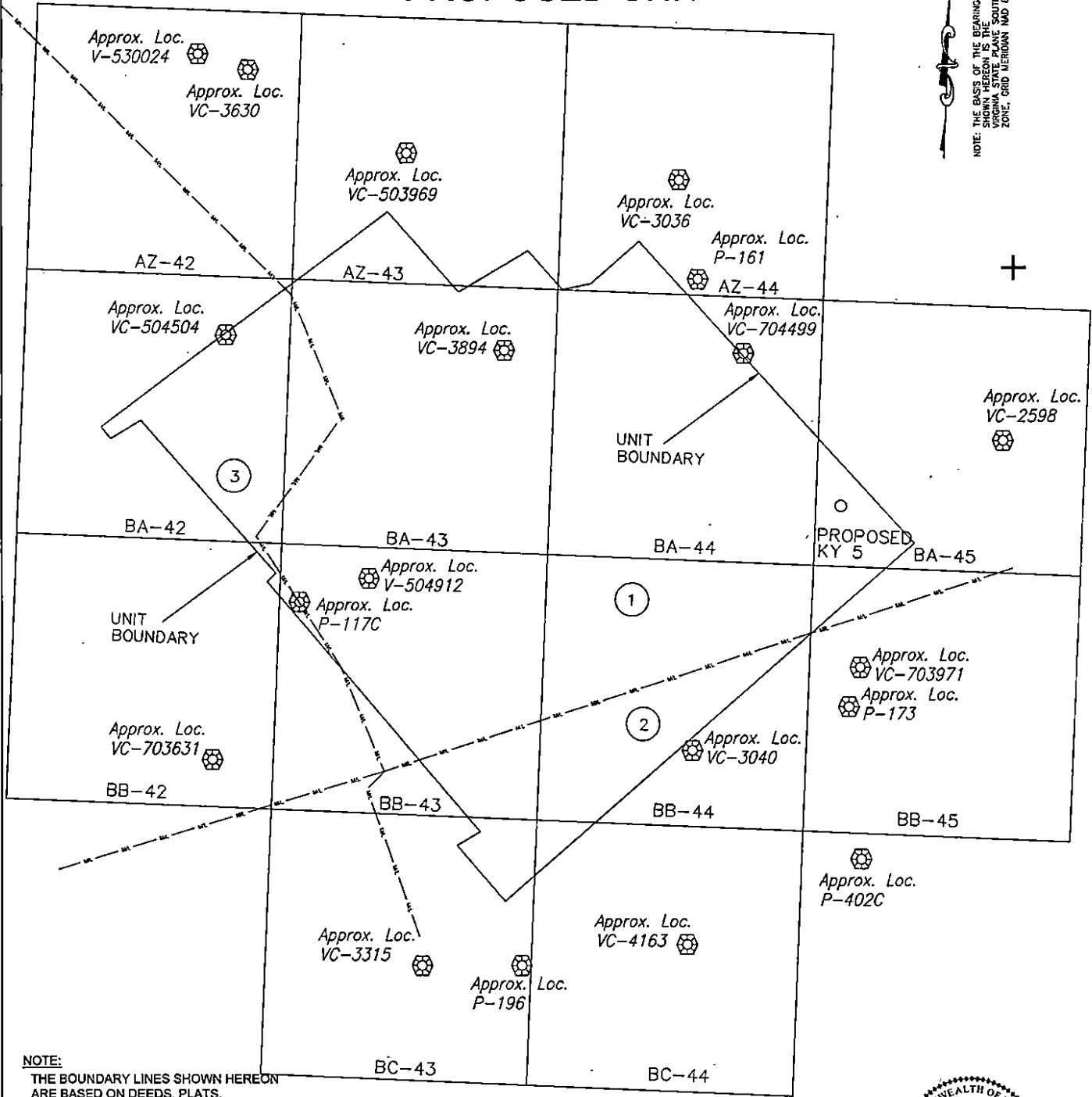
②

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 %

PROPOSED UNIT



LONGITUDE 82° 20' 00"

NOTE: THE BASIS OF THE BEARINGS
 IS THE VIRGINIA STATE PLANE SOUTH
 ZONE, GRID MERIDIAN NAD 83

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



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 Ervinston
 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 ; 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.

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%

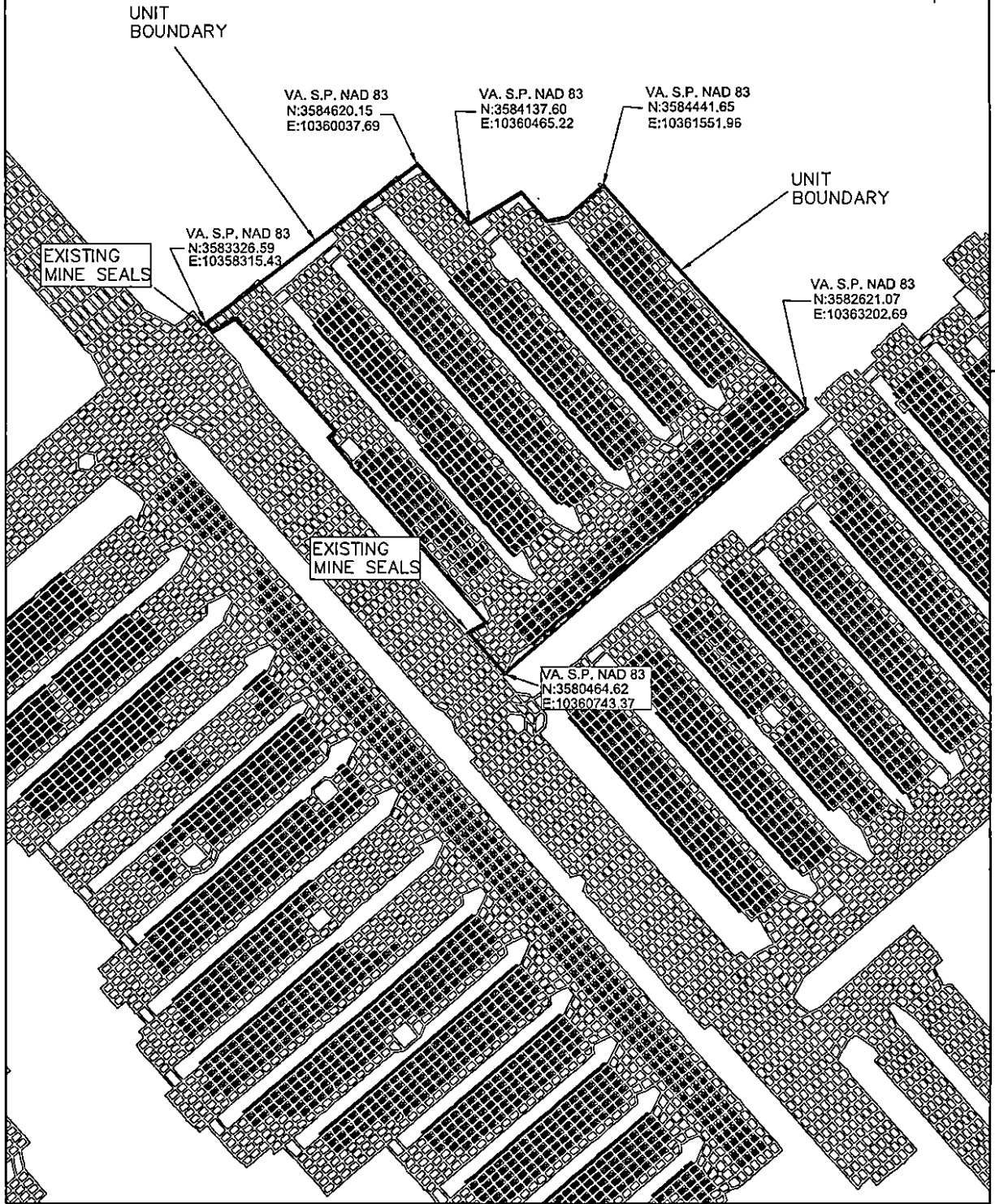
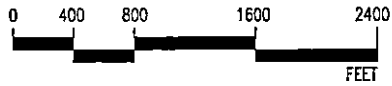
③

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%

NOTE:
Mine Works shown as
provided by Alpha
Metallurgical Resources



ATS
Appalachian Technical Services, Inc.
Engineering, Architecture, Surveying, Ecology & Environmental Science

Abingdon Office
P.O. Box 1897
473 Royal Lane, Street
Abingdon, VA 24212
(276) 878-4262

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 JMC	Drawn by JMC	Checked by PMS	Date 10/14/22
Project Number 1892.01	Scale 1" = 800'	Subproject NORA	Contractor VA Mod B3 South Zone
Drawing Name Mineworks Only 24x36 With Well Units 10-14-22			01
Sheet/Volume KY5 EXHIBIT L 11X17			01

Exhibit B
 Unit # KY 5
 VGOB Docket # 22-1115-4253
 List of all Owners/Claimants
 (234.30 Acre Unit)

	<u>Acres in Unit</u>	<u>Interest in Unit</u>
<u>Tract #T-101; Joshua Presley (951.73 Acres)</u>		
(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 %
<u>Tract #T-186; Noah A. Skeen (327.39 Acres)</u>		
(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 %
<u>Tract #T-129; Jasper Sutherland (641 Acres)</u>		
(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 %

MEMORANDUM OF PAID UP METHANE GAS LEASE

ENERVEST XIV-A NORA LLC (50.10404%), ENERVEST ENERGY INSTITUTIONAL FUND XIV-A1, L.P. (15.00000%) and ENERVEST XIV-WIC NORA LLC (34.89596%), 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:

LESSEE

EnerVest Operating, LLC

Keyrock Energy, LLC

By: Michael W. ...

Mark ...

Its: Vice President - Leased

managing Director

Lessee

Keyrock Energy LLC

By: Mark Allaman

Name: Mark Allaman

Title: Managing Director

ACKNOWLEDGEMENT

STATE OF PENNSYLVANIA

)

) 5

COUNTY OF BUTLER

)

Venango

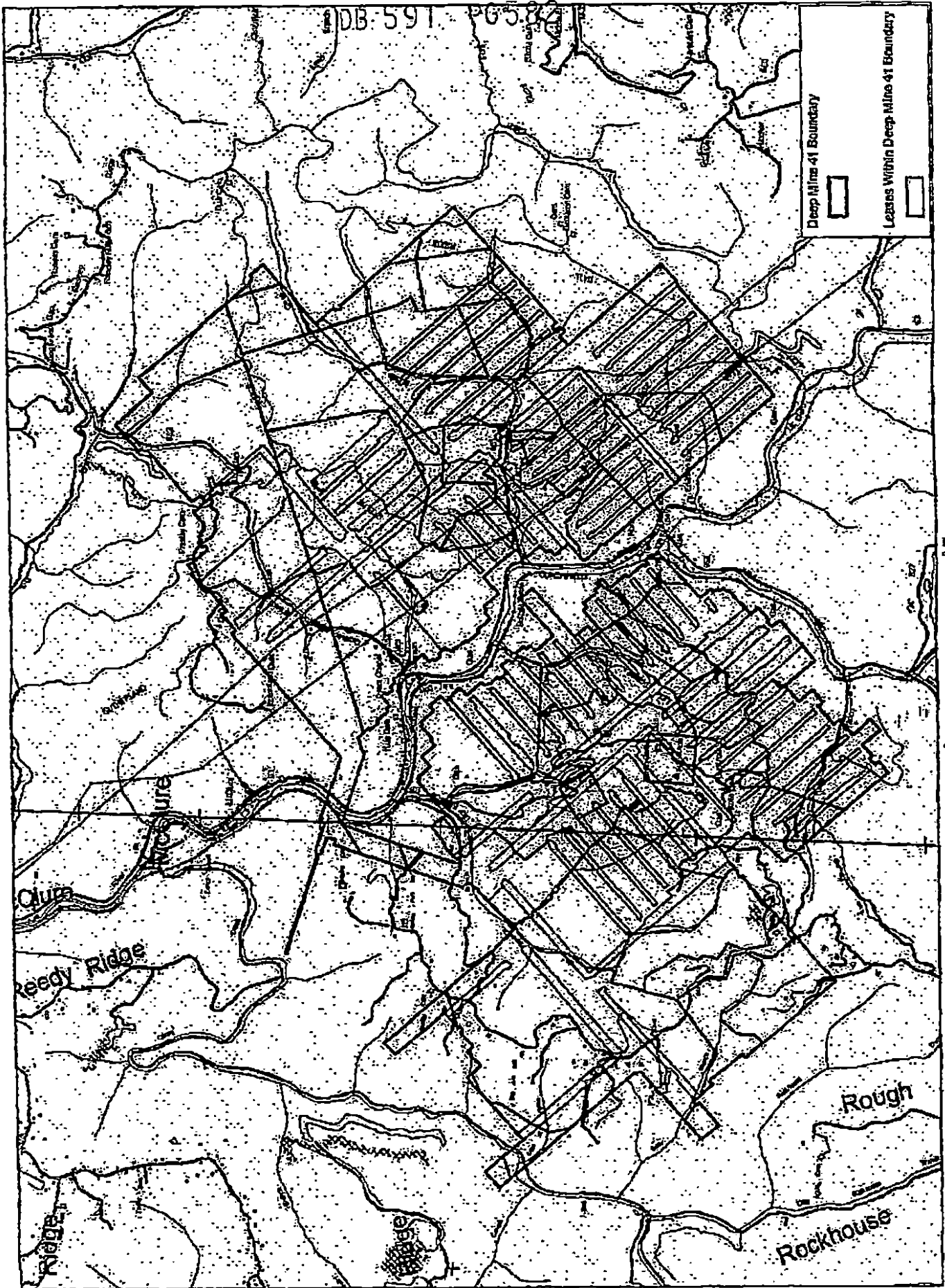
The foregoing instrument was acknowledged before me this 31st day of January, 2022 by Mark Allaman, as Managing Director of KEYROCK ENERGY, LLC, on behalf of the Limited Liability Company.

My Commission Expires: 12-17-22

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

DB-591 PG582

Exhibit "A"



INSTRUMENT 230000291
RECORDED IN THE CLERK'S OFFICE OF
DICKENSON CIRCUIT COURT ON
MARCH 29, 2023 AT 11:56 AM
RICHARD W. EDWARDS, CLERK
RECORDED BY: SHM

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

Authorization For Expenditure (AFE)

AFE # 1002	Property #	Version #
Well Name: Keyrock No. 5	Field:	Completed By: I Morgan Pate
Location: N 3,582,704.36 E 10,362,320.94	Operator: Keyrock Energy	Date: 6/5/2023
Expected Pay Zones: Mined-out Jawbone Coal Seam	Estimated Total Depth: 950 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	\$20,000
		Roads / Stone / Culverts	\$0	\$0	\$5,000
		Surface Damages	\$0	\$0	\$0
		Drilling - Footage	\$0	\$0	\$20,358
		Drilling - Mobilization	\$0	\$0	\$7,000
		Drilling - Dayrate	\$0	\$0	\$23,000
		Mud & Chemicals (Drilling)	\$0	\$0	\$0
		Fuel	\$0	\$0	\$5,220
		Cement Surface casing	\$0	\$0	\$0
		Cement Intermediate casing	\$0	\$0	\$8,000
		Open Hole Logging & Testing	\$0	\$0	\$4,000
		Trucking / Dozer (Drilling)	\$0	\$0	\$0
		Rental Tools & Equipment (Drilling)	\$0	\$0	\$0
		Drilling - Bits	\$0	\$0	\$0
		Technical Supervision (Drilling)	\$0	\$0	\$0
		Fresh Water Hauling (Drilling)	\$0	\$0	\$1,460
		Overhead Rate	\$0	\$0	\$0
		Misc. & Contingencies	\$0	\$0	\$5,000
		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
		Reclamation & Damages	\$0	\$0	\$1,000
		Haul Pit Water / Disposal	\$0	\$0	\$2,280
		Cement Production Casing	\$0	\$0	\$9,700
		Rental Tools & Equipment (Completion)	\$0	\$0	\$0
		Fresh Water Hauling (Completion)	\$0	\$0	\$540
		Roustabout Labor	\$0	\$0	\$0
		TOTAL INTANGIBLES	\$0	\$0	\$157,458

Code	Code	Description	Casing Point	Completion	Total Cost
		13 3/8" Surface Casing	\$58	\$5,510	\$5,568
		7" R1 T&C Black Steel Csg	\$900	\$31,500	\$32,400
		Wellhead Equipment / Fittings	\$0	\$0	\$2,500
		Tank Battery	\$0	\$0	\$0
		Separator / Heater / Treater	\$0	\$0	\$0
		Gas Lift Equipment	\$0	\$0	\$4,000
		Rods / Stuffing Box	\$0	\$0	\$0
		Downhole Pump	\$0	\$0	\$0
		Pumping Unit / Motor	\$0	\$0	\$0
		SS EQT-Packer,PF,FC,Nip	\$0	\$0	\$0
		Valves & Fittings	\$0	\$0	\$800
		Flow Line labor/material	\$0	\$0	\$0
		Sales line labor/mat/row	\$0	\$0	\$0
		TOTAL TANGIBLES	\$0	\$0	\$45,268

GRAND TOTAL WELL COST			\$0	\$0	\$202,726
	Plugging & Abandonment		\$0		
Production Costs :			\$202,726	Dry Hole Costs :	
				\$0	

Operations _____ Shawn Endicott _____ Date 9/23/2022 _____ Geology _____ Morgan Pate _____ Date: 9/23/2022

Engineering _____ Shawn Endicott _____ Date 9/23/2022 _____ Land _____ Morgan Pate _____ Date: 9/23/2022

Management Approval Approved by:  Title Senior Geologist _____ Date 6/5/23

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.