

MINE METHANE CAPTURE OFFSET PROJECT DATA REPORT FOR ACTIVE UNDERGROUND MINES

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|---------------------------------------|-----------------------|----------------------|-----------------------|---------------------------------------|
| OPR Staff Use Only | Date Report Received: | OPR Tracking Number: | Date Report Reviewed: | OPR Staff Use Only |
|---------------------------------------|-----------------------|----------------------|-----------------------|---------------------------------------|

PART I. ENTITY SUBMITTING REPORT

| | | | |
|------------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------|
| Is this report being submitted by the Offset Project Operator (OPO) or by the Authorized Project Designee (APD)? | | | <input checked="" type="checkbox"/> OPO <input type="checkbox"/> APD |
| <small>Note: The person completing this form should be an OPO/APD employee.</small> | | | |
| Report Version Number: 5 | Date Report Completed: 02-Feb-2023 | Date Report Submitted: 02-Feb-2023 | |
| Person Completing Report: Morgan Pate | Phone Number: (423) 276-1116 | Email Address: MPate@Keyrockenergy.com | |

PART II. OFFSET PROJECT INFORMATION

| | | |
|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| Offset Project Name: Heilwood Mine Methane Incineration Project | OPR Project ID#: ACR675 | ARB Project ID# (if known): CAMM5675 |
| Mine Methane Capture Activity Type(s): | <input type="checkbox"/> Ventilation Air Methane <input checked="" type="checkbox"/> Mine Methane Drainage | |
| Reporting Period Start Date: 01-Nov-2021 | Reporting Period End Date: 31-Oct-2022 | Offset Project Commencement Date: 20-Oct-2020 |

PART III. OPO/APD/TC INFORMATION

| | | | |
|-------------------------------------------------------------------|-------------------------------|--------------------------------------------------------------|---------------|
| Part III.A OPO | | | |
| OPO Name: Keyrock Energy LLC | | OPO's CITSS ID#: CA 1863 | |
| Mailing Address: P.O.Box 2223 | City: Johnson City | State: TN | Zip: 37605 |
| Physical Address (if different): 207 E. Main Street, Suite 2-D | City: Johnson City | State: TN | Zip: 37604 |
| Contact Person: Morgan Pate | Phone Number: 423-276-1116 | Email Address: MPate@Keyrockenergy.com | |
| Part III.B APD (if applicable) | | <input checked="" type="checkbox"/> No APD/Not Applicable | |
| Part III.C.1 Technical Consultant #1 (if applicable) | | <input checked="" type="checkbox"/> No Technical Consultants | |

Part IV. QUESTIONS

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| 1. Has the offset project met all local, state, and federal regulatory requirements during the Reporting Period for Mine 2, except for any period being excluded pursuant to section 95973(b)(1)? (If "no," an explanation of the non-compliance must be provided.) <i>Indicate any excluded time periods below:</i> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 2. Is all the information in the offset project listing still accurate? <i>If "yes," skip to Part V.</i> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| a. Does Part II above report an updated Offset Project Commencement Date, Reporting Period Start Date, and/or Reporting Period End Date? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| b. Does Part III above report updated OPO/APD Information? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| c. Does Part III above report updated Technical Consultant Information? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| d. Are there any other updates about Others Involved in Project, aside from the Technical Consultants, to report? (If "yes," provide those updates on separate attached paper.) | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| e. Are there any updates about the Offset Project Location to report? (If "yes," provide those updates on separate attached paper.) | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| f. Does Part V below report updated information about Mining Methods Employed? <i>Removed "longwall" and corrected to "room and pillar."</i> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| g. Are there any updates about the Mine Information, aside from Mining Methods Employed and Mineral Production, to report? (If "yes," provide those updates on separate attached paper.) | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| h. Does any other information in the project listing need to be updated? (If "yes," provide those updates on separate attached paper.) | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

PART V. MINE INFORMATION

Mining Method(s) Employed (e.g., longwall or room and pillar) during Reporting Period:

Room and Pillar

Mineral Production during Reporting Period (including both mineral produced and quantity with units of measurement):

Coal – 171,041 metric tons

PART VI. REPORTED GHG EMISSION REDUCTION CALCULATIONS**Part VI.B Calculated Values for Active Underground Mine Methane Drainage Activities** ☐ Not Applicable**How many qualifying and non-qualifying destruction devices were used in this reporting period for Active Underground Mine Methane Drainage Activities?***Note: If there are more than two (2) destruction devices, either expand this section to report information for those destruction devices or submit the required reporting information for those devices on separate, attached paper.*Number
Non-Qualifying
Devices:

0

Number
Qualifying
Devices:

3

How many methane sources were used in this reporting period for Active Underground Mine Methane Drainage Activities?*Note: If there are more than three (3) methane sources associated with any destruction device, either expand this section to report information for those methane sources or submit the required reporting information for those sources on separate, attached paper.*Number
Sources:

3

How many pre-mining surface wells included in the project were mined through during this reporting period?*Note: If more than two (2) wells were included and mined through, either expand this section to report information for those wells or submit the required reporting information for those wells on separate, attached paper.*Number
Wells:

0



Emission Reductions (ER):65,587 MT CO₂e**Part VI.B.1 Baseline Values for First Destruction Device****Is this a qualifying or non-qualifying destruction device?**☒ Qualifying

| Source | Baseline C _{CH4} | PSW _{B,i} | PIB _{B,i} | PGW _{B,i} |
|--------|---------------------------|--------------------|--------------------|--------------------|
| | 0 | 0 | 0 | 0 |

Part VI.B.2 Baseline Values for Second Destruction Device

Submit the information in this form to
the appropriate Offset Project Registry

| | | | | |
|-----------------------------------------------------------------|----------------------------------------------|------------------------------|--------------------|----------------------------------------------------------------------------------------------------------------------|
| Is this a qualifying or non-qualifying destruction device? | | | | <input checked="" type="checkbox"/> Qualifying |
| Source | Baseline C _{CH4} | PSW _{B,i} | PIB _{B,i} | PGW _{B,i} |
| | 0 | 0 | 0 | 0 |
| Part VI.B.3 Baseline Values for Third Destruction Device | | | | |
| Is this a qualifying or non-qualifying destruction device? | | | | <input checked="" type="checkbox"/> Qualifying |
| Source | Baseline C _{CH4} | PSW _{B,i} | PIB _{B,i} | PGW _{B,i} |
| | 0 | 0 | 0 | 0 |
| Part VI.B.6 Project Values for First Destruction Device | | | | |
| Source | Project C _{CH4} | PSW _{P,i} | PIB _{P,i} | PGW _{P,i} |
| | 42% | 0 | 0 | 21,173,654 |
| Part VI.B.8 Project Values for Second Destruction Device | | | | |
| Source | Project C _{CH4} | PSW _{P,i} | PIB _{P,i} | PGW _{P,i} |
| | 96% | | 108,725,922 | 0 |
| Part VI.B.9 Project Values for Third Destruction Device | | | | |
| Source | Project C _{CH4} | PSW _{P,i} | PIB _{P,i} | PGW _{P,i} |
| | 40% | 0 | 0 | 102,915,143 |
| Part VI.B.11 Other Values | | | | |
| CON _{ELEC} : 17 MWh | | CON _{HEAT} : N/A | | CON _{FF} : 7,122 gallons (distillate #2) 14 gallons (propane) |
| CE _{ELEC} : 0.430 (MT CO ₂ /MWh) | | CE _{HEAT} : N/A | | CE _{FF} : 10.206(kg CO ₂ /gallon) distillate #2 5.593 (kg CO ₂ /gallon) propane |
| <input checked="" type="checkbox"/> N/A | Site-specific Methane Destruction Efficiency | | | |

| Part VII. ATTESTATION AND OPO SIGNATURE | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------|---------------------------------------------|
|  Initial | I certify under penalty of perjury under the laws of the State of California the GHG reductions and/or GHG removal enhancements for Project Name: | | | |
| | Heilwood Mine Methane Incineration Project | | from | Reporting Period Start Date: 01-Nov-2021 |
| | | | to | Reporting Period End Date: 31-Oct-2022 |
| are measured in accordance with the Compliance Offset Protocol Mine Methane Capture Projects, April 25, 2014, and all information required to be submitted to ARB is true, accurate, and complete. | | | | |
| In signing this form, I certify under penalty of perjury of the laws of California that the information contained in this form is true, accurate, and complete. I further certify that I am an Account Representative of the Offset Project Operator (OPO). | | | | |
| SIGNATURE: | | | PRINTED NAME: | |
|  | | | Morgan Pate | |
| TITLE: | | | DATE: | |
| Senior Geologist | | | 02-FEBRUARY-2023 | |

Background for Mine Methane Capture Offset Project Data Report for Active Underground Mines

Section 95976(d) of the Cap-and-Trade Regulation specifies reporting requirements for offset projects participating in the Compliance Offset Program. Offset Project Operators (OPO) or Authorized Project Designees (APD) are required to submit an Offset Project Data Report (OPDR) within four months of the end of each (annual) Reporting Period. This form is designed to help OPOs and APDs provide the information required for offset projects using Compliance Offset Protocol Mine Methane Capture Projects, April 25, 2014. This form is submitted to the approved Offset Project Registry that is listing the offset project and should also be provided to the ARB-accredited verification body that will be verifying the Offset Project Data Report.

Where to Submit Information Contained in This Form

Please complete the information on the form using your computer. Then either add an electronic signature to the form or print, sign, and scan the form. The completed and signed information and all supporting documentation should be submitted to the appropriate Offset Project Registry.

This form is also available from the ARB website at:

<http://www.arb.ca.gov/cc/capandtrade/offsets/forms/forms.htm>

Detailed Instructions for Mine Methane Capture Offset Project Data Report for Active Underground Mines

This form is protected with restricted editing to facilitate completing the form. If the reporting OPO or APD wishes to unprotect the form, the password is "form".

Part I. Entity Submitting Report:

- Indicate whether the Offset Project Operator (OPO) or Authorized Project Designee (APD) is submitting the Offset Project Data Report (OPDR).
- Regulatory amendment in section 95976(d)(10) requires that each version of the OPDR specifies the version number and the date submitted. Moreover, the protocol requires that each OPDR include the date of completion. Please include the OPDR version number, the date of OPDR completion, and the date of OPDR submission to the Offset Project Registry.
- The person submitting the information should indicate the date the form is completed.
- List the name, phone, and email address of the person submitting the information. This person should be an employee of the OPO or APD. The person submitting the information need not be the contact person listed for the OPO or APD in Part III and also need not be the OPO's CITSS account representative signing the OPDR in Part VII.

Part II. Offset Project Information:

- Provide the name for the offset project and its Offset Project Registry ID number, as provided by the Offset Project Registry listing the project. Also include the ARB project ID number, if known.
- (For active underground mines, specify whether the project type includes either or both of the ventilation air methane and mine methane drainage types. Check the appropriate box(es).)
- Indicate the Offset Project Commencement Date and the start and end date of the Reporting Period covered in this Offset Project Data Report.

Part III. OPO/APD/TC Information:

- Enter contact information for the Offset Project Operator (OPO) and Authorized Project Designee (APD) for the offset project. Every project will have an OPO. If a project does not have an APD, please mark the box indicating the project does not have an APD and leave the remaining fields blank.
- For both the OPO and, if applicable, the APD, enter the entity's name, its CITSS ID number, its mailing address, its physical address (if different than mailing address), and the name, phone number, and e-mail address of a contact person for the entity. The CITSS ID is six characters in length, with two letters followed by four numbers (e.g., "CA1234"). **DO NOT PROVIDE THE OPO's or APD's CONFIDENTIAL CITSS ACCOUNT NUMBER**, which begins with the CITSS ID number followed by a hyphen and more numbers.
- Provide the same information for any technical consultants to the OPO or APD for this project. Provide the entity's name, its mailing address, its physical address (if different than mailing address), and the name, phone number, and e-mail address of a contact person for the entity.

**Submit the information in this form to
the appropriate Offset Project Registry**

- If there are no technical consultants or just one technical consultant, the appropriate check boxes may be marked to indicate that required information is not being omitted. If there are more than two technical consultants, either expand this section of the OPDR or provide the required information on separate, attached paper.

Part IV. Questions:

- This part includes two questions required in Compliance Offset Protocol Mine Methane Projects, April 25, 2014.
- First, the OPO or APD must respond whether the offset project has met all local, state, and federal regulatory requirements during the Reporting Period. Local regulatory requirements include those by any air quality, water quality, zoning, or other agency with jurisdiction over any aspect of the offset project. (For abandoned underground mine methane recovery activities, the OPO or APD must respond about regulatory requirements separately for each mine involved in the project.)
- Regulatory amendments in section 95973(b)(1), effective October 1, 2017, allow an OPO or APD to effectively exclude a time period during which a project is out of regulatory compliance and receive ARB or registry offset credits for the remainder of the reporting period. If an OPO or APD is excluding some dates, the OPO or APD should provide the excluded dates.
- Second, the OPO or APD must answer whether information submitted in the offset project listing remains accurate. If the listing information remains accurate, skip to Part V. For information which is no longer accurate, answer questions 2a through 2h to indicate which portions of the listing information is being updated in this report.

Part V. Mine Information:

- Specify the mining method(s) (e.g., longwall, room and pillar, or open-pit) employed during reporting period. (For abandoned underground mine methane recovery activities, specify the mining method(s) employed for each mine while it was active.)
- Report the Mineral Production during the Reporting Period. Include both the mineral(s) produced and the amount produced of each mineral (specifying the units).

Part VI. Reported GHG Emission Reduction Calculations:

- This part includes two sections, the first for ventilation air methane (VAM) and the second for mine methane drainage. If project activities include both types, complete both sections. If project activities include only one type (as specified in Part II), you may check the "not applicable" box at the start of that section to indicate that information is purposely not provided. Provide only the the information in the other section.

Part VI.A Calculated Values for Active Underground VAM Activities:

- Specify the number of both qualifying and non-qualifying destruction devices used in this reporting period for VAM activities. If there are more than three destruction devices, required reporting information for the additional destruction devices should be provided by either expanding the section or by providing the information on separate, attached paper.
- Provide the total emission reductions in metric tons CO₂e.
- Within the first two subsections of this part, provide the required *baseline* parameters. Within the next two sections, provide the required *project* parameters. For descriptions of each variable, please see the Compliance Offset Protocol Mine Methane Capture Projects, April 25, 2014, including subchapter 7.2 (beginning on page 129) for reporting requirements. Please report the volume of mine gas in standard cubic feet (scf).
- For "operational hours," this is the hours during which the destruction device was operational during reporting period (y), reported separately for each destruction device in the baseline and project scenarios.
- The hourly average flow rates (for both $VA_{flow,i,y}$ and $CA_{flow,i,y}$) should be provided as an attachment.
- Within the fifth and final subsection of this part, provide the other required reporting information.

Part VI.B Calculated Values for Active Underground Mine Methane Drainage Activities:

- Specify the number of both qualifying and non-qualifying destruction devices used in this reporting period for mine methane drainage activities. If there are more than two destruction devices, required reporting information for the additional destruction devices should be provided by either expanding the section or by providing the information on separate, attached paper.
- Similarly, specify the number of methane sources used in this reporting period and the number of pre-mining surface wells included in the project that were mined through during the reporting period. If there are more than three sources and/or more than two wells, required reporting information for the additional sources and/or wells should be provided by either expanding the section or by providing the information on separate, attached paper.

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the appropriate Offset Project Registry**

- Provide the total emission reductions in metric tons CO₂e.
- Within the first two subsections of this part, provide the required *baseline* parameters. Within the next two subsections, provide the required *project* parameters. For descriptions of each variable, please see the Compliance Offset Protocol Mine Methane Capture Projects, April 25, 2014, including subchapter 7.2 (beginning on page 129) for reporting requirements.
- For the volume of mine gas calculations (including PSW, PIB, and PGW) and the terms for pre-mining surface wells (including PSW_{nqd}, PSE_{pre}, PSE_{post}, and PSW), it may be appropriate to report values for only some calculations. As appropriate, fields for the other terms may be left blank.
- If there is only one destruction device for mine methane drainage activities, you may check the "not applicable" boxes for the second destruction device indicating these subparts of the MMC OPDR form are being purposely left blank.
- Within the fifth and sixth subsections of this part, provide any required values for pre-mining surface wells. If there are no pre-mining surface wells, the "N/A" boxes in these subsections may be checked to indicate are being purposely left blank.
- Identify each pre-mining surface well with its associated calculated values.
- Within the seventh and final subsection of this part, provide the other required reporting information.
- If site-specific methane destruction deficiency is use for any destruction device, provide the destruction efficiency, a description of the process of establishing the methane destruction efficiency, and the identity of any third parties involved. If a site-specific methane destruction deficiency is not used, the "N/A" box may be checked to indicate are being purposely left blank.

Part VII. Attestation and OPO Signature:

- Section 95975(d)(5) of the Cap-and-Trade Regulation requires an attestation for Offset Project Data Reports. The person signing the form should initial each attestation (no typed or printed initials).
- The attestation requires the applicant to provide some information to complete the statement. The project name should match the name entered in Part II. The dates covering the project Reporting Period must also be provided. Please note that the dates provided in the attestation should be the same dates provided in Part II.
- Amendments adopted in April 2014 to section 95976(d)(6) require the attestation "be provided to an Offset Project Registry with the Offset Project Data Report if the offset project is listed with an Offset Project Registry."
- The individual signing the document must be registered in CITSS as the OPO's Primary Account Representative or Alternate Account Representative. The individual signing the document may be an APD employee and/or representative; but to sign the document, the individual must be an Account Representative on the OPO's CITSS account.
- Please provide the individual's signature, printed name, corporate title, and date signed.