

## APPLICATION FOR LISTING A MINE METHANE CAPTURE OFFSET PROJECT

<b>OPR Staff Use Only</b>	Date Application Received:	OPR Tracking Number:	Date Application Reviewed:	<b>OPR Staff Use Only</b>
---------------------------	----------------------------	----------------------	----------------------------	---------------------------

### PART I. ENTITY APPLYING FOR LISTING

Is this form being submitted by the Offset Project Operator (OPO) or by the Authorized Project Designee (APD)?		<input checked="" type="checkbox"/> OPO <input type="checkbox"/> APD
Notes: 1. The person completing this form should be an OPO/APD employee. 2. If the APD is submitting this form, the OPO should submit the form Designation of Authorized Project Designee simultaneously.		

Name of Person Completing Form: Eric Townsend	Organizational Affiliation, if applicable: Blue Source LLC	
Date Form Completed: January 10, 2018	Phone Number: 801.438.1536	Email Address: etownsend@bluesource.com

### PART II. OFFSET PROJECT INFORMATION

Offset Project Name: Bluesource GCS Bear Canyon		
Mine Methane Capture Activity Type(s): <input type="checkbox"/> Active Underground Mine Ventilation Air Methane <input type="checkbox"/> Active Surface Mine Methane Drainage <input type="checkbox"/> Active Underground Mine Methane Drainage <input checked="" type="checkbox"/> Abandoned Underground Mine Methane Recovery		
Offset Project Commencement Date: February 1, 2018 (Approx.)	First Reporting Period Start Date: February 1, 2018 (Approx.)	First Reporting Period End Date: December 31, 2018 (Approx.)
Specify the action(s) that identify the offset project commencement date: First destruction of mine methane via flare will begin after a reasonable test period of the new system		
Is the project transitioning to the Compliance Offset Protocol Mine Methane Capture Projects after previously being listed as an early action offset project?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

### PART III. OPO/APD INFORMATION

<b>Part III.A OPO</b>			
OPO Name: Global Carbon Strategies	Organizational Affiliation, if applicable: N/A	OPO's CITSS ID#: CA 2 6 8 7	
Mailing Address: 743 Horizon Court, Suite 383	City: Grand Junction	State: CO	Zip: 81506
Physical Address (if different):	City:	State:	Zip:
Contact Person: Collon Kennedy	Phone Number: 303.808.6905	Email Address: nolloc08@aol.com	
<b>Part III.B APD (if applicable)</b> <input checked="" type="checkbox"/> No APD/Not Applicable			
APD Name:	Organizational Affiliation, if applicable:	APD's CITSS ID#:	
Mailing Address:	City:	State:	Zip:
Physical Address (if different):	City:	State:	Zip:
Contact Person:	Phone Number:	Email Address:	

**PART IV. OFFSET PROJECT LOCATION**

<b>*Street Address of Mine Site (if available):</b> 794 North C Canyon Road	<b>*City:</b> East Carbon	<b>*State:</b> UT	<b>*Zip:</b> 84520
<b>*Latitude of Mine Site:</b> 39.62	<b>*Longitude of Mine Site:</b> -110.44		
<b>Mine Basin:</b> Book Cliffs			
<b>*Does the project occur on private, public, or a combination of private and public lands?</b> <input type="checkbox"/> Private <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private and Public			
<b>*Does the offset project occur on any of the following categories of land? (check all that apply)</b> <input type="checkbox"/> Land that is owned by, or subject to, an ownership of possessory interest of a Tribe <input type="checkbox"/> Land that is "Indian lands" of a Tribe as defined by 25 U.S.C. §81(a)(1) <input type="checkbox"/> Land that is owned by any person, entity, or Tribe, within the external borders of such Indian lands <input checked="" type="checkbox"/> None of the above			
If "none of the above," skip to Part V. Otherwise, proceed to the questions below.			
<b>*Does a limited waiver of sovereign immunity between ARB and the governing body of the Tribe exist?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No			
<b>*Describe how the land within the Project Area is owned:</b>			

**PART V. MINE INFORMATION**

<b>*Mine Safety and Health Administration (MSHA) Identification Number:</b> 42-02233	<b>*MSHA Classifications</b>		
	<input checked="" type="checkbox"/> Coal <input type="checkbox"/> Metal <input type="checkbox"/> Nonmetal	<input checked="" type="checkbox"/> Underground <input type="checkbox"/> Surface	<input type="checkbox"/> Active <input checked="" type="checkbox"/> Abandoned
<b>*Mining Method Employed (e.g., longwall, room and pillar, or open pit):</b> Longwall			
<b>*Average Annual Mineral Production (specify mineral produced and unit):</b> ~2,600,000 short tons bituminous coal per year. Actual range during operation: ~500k-4.25M			
<b>*Year of Initial Production:</b> 1999		<b>*Year of closure (estimate if mine is not yet closed):</b> 2016	
<b>Name of state and/or federal agency(ies) responsible for issuing mine leases and/or permits:</b> Utah Division of Oil, Gas and Mining			
<b>Permits obtained, or to be obtained, to build and operate the project:</b> Department of Air Quality (engines, flare), Department of Oil, Gas & Mining - Office of Surface Mining (separation of emission reduction project from mine permit), State Institutional Trust Lands Association (plan of operations). All permits issued.			
<b>Describe the mine and resource ownership and operation structures:</b> The West Ridge mine is operated by West Ridge Resources Inc and is controlled by Murray Energy. The emissions reduction project is located on land owned by the State of Utah and managed by the Utah State School and Institutional Trust Lands Association (SITLA). The methane rights are leased from SITLA by OPO. OPO purchased the existing wells from the Mine and owns the destruction equipment.			



**PART VI. OTHERS INVOLVED IN PROJECT**

<b>*Mine Owner:</b>	Name: Murray Energy Corporation					
	Mailing Address: 46226 National Rd.		City: St. Clairsville	State: OH	Zip: 43950	
<b>*Parent Company:</b>	Name (if different from Mine Owner):					
	Mailing Address:		City:	State:	Zip:	
<b>*Mine Operator:</b>	Name (if different from Mine Owner): West Ridge Resources Inc					
	Mailing Address: 794 Water Canyon		City: East Carbon	State: UT	Zip: 84520	
<b>*Surface Owner:</b>	Name (if different from Mine Owner): State of Utah					
<b>*Mine Methane Owner:</b>	Name (if different from Mine Owner): Utah State School and Institutional Trust Lands Association					
	Mailing Address: 675 E. 500 S., Suite 500		City: Salt Lake City	State: UT	Zip: 84102	
<b>*Methane Destruction System Owner:</b>	Name (if different from mine owner, OPO, or APD): OPO					
	Mailing Address:		City:	State:	Zip:	
<b>Other Parties with a Material Interest:</b>	1.	Name:				
		Contact Person:	Phone Number:	Email Address:		
	2.	Name:				
		Contact Person:	Phone Number:	Email Address:		
<b>Technical Consultants:</b>	1.	Name: Gary Green			Organizational Affiliation, if applicable: Gary Green Energy Consultants LLC	
		Phone Number: 435.820.0482		Email Address: garygreenenergyconsultants@gmail.com		
		Mailing Address: 2366 South 190 East		City: Price	State: UT	Zip: 84501
		Physical Address (if different):		City:	State:	Zip:
	2.	Name: See Attachment, "Schedule I"			Organizational Affiliation, if applicable:	
		Phone Number:		Email Address:		
		Mailing Address:		City:	State:	Zip:
		Physical Address (if different):		City:	State:	Zip:

## PART VII. GHG EMISSIONS

Describe any mine methane destruction occurring at the mine prior to the offset project commencement date:

None

Provide a qualitative characterization and quantitative estimate of the baseline emissions at the mine including an explanation of how the quantitative estimate was reached:

See attachment, "West Ridge Reserves and Decline Curve Assessment"

Describe the project activities that will lead to GHG emission reductions:

See attachment, "Schedule II"

Is this offset project being implemented and conducted as the result of any law, statute, regulation, court order, or other legally binding mandate? If yes, explain below:

☐ Yes  
☒ No

\*Have any GHG reductions associated with the offset project ever been registered with or claimed by another registry or program, or sold to a third party prior to our listing? If yes, identify the registry or program, vintage(s) of credits issued, reporting period(s), and verification bodies below:

☐ Yes  
☒ No

\*Registry/Program:

\*Reporting Period(s):

\*Vintage(s):

\*Credits Issued:

\*Verification Bodies that have performed verification services:

## PART VIII. ATTACHMENTS

On an attached separate sheet(s) of paper provide:

Attachment A: \*Documentation showing the Offset Project Operator's legal authority to implement the offset project.

Attachment B: \*Bird's-eye view map of the mine site that includes the items specified in MMC Protocol section 7.1(b)(34).

Attachment C: \*Diagram of the project site that includes the items specified in section 7.1(b)(35) or 7.1(b)(36), according to activity.

Attachment D: \*If the project is located on one of the categories of Tribal land listed in Part IV, provide documentation demonstrating that the land within the Project Area is owned by (or subject to an ownership or possessory interest of) a tribe or private entity. Also provide documentation that demonstrates the existence of a limited waiver of sovereign immunity between ARB and the governing body of the Tribe entered into pursuant to section 95975(l) of the Cap-and-Trade Regulation.

## PART IX. ATTESTATIONS AND OPO SIGNATURE

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:

Bluesource GCS Bear Canyon

from

Crediting Period  
Start Date:

February 1, 2018

to

Crediting Period End  
Date:

December 31, 2027

will be measured in accordance with the Compliance Offset Protocol Mine Methane Capture Projects and all information required to be submitted to ARB is true, accurate, and complete.

I understand I am voluntarily participating in the California Greenhouse Gas Cap-and-Trade Program under title 17, article 5, and by doing so, I am now subject to all regulatory requirements and enforcement mechanisms of this program and subject myself to the jurisdiction of California as the exclusive venue to resolve any and all disputes arising from the enforcement of provisions in this article.

I understand that the offset project activity and implementation of the offset project must be in accordance with all applicable local, regional, and national environmental and health and safety laws and regulations that apply to the offset project location. I understand that offset projects are not eligible to receive ARB or registry offset credits for GHG reductions and GHG removal enhancements that are not in compliance with the requirements of the Cap-and-Trade Program.

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:

*Roger Williams III*

PRINTED NAME:

Roger Williams

TITLE:

President - Blue Source LLC

DATE:

January 10, 2018

## **Background for Application of Listing a Mine Methane Capture Offset Project**

---

Section 7.1 of the Compliance Offset Protocol Mine Methane Capture Projects and Section 95975 of the Cap-and-Trade Regulation describe the requirements and process for an Offset Project Operator (OPO) or Authorized Project Designee (APD) to list an offset project with an approved Offset Project Registry. This form is designed to help an OPO or APD fulfill the requirements for listing an offset project. The information in the completed form should be submitted to the approved Offset Project Registry with which the OPO or APD would like their offset project listed.

## **Where to Submit Information Contained in This Form**

---

Please complete the information on the form using your computer. Then, you may 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 Application to List a Mine Methane Capture Offset Project**

---

To facilitate checking boxes, this form is protected with restricted editing. If the applicant wishes to unprotect the form, the password is "form."

Note that Abandoned Mine Methane Recovery activities that are comprised of multiple mines, as allowed for by section 2.4 of the Compliance Offset Protocol Mine Methane Capture Projects, must provide the items marked with an asterisk (\*) for each involved mine.

### **Part I. Entity Applying for Listing:**

- Indicate whether the Offset Project Operator (OPO) or Authorized Project Designee (APD) is submitting the information for project listing.
- Section 95975(a) of the Cap-and-Trade Regulation requires the OPO and, if applicable, the APD, to register with ARB for the Cap-and-Trade Program prior to listing a project. It also requires that neither the OPO nor APD may be subject to any Holding Account restrictions imposed as part of an enforcement action. To register with ARB, please visit the website for Compliance Instrument Tracking System Services (CITSS): <https://www.wci-citss.org/>
- List the name, organization, phone number, and email address of the person submitting the information. This person should be an employee of the OPO or APD, whichever entity is making the submission. The person submitting the information need not be the same person as the contact person listed for the OPO or APD in Part III and also need not be the person signing the form in Part IX.
- The person submitting the information should indicate the date the form is completed.

### **Part II. Offset Project Information:**

- Provide the name for the offset project.
- Indicate the mine methane capture activity type(s) proposed. At active underground mines, an OPO or APD may operate both VAM and methane drainage activities as a single offset project sharing the earliest commencement date. Alternatively, the OPO or APD may elect to operate separate offset projects for each activity with unique commencement dates. If the OPO or APD chooses to operate separate offset projects, listing information must be submitted separately.
- Indicate the offset project commencement date; an approximation is acceptable if the precise date is unknown. Specify the action(s) that identify the offset project commencement date.
- Indicate the start and end dates of the first reporting period; approximations are acceptable if the precise dates are unknown.
- State whether the project is transitioning to the Compliance Offset Protocol Mine Methane Projects, after previously being listed as an early action offset project.

### **Part III. OPO/APD Information:**

- Enter contact information for the OPO and APD. Every offset project will have an OPO. If an offset project does not have an APD, please mark the box indicating the offset 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, and the name, phone number, and e-mail 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.

### **Part IV. Offset Project Location:**

- Provide the street address, if available, and latitude and longitude of the mine site.
- Provide the mine basin as defined by AAPG Geologic Note: AAPG-CSD Geological Provinces Code Map: AAPG Bulletin, Prepared by Richard F. Meyer, Laurie G. Wallace, and Fred J. Wagner, Jr., Volume 75, Number 10 (October 1991).
- Indicate whether the project occurs on private, public, or a combination of private and public land.
- Specify if the project is located on one of the categories of Tribal land listed. If the project is located on Tribal land, the project must submit the related attachments listed in section VIII.

### **Part V. Mine Information**

- Provide the Mine Safety and Health Administration (MSHA) identification number associated with the mine. Indicate how the mine is classified by MSHA.
- Specify the mining method employed, the year of initial production, year of closure (estimate if mine is not yet closed), and the average annual mineral production.
- Name the state and/or federal agency(ies) responsible for issuing mine leases and/or permits.
- List any permits obtained, or to be obtained, for the purposes of building or operating the offset project.
- Describe the mine and resource ownership and operation structures including the mine owner/lessee, parent companies, mine operator, mine methane owner/lessee, surface owner, methane destruction system owner, and any other parties with a material interest in the mine or project.

### **Part VI. Others Involved in Project:**

- Identify the mine owner, parent company (if applicable), mine operator, surface owner, mine methane owner, methane destruction system owner, and any other parties with a material interest.
- Identify any technical consultants. For each, provide the entity name as well as the name and specified contact information of a person able to answer questions regarding the offset project.
- Please identify all such entities and/or individuals expanding the section or attaching additional sheets as necessary. Expanding the section will require unrestricting the editing, for which the password is "form."

### **Part VII. GHG Emissions:**

- Describe any mine methane destruction occurring at the mine prior to the offset project commencement date. List the source of the methane destroyed, destruction device(s) used, and device operation dates.
- Provide a qualitative characterization and quantitative estimate of the baseline emissions at the mine including an explanation of how the quantitative estimate was reached.
- Describe the project activities that will lead to GHG emission reductions including the methane end-use management option(s), destruction devices, and metering and data collection systems to be employed by the project.
- Disclose if the offset project is being implemented and conducted as the result of any law, statute, regulation, court order, or other legally binding mandate. If yes, provide further detail for the reductions claimed and/or credits that have been issued.
- Disclose if any GHG reductions associated with the offset project have ever been registered with or claimed by another registry or program, or sold to a third party prior to our listing. Identify the registry or program as well as the vintage(s) of credits issued, reporting period(s), and verification bodies that have performed verification services.

### **Part VIII. Attachments:**

- As required by the Compliance Offset Protocol Mine Methane Protocol, provide the following as attachments to the listing information contained in this form:
  - A. Documents showing the Offset Project Operator's legal authority to implement the offset project
  - B. Bird's-eye view map of the mine site that includes:

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

1. Longitude and latitude coordinates
  2. Governing jurisdictions
  3. Public and private roads
  4. Mine permit boundary
  5. Mine lease boundary, if applicable
- C. Diagram of the project site that includes:
1. For active underground ventilation air methane activities:
    - a. Location of ventilation shafts included in the project. Assign a number to each piece of equipment and, on a separate sheet of paper:
      - 1) Indicate whether the ventilation shaft is currently existing or planned
      - 2) Indicate whether or not the ventilation shaft was connected to a non-qualifying destruction device at any point during the year prior to offset project commencement
    - b. Location of equipment used to collect, treat, store, meter, and destroy ventilation air methane in use prior to offset project commencement. Assign a number to each piece of equipment and, on a separate sheet of paper:
      - 1) Indicate whether or not the piece of equipment will be part of the project
      - 2) Provide a description, including the purpose, of the piece of equipment
      - 3) For destruction devices, provide the operation dates (approximate dates are acceptable)
      - 4) For destruction devices, indicate whether it is a qualifying or non-qualifying destruction device in accordance with chapter 2 of the Compliance Offset Protocol Mine Methane Capture Projects
      - 5) For non-qualifying destruction devices that were operating at the mine prior to offset project commencement and during the year immediately preceding offset project commencement, provide the volume or mass of ventilation air sent to the device during the three-year period prior to offset project commencement (or during the length of time the device is operational, if less than three years), adjusted for temperature and pressure using equation 5.11 of the Compliance Offset Protocol Mine Methane Capture Projects, if applicable, averaged according to the length of the initial reporting period
      - 6) For non-qualifying destruction devices that were operating at the mine prior to offset project commencement and during the year immediately preceding offset project commencement, provide the volume or mass of ventilation air sent to the device during the time period a law, regulation, or legally binding mandate, in place for less than three years prior to offset project commencement, was in effect, adjusted for temperature and pressure using equation 5.11 of the Compliance Offset Protocol Mine Methane Capture Projects, if applicable, and averaged according to the length of the initial reporting period
    - c. Location of equipment used to collect, treat, store, meter, and destroy ventilation air methane installed as part of the project. Assign a number to each piece of equipment and, on a separate sheet of paper
      - 1) Provide a description, including the purpose, of the piece of equipment
      - 2) For destruction devices, provide the operational date or expected operational date (approximate dates are acceptable)
      - 3) For destruction devices, indicate whether it is a qualifying or non-qualifying destruction device in accordance with chapter 2 of the Compliance Offset Protocol Mine Methane Capture Projects
  2. For active underground mine methane drainage activities, active surface mine methane drainage activities, and abandoned underground mine methane recovery activities:
    - a. Location of wells and boreholes included in the project. Assign a number to each piece of equipment and, on a separate sheet of paper:
      - 1) Indicate whether the well/borehole is currently existing or planned
      - 2) Indicate whether or not the well/borehole was connected to a non-qualifying destruction device at any point during the year prior to offset project commencement
      - 3) Indicate the methane source type (i.e., pre-mining surface well, pre-mining in-mine borehole, post-mining gob well, existing CBM well that would otherwise be shut-in and abandoned, abandoned well that is reactivated, or converted dewatering wells)
      - 4) For pre-mining surface wells, indicate whether or not the well is mined through, and when the well was, or is expected to be, mined through
    - b. Location of equipment used to collect, treat, store, meter, and destroy MM/SMM/AMM in use prior to offset project commencement. Assign a number to each piece of equipment and, on a separate sheet of paper:

- 1) Indicate whether or not the piece of equipment will be part of the project
  - 2) Provide a description, including the purpose, of the piece of equipment
  - 3) For destruction devices, provide the operation dates (approximate dates are acceptable)
  - 4) For destruction devices, indicate whether it is a qualifying or non-qualifying destruction device in accordance with chapter 2 of the Compliance Offset Protocol Mine Methane Capture Projects
  - 5) For non-qualifying destruction devices that were operating at the mine prior to offset project commencement and during the year immediately preceding offset project commencement, provide the volume or mass of mine gas sent to the device during the three-year period prior to offset project commencement (or during the length of time the device is operational, if less than three years), adjusted for temperature and pressure using equation 5.11 of the Compliance Offset Protocol Mine Methane Capture Projects, if applicable, averaged according to the length of the initial reporting period
  - 6) For non-qualifying destruction devices that were operating at the mine prior to offset project commencement and during the year immediately preceding offset project commencement, provide the volume or mass of mine gas sent to the device during the time period a law, regulation, or legally binding mandate, in place for less than three years prior to offset project commencement, was in effect, adjusted for temperature and pressure using equation 5.11 of the Compliance Offset Protocol Mine Methane Capture Projects, if applicable, and averaged according to the length of the initial reporting period.
- c. Location of equipment used to collect, treat, store, meter, and destroy MM/SMM/AMM installed as part of the project. Assign a number to each piece of equipment and, on a separate sheet of paper:
- 1) Provide a description, including the purpose, of the piece of equipment
  - 2) For destruction devices, provide the operational date or expected operational date (approximate dates are acceptable)
  - 3) For destruction devices, indicate whether it is a qualifying or non-qualifying destruction device in accordance with chapter 2 of the Compliance Offset Protocol Mine Methane Capture Projects
- D. If the project is located on one of the categories of Tribal land listed in Part IV, provide documentation demonstrating that the land within the Project Area is owned by (or subject to an ownership or possessory interest of) a tribe or private entity. Also provide documentation that demonstrates the existence of a limited waiver of sovereign immunity between ARB and the governing body of the Tribe entered into pursuant to section 95975(l) of the Cap-and-Trade Regulation.

#### **Part IX. Attestations and OPO Signature:**

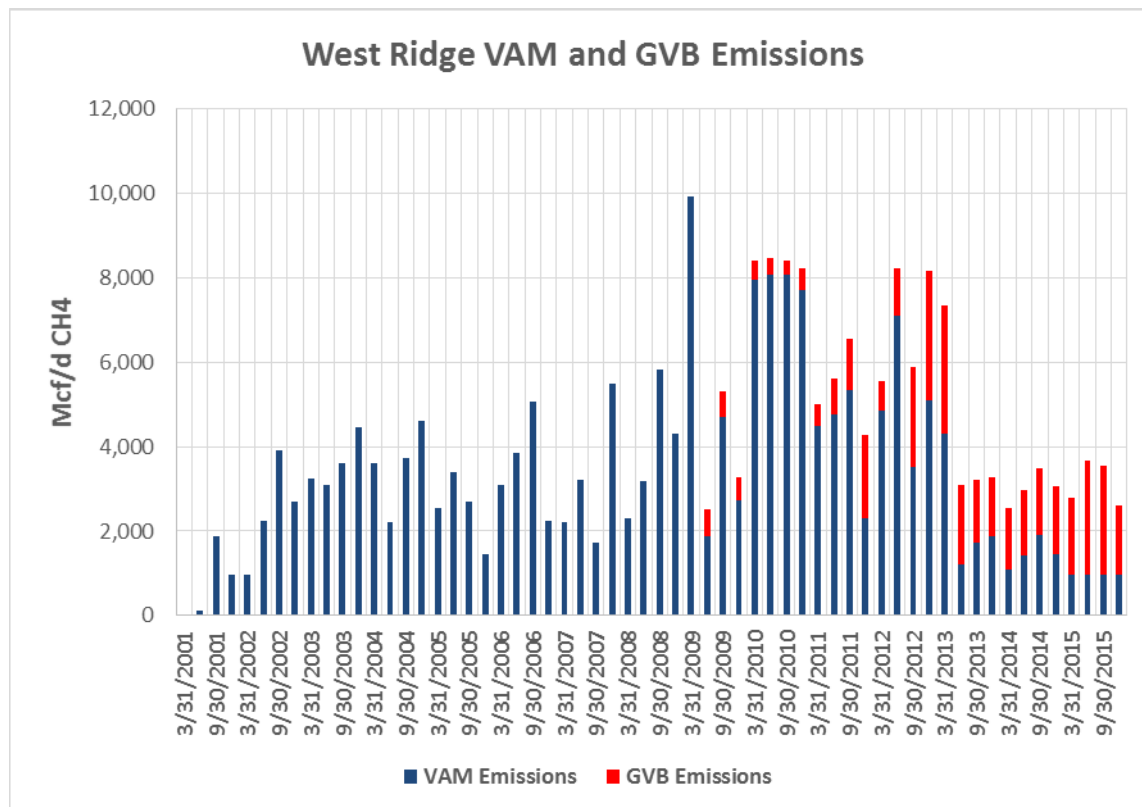
- Section 95975(c) of the Cap-and-Trade Regulation requires three attestations for listing an offset project. The required attestations are provided in this section. The person signing the form should initial each attestation (no typed or printed initials).
- The first attestation requires the applicant to provide the offset project name and the start and end dates of the crediting period to complete the statement. The offset project name should match the name entered in Part II. The dates for the Offset Project's crediting period must also be provided. Please note that the dates provided in the attestation are for the crediting period, not for the first reporting period provided in Part II. The crediting period dates may be approximate if precise dates are not known.
- Amendments adopted in April 2014 to section 95975(d) require the attestations "be provided to an Offset Project Registry with the listing information, if being 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 person's signature, printed name, corporate title, and date signed.



## Introduction

The West Ridge coal mine is an underground coal mine located in Carbon County Utah. Coal production from the lower Sunnyside coal seam totaled approximately 45 million short tons of high quality steam coal from 2000 through 2015. Approximately 18 billion cubic feet (bcf) of methane has been vented from the mine for a specific emission rate of 422 scf CH<sub>4</sub>/short ton of coal produced.

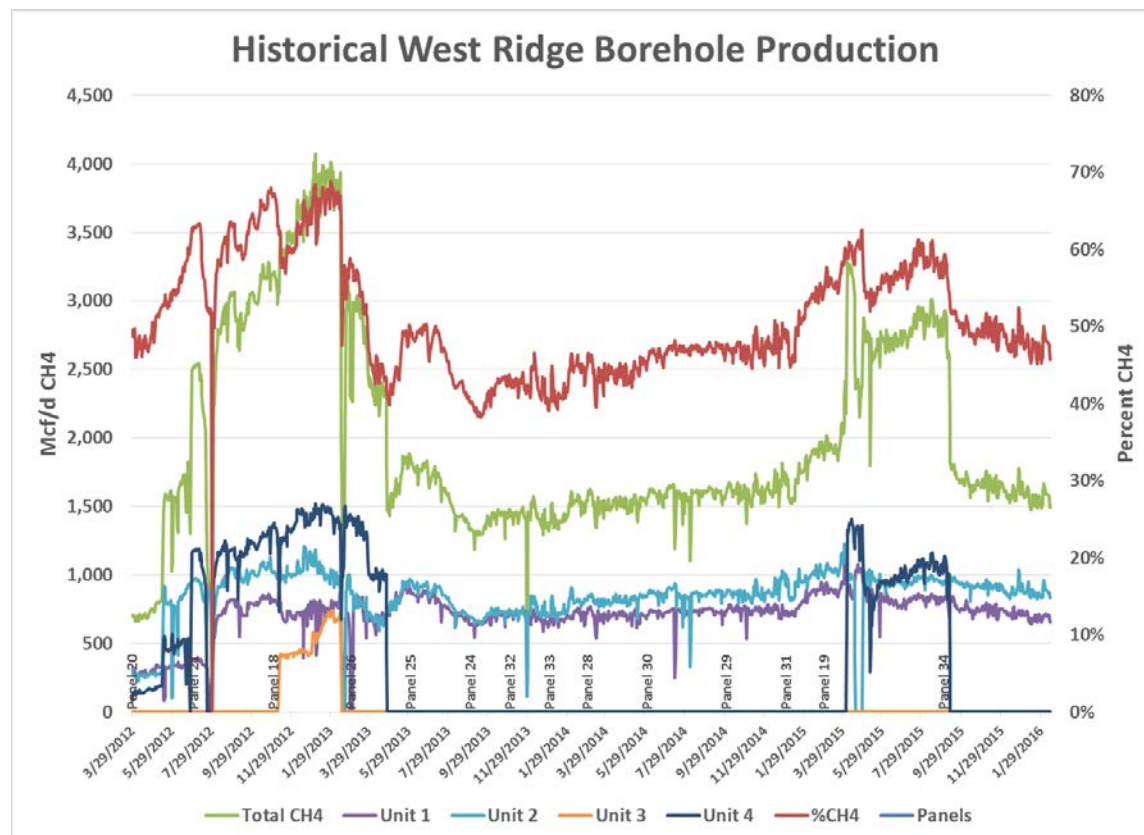
As the mining operations approached a depth of 2,500 feet while mining panel 14, methane emissions into the workings became critical and gas was vented from the mined out panels of the western district through three wellbores into Panel 8 gob area. Later, in 2012, after coal removal from the western district was completed and sealed off from the central mains and the eastern district, the gas was drained through the western bleeder roadway which was accessed by a wellbore at the same surface location as the other wellbores. Upon completion of mining operations seals and piping within the mine were modified to ensure that the entire mine workings would be in pressure communication with the gob vent borehole (GVB). **Figure 1** shows the ventilation air methane (VAM) emissions and the GVB emissions as a stacked columnar chart.



**Figure 1.** Historical methane emissions from the West Ridge coal mine

Mine management kept records of the daily volume and methane concentration of the GVB drained gas from 2012 when the wellbore into the bleeder roadway was activated and wellbore deliverability increased dramatically as shown in **Figure 2**. There are four methane extractor units (MEUs) on location at the GVB. Units 1 and 2 were almost continually active with Units 3 and 4 active during the period when the deepest and gassiest panels, 23, 21 and 18 were mined. Emissions diminished after mining

returned to shallower, less gassy areas of the mine and only Units 1 and 2 were used. The last deep, gassy panel (panel 19) was started in March of 2015 when Units 1, 2, and 3 were used to maintain safe methane levels in the mine workings.



**Figure 2.** Historical methane production from the GVB well in roadway

## Forecasting Reserves

### Analysis Approach

Our approach to estimating the methane resource available for use and the probable rate of recovery of that resource is based on a combination of gas material balance and emission rate calculations. The material balance calculations are based on:

1. Original volume of methane in place
2. The amount of methane liberated during active mining
3. The amount of gas emitted to the atmosphere post mining (during abandonment) to the estimated start of the methane capture project based on a decay function
4. A projection of this decay function into the future

In order to perform the necessary calculations the following data is needed:

- Percent methane in the coal gas
- Langmuir volume (VL, scf/ton)
- Langmuir pressure (PL, psia)
- The total coal thickness (Including the mined seam) in the region within 500 feet above and 100 feet below the mined seam
- The thickness of the mined seam



- Original methane content of the coal (scf/ton)
- The average specific emissions of the mine (scf CH<sub>4</sub>/ton of coal mined)
- Year of initial coal production
- Year of mine closure
- Mined area
- Total coal produced over the life of the mine

**Table 1** lists the values used in the analysis

<b>Table 1: Parameters and values used in model</b>	
<b>Parameter</b>	<b>Value</b>
Percent Methane in coal	90% (est)
Percent Methane in mine void	60% (variable)
Langmuir Volume (scf/ton)	897 scf/ton
Langmuir Pressure (psia)	265 psi
Bounding Coal Thickness (ft)	8.0
Mined Seam Thickness (ft)	8.0
Original Gas Content (scf/ton)	192 scf/ton
Specific Emissions (scf/ton)	422 scf/ton
Year of Initial Coal Production	1999
Year of Mine Closure	2015
Mined Area (acres)	5,581
Coal Produced (million short tons)	45

This data was obtained from MSHA, mine management and geologic studies of the area.

### Original Methane In-Place

The parameters used to determine this value are

- The total coal thickness within 500 feet above and 100 feet below the mined seam. Methane contained in coals within this zone may contribute to mine emissions where longwall mining is performed or pillars are pulled. The zone of influence may be less for room and pillar mines
- Mining area. This is determined as the mine boundary upon completion of mining
- The original gas content expressed as standard cubic feet of gas adsorbed within one short ton of coal.
- Percent methane in the coal seam gas

### Methane Liberated During Mining

The amount of methane liberated during mining includes methane ventilated and drained from the mine during operations. This includes methane contained in the coal that was removed as well as methane that entered the mine workings from above and below the mined seam. This is generally a measured value and is often reported as a specific or relative emission which is expressed as scf/ton coal of production. Methane liberated is a product of specific emissions and tons of coal mined over the life of the mine.

### Methane Emitted Post Mining

This is the volume of methane that is estimated to have been emitted to the atmosphere after mine closure. This is a function of the average methane emission rate over the life of the mine, the adsorption

pressure at closure (as determined by the adsorption isotherm) and the time since closure. A decay function is generated based on the adsorption isotherm of the coal.

Methane flow through coal can be approximated by general rules of fluid flow through porous media using Darcy's law. Gas production from oil and gas wells is predicted using Darcy's Law together with material balance equations. In this context, the well acts as a material sink whose rate of withdrawal is a function the permeability of the rock, the viscosity of the gas, the geometry and configuration of the pressure sink and outside gas reservoir, the thickness of the flow unit and the difference between a specified pressure at the well and the pressure at some outside boundary of the gas reservoir. This function can be expressed as the productivity index (PI). The PI can be empirically derived from observed data so that individual values of the relevant parameters don't need to be known. The PI has units of rate per pressure difference squared.

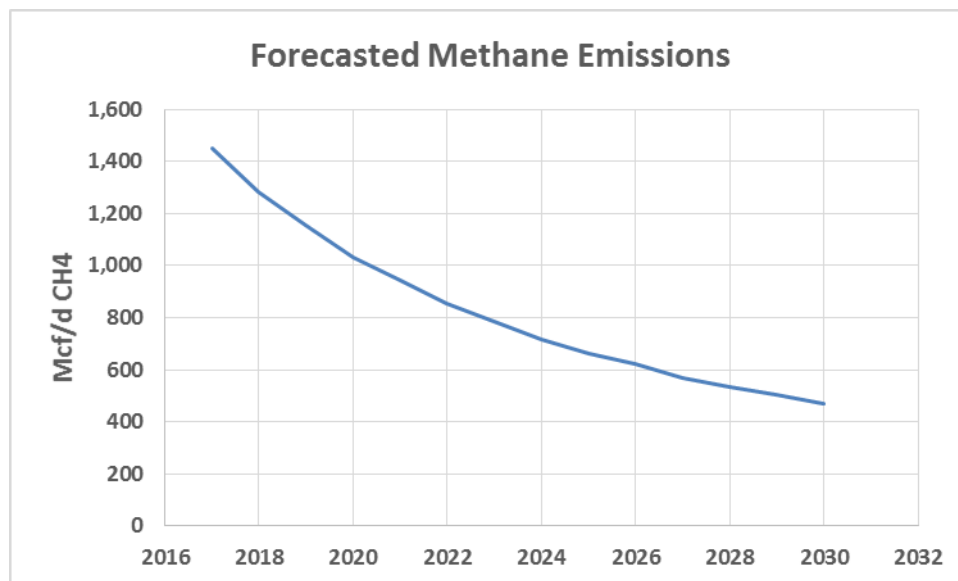
By analogy, the GVB acts as the wellbore, the gas in the mine void (workings) and the coal within and peripheral to the mine is the reservoir of the stored methane. The PI can be considered a constant at the low pressures involved in an abandoned mine system. **Table 2** shows the results of the material balance analysis.

<b>Table 2: Methane emitted from coal through time and methane estimated remaining in coal at 2014 in Baker Mine</b>	
<b>Material Balance Parameter</b>	<b>Bcf CH<sub>4</sub></b>
Original CH <sub>4</sub> In-Place (Bcf)	28.321
CH <sub>4</sub> Liberated During Mining (Bcf)	18.399
CH <sub>4</sub> Emitted Post Mining (Bcf)	0.530
CH <sub>4</sub> Remaining at 2017 (Bcf)	9.392

**Table 2** relates to methane adsorbed in the coal. An additional approximately 0.5 Bcf of methane also resides in the free gas state in the mine void. This will be addressed in a following section.

### **The Decline Function**

Knowing the adsorption isotherm of a coal; that is the methane storage capacity of the coal as a function of pressure, allows the calculation of the adsorption pressure if the volume of methane and mass of coal remaining in the system at closure has been determined. As methane is removed from the system at the rate determined by the PI and adsorption pressure at a given time, the amount of gas removed over a period of time can be determined as well as the adsorption pressure calculated at the end of that time period. A new (lower) emission rate is determined by using this new adsorption pressure together with the PI. **Figure 3** shows the decline curve associated with the methane released from the coal since the mine closure.

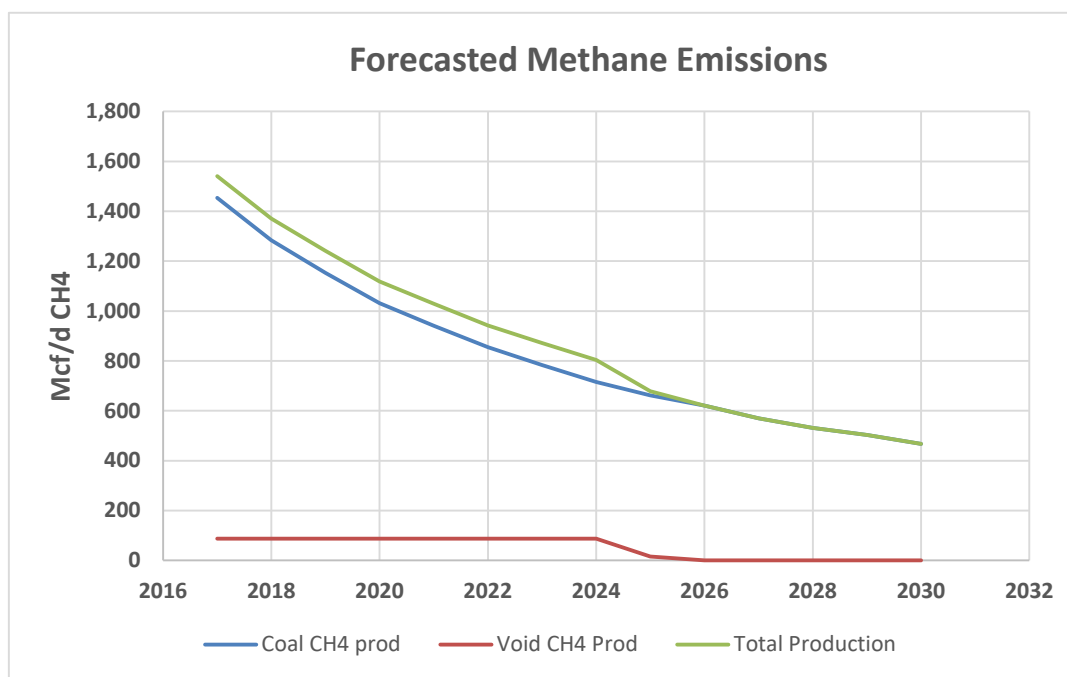


**Figure 3.** Model forecasted methane released from coal remaining in the mine from time of closure

#### Production from the Mine Void

Abandoned coal mines have a dual gas reservoir system; methane adsorbed within the coal and methane as a free gas in the mine void. The decline function described above relates to the methane within the coal. The behavior of the free gas within the void is determined by the real gas law. This law describes how the gas pressure in the void declines as gas volume is removed.

**Figure 4** shows the void methane production rate and the methane rate from the coal as well as the combined rate.



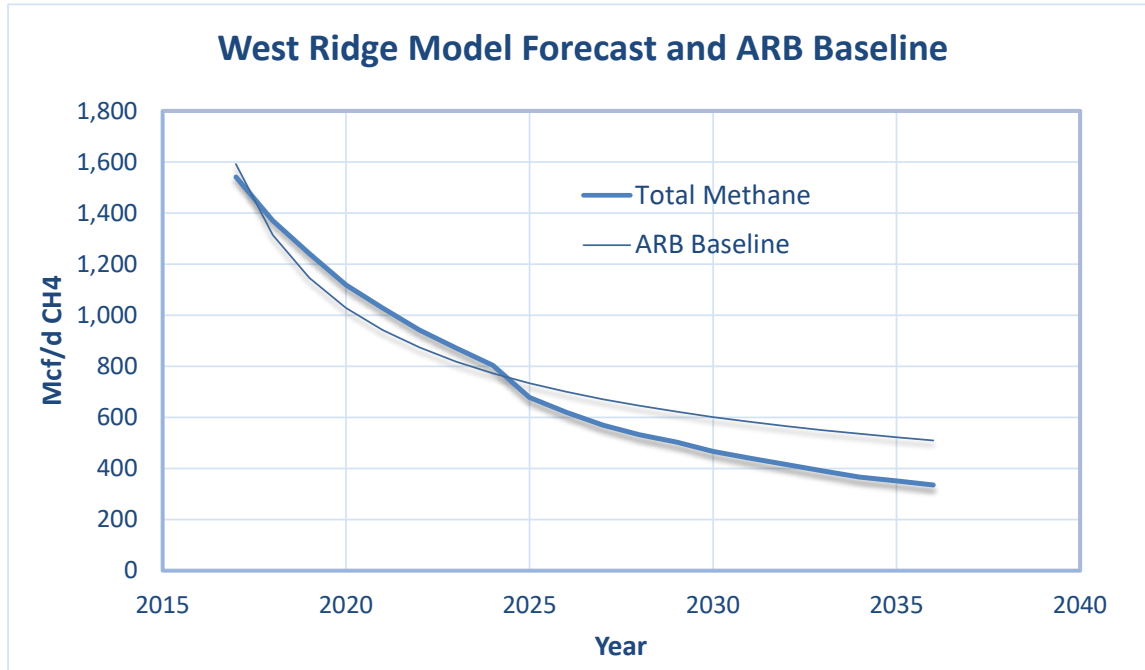
**Figure 4.** Forecasted methane rates from the coal matrix, the void volume and total

The void production rate is controlled by the suction pressure applied to the GVB. The greater the suction, the greater the void production rate. However, when the void pressure reaches the maximum suction able to be supplied by the blower no additional gas will be produced from the void and only gas desorbing from the coal will be produced (although it will be produced through the void volume), so a higher suction pressure will accelerate the void gas production but will not produce more gas in total. The production rate from the coal is based on an assumption of atmospheric pressure in the mine. No effort has been made to link the void pressure with the production rate from the coal because of the low pressures involved. The void production shown in **Figure 4** is based on a 0.3 psi drawdown between atmospheric pressure and mine void pressure with a limiting value of 6 psia in the void (6.3 psia suction pressure maximum). **Table 3** shows methane rate through time

<b>Year</b>	<b>Coal CH<sub>4</sub> prod</b>	<b>Void CH<sub>4</sub> Prod</b>	<b>Total Methane</b>
<b>2017</b>	1,453	88	1,541
<b>2018</b>	1,283	88	1,371
<b>2019</b>	1,154	88	1,241
<b>2020</b>	1,031	88	1,119
<b>2021</b>	941	88	1,028
<b>2022</b>	854	88	942
<b>2023</b>	784	88	871
<b>2024</b>	716	88	804
<b>2025</b>	662	16	678
<b>2026</b>	620	0	620
<b>2027</b>	570	0	570
<b>2028</b>	532	0	532
<b>2029</b>	503	0	503
<b>2030</b>	467	0	467

## **Relating Methane Reserves to ARB Mine Methane Capture Project Protocol**

The California Air Resource Board cap and trade program has adopted “Compliance Offset Protocol Mine Methane Capture Projects, Capturing and Destroying Methane from U.S. Coal and Trona Mines”. This protocol allows methane destruction from both abandoned and active underground mines. There is no restriction on the amount of methane that can be destroyed from an active mine, while methane destruction from an abandoned mine can only be credited up to a rate established by the protocol’s baseline emission determination. The baseline determination is established as an estimation of the amount of methane that would naturally escape the abandoned mine through fugitive and dispersed emissions through fractures in the overburden and through pathways associated with shafts and wellbores. **Figure 5** shows how the ARB baseline compares to the current reserves forecast.



**Figure 5.** Forecasted methane production rate together with ARB baseline emissions

All options for methane destruction are available to project developers including flaring of the gas. Unfortunately because of the remoteness of the well site the only feasible option is to flare the gas which will produce CO<sub>2</sub> but will reduce the global warming potential of the mine gas by 87%. Cumulative expected recovery through 2030 is 4,485,477 Mcf CH<sub>4</sub> or 1,576,249 mtCO<sub>2</sub>e net of produced CO<sub>2</sub>.

## SCHEDULE I

### BLUESOURCE GCS BEAR CANYON

#### ADDITIONAL TECHNICAL CONSULTANTS

CONSULTANT/CONTRACTOR	CONTACT	MAJOR RESPONSIBILITIES
Gary Green Energy Consultants LLC 2366 South 190 East Price, UT 84501 Ph: 435 820 0482	Gary Green, Field Service Coordinator <a href="mailto:garygreenenergyconsultants@gmail.com">garygreenenergyconsultants@gmail.com</a>	Manage GCS' day-to-day field services
BODEC, Inc. 90 East 1300 South Price, UT 84501 Ph: 435 613 0700	Daryl Hussey <a href="mailto:dhussey@brunoengineering.com">dhussey@brunoengineering.com</a>  Art Bruno, P.E. <a href="mailto:abruno@brunoengineering.com">abruno@brunoengineering.com</a>	General Contractor, pipeline construction, installation of flare electronics, power and telemetry systems
Norwest Corporation American Plaza II 57 West 200 South, Suite 500 Salt Lake City, UT 84101 Ph: 801 539 0044	John Trygstad, P.E. <a href="mailto:jtrygstad@norwestcorp.com">jtrygstad@norwestcorp.com</a>  Darrin Dority, P.E. <a href="mailto:ddority@norwestcorp.com">ddority@norwestcorp.com</a>	Mechanical engineering, preparation of "As Built" drawings
Perennial Energy LLC 1375 County Road 8690 West Plains, MO 65775 Ph: 417 256 2002	Colby Staggs <a href="mailto:cstaggs@perennialenergy.com">cstaggs@perennialenergy.com</a>  Ed Boys <a href="mailto:eboys@perennialenergy.com">eboys@perennialenergy.com</a>	Flare manufacturer
Prism Automation Systems S125 Locust Street Clearfield, UT 84015 Ph: 801 725 3756	Gordon Clyde Cummings, P.E. <a href="mailto:gummings@prismautosys.com">gummings@prismautosys.com</a>	Design and support of automation, power, and telemetry systems

**SCHEDULE II**  
**ARB LISTING APPLICATION**  
**GCS ER PROJECT DESCRIPTION**

**Background**

In 2008, at the direction of the Mine Safety and Health Administration (MSHA), the West Ridge Coal Mine (Mine) began to degasify certain areas in the underground workings for the safety of the miners. From 2008 to 2011, the Mine obtained the necessary permits and approvals from the Utah Department of Natural Resources' Division of Oil, Gas and Mining (DOGM), the Utah Department of Air Quality (DAQ), and other governmental agencies to construct and operate five (5) gob vent holes (GVHs), four (4) 190-horsepower methane extraction units (MEUs), pipelines, and other associated infrastructure and equipment (GVH Project).

The GVH Project extracted coal mine methane (CMM) from the gob areas and underground workings. The MEUs vented the CMM directly into the atmosphere. During the first quarter of 2016, the Mine suspended operations. GCS acquired all rights, title, and interests in and to the GVH Project from the Mine on December 19, 2017.

GCS' proposed MMC emissions reduction project (Bluesource GCS Bear Canyon) consists of the following GVHs, equipment, and infrastructure located on land owned by the State of Utah, managed by the Utah School and Institutional Trust Land Administration (SITLA) and leased by GCS.

**GVHs**

The existing post-mining GVHs will be used to extract CMM from the Mine GVHs 1-4, the MEUs, pipelines, and other infrastructure are in the NW1/4NE1/4SW1/ 4SW1/4 of Section 3, T14S, R13E (Main Facility Area)

- GVH 1: Drilled and completed in 2008 as a post-mining gob well.
- GVH 2: Drilled and completed in 2008 as a post-mining gob well.
- GVH 3: Drilled and completed in 2008 as a post-mining gob well.
- GVH 4: Drilled and completed in 2011 as a post-mining gob well.

GVH 5 was drilled and completed in 2011 as a post-mining gob well and is located approximately 400 feet (ft) south of the Main Facility Area.

The GVHs locations are depicted on the Bluesource GCS Bear Canyon site diagram that is attached. None of the five (5) GVH were connected to non-qualifying device(s) during their respective operations.

## MEUs

The DAQ issued Approval Order No. DAQE-AN157360002-17, dated November 21, 2017, authorizing the operation of:

- (i) an enclosed flare and metering equipment further described below; and
- (ii) the four (4) 190 horsepower (HP) natural gas-fired degasification engines originally permitted by the Mine as part of the GVH Project. Engines Nos. 046 and 746 were manufactured in February 2008 and August 2007, respectively, and are subject to 40 Code of Federal Regulations (CFR) Part 60 New Source Performance Standard (NSPS) Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. Engines Nos. 253 and 614 were manufactured in October 2005 (prior to the applicability date of NSPS Subpart JJJJ) and are subject to 40 CFR Part 63 National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

One of the four (4) MEUs will be retrofitted with a generator to produce power for the flare and automation control systems.

### Enclosed Flare and Metering Equipment

CMM extracted from the Mine by the MEUs will be transported to an enclosed flare where the methane content will be metered and then destroyed. The flare system is now being installed in the Main Facility Area. Among other things, GCS' ground flare system is to include:

- An enclosed flare approximately 132" in diameter and 45' high; with a 72 MMBtu/hr rating; with a Methane Destruction Efficiency of 98+%;
- A Thermal Mass Flow Meter;
- An Ecotec FAU-TDL, 2 Gas Analyzer (CH<sub>4</sub>, and O<sub>2</sub>); and
- A Yokogawa FX-1012 chart recorder.

The flare system will be a qualifying destruction device under Section 2.4(b) of ARB's protocol since it will not have operated prior to offset project commencement.



## ATTACHMENT A

### BLUESOURCE GCS BEAR CANYON

#### PROJECT OWNERSHIP AND REGULATORY APPROVALS

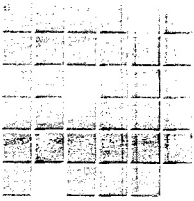
The following documents set forth GCS' authority to own and operate the ER Project:

##### **ER Project Ownership**

1. **Utah State Limited Lease for Methane**, effective September 1<sup>st</sup>, 2016, M.L. No. 53402 OBA, between the State of Utah and the School and Institutional Trust Lands Administration (collectively, Lessor) and GCS (Lessee) covering 2,162.34 acres together with all gob vent holes (GVHs) and coal mine methane extraction facilities located thereon. The aforementioned lease is hereinafter referred to as the "SITLA Lease," a copy of which is attached hereto.
2. **Mine Methane Extraction Asset Sale and Purchase Agreement**, dated February 27, 2017, between West Ridge Resources, Inc. and ANDALEX Resources, Inc. (collectively, "Seller") and GCS (Buyer) for all of Seller's rights, title, and interests in and to the West Ridge Coal Mine's GVH Project. Copies of the fully executed Transfer Documents delivered by the Seller to GCS at the December 19, 2017 APA Closing are attached.

##### **ER Project Agency Approvals**

3. **Carbon County Conditional Use Permit (CUP)**, dated August 16, 2017, a copy of which is attached.
4. **Utah Department of Oil, Gas and Mining approval of post mining land use change**, dated November 22, 2017, a copy of which is attached.
5. **Utah Department of Air Quality Approval Order**, dated November 21, 2017, DAQE-AN157360001-17, a copy of which is attached.
6. **SITLA Letter**, dated December 4, 2017, approving GCS' ER Project Plan of Operations, a copy of which is attached.



State of Utah  
School & Institutional  
Trust Lands Administration

Gary R. Herbert  
Governor

Spencer J. Cox  
Lieutenant Governor

David Ure  
Director

675 East 500 South, Suite 500  
Salt Lake City, UT 84102-2813  
801-538-5100  
801-355-0922 (Fax)  
[www.trustlands.utah.gov](http://www.trustlands.utah.gov)

October 6, 2016

Global Carbon Strategies Corporation  
1524 East 8th Avenue  
Denver, Colorado 80218

Dear Lessee:

RE: ML 53402-OBA – Oil, Gas, and Associated Hydrocarbons

We are herewith enclosing the above-numbered executed lease for your files.

If you have any further questions, please contact this office.

Yours very truly,

A handwritten signature in cursive script that reads "Aly Hale".

Aly Hale  
Research Analyst

ah

Enclosure

GRANT: SCH: 1281.24

MULT: 881.10

**UTAH STATE LIMITED LEASE FOR  
METHANE**

THIS LIMITED LEASE FOR METHANE (the "Lease") is entered into effective the 1<sup>st</sup> day of September, 2016, (the "Effective Date"), by and between the STATE OF UTAH, acting by and through the SCHOOL AND INSTITUTIONAL TRUST LANDS ADMINISTRATION, 675 East 500 South, Suite 500, Salt Lake City, Utah 84102, (hereinafter "Lessor"), and

Global Carbon Strategies Corporation  
1524 East 8<sup>th</sup> Avenue  
Denver, Colorado 80218

having a business address as shown above (hereinafter "Lessee", whether one or more).

WITNESSETH:

That the State of Utah, as Lessor, in consideration of the rentals, royalties, and other financial consideration required to be paid by Lessee, and the covenants of Lessee set forth below, does hereby GRANT AND LEASE to Lessee the right and privilege to obtain access to and capture, extract, gather, produce, remove, ventilate, and destroy coal mine methane (the "Leased Substances," as hereinafter defined) from the following described lands located in Carbon County, State of Utah, (the "Leased Premises"):

T13S, R13E, SLB&M

Sec. 36: All 640 SCH

T14S, R13E, SLB&M

Sec. 2: Lots 1(40.18), 2(40.27), 3(40.35), 4(40.44)  
S½N½, S½ [All] 641.24 SCH

T14S, R13E, SLB&M

Sec. 3: Lots 1(40.44), 2(40.37), 3(40.29)  
S½N½, S½ [Lots aka N½NE¼, NE¼NW¼] 601.10 MULT

T14S, R13E, SLB&M

Sec. 10: W½NW¼, SW¼, SW¼SE¼ 280 MULT

containing 2,162.34 acres, more or less,

together with the right and privilege, as conditioned herein, to construct and maintain on the surface estate of the following described lands ("Surface Estate") gob vent holes, ("GVHs," as hereinafter described), coal mine methane extraction facilities ("Extraction Facilities," as hereinafter defined), roads, buildings, communication lines, gathering lines, pipelines, tanks, pumping and compression stations, and any other structures or improvements to the extent necessary to capture, extract, gather, produce, remove, ventilate, and destroy the Leased Substances:

T14S, R13E, SLB&M

Sec. 3: NE1/4SW1/4SE1/4, SW1/4SW1/4SE1/4 [Within] as more particularly described in the map attached as Exhibit "A"

Together with the nonexclusive right to use existing rights of way or access that Lessor may have to obtain ingress and egress to and from the Surface Estate and Leased Premises.

This Lease is subject to, and Lessee hereby agrees to and accepts, the following covenants, terms, and conditions:

1. DEFINITIONS.

- 1.1 Leased Substances. Leased Substances means gases containing methane and other hydrocarbons emitted, liberated, or released from the mined coal seam roof and floor, strata overlying and underlying the lower Sunnyside coal seam, gob areas, coal pillars, barriers, and waste rock in the underground workings, airways and ventilations systems, portals, roadways stations, and sealed areas of the West Ridge Coal Mine that are owned by Lessor. As used in this Lease, Leased Substances includes substances that may be described as coalbed methane, coalmine methane, mine methane, and abandoned mine methane.
- 1.2 GVHs. GVHs or gob vent holes means the five (5) existing vertical boreholes, which are located on the Surface Estate and were drilled into the gob area within underground Panel 8 in the southwest corner of the West Ridge Coal Mine.
- 1.3 Extraction Facilities. Extraction Facilities means the equipment described on Exhibit "B" attached hereto and incorporated herein by reference, as well as the above-described GVHs, a flare, a gas pipeline, metering, communication, and fire suppression equipment, security fencing, and other equipment necessary to capture, extract, gather, produce, remove, ventilate, and destroy the Leased Substances.

2. TERM OF LEASE; RELINQUISHMENT.

- 2.1 Primary Term. This Lease, unless terminated at an earlier date as hereinafter provided, is granted for a primary term of five (5) years commencing on the Effective Date.
- 2.2 Extension beyond Primary Term. Subject to Lessee's compliance with the other provisions of this Lease, this Lease shall remain in effect beyond the primary term for so long thereafter as Lessee is engaged in diligent operations.
- 2.3 Diligent Operations. Diligent operations means Lessee will continue to capture, extract, gather, produce, remove, ventilate, and destroy Leased Substances, and pay Lessor royalties (as described below), with a cessation of no more than ninety (90) consecutive days or a cumulative period of no more than one-hundred eighty (180) days during any lease year after the primary term. Upon and after expiration of the primary term, where Lessee holds the lease by approved diligent operations, Lessor may review and determine as of each anniversary of the Effective Date whether Lessee is engaged in diligent operations sufficient to maintain this Lease in effect.
- 2.4 Relinquishment. Lessee may relinquish this Lease at any time by filing a written notice of relinquishment with Lessor, subject to Lessor's right to disapprove any relinquishment if Lessee has failed to pay all rentals, royalties, and other amounts due and owing to Lessor, if the Lease is otherwise not in good standing. Relinquishment shall not relieve Lessee from any continuing obligations to the extent provided in Paragraph 10.2 of this Lease.

- 3. ANNUAL RENTAL PAYMENT. Lessee shall pay annually on the Effective Date of the Lease a rental payment of Five Thousand Dollars (\$5,000.00). The annual rental payment may be credited towards royalty payments as they accrue for that lease year. Failure to pay the annual rental payment for a period of one month from the date such rent is due, and upon expiration of a written notice from Lessor to Lessee requiring performance within thirty (30) days of the written notice, shall constitute a default and entitle Lessor to forfeit Lessee's interest in the Lease and to take other legal remedies available at law.

#### 4. ROYALTIES.

4.1 Royalty Payment. Lessee shall pay Lessor a royalty payment, free of all costs and expense, of twelve and one-half cents (12.5¢) for every one million British thermal units ("MMBtus") of Leased Substances delivered to the flare and destroyed in the Extraction Facilities ("Qualifying Methane Volume," which will be expressed in MMBtus). At the end of each calendar month, the Qualifying Methane Volume will be determined by Lessee based on meter measurements taken at the collection point for the flare. All measuring devices shall be tamper-proof.

4.2 Reporting and Payment. Based on the Qualifying Methane Volume destroyed at the flare each month, Lessee will pay Lessor a royalty payment using the rate in Section 4.1 above before the end of the next succeeding calendar month. Royalty payments will be accompanied by a verified statement, in a form approved by Lessor, stating the Qualifying Methane Volume, the method and manner of calculating the royalty, and the measurement, if any, of Leased Substances produced but not delivered to the flare and consumed or destroyed in the Extraction Facilities, as well as any other information reasonably required by Lessor. To confirm the Qualifying Methane Volume, Lessee will provide to Lessor a third party verification report for each period in which carbon allowances, credits, or offsets are produced and verified from Lessee's flare operations. Lessee shall maintain all records pertaining to Qualifying Methane Volume and the calculation of royalties for a period of at least seven years after the date to which the documents pertain.

#### 5. RESERVATIONS TO LESSOR. Lessor hereby excepts and reserves from the operation of this Lease the following rights and privileges:

5.1 Rights-of-Way and Easements. Lessor reserves the right to establish rights-of-way and easements upon, through, and across the Leased Premises and the Surface Estate, under terms and conditions that will not unreasonably interfere with operations under this Lease, for roads, pipelines, electric transmission lines, transportation and utility corridors, and any other purposes deemed reasonably necessary by Lessor.

5.2 Other Mineral Leases; Multiple Mineral Development. Lessor reserves the right to enter into mineral leases and agreements with third parties covering minerals other than the Leased Substances, under terms and conditions that will not unreasonably interfere with operations under this Lease. Lessor agrees that during the term of this Lease, Lessor will not enter into any lease or other business agreement that grants or leases any rights or interests in the Leased Substances to a third party, other than the rights previously granted under coal leases existing prior to the Effective Date of this Lease. Lessor further reserves the right to impose reasonable stipulations upon operations under this Lease to permit multiple mineral development of the Leased Premises.

5.3 Use and Disposal of Surface Lands. To the extent that Lessor owns the surface lands above the Leased Premises, not including the Surface Estate and subject to the rights granted to Lessee pursuant to this Lease in Paragraph 7.1, Lessor reserves the right to use, lease, sell, or otherwise dispose of the surface of the Leased Premises. Lessor reserves the right to charge for, negotiate and coordinate with other surface owners, land management agencies or governmental agencies regarding mitigation or impact fees and shall coordinate the collection and expenditure of such fees, if any, that are imposed or collected. Notwithstanding any other provision of this Lease, Lessor reserves the right to permit third parties to undertake surface activities associated with seismic, geophysical, and geochemical exploration for oil and gas (such activities being considered by Lessor to be a surface use) without compensation or other obligation to Lessee so long as such activities do not damage or unreasonably interfere with Lessee's operations.

5.4 Rights Not Expressly Granted. Lessor further reserves all rights and privileges of every kind and nature, except as specifically granted in this Lease.

## 6. LEASE OPERATIONS.

- 6.1 Plan of Operations. At least thirty (30) days prior to commencing operations on the Leased Premises and Surface Estate, Lessee must submit to Lessor for its approval a plan of operations and reclamation. Lessee may not commence operations until Lessor has approved its plan of operations. Lessor may condition its consent to the plan of operations upon Lessee's agreement to comply with reasonable measures for the prevention of waste, protection of mineral and surface resources, protection of cultural resources, reclamation, and other measures deemed necessary by Lessor. Lessee must also obtain all necessary approvals for its operations from the Utah Division of Oil, Gas & Mining ("UDOGM"), the Utah Department of Environmental Quality ("DEQ"), or any successor regulatory agency, prior to commencing any operations on the Leased Premises and the Surface Estate. Lessee must provide Lessor with proof of the approval of its operations by UDOGM and DEQ.
- 6.2 Compliance with Applicable Law. Lessee, shall comply with all applicable federal, state and local statutes, regulations, and ordinances, whether now in effect or enacted in the future, including without limitation the rules and regulations of UDOGM and DEQ, statutes and regulations governing the management of school and institutional trust lands, applicable statutes and regulations relating to safety and health, and applicable statutes, regulations and ordinances relating to public health, pollution control, management of hazardous substances, cultural resources, and environmental protection.
- 6.3 Prudent Operator. Lessee shall exercise reasonable diligence in conducting operations on the Leased Premises and Surface Estate. Lessee shall conduct its operations as a prudent operator in accordance with standard industry methods and practices, having due regard for the protection of the interests and future operations of the West Ridge Coal Mine, Lessor's interest with respect to the Leased Premises and Surface Estate, and the health and safety of workers and employees and such other practices that are recognized within the industry.
- 6.4 Completion of Operations; Reclamation. Upon completion of Lessee's operations authorized under this Lease, Lessee shall plug all GVH wellbores located on the Leased Premises and Surface Estate in accordance with UDOGM rules and standard industry practice, and reclaim all surface disturbances relating to such operations as prescribed by Lessor and UDOGM. All Extraction Facilities, equipment, and material not removed from the Leased Premises within ninety (90) days of completion of Lessee's operations shall be deemed abandoned, and Lessor may remove or cause to be removed said equipment and material and sold to Lessor's account.
- 6.5 Cultural Resources. Prior to commencing any new surface disturbing operations or any operations that have the potential to affect historic properties, Lessee shall complete an addendum to the existing cultural resource inventory prepared for the Surface Estate in accordance with applicable laws and regulations, or otherwise provide evidence of compliance with *Utah Administrative Code* R850-60. Lessee shall provide such cultural resource compliance materials to Lessor prior to the approval of Lessee's plan of operations. Lessor will review all cultural resource compliance materials provided by Lessee, and may approve, condition or deny its consent to new surface disturbing operations based upon impacts to cultural resources. Lessor may require Lessee to complete appropriate cultural resources mitigation measures as a condition of approval of the plan of operations.

7. USE OF SURFACE ESTATE. Lessee may use and occupy the Surface Estate for all purposes reasonably necessary to capture, extract, gather, produce, remove, ventilate, and destroy the Leased Substances in compliance with its plan of operations and all applicable laws, rules, regulations, permits and approvals. Lessee may not use the Surface Estate prior to complying with the requirements of Paragraph 6.1. Such surface uses shall be exercised subject to the rights reserved to Lessor as provided in Section 5, and without unreasonable interference with the rights of any prior or subsequent lessee of Lessor. Lessee may not use surface lands overlying the Leased Premises other than the Surface Estate.

8. **BONDING.** Before commencing operations on the Leased Premises and Surface Estate, Lessee shall execute and post with Lessor a surety bond or other financial guarantee in the amount of Fifteen Thousand Dollars (\$15,000.00) to guarantee Lessee's performance of all covenants and obligations under this Lease. Lessor may in its reasonable discretion require Lessee to furnish additional bonding for assuring compliance with the terms of this Lease upon thirty (30) days written notice.

10. **DEFAULT.**

- 10.1 **Notice of Default; Termination.** Upon Lessee's violation of or failure to comply with any of the terms, conditions or covenants set forth in this Lease, Lessor shall notify the then-current Lessee of such default by registered or certified mail, return receipt requested, at the last address for Lessee set forth in Lessor's files. Lessee shall then have thirty (30) days, or such longer period as may be granted in writing by Lessor, to either cure the default or request a hearing pursuant to the Lessor's administrative adjudication rules. In the event Lessee fails to cure the default or request a hearing within the specified time period, Lessor may cancel this Lease without further notice to or appeal by Lessee. Failure to timely pay rentals or royalties is not a breach of covenants but rather a failure of condition and shall cause the Lease to expire pursuant to its own terms.
- 10.2 **Effect of Termination.** The termination of this Lease for any reason, whether through expiration, cancellation or relinquishment, shall not limit the rights of the State of Utah to recover any royalties and/or damages for which Lessee may be liable, to recover on any bond on file, or to seek injunctive relief to enjoin continuing violations of the Lease terms. No remedy or election under this Lease shall be deemed exclusive, but shall, whenever possible, be cumulative with all other remedies available under this Lease, at law or in equity. Lessee shall surrender the Leased Premised upon termination; however, the obligations of Lessee with respect to plugging of abandoned wells, reclamation, indemnification and other continuing covenants imposed by this Lease shall survive the termination.

11. **RIGHT OF ACCESS; RECORDS.**

- 11.1 **Reporting; Records.** Lessee shall timely provide UDOGM, the Utah Department of Environmental Quality, and all other governmental agencies with oversight authority, the data, reports, and other information related to produced and destroyed methane that is required by such agency. Lessee shall provide a copy of the same upon request by Lessor.
- 11.2 **Inspection; Audit.** Lessor's employees and authorized agents shall have the right to enter the Leased Premises to examine, inspect, survey and take measurements for the purposes of verifying the Qualifying Methane Volume amounts, the total volume of Leased Substances or project emissions produced during Lessee's methane destruction operations on the Leased Premises, and other proper lease operations. Upon reasonable notice to Lessee, Lessor's employees and authorized agents shall further have the right to audit, examine and copy (at Lessor's expense) all documents related to Lessee's efforts to capture, extract, gather, produce, remove, ventilate, and destroy coal mine methane including, but not limited to the records related to determining Qualifying Methane Volume and the calculation of royalties. Lessor's employees and authorized agents shall have the right to audit, examine and copy such records whether they are located on the Leased Premises or elsewhere. Lessee shall furnish all conveniences necessary for any inspections or audits; provided, however, that such inspections or audits shall be conducted in a manner that is in conformance with all applicable safety regulations and does not unreasonably interfere with Lessee's operations.

12. **ASSIGNMENT OR SUBLEASE; OTHER AGREEMENTS.**

- 12.1 **Consent Required.** Lessee shall not assign or sublease this Lease in whole or in part, or otherwise assign or convey any rights or privileges granted by this Lease, without the prior written consent of Lessor. Any assignment, sublease or other conveyance made without prior written consent of Lessor shall be void and

have no legal effect unless and until approved in writing by Lessor. Exercise of any right with respect to the Leased Premises in violation of this provision shall constitute a default under this Lease.

- 12.2 Limitation on Other Agreements. Lessee shall not enter into any agreement limiting, restricting, prorating, or otherwise affecting the natural production of Leased Substances from the Leased Premises in any way or in any event without the prior written consent of Lessor.

### 13. MISCELLANEOUS PROVISIONS.

- 13.1 No Warranty of Title. Lessor does not warrant title nor represent that no one will dispute the title asserted by Lessor to the Surface Estate and Leased Premises including, without limitation, any rights Lessor may have to capture, extract, gather, produce, remove, ventilate, and destroy the Leased Substances. It is expressly agreed that Lessee shall not be entitled to any refund for any rentals and royalties paid under the Lease in the event of title failure, nor shall Lessor be liable to Lessee for any alleged deficiency in title to the mineral estate. If any third party claims any rights to the Leased Substances, Lessee will have the right to place all royalty payments due Lessor in an interest-bearing trust account, pending a final resolution of the third party's claim. If Lessor owns an interest less than all of the Leased Substances, the royalties provided herein shall be paid to Lessor in the proportion which Lessor's interest bears to the entire volume of Leased Substances.
- 13.2 Notices. All notices herein provided to be given or which may be given by either party to the other, except as otherwise provided by law, shall be deemed to have been fully given when made in writing and deposited in the United States mail, postage prepaid, and addressed to the last known address of the parties. Lessee's address set forth above shall be conclusively deemed to be correct unless Lessor has received written notice of change of address from Lessee.
- 13.3 Indemnity. Lessee shall indemnify and hold Lessor harmless for, from and against each and every claim, demand, liability, loss, cost, damage and expense, including, without limitation, attorneys' fees and court costs, arising in any way out of Lessee's occupation and use of the Leased Premises and Surface Estate, including without limitation claims for death, personal injury, property damage, environmental damage or remediation, royalty disputes, unpaid wages and benefits. Lessee further agrees to indemnify and hold Lessor harmless for, from and against all claims, demands, liabilities, damages and penalties arising out of any failure of Lessee to comply with any of Lessee's obligations under this Lease, including without limitation attorneys' fees and court costs.
- 13.4 Interest. Interest shall accrue and be payable on all obligations arising under this Lease at such rate as may be set from time to time by rule enacted by Lessor. Interest shall accrue and be payable, without necessity of demand, from the date each such obligation shall arise. The accrual and payment of interest does not constitute a waiver or satisfaction of any penalty that may apply under the Lessor's Rules.
- 13.5 Governing Law: Consent to Suit; Jurisdiction. This Lease shall be governed by the laws of the State of Utah. Lessor and Lessee agree that all disputes arising out of this Lease shall be litigated only in the Third Judicial District Court for Salt Lake County, Utah. Lessee shall not bring any action against Lessor without exhaustion of available administrative remedies and compliance with applicable requirements of the Utah Governmental Immunity Act. Service of process in any such action is hereby agreed to be sufficient if sent by certified mail to Lessee at the last known address appearing in Lessor's records.
- 13.6 Attorneys' Fees. In the event Lessor institutes and prevails in any administrative or judicial proceeding for breach of this agreement, Lessor shall be entitled to collect its reasonable attorneys' fees and costs from Lessee.
- 13.7 No Waiver. No waiver of the breach of any provision of this Lease shall be construed as a waiver of any preceding or succeeding breach of the same or any other provision of this Lease, nor shall the acceptance



of rentals or royalties by Lessor during any period of time in which Lessee is in default be deemed to be a waiver of such breach.

- 13.8 Severability. The invalidity of any provision of this Lease, as determined by a court of competent jurisdiction, shall in no way affect the validity of any other provision hereof.
- 13.9 Entire Lease. This Lease, together with any attached stipulations, sets forth the entire agreement between Lessor and Lessee with respect to the subject matter of this Lease. No subsequent alteration or amendment to this Lease shall be binding upon Lessor and Lessee unless in writing and signed by both parties.
- 13.10 Binding Effect. This Lease shall be binding upon, and shall inure to the benefit of the parties to it and their respective legal representative, successors, and assigns.
- 13.11 Certification. Lessee certifies that by signing this Lease, it is qualified to do business in the State of Utah and is not in default under the laws of the State of Utah relative to qualification to do business within the state or not in default of any previous obligation with the Lessor.
- 13.12 Assignment of Interest from Mine Operator. Within 120 days of the Effective Date of this Lease, Lessee will provide Lessor with a copy of the written assignment between Lessee and operator of the West Ridge Coal Mine. The assignment must provide Lessee with an assignment of the mine operator's rights, interests, duties, and obligations in and to the Surface Estate, Leased Substances, GVHs, and Extraction Facilities.

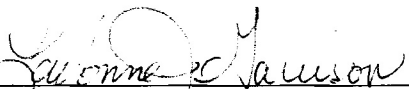
IN WITNESS WHEREOF, the parties have executed this Lease as of the Effective Date.

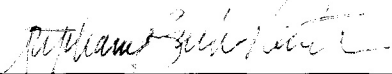
THE STATE OF UTAH, acting by and through the  
SCHOOL AND INSTITUTIONAL TRUST LANDS  
ADMINISTRATION ("LESSOR")

DAVID URE, DIRECTOR

APPROVED AS TO FORM:

SEAN D. REYES  
ATTORNEY GENERAL

By:   
LAVONNE J. GARRISON  
ASSISTANT DIRECTOR/OIL & GAS

By:   
Special Assistant Attorney General

Form Approved: August 18, 2016

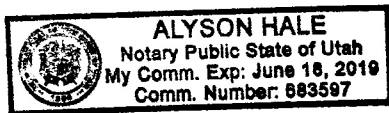
LESSEE: GLOBAL CARBON STRATEGIES CORPORATION

By: 

Its: Vice President

STATE OF UTAH                     )  
   :  
 COUNTY OF SALT LAKE         )

The foregoing instrument was acknowledged before me this 5<sup>th</sup> day of October 2016, by LaVonne J. Garrison in her capacity as Assistant Director/Oil and Gas of the School and Institutional Trust Lands Administration.



Alyson Hale  
 Notary Public

STATE OF \_\_\_\_\_ )  
   :  
 COUNTY OF \_\_\_\_\_ )

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_, by \_\_\_\_\_, in his/her capacity as \_\_\_\_\_ of the Lessee.

\_\_\_\_\_  
 Notary Public

STATE OF Utah )  
   :  
 COUNTY OF Salt Lake )

The foregoing instrument was acknowledged before me this 30 day of September 2016, by Collon C. Kennedy, Lessee, Global Carbon Strategies Corporation

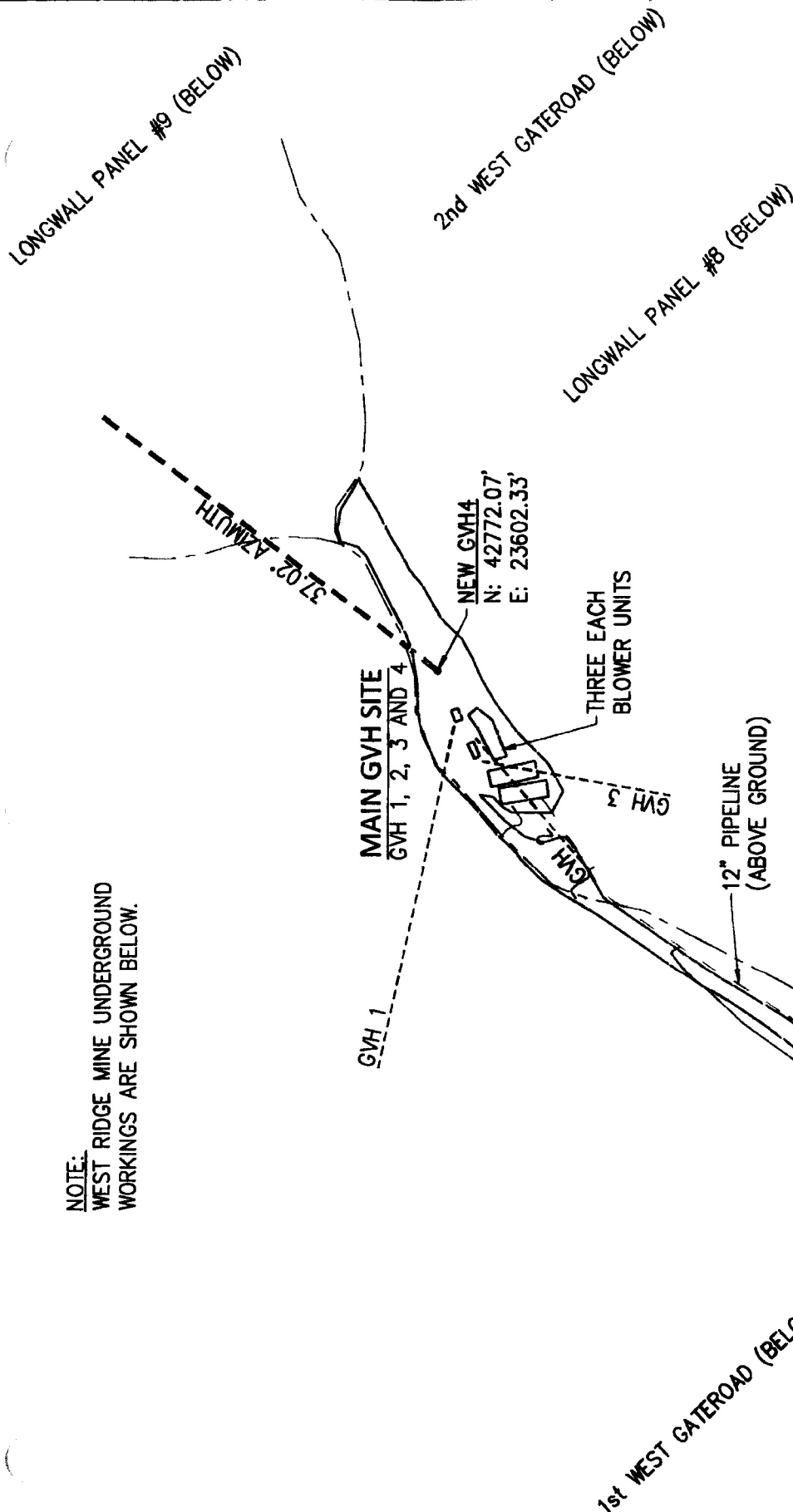
Sarah Nielsen  
 Notary Public



**EXHIBIT A**

**GVH SITE**

**NOTE:**  
WEST RIDGE MINE UNDERGROUND  
WORKINGS ARE SHOWN BELOW.



## ATTACHMENT 2 BEAR CANYON GVH SITES



704 NORTH "C" CANYON ROAD  
EAST CARBON, UTAH 84520

MSEA MINE ID # 42-02233

DESIGNED BY	PJ	SCALE	1" = 150'
APPROVED BY	DS	DATE	11 APRIL 2011
REVISION	1	SHEET	ATTACHMENT 2

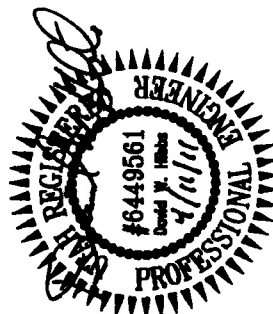
ROADSIDE "PULLOUT" SITE  
GVH 5

INCORPORATED

MAY 03 2011

Div. of Oil, Gas & Mining

I CERTIFY THIS MAP TO BE TRUE AND CORRECT  
TO THE BEST OF MY KNOWLEDGE.



## **EXHIBIT "B"**

### **EXTRACTION FACILITIES**

#### **I. Historic West Ridge Mine's Extraction Facilities:**

9 5/8 to 10" Flange Adapter  
10" SS Gate Valve  
10" Check Valve  
10" fabricated Wye  
10" Gear Actuated Butterfly Valves  
10" flex hose w/ flange ends x 12'  
10" long sweep 90° Els  
10" Flame Arrestors  
10" x 8" Adapters  
8" x 10' Metering Spool  
Verabar Flow Meter  
Monitoring PLC  
Control Panels w/Methanometer  
10" x 8" Adapters  
10" x 8" Tee  
8" Check Valves  
Vent Stack Adapters  
Fiberglass Vent Stacks  
10" long sweep 90° Els  
10" Inlet Filter  
10" 150# ss Gasket  
10" 150# Blind Flange  
14'w 10'h 36' long Tents (4)  
7/8 x 4 3/4 Stud w/ nut  
Gasket  
GVHs (locations depicted on plat) (5)  
Leveling Base  
Support Frame  
Viper 60-80 Air Compressor  
Methane Extractor Units (MEUs) (operating) (4)  
Methane Extractor Unit (spare)  
Air Diaphragm Pump  
Hose & ftg kit

## **II. Additional Equipment:**

Additional equipment and infrastructure required by Lessee for flare operations will likely include, among other things, the following:

- Enclosed Ground Flare
- Steel Flare Shell Assembly
- Flanged Inlet Nozzel
- Flame Arrester
- Butterfly Value w/SS Disc & Stem w/Pneumatically Controlled
- Safety Shutoff Actuator
- Nitrogen Regulator and Rack
- Steel Bellows Type Flex Connector
- Weather Shield at Top of Flare
- Heat Screen Around Flare (as needed)
- Thermocouples
- Self-Checking Flame Safeguard Sensors
- Flare Purge System with Air Blower and Verification Pressure Switch
- Propane Gas Pilot System; Pilot Igniter
- Burner System
- Thermal Mass Flow Meter
- Gas Analyzer
- Pressure and Temperature Gauges
- Control Panel
- Satellite Modem and Communications System
- Gas Pipeline from MEUs to Flare
- GVH Site Security Fencing

**WEST RIDGE RESOURCES, INC.**

**OFFICER'S CERTIFICATE of SELLER**

This Officer's Certificate (this "**Officer's Certificate**") is delivered to the Buyer (as hereinafter defined) pursuant to the Asset Sale and Purchase Agreement, dated as of February 27, 2017 (the "**Agreement**"), by and among West Ridge Resources, Inc. and ANDALEX Resources, Inc. (collectively, "**Seller**") and Global Carbon Strategies Corporation ("**Buyer**"). Capitalized terms not otherwise defined herein shall have the meanings set forth in the Agreement.

I, David C. Hibbs, certify that I am the president of West Ridge Resources, Inc., and that, as such, I am authorized to execute this Officer's Certificate on behalf of the Seller, and hereby further certify as follows:

1. All representations and warranties of Seller in the Agreement, if qualified by a reference to materiality, are true and, if not so qualified, are true in all material respects, at and as of the Closing Date.
2. Seller has performed in all material respects all covenants, duties, and obligations in the Agreement at or before the Closing Date.

**IN WITNESS WHEREOF**, the undersigned has executed this Officer's Certificate dated as of December \_\_, 2017, and effective as of the Closing Date.

**WEST RIDGE RESOURCES, INC.**



Name: David C. Hibbs  
Title: President *DT*



**ANDALEX RESOURCES, INC.**

**OFFICER'S CERTIFICATE of SELLER**

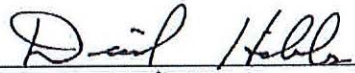

This Officer's Certificate (this "**Officer's Certificate**") is delivered to the Buyer (as hereinafter defined) pursuant to the Asset Sale and Purchase Agreement, dated as of February 27, 2017 (the "**Agreement**"), by and among West Ridge Resources, Inc. and ANDALEX Resources, Inc. (collectively, "**Seller**") and Global Carbon Strategies Corporation ("**Buyer**"). Capitalized terms not otherwise defined herein shall have the meanings set forth in the Agreement.

I, David C. Hibbs, certify that I am the president of ANDALEX Resources, Inc., and that, as such, I am authorized to execute this Officer's Certificate on behalf of the Seller, and hereby further certify as follows:

1. All representations and warranties of Seller in the Agreement, if qualified by a reference to materiality, are true and, if not so qualified, are true in all material respects, at and as of the Closing Date.
2. Seller has performed in all material respects all covenants, duties, and obligations in the Agreement at or before the Closing Date.

**IN WITNESS WHEREOF**, the undersigned has executed this Officer's Certificate dated as of December \_\_, 2017, and effective as of the Closing Date.

**ANDALEX RESOURCES, INC.**

  
Name: David C. Hibbs  
Title: President 

### NON-FOREIGN SELLER CERTIFICATE

Section 1445 of the United States Internal Revenue Code provides that a transferee of a United States real property interest must withhold tax if the transferor is a foreign person. For United States tax purposes (including Section 1445), the owner of a disregarded entity (which has legal title to a United States real property interest under local law) will be the transferor of the property and not the disregarded entity. To inform the transferee that withholding of tax is not required upon the disposition of a United States real property interest by the undersigned ("Seller"), Seller hereby certifies to the following:

1. Seller is neither a "nonresident alien", a "foreign person", a "foreign corporation", a "foreign partnership", a "foreign trust", nor a "foreign estate" as those terms are used in the Internal Revenue Code and the Income Tax Regulations promulgated thereunder.
2. Seller is not a disregarded entity as defined in Section 1.1445-2(b)(2)(iii) of the Income Tax Regulations.
3. Seller's U.S. taxpayer identification number is:  
West Ridge Resources, Inc. 87-0585129;  
ANDALEX Resources, Inc.: 61-0931325
4. Seller maintains an office address at 794 "C" Canyon Road, P.O. Box 910, East Carbon, Utah 84520.

Seller understands that this certification may be disclosed to the Internal Revenue Service and that any false statement could be punished by fine, imprisonment or both.

Seller declares, under penalty of perjury, that Seller has examined this certificate and to the best of Seller's knowledge the above certification is true, correct and complete.

Executed as of December \_\_\_\_, 2017.

#### SELLER:

**WEST RIDGE RESOURCES, INC.**

By: David C. Hibbs  
Name: David C. Hibbs  
Its: President DH

**ANDALEX Resources, Inc.**

By: David C. Hibbs  
Name: David C. Hibbs  
Its: President DH



## BILL OF SALE

THIS BILL OF SALE is made and entered into effective this \_\_\_\_ day of December, 2017 ("Effective Date"), by and between **West Ridge Resources, Inc.** ("WRR"), a Utah corporation, and **ANDALEX Resources, Inc.** ("ARI"), a Delaware corporation, with offices at 794 North "C" Canyon Road, P.O. Box 910, East Carbon, Utah 84520 ("WRR" and "ARI" are individually or collectively referred to as "**Seller**"), and **Global Carbon Strategies Corporation**, a Colorado corporation authorized to transact business in Utah, with offices at 743 Horizon Court, Suite 383, Grand Junction, Colorado 81506 ("**Buyer**"). Seller and Buyer may hereinafter be referred to individually as a "**Party**" and collectively as the "**Parties.**"

### WITNESSETH:

WHEREAS, the Parties entered into a Mine Methane Extraction Asset Sale and Purchase Agreement, effective the 27<sup>th</sup> day of February, 2017 ("**Asset Sale Agreement**"), in which Seller agreed to assign, sell, and transfer to Buyer ownership and control of certain assets used to extract and destroy coal mine methane and other hydrocarbons ("**CMM**") produced from the West Ridge Coal Mine ("**Mine**") in Carbon County, Utah, which assets and operations are known as Seller's "**GVH Project.**"

WHEREAS, the GVH Project is located in Section 3 NW1/4NE1/4SW1/4SE1/4, Township 14 South, Range 13 East, Carbon County, Utah ("**Site**") on land subject to Utah State Coal Lease M.L. No. 49287 – OBA held by Seller and Utah State Limited Methane Lease No. 53402 – OBA held by Buyer.

WHEREAS, Seller's personal property assets that comprise part of the GVH Project and are subject to this Bill of Sale are further described on **Exhibit "A"** attached hereto and incorporated herein by this reference (collectively, "**Personal Property Assets**").

WHEREAS, Buyer has agreed to assume, discharge, and perform certain duties, obligations, and liabilities of Seller relating to the Personal Property Assets as further described herein.

NOW THEREFORE, for Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

1. On the terms and conditions set forth herein, Seller hereby conveys, bargains, sells, transfers, and delivers to Buyer "AS IS, WHERE IS" without representations or warranties of title, but free and clear of all causes of action, claims, liens, liabilities, and encumbrances arising by, through, or under Seller, ownership and control of Seller's rights, title, interests, duties, and obligations in and to the Personal Property Assets described on Exhibit "A."

2. Except as otherwise provided in Paragraph 1, Seller makes no other representations or warranties pertaining to any of the Personal Property Assets, including any representations and warranties of merchantability or fitness for a particular purpose.

3. On and after the Effective Date, Buyer hereby assumes and agrees to pay, discharge, and perform any duties, liabilities, and obligations that may subsequently accrue with respect to the Personal Property Assets. Seller, however, specifically excludes and retains exclusive ownership, control, and responsibility for all of the Mine's underground mine working and all other assets unrelated to the Personal Property Assets described on Exhibit "A" and in the Asset Sale Agreement.

4. At the request of either Party, the Parties shall execute and provide any other documents and instruments necessary to complete the transfer of the Personal Property Assets pursuant to this Assignment.

5. This Bill of Sale is executed and delivered pursuant to, and is subject to and governed by, the terms and provisions of the Asset Sale Agreement. In the event of an irreconcilable conflict between the terms and conditions of this Bill of Sale and the Asset Sale Agreement, the terms and conditions of this Bill of Sale shall govern and control. A copy of the Asset Sale Agreement is available for inspection during regular business hours at Buyer's office at the address set forth above upon three (3) days prior written notice.

IN WITNESS WHEREOF, the Parties have executed this Bill of Sale as of the Effective Date.

**SELLER:**

**West Ridge Resources, Inc.**

By: David H. H. H.  
Name: David H. H. H.  
Title: President

**ANDALEX Resources, Inc.**

By: David H. H. H.  
Name: David H. H. H.  
Title: President

**BUYER:**

**Global Carbon Strategies Corporation**

By: Daniel L. Wilson  
Name: DANIEL L. WILSON  
Title: PRESIDENT



**EXHIBIT A**  
**TO**  
**BILL OF SALE**  
**BETWEEN**  
**WEST RIDGE RESOURCES, INC.**  
**AND**  
**ANDALEX RESOURCES, INC. (COLLECTIVELY, SELLER)**  
**AND**  
**GLOBAL CARBON STRATEGIES CORPORATION (BUYER)**

**Personal Property Assets Description**

Seller's Personal Property Assets sold, transferred and delivered to Buyer pursuant to the above-referenced Bill of Sale consist of the following described "GVH Holes," "CMM Extraction Equipment" and "Books and Records." The "GVH Project Site" or "Site" is located in Section 3 NW1/4NE1/4SW1/4SE1/4, Township 14 South, Range 13 East, Carbon County, Utah on land subject to Utah State Coal Lease M.L. No. 49287 - OBA held by Seller and Utah State Limited Methane Lease No. 53402 – OBA held by Buyer.

"GVH Holes" consist of five (5) wells drilled and completed on the Site for the purpose of extracting CMM from the Mine's underground workings together with all equipment, instruments (including software and operating systems), and infrastructure attached thereto.

"CMM Extraction Equipment" consists of blowers, compressors, engines, flame arresters, gas gathering systems, meters, vacuum pumps, pipelines, power lines, gas or storage tanks, solar panels, trailers, valves, and other equipment listed below:

**Bear Canyon Site GVH Project Equipment**

<b><u>QTY</u></b>	<b><u>Item Description</u></b>
5	9 5/8 to 10" flange adapter
5	10" SS gate valve
5	10" Check valve
4	10" fabricated Wye
8	10" Gear actuated butterfly valves
4	10" flex hose w/ flange ends x 12'
4	10" long sweep 90° Els
6	10" Flame Arrestors
4	10" x 8" Adapters
4	8" x 10' Metering Spool
4	Verabar Flow Meter
1	Monitoring PLC
4	Control Panels w/ methanometer & programmable logic controller (PLC)
4	10" x 8" Adapters
4	10" x 8" Tee
4	8" check valves
4	Vent Stack Adapters

<b><u>QTY</u></b>	<b><u>Item Description</u></b>
4	Fiberglass vent stacks
4	10" long sweep 90° Els
4	10" Inlet Filter
	10" 150# ss Gasket
	10" 150# Blind Flange
4	14w 10h 36 long Tent
192	7/8 x 4 3/4 Stud w/ nut
18	Gasket
4	Leveling Base
4	Support Frame
1	Viper 60-80 air compressor
4	Methane Extractor Units (operating)
1	Methane Extractor Unit (spare)
2	Air Diaphragm pump
2	Hose & ftg kit

**Tower & West Ridge GVH Project Equipment (Idle/Spare Equipment)**

<b><u>QTY</u></b>	<b><u>Item Description</u></b>
2	Extraction Units more or less complete
4	Extraction Units with missing Blowers
1	9/18 single shaft blower
8	blowers needing repair (core)
3	10" SS gate valve
3	10" Check valve
6	10" fabricated Wye
8	10" Gear actuated butterfly valves
8	10" flex hose w/ flange ends x 12'
4	10" long sweep 90° Els
4	10" Flame Arrestors
4	10" x 8" Adapters
6	8" x 10' Metering Spool
6	10" x 8" Adapters
6	10" x 8" Tee
4	8" check valves
6	10" long sweep 90° Els
4	10" Inlet Filter
4	10" flex hose w/ flange ends x 8'
6	Leveling Base
6	Support Frame

In addition, the Personal Property Assets include fencing, tents, temporary structures, and all other infrastructure and improvements on the Site and adjacent property used in connection with the GVH Project's operations.

"Books and Records" consist of copies of all data, documents (written or electronic) materials (including software and operating systems) relating to the Personal Property Assets described in this Exhibit A, the Site, Seller's methane extraction rights, title, and interests subject to the Subordination Agreement, and Seller's historic CMM extraction operations, which include, without limitation, accounting files (including bills of sale and title documents for the CMM Extraction Equipment described above), GVHs' drilling and completion information, ownership and maintenance manuals, CMM Extraction Equipment specifications, applicable geologic data, information, and analysis (including CMM production, quality, volumetric, and pressure test results), land and lease records (including copies of the Mine's Coal Leases), permitting and regulatory authorizations and reports concerning Seller's CMM extraction operations, and technical records, drawings and diagrams along with Site permits, approvals, and reclamation requirements, maps, and other relevant information pertaining to the subject matter of the Asset Sales Agreement in Seller's physical possession or to which Seller has access rights as of the Effective Date hereof.

" **Seller's Excluded Assets.**

The assets that comprise the GVH Project Real Property do not include, and Seller specifically retains exclusive ownership, control and responsibility for: (i) all of the Mine's underground mine workings; (ii) all other assets, Mine Permits (as defined in the Asset Sale Agreement), equipment, and facilities used in coal mining and reclamation operations conducted at the Mine or on all other real property owned, leased, or controlled by the Mine, and (iii) all books, records, files, material information, and data obtained, prepared or received by Seller during historic methane extraction operations at the Mine.



## BILL OF SALE

THIS BILL OF SALE is made and entered into effective this \_\_\_\_ day of December, 2017 ("Effective Date"), by and between **West Ridge Resources, Inc.** ("WRR"), a Utah corporation, and **ANDALEX Resources, Inc.** ("ARI"), a Delaware corporation, with offices at 794 North "C" Canyon Road, P.O. Box 910, East Carbon, Utah 84520 ("WRR" and "ARI" are individually or collectively referred to as "**Seller**"), and **Global Carbon Strategies Corporation**, a Colorado corporation authorized to transact business in Utah, with offices at 743 Horizon Court, Suite 383, Grand Junction, Colorado 81506 ("**Buyer**"). Seller and Buyer may hereinafter be referred to individually as a "**Party**" and collectively as the "**Parties.**"

### WITNESSETH:

WHEREAS, the Parties entered into a Mine Methane Extraction Asset Sale and Purchase Agreement, effective the 27<sup>th</sup> day of February, 2017 ("**Asset Sale Agreement**"), in which Seller agreed to assign, sell, and transfer to Buyer ownership and control of certain assets used to extract and destroy coal mine methane and other hydrocarbons ("**CMM**") produced from the West Ridge Coal Mine ("**Mine**") in Carbon County, Utah, which assets and operations are known as Seller's "**GVH Project.**"

WHEREAS, the GVH Project is located in Section 3 NW1/4NE1/4SW1/4SE1/4, Township 14 South, Range 13 East, Carbon County, Utah ("**Site**") on land subject to Utah State Coal Lease M.L. No. 49287 – OBA held by Seller and Utah State Limited Methane Lease No. 53402 – OBA held by Buyer.

WHEREAS, Seller's personal property assets that comprise part of the GVH Project and are subject to this Bill of Sale are further described on **Exhibit "A"** attached hereto and incorporated herein by this reference (collectively, "**Personal Property Assets**").

WHEREAS, Buyer has agreed to assume, discharge, and perform certain duties, obligations, and liabilities of Seller relating to the Personal Property Assets as further described herein.

NOW THEREFORE, for Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

1. On the terms and conditions set forth herein, Seller hereby conveys, bargains, sells, transfers, and delivers to Buyer "AS IS, WHERE IS" without representations or warranties of title, but free and clear of all causes of action, claims, liens, liabilities, and encumbrances arising by, through, or under Seller, ownership and control of Seller's rights, title, interests, duties, and obligations in and to the Personal Property Assets described on Exhibit "A."

2. Except as otherwise provided in Paragraph 1, Seller makes no other representations or warranties pertaining to any of the Personal Property Assets, including any representations and warranties of merchantability or fitness for a particular purpose.



3. On and after the Effective Date, Buyer hereby assumes and agrees to pay, discharge, and perform any duties, liabilities, and obligations that may subsequently accrue with respect to the Personal Property Assets. Seller, however, specifically excludes and retains exclusive ownership, control, and responsibility for all of the Mine's underground mine working and all other assets unrelated to the Personal Property Assets described on Exhibit "A" and in the Asset Sale Agreement.

4. At the request of either Party, the Parties shall execute and provide any other documents and instruments necessary to complete the transfer of the Personal Property Assets pursuant to this Assignment.

5. This Bill of Sale is executed and delivered pursuant to, and is subject to and governed by, the terms and provisions of the Asset Sale Agreement. In the event of an irreconcilable conflict between the terms and conditions of this Bill of Sale and the Asset Sale Agreement, the terms and conditions of this Bill of Sale shall govern and control. A copy of the Asset Sale Agreement is available for inspection during regular business hours at Buyer's office at the address set forth above upon three (3) days prior written notice.

IN WITNESS WHEREOF, the Parties have executed this Bill of Sale as of the Effective Date.

**SELLER:**

**West Ridge Resources, Inc.**

By: David H. Higgs  
Name: David Higgs  
Title: President

**ANDALEX Resources, Inc.**

By: David H. Higgs  
Name: David Higgs  
Title: President

**BUYER:**

**Global Carbon Strategies Corporation**

By: Daniel L. Wilson  
Name: DANIEL L. WILSON  
Title: President

**EXHIBIT A**  
**TO**  
**BILL OF SALE**  
**BETWEEN**  
**WEST RIDGE RESOURCES, INC.**  
**AND**  
**ANDALEX RESOURCES, INC. (COLLECTIVELY, SELLER)**  
**AND**  
**GLOBAL CARBON STRATEGIES CORPORATION (BUYER)**

**Personal Property Assets Description**

Seller's Personal Property Assets sold, transferred and delivered to Buyer pursuant to the above-referenced Bill of Sale consist of the following described "GVH Holes," "CMM Extraction Equipment" and "Books and Records." The "GVH Project Site" or "Site" is located in Section 3 NW1/4NE1/4SW1/4SE1/4, Township 14 South, Range 13 East, Carbon County, Utah on land subject to Utah State Coal Lease M.L. No. 49287 - OBA held by Seller and Utah State Limited Methane Lease No. 53402 - OBA held by Buyer.

"GVH Holes" consist of five (5) wells drilled and completed on the Site for the purpose of extracting CMM from the Mine's underground workings together with all equipment, instruments (including software and operating systems), and infrastructure attached thereto.

"CMM Extraction Equipment" consists of blowers, compressors, engines, flame arresters, gas gathering systems, meters, vacuum pumps, pipelines, power lines, gas or storage tanks, solar panels, trailers, valves, and other equipment listed below:

**Bear Canyon Site GVH Project Equipment**

<b><u>QTY</u></b>	<b><u>Item Description</u></b>
5	9 5/8 to 10" flange adapter
5	10" SS gate valve
5	10" Check valve
4	10" fabricated Wye
8	10" Gear actuated butterfly valves
4	10" flex hose w/ flange ends x 12'
4	10" long sweep 90° Els
6	10" Flame Arrestors
4	10" x 8" Adapters
4	8" x 10' Metering Spool
4	Verabar Flow Meter
1	Monitoring PLC
4	Control Panels w/ methanometer & programmable logic controller (PLC)
4	10" x 8" Adapters
4	10" x 8" Tee
4	8" check valves
4	Vent Stack Adapters

<b><u>QTY</u></b>	<b><u>Item Description</u></b>
4	Fiberglass vent stacks
4	10" long sweep 90° Els
4	10" Inlet Filter
	10" 150# ss Gasket
	10" 150# Blind Flange
4	14w 10h 36 long Tent
192	7/8 x 4 3/4 Stud w/ nut
18	Gasket
4	Leveling Base
4	Support Frame
1	Viper 60-80 air compressor
4	Methane Extractor Units (operating)
1	Methane Extractor Unit (spare)
2	Air Diaphragm pump
2	Hose & ftg kit

**Tower & West Ridge GVH Project Equipment (Idle/Spare Equipment)**

<b><u>QTY</u></b>	<b><u>Item Description</u></b>
2	Extraction Units more or less complete
4	Extraction Units with missing Blowers
1	9/18 single shaft blower
8	blowers needing repair (core)
3	10" SS gate valve
3	10" Check valve
6	10" fabricated Wye
8	10" Gear actuated butterfly valves
8	10" flex hose w/ flange ends x 12'
4	10" long sweep 90° Els
4	10" Flame Arrestors
4	10" x 8" Adapters
6	8" x 10' Metering Spool
6	10" x 8" Adapters
6	10" x 8" Tee
4	8" check valves
6	10" long sweep 90° Els
4	10" Inlet Filter
4	10" flex hose w/ flange ends x 8'
6	Leveling Base
6	Support Frame

In addition, the Personal Property Assets include fencing, tents, temporary structures, and all other infrastructure and improvements on the Site and adjacent property used in connection with the GVH Project's operations.



"Books and Records" consist of copies of all data, documents (written or electronic) materials (including software and operating systems) relating to the Personal Property Assets described in this Exhibit A, the Site, Seller's methane extraction rights, title, and interests subject to the Subordination Agreement, and Seller's historic CMM extraction operations, which include, without limitation, accounting files (including bills of sale and title documents for the CMM Extraction Equipment described above), GVHs' drilling and completion information, ownership and maintenance manuals, CMM Extraction Equipment specifications, applicable geologic data, information, and analysis (including CMM production, quality, volumetric, and pressure test results), land and lease records (including copies of the Mine's Coal Leases), permitting and regulatory authorizations and reports concerning Seller's CMM extraction operations, and technical records, drawings and diagrams along with Site permits, approvals, and reclamation requirements, maps, and other relevant information pertaining to the subject matter of the Asset Sales Agreement in Seller's physical possession or to which Seller has access rights as of the Effective Date hereof.

▪ **Seller's Excluded Assets.**

The assets that comprise the GVH Project Real Property do not include, and Seller specifically retains exclusive ownership, control and responsibility for: (i) all of the Mine's underground mine workings; (ii) all other assets, Mine Permits (as defined in the Asset Sale Agreement), equipment, and facilities used in coal mining and reclamation operations conducted at the Mine or on all other real property owned, leased, or controlled by the Mine, and (iii) all books, records, files, material information, and data obtained, prepared or received by Seller during historic methane extraction operations at the Mine.

WHEN RECORDED, RETURN TO:

Collon Kennedy  
Vice President  
Global Carbon Strategies Corporation  
743 Horizon Court, Suite 383  
Grand Junction, Colorado 81506

### ASSIGNMENT AND ASSUMPTION AGREEMENT

THIS ASSIGNMENT AND ASSUMPTION AGREEMENT ("**Assignment**") is made and entered into effective this \_\_\_\_ day of December, 2017 ("**Effective Date**"), by and between **West Ridge Resources, Inc.**, a Utah corporation, and **ANDALEX Resources, Inc.**, a Delaware corporation, with offices at 794 North "C" Canyon Road, P.O. Box 910, East Carbon, Utah 84520 (collectively, "**Assignor**"), and **Global Carbon Strategies Corporation**, a Colorado corporation authorized to transact business in Utah, with offices at 743 Horizon Court, Suite 383, Grand Junction, Colorado 81506 ("**Assignee**"). Assignor and Assignee may hereinafter be referred to individually as a "**Party**" and collectively as the "**Parties**."

### WITNESSETH:

WHEREAS, the Parties entered into a Mine Methane Extraction Asset Sale and Purchase Agreement, effective the 27<sup>th</sup> day of February, 2017 ("**Asset Sale Agreement**"), in which Assignor agreed to assign, sell, and transfer to Assignee ownership and control of certain assets used to extract and destroy coal mine methane and other hydrocarbons ("**CMM**") produced from the West Ridge Coal Mine ("**Mine**") in Carbon County, Utah, which assets and operations are known as Assignor's "**GVH Project**."

WHEREAS, the term coal mine methane ("**CMM**") is more particularly described as meaning all coal bed methane, coal mine methane, gob gas, and all associated natural gas and other hydrocarbons of whatever quality or quantity within, produced, or emitted, liberated, or released during mining, dewatering, and post-mining operations from the lower Sunnyside coal seam and other proximate coal seams or any related or associated host rock material or strata, gob areas, sealed areas, coal pillars, barriers, and waste rock piles in, above, below, or which accumulate in the Mine's underground workings, airways and ventilation systems, voids, portals, roadways, stations, and sealed areas.

WHEREAS, the GVH Project is located in Section 3 NW1/4NE1/4SW1/4SE1/4, Township 14 South, Range 13 East, Carbon County, Utah ("**Site**") on land subject to Utah State Coal Lease M.L. No. 49287 held by Assignor and Utah State Limited Methane Lease No. 53402 – OBA held by Assignee.

WHEREAS, Assignor's rights (express and implied) and duties with respect to the GVH Project include, among other things, certain agreements, federal and state coal leases (collectively, "**Mine's Coal Leases**"), permits, and other approvals granting Assignor the right to drill for, capture, remove, use, vent, and destroy CMM released in the Mine, which are further



described on **Exhibit "A"** attached hereto and incorporated herein by this reference (collectively, **"Subject Property"**).

WHEREAS, Assignee has agreed to assume, discharge, and perform certain duties, obligations, and liabilities of Assignor relating to the GVH Project as further described herein.

NOW THEREFORE, for Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

1. On the terms and conditions set forth herein, Assignor hereby assigns, sells, delivers, and transfers to Assignee AS IS, WHERE IS", without representations or warranties of title, but free and clear of all causes of action, claims, liens, liabilities, and encumbrances arising by, through, or under Assignor, ownership and control of Assignor's rights, title, interests, duties, and obligations in and to the Subject Property described on Exhibit "A."

2. Assignor's aforementioned assignment and transfer of the Subject Property to Assignee is expressly subject to the reservation of certain rights relating to the extraction of CMM from the Mine during active mining operations as further provided in the Asset Sale Agreement and a Subordination Agreement executed by the Parties as of the Effective Date hereof. It is further agreed by the Parties that the Subject Property does not include any and all other rights, duties, and obligations Assignor may have with respect to the Mine as further provided in the Asset Sales Agreement.

3. As part of the consideration for this Assignment, Assignee hereby assumes and agrees to discharge and perform certain of Assignor's obligations and liabilities relating to the GVH Project as further provided in the Asset Sale Agreement. Assignor, however, specifically excludes and retains exclusive ownership, control, and responsibility for all of the West Ridge Coal Mine's ("Mine") underground mine working and all other assets unrelated to the Subject Property described on Exhibit "A" and in the Asset Sale Agreement.

4. At the request of either Party, the Parties shall execute and provide any other documents and instruments necessary to complete the transfer of the Subject Property pursuant to this Assignment.

5. This Assignment is executed and delivered pursuant to, and is subject to and governed by, the terms and provisions of the Asset Sale Agreement. However, in the event of an irreconcilable conflict between the terms and conditions of this Assignment and the Asset Sale Agreement, the terms and conditions of this Assignment shall govern and control. A copy of the Asset Sale Agreement is available for inspection during regular business hours at Assignee's office at the address set forth above upon three (3) days prior written notice.

IN WITNESS WHEREOF, the Parties have executed this Assignment as of the Effective Date.

ASSIGNOR:

ASSIGNEE:

West Ridge Resources, Inc.

Global Carbon Strategies Corporation

By: David Hibbs

By: Daniel J. Wilson

Name: DAVID Hibbs

Name: DANIEL L. WILSON

Title: President

Title: PRESIDENT

ANDALEX Resources, Inc.

By: David Hibbs

Name: DAVID Hibbs

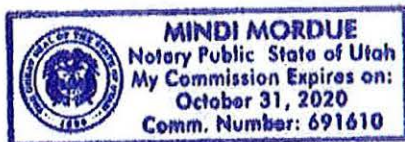
Title: President

STATE OF UTAH )  
COUNTY of CARBON ) ss.

The foregoing instrument was acknowledged before me this 11<sup>th</sup> day of December, 2017, by DAVID Hibbs, the PRESIDENT of West Ridge Resources, Inc.

My Commission Expires: 10/31/20

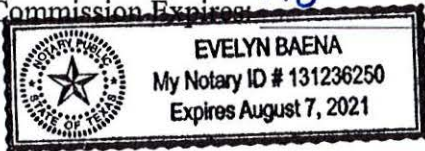
[Signature]  
NOTARY PUBLIC



STATE OF Texas )  
COUNTY of Harris ) ss.

The foregoing instrument was acknowledged before me this 13<sup>th</sup> day of December, 2017,  
by Daniel Wilson, the President of Global Carbon  
Strategies Corporation.

My Commission Expires: August 7, 2021

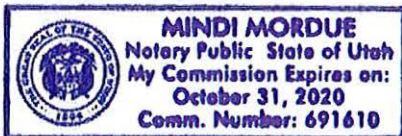


[Signature]  
NOTARY PUBLIC

STATE OF UTAH )  
COUNTY of Carbone ) ss.

The foregoing instrument was acknowledged before me this 11<sup>th</sup> day of December, 2017,  
by DAVID HUBBS, the PRESIDENT of ANDALEX  
Resources, Inc.

My Commission Expires: 10/31/20



[Signature]  
NOTARY PUBLIC



**EXHIBIT A**  
TO  
ASSIGNMENT AND ASSUMPTION AGREEMENT (ASSIGNMENT)  
BETWEEN  
WEST RIDGE RESOURCES, INC. AND  
ANDALEX RESOURCES, INC. (COLLECTIVELY, ASSIGNOR)  
AND  
GLOBAL CARBON STRATEGIES CORPORATION (ASSIGNEE)

**Subject Property Description**

The Subject Property consists of (i) Assignor's partial assignment or license to Assignee of access rights to and from the Site set forth in any of the Mine's Coal and any rights of way, permits, or approvals from any government authority to obtain access to the Site; (ii) limited rights (express and implied), title, leasehold, and interests held by Assignor in the Mine's Coal Leases to drill for, capture, remove, use, vent, and destroy CMM produced from the Mine's underground workings, and certain permits, approvals, leases, and other agreements authorizing Assignor to construct and operate the GVH Project located in Section 3 NW1/4NE1/4SW1/4SE1/4, Township 14 South, Range 13 East, Carbon County, Utah on land subject to Utah State Coal Lease M.L No. 49287 held by Assignor and Utah State Limited Methane Lease No. 53402 – OBA held by Assignee, and (iii) the air quality permit degasification engines, all as more particularly described below:

▪ **Access Rights to Site**

- In addition to rights of ingress and egress expressly granted to Assignor in the Mine's Coal Leases further described below, Assignor shall partially assign and license to Assignee such rights, title, and interests Assignor may have as set forth in the Department of the Interior, Bureau of Land Management's Right-of- Way, dated May 29, 1950 (Utah No. 01756) ("BLM Right-of- Way"). Among other things, the aforementioned right-of-way granted to Assignor's predecessor in interest rights to obtain access to and from the Site and to maintain and construct improvements in accordance with the terms and conditions set forth therein. **Mine's Coal Leases**  
**Federal Coal Leases**

- Lease No. SL – 068754, effective as of June 1, 1951, as amended and modified on September 1, 1998, covering the following described land in Carbon County, Utah:

**Tract 1:**

**T. 14S., R. 13 E., SLM, Utah**  
Sec. 10: NE, N2SE, E2NW;  
Sec. 11: All;  
Sec. 12: S2SW, NWSW;  
Sec. 13: S2, NW, S2NE, NWNE;  
Sec. 14: E2, NW, N2NW; SENW;  
Sec 24: N2, N2SE, NESW.

containing a total of 2,570.67 acres, more or less in Carbon County, Utah.

Tract 2:

T. 14S., R. 13 E., SLM, Utah

Sec. 10: SESE;

Sec. 15: NENE.

containing a total of 80 acres, more or less in Carbon County, Utah.

- Lease No. UTU 78562, dated effective as of February 1, 2002, as modified June 10, 2011, covering the following described tracts of land located in Carbon County, Utah:

Tract 1:

T. 13S, R. 13 E., SLM, Utah

Sec. 35: S2SW4, SE4;

T. 14S., R. 13 E., SLM, Utah

Sec. 1: Lots 2-7, SW4NE4, S2NW4, W2SE4, SW4;

Sec. 12: Lots 1-4, S2N2, NE4SW4, SE4;

Sec. 13: NE4NE4;

T. 14S., R. 14 E., SLM, Utah

Sec. 6: Lot 6;

Sec. 7: Lots 3-4;

Sec. 18: Lot 1, E2NW4;

Tract 2:

T. 13S, R. 13 E., SLM, Utah

Sec. 34: NE4SE4, S2SE4;

Sec. 35: N2, N2SW4;

T. 14S, R. 13 E., SLM, Utah

Sec. 1: Lot 1;

T. 14S, R. 14 E., SLM, Utah

Sec. 6: NE4SW4.

Tract 3:

T. 13S, R. 14 E., SLM, Utah

Sec. 31: Lot 4, S2SE4SW4, NE4SE4SW4, SE4NW4SE4SW4, W2SW4SE4, S2SE4SW4SE4, S2S2SE4SE4;

T. 14S, R. 14 E., SLM, Utah

Sec. 5: Lot 4, W2W2SW4NW4, SW4NW4SW4, W2NW4NW4SW4, W2SW4SW4;

Sec. 6: NE4SE4;

Sec. 8: W2NW4NW4, W2SE4NW4NW4, SW4NE4NW4NW4, W2SW4NW4, W2E2SW4NW4, W2NW4SW4, SW4SW4;

Sec. 17: N2NW4NW4NW4.



containing a total of 2,605.49 acres, more or less, in Carbon County, Utah.

State of Utah Coal Leases

- Lease No. 47711-OBA, dated April 1, 2003, covering the following described tracts of land:

T. 14S., R. 13 E., SLB&M

Sec. 2: LOTS 1(40.18), 2(40.27), 3(40.35), 4(40.44), S2N2, S2

T. 13., R. 13 E., SLB&M

Sec. 36: SW4

containing 801.24 acres, more or less.

- Lease No. 49287-OBA, dated April 1, 2004, covering the following described tract of land:

T14S, R13E, SLB&M

Sec. 3: Lots 1(40.44), 2(40.37), 3(40.29), S2N2, S2 [Lots AKA N2NE4, NE4NW4]

Sec. 10: W2NW4, SW4, SW4SE4

containing 881.10 acres, more or less.

- Lease No. 51744-OBA, dated June 1, 2010, covering the following described tract of land:

T13S, R13E, SLB&M.

Sec. 36: N2, SE4

containing 480.00 acres, more or less.

- **GVH Project Permit**

Air Quality Approval Order (Degas Engines). The Mine's Approval Order, dated February 13, 2013, (DAQE-AN121670001-13) (AO), as administratively amended, including the portion of the AO related to four (4) degasification engines (Emission Units 046, 74, 253, and 614) permitted to operate at the GVH Project Site. The Utah Division of Air Quality approved an amendment to include other equipment and partial transfer to Grantee of the AO (DAQE - AN157360002-17) on November 21, 2017...

The portion of the AO covering all other mining operations and equipment at the Mine remains in Assignor.

- **Assignor's Excluded Assets.**

The assets that comprise the Subject Property do not include, and Assignor specifically retains exclusive ownership, control and responsibility for: (i) all of the Mine's underground mine workings; (ii) all other assets, Mine Permits (as defined in the Asset Sale Agreement), equipment, and facilities used in coal mining and reclamation operations conducted at the Mine or on all other real property owned, leased, or controlled by the Mine, and (iii) all books, records, files, material information, and data obtained, prepared or received by Assignor during historic methane extraction operations at the Mine.

WHEN RECORDED, RETURN TO:

Collon Kennedy  
Vice President  
Global Carbon Strategies Corporation  
743 Horizon Court, Suite 383  
Grand Junction, Colorado 81506

### ASSIGNMENT AND ASSUMPTION AGREEMENT

THIS ASSIGNMENT AND ASSUMPTION AGREEMENT ("**Assignment**") is made and entered into effective this \_\_\_\_ day of December, 2017 ("**Effective Date**"), by and between **West Ridge Resources, Inc.**, a Utah corporation, and **ANDALEX Resources, Inc.**, a Delaware corporation, with offices at 794 North "C" Canyon Road, P.O. Box 910, East Carbon, Utah 84520 (collectively, "**Assignor**"), and **Global Carbon Strategies Corporation**, a Colorado corporation authorized to transact business in Utah, with offices at 743 Horizon Court, Suite 383, Grand Junction, Colorado 81506 ("**Assignee**"). Assignor and Assignee may hereinafter be referred to individually as a "**Party**" and collectively as the "**Parties**."

### WITNESSETH:

WHEREAS, the Parties entered into a Mine Methane Extraction Asset Sale and Purchase Agreement, effective the 27<sup>th</sup> day of February, 2017 ("**Asset Sale Agreement**"), in which Assignor agreed to assign, sell, and transfer to Assignee ownership and control of certain assets used to extract and destroy coal mine methane and other hydrocarbons ("**CMM**") produced from the West Ridge Coal Mine ("**Mine**") in Carbon County, Utah, which assets and operations are known as Assignor's "**GVH Project**."

WHEREAS, the term coal mine methane ("**CMM**") is more particularly described as meaning all coal bed methane, coal mine methane, gob gas, and all associated natural gas and other hydrocarbons of whatever quality or quantity within, produced, or emitted, liberated, or released during mining, dewatering, and post-mining operations from the lower Sunnyside coal seam and other proximate coal seams or any related or associated host rock material or strata, gob areas, sealed areas, coal pillars, barriers, and waste rock piles in, above, below, or which accumulate in the Mine's underground workings, airways and ventilation systems, voids, portals, roadways, stations, and sealed areas.

WHEREAS, the GVH Project is located in Section 3 NW1/4NE1/4SW1/4SE1/4, Township 14 South, Range 13 East, Carbon County, Utah ("**Site**") on land subject to Utah State Coal Lease M.L. No. 49287 held by Assignor and Utah State Limited Methane Lease No. 53402 – OBA held by Assignee.

WHEREAS, Assignor's rights (express and implied) and duties with respect to the GVH Project include, among other things, certain agreements, federal and state coal leases (collectively, "**Mine's Coal Leases**"), permits, and other approvals granting Assignor the right to drill for, capture, remove, use, vent, and destroy CMM released in the Mine, which are further



described on **Exhibit "A"** attached hereto and incorporated herein by this reference (collectively, **"Subject Property"**).

WHEREAS, Assignee has agreed to assume, discharge, and perform certain duties, obligations, and liabilities of Assignor relating to the GVH Project as further described herein.

NOW THEREFORE, for Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

1. On the terms and conditions set forth herein, Assignor hereby assigns, sells, delivers, and transfers to Assignee AS IS, WHERE IS", without representations or warranties of title, but free and clear of all causes of action, claims, liens, liabilities, and encumbrances arising by, through, or under Assignor, ownership and control of Assignor's rights, title, interests, duties, and obligations in and to the Subject Property described on Exhibit "A."

2. Assignor's aforementioned assignment and transfer of the Subject Property to Assignee is expressly subject to the reservation of certain rights relating to the extraction of CMM from the Mine during active mining operations as further provided in the Asset Sale Agreement and a Subordination Agreement executed by the Parties as of the Effective Date hereof. It is further agreed by the Parties that the Subject Property does not include any and all other rights, duties, and obligations Assignor may have with respect to the Mine as further provided in the Asset Sales Agreement.

3. As part of the consideration for this Assignment, Assignee hereby assumes and agrees to discharge and perform certain of Assignor's obligations and liabilities relating to the GVH Project as further provided in the Asset Sale Agreement. Assignor, however, specifically excludes and retains exclusive ownership, control, and responsibility for all of the West Ridge Coal Mine's ("Mine") underground mine working and all other assets unrelated to the Subject Property described on Exhibit "A" and in the Asset Sale Agreement.

4. At the request of either Party, the Parties shall execute and provide any other documents and instruments necessary to complete the transfer of the Subject Property pursuant to this Assignment.

5. This Assignment is executed and delivered pursuant to, and is subject to and governed by, the terms and provisions of the Asset Sale Agreement. However, in the event of an irreconcilable conflict between the terms and conditions of this Assignment and the Asset Sale Agreement, the terms and conditions of this Assignment shall govern and control. A copy of the Asset Sale Agreement is available for inspection during regular business hours at Assignee's office at the address set forth above upon three (3) days prior written notice.

IN WITNESS WHEREOF, the Parties have executed this Assignment as of the Effective Date.

ASSIGNOR:

ASSIGNEE:

West Ridge Resources, Inc.

Global Carbon Strategies Corporation

By: David Hibbs

By: Dan H. Wilson

Name: DAVID Hibbs

Name: DANIEL L. WILSON

Title: President

Title: President

ANDALEX Resources, Inc.

By: David Hibbs

Name: DAVID Hibbs

Title: President

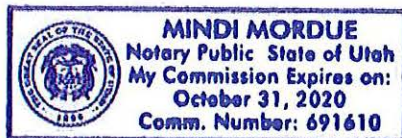
STATE OF UTAH )

COUNTY of CARBON ) ss.

The foregoing instrument was acknowledged before me this 11<sup>th</sup> day of December, 2017, by DAVID HIBBS, the PRESIDENT of West Ridge Resources, Inc.

My Commission Expires: 10/31/20

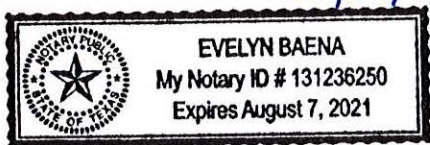
[Signature]  
NOTARY PUBLIC



STATE OF Texas )  
 ) ss.  
COUNTY of Harris )

The foregoing instrument was acknowledged before me this 13<sup>th</sup> day of December, 2017,  
by Daniel L. Wilso, the President of Global Carbon  
Strategies Corporation.

My Commission Expires: 08/07/21

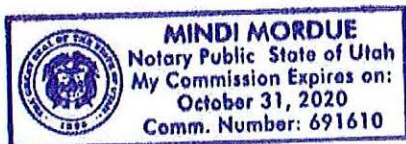


Evelyn Baena  
NOTARY PUBLIC

STATE OF UTAH )  
 ) ss.  
COUNTY of CARBON )

The foregoing instrument was acknowledged before me this 11<sup>th</sup> day of December, 2017,  
by DAVID HUBBS, the PRESIDENT of ANDALEX  
Resources, Inc.

My Commission Expires: 10/31/20



Mindi Mordue  
NOTARY PUBLIC



**EXHIBIT A**  
**TO**  
**ASSIGNMENT AND ASSUMPTION AGREEMENT (ASSIGNMENT)**  
**BETWEEN**  
**WEST RIDGE RESOURCES, INC. AND**  
**ANDALEX RESOURCES, INC. (COLLECTIVELY, ASSIGNOR)**  
**AND**  
**GLOBAL CARBON STRATEGIES CORPORATION (ASSIGNEE)**

**Subject Property Description**

The Subject Property consists of (i) Assignor's partial assignment or license to Assignee of access rights to and from the Site set forth in any of the Mine's Coal and any rights of way, permits, or approvals from any government authority to obtain access to the Site; (ii) limited rights (express and implied), title, leasehold, and interests held by Assignor in the Mine's Coal Leases to drill for, capture, remove, use, vent, and destroy CMM produced from the Mine's underground workings, and certain permits, approvals, leases, and other agreements authorizing Assignor to construct and operate the GVH Project located in Section 3 NW1/4NE1/4SW1/4SE1/4, Township 14 South, Range 13 East, Carbon County, Utah on land subject to Utah State Coal Lease M.L No. 49287 held by Assignor and Utah State Limited Methane Lease No. 53402 – OBA held by Assignee, and (iii) the air quality permit degasification engines, all as more particularly described below:

▪ **Access Rights to Site**

- In addition to rights of ingress and egress expressly granted to Assignor in the Mine's Coal Leases further described below, Assignor shall partially assign and license to Assignee such rights, title, and interests Assignor may have as set forth in the Department of the Interior, Bureau of Land Management's Right-of- Way, dated May 29, 1950 (Utah No. 01756) ("BLM Right-of- Way"). Among other things, the aforementioned right-of-way granted to Assignor's predecessor in interest rights to obtain access to and from the Site and to maintain and construct improvements in accordance with the terms and conditions set forth therein. **Mine's Coal Leases**

Federal Coal Leases

- Lease No. SL – 068754, effective as of June 1, 1951, as amended and modified on September 1, 1998, covering the following described land in Carbon County, Utah:

Tract 1:

T. 14S., R. 13 E., SLM, Utah

Sec. 10: NE, N2SE, E2NW;

Sec. 11: All;

Sec. 12: S2SW, NWSW;

Sec. 13: S2, NW, S2NE, NWNE;

Sec. 14: E2, NW, N2NW; SENW;

Sec 24: N2, N2SE, NESW.



containing a total of 2,570.67 acres, more or less in Carbon County, Utah.

Tract 2:

T. 14S., R. 13 E., SLM, Utah

Sec. 10: SESE;

Sec. 15: NENE.

containing a total of 80 acres, more or less in Carbon County, Utah.

- Lease No. UTU 78562, dated effective as of February 1, 2002, as modified June 10, 2011, covering the following described tracts of land located in Carbon County, Utah:

Tract 1:

T. 13S, R. 13 E., SLM, Utah

Sec. 35: S2SW4, SE4;

T. 14S., R. 13 E., SLM, Utah

Sec. 1: Lots 2-7, SW4NE4, S2NW4, W2SE4, SW4;

Sec. 12: Lots 1-4, S2N2, NE4SW4, SE4;

Sec. 13: NE4NE4;

T. 14S., R. 14 E., SLM, Utah

Sec. 6: Lot 6;

Sec. 7: Lots 3-4;

Sec. 18: Lot 1, E2NW4;

Tract 2:

T. 13S, R. 13 E., SLM, Utah

Sec. 34: NE4SE4, S2SE4;

Sec. 35: N2, N2SW4;

T. 14S, R. 13 E., SLM, Utah

Sec. 1: Lot 1;

T. 14S, R. 14 E., SLM, Utah

Sec. 6: NE4SW4.

Tract 3:

T. 13S, R. 14 E., SLM, Utah

Sec. 31: Lot 4, S2SE4SW4, NE4SE4SW4, SE4NW4SE4SW4, W2SW4SE4, S2SE4SW4SE4, S2S2SE4SE4;

T. 14S, R. 14 E., SLM, Utah

Sec. 5: Lot 4, W2W2SW4NW4, SW4NW4SW4, W2NW4NW4SW4, W2SW4SW4;

Sec. 6: NE4SE4;

Sec. 8: W2NW4NW4, W2SE4NW4NW4, SW4NE4NW4NW4, W2SW4NW4, W2E2SW4NW4, W2NW4SW4, SW4SW4;

Sec. 17: N2NW4NW4NW4.

containing a total of 2,605.49 acres, more or less, in Carbon County, Utah.

State of Utah Coal Leases

- Lease No. 47711-OBA, dated April 1, 2003, covering the following described tracts of land:

T. 14S., R. 13 E., SLB&M

Sec. 2: LOTS 1(40.18), 2(40.27), 3(40.35), 4(40.44), S2N2, S2

T. 13., R. 13 E., SLB&M

Sec. 36: SW4

containing 801.24 acres, more or less.

- Lease No. 49287-OBA, dated April 1, 2004, covering the following described tract of land:

T14S, R13E, SLB&M

Sec. 3: Lots 1(40.44), 2(40.37), 3(40.29), S2N2, S2 [Lots AKA N2NE4, NE4NW4]

Sec. 10: W2NW4, SW4, SW4SE4

containing 881.10 acres, more or less.

- Lease No. 51744-OBA, dated June 1, 2010, covering the following described tract of land:

T13S, R13E, SLB&M.

Sec. 36: N2, SE4

containing 480.00 acres, more or less.

- **GVH Project Permit**

Air Quality Approval Order (Degas Engines). The Mine's Approval Order, dated February 13, 2013, (DAQE-AN121670001-13) (AO), as administratively amended, including the portion of the AO related to four (4) degasification engines (Emission Units 046, 74, 253, and 614) permitted to operate at the GVH Project Site. The Utah Division of Air Quality approved an amendment to include other equipment and partial transfer to Grantee of the AO (DAQE - AN157360002-17) on November 21, 2017...

The portion of the AO covering all other mining operations and equipment at the Mine remains in Assignor.

- **Assignor's Excluded Assets.**

The assets that comprise the Subject Property do not include, and Assignor specifically retains exclusive ownership, control and responsibility for: (i) all of the Mine's underground mine workings; (ii) all other assets, Mine Permits (as defined in the Asset Sale Agreement), equipment, and facilities used in coal mining and reclamation operations conducted at the Mine or on all other real property owned, leased, or controlled by the Mine, and (iii) all books, records, files, material information, and data obtained, prepared or received by Assignor during historic methane extraction operations at the Mine.



WHEN RECORDED, RETURN TO:

Collon Kennedy  
Vice President  
Global Carbon Strategies Corporation  
743 Horizon Court, Suite 383  
Grand Junction, Colorado 81506

**SUBORDINATION AGREEMENT  
SUBJECT TO MINE METHANE EXTRACTION RIGHTS RESERVATION**

THIS SUBORDINATION AGREEMENT ("**Agreement**") is made and entered into effective this \_\_\_\_ day of December, 2017 ("**Effective Date**"), by and between **West Ridge Resources, Inc.**, a Utah corporation, and **ANDALEX Resources, Inc.**, a Delaware corporation, with offices at 794 North "C" Canyon Road, P.O. Box 910, East Carbon, Utah 84520 (collectively "**Seller**"), and **Global Carbon Strategies Corporation**, a Colorado corporation authorized to transact business in Utah, with offices at 743 Horizon Court, Suite 383, Grand Junction, Colorado 81506 ("**Buyer**"). Seller and Buyer may hereinafter be referred to individually as a "**Party**" and collectively as the "**Parties**."

WITNESSETH:

WHEREAS, the Parties entered into a Mine Methane Extraction Asset Sale and Purchase Agreement, effective the 27<sup>th</sup> day of February, 2017 ("**Asset Sale Agreement**"), in which Seller agreed to assign, sell, and transfer to Buyer ownership and control of certain assets used to extract and destroy coal mine methane and other hydrocarbons ("**CMM**") produced from the West Ridge Coal Mine ("**Mine**") in Carbon County, Utah, which assets and operations are known as Seller's "**GVH Project**."

WHEREAS, the term Coal Mine Methane ("**CMM**") is more particularly described as meaning all coal bed methane, coal mine methane, gob gas, and all associated natural gas and other hydrocarbons of whatever quality or quantity within, produced, or emitted, liberated, or released during mining, dewatering, and post-mining operations from the lower Sunnyside coal seam and other proximate coal seams or any related or associated host rock material or strata, gob areas, sealed areas, coal pillars, barriers, and waste rock piles in, above, below, or which accumulate in the Mine's underground workings, airways and ventilation systems, voids, portals, roadways, stations, and sealed areas.

WHEREAS, the GVH Project, is located in Section 3 NW1/4NE1/4SW1/4SE1/4, Township 14 South, Range 13 East, Carbon County, Utah ("**Site**") on land subject to Utah State Coal Lease M.L. No. 49287 – OBA held by Seller and Utah State Limited Methane Lease No. 53402 – OBA held by Buyer.

WHEREAS, the Mine, including the GVH Project, is located on land subject to certain federal and state coal leases held by Seller ("**Mine's Coal Leases**"), which are further described on Exhibit "A" attached hereto and incorporated herein by this reference.



WHEREAS, on the terms and conditions set forth herein, Seller desires to subordinate its senior rights, title, and interests in and to the Mine's Coal Leases to Utah State Limited Lease for Methane, effective September 1, 2016 (M.L. 53402 – OBA), issued by the State of Utah's School and Institutional Trust Lands Administration ("SITLA") to Buyer ("SITLA Methane Lease"), for the limited purpose of enabling Buyer, as Seller's successor to the GVH Project, to conduct any and all activities and operations at the Site required to capture, possess, use, and destroy CMM removed from the Mine's underground workings in accordance with the SITLA Methane Lease.

WHEREAS, Seller's agreement to subordinate all of its aforementioned rights, title, and interests in the Mine's Coal Leases relating to CMM is expressly subject to Seller's reserved and retained rights, from time to time, to resume coal mining operations at the Mine pursuant to such leases and Seller's "Reserved Methane Extraction Rights" provided herein.

NOW, THEREFORE, for Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

1. Subordination to SITLA Methane Lease. On the terms and conditions set forth herein, Seller desires to subordinate its senior rights, title, and interests in and to the Mine's Coal Leases to Utah State Limited Lease for Methane, effective September 1, 2016 (M.L. 53402 – OBA), issued by the State of Utah's School and Institutional Trust Lands Administration to Buyer, for the limited purpose of enabling Buyer, as Seller's successor to the GVH Project, to conduct any and all activities and operations at the Site required to capture, possess, use, and destroy CMM removed from the Mine's underground workings in accordance with the SITLA Methane Lease. Seller hereby agrees to subordinate its rights, title and interest in and to the Mine's Coal Leases subject to the limited rights, title, and interests granted to Buyer in the SITLA Methane Lease to capture, gather, remove, use, ventilate, and destroy CMM produced from the leased premises described therein.

3. Seller's Reserved Methane Extraction Rights. Seller expressly reserves the right to obtain access to, make use of, or, if necessary, operate pursuant to a mutually agreed upon Joint Operating Agreement (JOA) pursuant to which Buyer's GVH Project will extract CMM from the Mine during active mining operations. Upon delivering written notice to Buyer of Seller's intent to exercise its Reserved Methane Extraction Rights, the Parties will promptly enter into good faith negotiations in an effort to reach a mutually acceptable JOA in which Buyer, will serve as the GVH Project Operator for purposes of extracting CMM from the Mine and delivering CMM to the flare system on the Site. The operation of the flare system will not be included in JOA operations and will be the sole responsibility of Buyer. The JOA is to include a mutually acceptable costs sharing arrangement whereby Buyer will pay all normal operating costs of the GVH Project based on its historic operations at the Site. Seller will assume responsibility for all costs in excess of Buyer's normal GVH Project operating expenses, which costs will be identified during JOA negotiations.

4. Duty of Cooperation and Compliance with Laws and Permits. As will be further provided in the JOA, the Parties will fully cooperate with each other in performing their

respective operations at the Mine and the GVH Project. All such operations will be performed in compliance with all applicable legal requirements, permits, and other approvals.

5. Successors and Assigns. This Agreement is binding upon the Parties and their respective affiliates, successors, and assigns.

6. Integration. This Subordination Agreement is executed and delivered pursuant to, and is subject to and governed by, the terms and provisions of the Asset Sale Agreement. In the event of an irreconcilable conflict between the terms and conditions of this Agreement and the Asset Sale Agreement, the terms and conditions of this Agreement shall govern and control. A copy of the Asset Sale Agreement is available for inspection during regular business hours at Buyer's office at the address set forth above upon three (3) days prior written notice.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the Effective Date.

**SELLER:**

**West Ridge Resources, Inc.**

By: David Hibbs

Name: David Hibbs

Title: President

**ANDALEX Resources, Inc.**

By: David Hibbs

Name: David Hibbs

Title: President

**BUYER:**

**Global Carbon Strategies Corporation**

By: Daniel L. Wilson

Name: DANIEL L. WILSON

Title: President

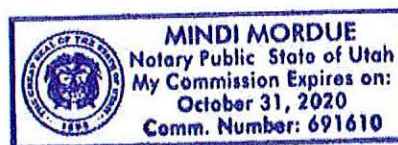


STATE OF UTAH )  
 ) ss.  
COUNTY of CARBON )

The foregoing instrument was acknowledged before me this 11<sup>th</sup> day of December, 2017,  
by DAVID HOBBS, the PRESIDENT of West Ridge  
Resources, Inc.

My Commission Expires: 10/31/20

[Signature]  
NOTARY PUBLIC

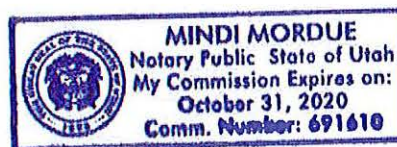


STATE OF UTAH )  
 ) ss.  
COUNTY of CARBON )

The foregoing instrument was acknowledged before me this 11<sup>th</sup> day of December, 2017,  
by DAVID HOBBS, the PRESIDENT of ANDALEX  
Resources, Inc.

My Commission Expires: 10/31/20

[Signature]  
NOTARY PUBLIC



STATE OF Texas )  
 ) ss.  
COUNTY of Harris )

The foregoing instrument was acknowledged before me this 13<sup>th</sup> day of December, 2017,  
by Daniel L. Wilson, the President of Global Carbon  
Strategies Corporation.

My Commission Expires: 08/7/21

[Signature]  
NOTARY PUBLIC

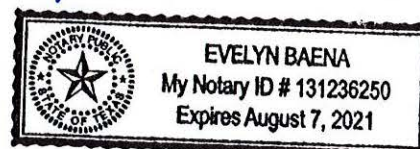


EXHIBIT A  
TO  
SUBORDINATION AGREEMENT  
SUBJECT TO MINE METHANE EXTRACTION RIGHTS RESERVATION (AGREEMENT)  
BETWEEN  
WEST RIDGE RESOURCES, INC.  
AND  
ANDALEX RESOURCES, INC. (COLLECTIVELY, SELLER)  
AND  
GLOBAL CARBON STRATEGIES CORPORATION (BUYER)

**Mine's Coal Leases Description**

As provided in the above Agreement, Seller agrees to subordinate the Mine's Coal Leases described below to Buyer's SITLA Methane Lease for the limited purpose of allowing Buyer to capture, remove, use, vent, and destroy CMM produced from the Mine at the GVH Project located in Section 3 NW1/4NE1/4SW1/4SE1/4, Township 14 South, Range 13 East, Carbon County, Utah ("Site") on land subject to Utah State Coal Lease M.L No. 49287 - OBA held by Seller and Utah State Limited Methane Lease No. 53402 – OBA held by Buyer.

▪ **Mine's Coal Leases**  
**Federal Coal Leases**

- Lease No. SL – 068754, effective as of June 1, 1951, as amended and modified on September 1, 1998, covering the following described land in Carbon County, Utah:

Tract 1:

T. 14S., R. 13 E., SLM, Utah  
Sec. 10: NE, N2SE, E2NW;  
Sec. 11: All;  
Sec. 12: S2SW, NWSW;  
Sec. 13: S2, NW, S2NE, NWNE;  
Sec. 14: E2, NW, N2NW; SENW;  
Sec 24: N2, N2SE, NESW.

containing a total of 2,570.67 acres, more or less in Carbon County, Utah.

Tract 2:

T. 14S., R. 13 E., SLM, Utah  
Sec. 10: SESE;  
Sec. 15: NENE.

containing a total of 80 acres, more or less in Carbon County, Utah.

- Lease No. UTU 78562, dated effective as of February 1, 2002, as modified June 10, 2011, covering the following described tracts of land located in Carbon County, Utah:

Tract 1:

T. 13S, R. 13 E., SLM, Utah  
Sec. 35: S2SW4, SE4;

T. 14S., R. 13 E., SLM, Utah  
Sec. 1: Lots 2-7, SW4NE4, S2NW4, W2SE4, SW4;  
Sec. 12: Lots 1-4, S2N2, NE4SW4, SE4;  
Sec. 13: NE4NE4;

T. 14S., R. 14 E., SLM, Utah  
Sec. 6: Lot 6;  
Sec. 7: Lots 3-4;  
Sec. 18: Lot 1, E2NW4;

Tract 2:

T. 13S, R. 13 E., SLM, Utah  
Sec. 34: NE4SE4, S2SE4;  
Sec. 35: N2, N2SW4;

T. 14S, R. 13 E., SLM, Utah  
Sec. 1: Lot 1;

T. 14S, R. 14 E., SLM, Utah  
Sec. 6: NE4SW4.

Tract 3:

T. 13S, R. 14 E., SLM, Utah  
Sec. 31: Lot 4, S2SE4SW4, NE4SE4SW4, SE4NW4SE4SW4, W2SW4SE4,  
S2SE4SW4SE4, S2S2SE4SE4;

T. 14S, R. 14 E., SLM, Utah  
Sec. 5: Lot 4, W2W2SW4NW4, SW4NW4SW4, W2NW4NW4SW4,  
W2SW4SW4;  
Sec. 6: NE4SE4;  
Sec. 8: W2NW4NW4, W2SE4NW4NW4, SW4NE4NW4NW4,  
W2SW4NW4, W2E2SW4NW4, W2NW4SW4, SW4SW4;  
Sec. 17: N2NW4NW4NW4.

containing a total of 2,605.49 acres, more or less, in Carbon County, Utah.

State of Utah Coal Leases

- Lease No. 47711-OBA, dated April 1, 2003, covering the following described tracts of land:

T. 14S., R. 13 E., SLB&M  
Sec. 2: LOTS 1(40.18), 2(40.27), 3(40.35), 4(40.44), S2N2, S2



T. 13., R. 13 E., SLB&M

Sec. 36: SW4

containing 801.24 acres, more or less.

- Lease No. 49287-OBA, dated April 1, 2004, covering the following described tract of land:

T14S, R13E, SLB&M

Sec. 3: Lots 1(40.44), 2(40.37), 3(40.29), S2N2, S2 [Lots AKA N2NE4, NE4NW4]

Sec. 10: W2NW4, SW4, SW4SE4

containing 881.10 acres, more or less.

- Lease No. 51744-OBA, dated June 1, 2010, covering the following described tract of land:

T13S, R13E, SLB&M.

Sec. 36: N2, SE4

containing 480.00 acres, more or less.

- **Seller's Excluded Assets.**

In addition to Seller's Reserved Methane Extraction Right described in the aforementioned Agreement, Seller specifically retains exclusive ownership, control and responsibility for: (i) all of the Mine's underground mine workings; (ii) all other assets, Mine Permits (as defined in the Asset Sale Agreement), equipment, and facilities used in coal mining and reclamation operations conducted at the Mine or on all other real property owned, leased, or controlled by the Mine, and (iii) all books, records, files, material information, and data obtained, prepared or received by Seller during historic methane extraction operations at the Mine.

WHEN RECORDED, RETURN TO:

Collon Kennedy  
Vice President  
Global Carbon Strategies Corporation  
743 Horizon Court, Suite 383  
Grand Junction, Colorado 81506

**SUBORDINATION AGREEMENT  
SUBJECT TO MINE METHANE EXTRACTION RIGHTS RESERVATION**

THIS SUBORDINATION AGREEMENT ("**Agreement**") is made and entered into effective this \_\_\_\_ day of December, 2017 ("**Effective Date**"), by and between **West Ridge Resources, Inc.**, a Utah corporation, and **ANDALEX Resources, Inc.**, a Delaware corporation, with offices at 794 North "C" Canyon Road, P.O. Box 910, East Carbon, Utah 84520 (collectively "**Seller**"), and **Global Carbon Strategies Corporation**, a Colorado corporation authorized to transact business in Utah, with offices at 743 Horizon Court, Suite 383, Grand Junction, Colorado 81506 ("**Buyer**"). Seller and Buyer may hereinafter be referred to individually as a "**Party**" and collectively as the "**Parties**."

WITNESSETH:

WHEREAS, the Parties entered into a Mine Methane Extraction Asset Sale and Purchase Agreement, effective the 27<sup>th</sup> day of February, 2017 ("**Asset Sale Agreement**"), in which Seller agreed to assign, sell, and transfer to Buyer ownership and control of certain assets used to extract and destroy coal mine methane and other hydrocarbons ("**CMM**") produced from the West Ridge Coal Mine ("**Mine**") in Carbon County, Utah, which assets and operations are known as Seller's "**GVH Project**."

WHEREAS, the term Coal Mine Methane ("**CMM**") is more particularly described as meaning all coal bed methane, coal mine methane, gob gas, and all associated natural gas and other hydrocarbons of whatever quality or quantity within, produced, or emitted, liberated, or released during mining, dewatering, and post-mining operations from the lower Sunnyside coal seam and other proximate coal seams or any related or associated host rock material or strata, gob areas, sealed areas, coal pillars, barriers, and waste rock piles in, above, below, or which accumulate in the Mine's underground workings, airways and ventilation systems, voids, portals, roadways, stations, and sealed areas.

WHEREAS, the GVH Project, is located in Section 3 NW1/4NE1/4SW1/4SE1/4, Township 14 South, Range 13 East, Carbon County, Utah ("**Site**") on land subject to Utah State Coal Lease M.L. No. 49287 – OBA held by Seller and Utah State Limited Methane Lease No. 53402 – OBA held by Buyer.

WHEREAS, the Mine, including the GVH Project, is located on land subject to certain federal and state coal leases held by Seller ("**Mine's Coal Leases**"), which are further described on Exhibit "A" attached hereto and incorporated herein by this reference.



WHEREAS, on the terms and conditions set forth herein, Seller desires to subordinate its senior rights, title, and interests in and to the Mine's Coal Leases to Utah State Limited Lease for Methane, effective September 1, 2016 (M.L. 53402 – OBA), issued by the State of Utah's School and Institutional Trust Lands Administration ("SITLA") to Buyer ("SITLA Methane Lease"), for the limited purpose of enabling Buyer, as Seller's successor to the GVH Project, to conduct any and all activities and operations at the Site required to capture, possess, use, and destroy CMM removed from the Mine's underground workings in accordance with the SITLA Methane Lease.

WHEREAS, Seller's agreement to subordinate all of its aforementioned rights, title, and interests in the Mine's Coal Leases relating to CMM is expressly subject to Seller's reserved and retained rights, from time to time, to resume coal mining operations at the Mine pursuant to such leases and Seller's "Reserved Methane Extraction Rights" provided herein.

NOW, THEREFORE, for Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

1. Subordination to SITLA Methane Lease. On the terms and conditions set forth herein, Seller desires to subordinate its senior rights, title, and interests in and to the Mine's Coal Leases to Utah State Limited Lease for Methane, effective September 1, 2016 (M.L. 53402 – OBA), issued by the State of Utah's School and Institutional Trust Lands Administration to Buyer, for the limited purpose of enabling Buyer, as Seller's successor to the GVH Project, to conduct any and all activities and operations at the Site required to capture, possess, use, and destroy CMM removed from the Mine's underground workings in accordance with the SITLA Methane Lease. Seller hereby agrees to subordinate its rights, title and interest in and to the Mine's Coal Leases subject to the limited rights, title, and interests granted to Buyer in the SITLA Methane Lease to capture, gather, remove, use, ventilate, and destroy CMM produced from the leased premises described therein.

3. Seller's Reserved Methane Extraction Rights. Seller expressly reserves the right to obtain access to, make use of, or, if necessary, operate pursuant to a mutually agreed upon Joint Operating Agreement (JOA) pursuant to which Buyer's GVH Project will extract CMM from the Mine during active mining operations. Upon delivering written notice to Buyer of Seller's intent to exercise its Reserved Methane Extraction Rights, the Parties will promptly enter into good faith negotiations in an effort to reach a mutually acceptable JOA in which Buyer, will serve as the GVH Project Operator for purposes of extracting CMM from the Mine and delivering CMM to the flare system on the Site. The operation of the flare system will not be included in JOA operations and will be the sole responsibility of Buyer. The JOA is to include a mutually acceptable costs sharing arrangement whereby Buyer will pay all normal operating costs of the GVH Project based on its historic operations at the Site. Seller will assume responsibility for all costs in excess of Buyer's normal GVH Project operating expenses, which costs will be identified during JOA negotiations.

4. Duty of Cooperation and Compliance with Laws and Permits. As will be further provided in the JOA, the Parties will fully cooperate with each other in performing their

respective operations at the Mine and the GVH Project. All such operations will be performed in compliance with all applicable legal requirements, permits, and other approvals.

5. Successors and Assigns. This Agreement is binding upon the Parties and their respective affiliates, successors, and assigns.

6. Integration. This Subordination Agreement is executed and delivered pursuant to, and is subject to and governed by, the terms and provisions of the Asset Sale Agreement. In the event of an irreconcilable conflict between the terms and conditions of this Agreement and the Asset Sale Agreement, the terms and conditions of this Agreement shall govern and control. A copy of the Asset Sale Agreement is available for inspection during regular business hours at Buyer's office at the address set forth above upon three (3) days prior written notice.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the Effective Date.

**SELLER:**

**West Ridge Resources, Inc.**

By: David Hobbs

Name: DAVID HOBBS

Title: President

**ANDALEX Resources, Inc.**

By: David Hobbs

Name: DAVID HOBBS

Title: President

**BUYER:**

**Global Carbon Strategies Corporation**

By: Daniel L. Wilson

Name: DANIEL L. WILSON

Title: President

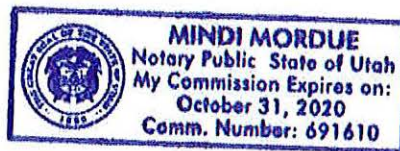


STATE OF UTAH )  
 ) ss.  
COUNTY of CARBON )

The foregoing instrument was acknowledged before me this 11<sup>th</sup> day of December, 2017,  
by DAVID HIBBS, the PRESIDENT of West Ridge  
Resources, Inc.

My Commission Expires: 10/31/20

[Signature]  
NOTARY PUBLIC

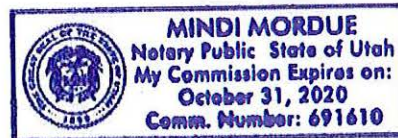


STATE OF UTAH )  
 ) ss.  
COUNTY of CARBON )

The foregoing instrument was acknowledged before me this 11<sup>th</sup> day of December, 2017,  
by DAVID HIBBS, the PRESIDENT of ANDALEX  
Resources, Inc.

My Commission Expires: 10/31/20

[Signature]  
NOTARY PUBLIC



STATE OF Texas )  
 ) ss.  
COUNTY of Harris )

The foregoing instrument was acknowledged before me this 13<sup>th</sup> day of December, 2017,  
by Daniel L. Wilson, the President of Global Carbon  
Strategies Corporation.

My Commission Expires: 08/07/21

[Signature]  
NOTARY PUBLIC

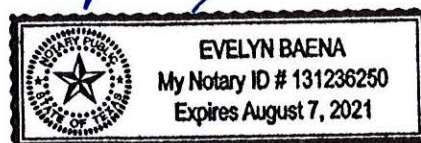




EXHIBIT A  
TO  
SUBORDINATION AGREEMENT  
SUBJECT TO MINE METHANE EXTRACTION RIGHTS RESERVATION (AGREEMENT)  
BETWEEN  
WEST RIDGE RESOURCES, INC.  
AND  
ANDALEX RESOURCES, INC. (COLLECTIVELY, SELLER)  
AND  
GLOBAL CARBON STRATEGIES CORPORATION (BUYER)

**Mine's Coal Leases Description**

As provided in the above Agreement, Seller agrees to subordinate the Mine's Coal Leases described below to Buyer's SITLA Methane Lease for the limited purpose of allowing Buyer to capture, remove, use, vent, and destroy CMM produced from the Mine at the GVH Project located in Section 3 NW1/4NE1/4SW1/4SE1/4, Township 14 South, Range 13 East, Carbon County, Utah ("Site") on land subject to Utah State Coal Lease M.L No. 49287 - OBA held by Seller and Utah State Limited Methane Lease No. 53402 – OBA held by Buyer.

■ **Mine's Coal Leases**  
**Federal Coal Leases**

- Lease No. SL – 068754, effective as of June 1, 1951, as amended and modified on September 1, 1998, covering the following described land in Carbon County, Utah:

Tract 1:

T. 14S., R. 13 E., SLM, Utah  
Sec. 10: NE, N2SE, E2NW;  
Sec. 11: All;  
Sec. 12: S2SW, NWSW;  
Sec. 13: S2, NW, S2NE, NWNE;  
Sec. 14: E2, NW, N2NW; SENW;  
Sec 24: N2, N2SE, NESW.

containing a total of 2,570.67 acres, more or less in Carbon County, Utah.

Tract 2:

T. 14S., R. 13 E., SLM, Utah  
Sec. 10: SESE;  
Sec. 15: NENE.

containing a total of 80 acres, more or less in Carbon County, Utah.

- Lease No. UTU 78562, dated effective as of February 1, 2002, as modified June 10, 2011, covering the following described tracts of land located in Carbon County, Utah:

Tract 1:

T. 13S, R. 13 E., SLM, Utah

Sec. 35: S2SW4, SE4;

T. 14S., R. 13 E., SLM, Utah

Sec. 1: Lots 2-7, SW4NE4, S2NW4, W2SE4, SW4;

Sec. 12: Lots 1-4, S2N2, NE4SW4, SE4;

Sec. 13: NE4NE4;

T. 14S., R. 14 E., SLM, Utah

Sec. 6: Lot 6;

Sec. 7: Lots 3-4;

Sec. 18: Lot 1, E2NW4;

Tract 2:

T. 13S, R. 13 E., SLM, Utah

Sec. 34: NE4SE4, S2SE4;

Sec. 35: N2, N2SW4;

T. 14S, R. 13 E., SLM, Utah

Sec. 1: Lot 1;

T. 14S, R. 14 E., SLM, Utah

Sec. 6: NE4SW4.

Tract 3:

T. 13S, R. 14 E., SLM, Utah

Sec. 31: Lot 4, S2SE4SW4, NE4SE4SW4, SE4NW4SE4SW4, W2SW4SE4, S2SE4SW4SE4, S2S2SE4SE4;

T. 14S, R. 14 E., SLM, Utah

Sec. 5: Lot 4, W2W2SW4NW4, SW4NW4SW4, W2NW4NW4SW4, W2SW4SW4;

Sec. 6: NE4SE4;

Sec. 8: W2NW4NW4, W2SE4NW4NW4, SW4NE4NW4NW4, W2SW4NW4, W2E2SW4NW4, W2NW4SW4, SW4SW4;

Sec. 17: N2NW4NW4NW4.

containing a total of 2,605.49 acres, more or less, in Carbon County, Utah.

State of Utah Coal Leases

- Lease No. 47711-OBA, dated April 1, 2003, covering the following described tracts of land:

T. 14S., R. 13 E., SLB&M

Sec. 2: LOTS 1(40.18), 2(40.27), 3(40.35), 4(40.44), S2N2, S2

T. 13., R. 13 E., SLB&M  
Sec. 36: SW4

containing 801.24 acres, more or less.

- Lease No. 49287-OBA, dated April 1, 2004, covering the following described tract of land:

T14S, R13E, SLB&M  
Sec. 3: Lots 1(40.44), 2(40.37), 3(40.29), S2N2, S2 [Lots AKA N2NE4,  
NE4NW4]  
Sec. 10: W2NW4, SW4, SW4SE4

containing 881.10 acres, more or less.

- Lease No. 51744-OBA, dated June 1, 2010, covering the following described tract of land:

T13S, R13E, SLB&M.  
Sec. 36: N2, SE4

containing 480.00 acres, more or less.

▪ **Seller's Excluded Assets.**

In addition to Seller's Reserved Methane Extraction Right described in the aforementioned Agreement, Seller specifically retains exclusive ownership, control and responsibility for: (i) all of the Mine's underground mine workings; (ii) all other assets, Mine Permits (as defined in the Asset Sale Agreement), equipment, and facilities used in coal mining and reclamation operations conducted at the Mine or on all other real property owned, leased, or controlled by the Mine, and (iii) all books, records, files, material information, and data obtained, prepared or received by Seller during historic methane extraction operations at the Mine.



WHEN RECORDED, RETURN TO:

Collon Kennedy  
Vice President  
Global Carbon Strategies Corporation  
743 Horizon Court, Suite 383  
Grand Junction, Colorado 81506

### **SPECIAL WARRANTY DEED**

For Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, **West Ridge Resources, Inc.**, ("**WRR**") a Utah corporation, and **ANDALEX Resources, Inc.** ("**ARI**"), a Delaware corporation, with offices at 794 North "C" Canyon Road, P.O. Box 910, East Carbon, Utah 84520 ("**WRR**" and "**ARI**" are individually or collectively referred to as "**Grantor**"), hereby grants, conveys, sells, and transfers to **Global Carbon Strategies Corporation**, a Colorado corporation authorized to transact business in Utah, with offices located at 743 Horizon Court, Suite 383, Grand Junction, Colorado 81506 ("**Grantee**"), "**AS IS, WHERE IS,**" without representations or warranties of title, but free and clear of all causes of action, claims, liens, liabilities, and encumbrances arising by, through, or under Grantor, all of their respective rights, title, interests, and privileges appurtenant thereto (including beneficial title or possessory rights implied at law) in and to certain gob vent holes ("**GVH**"), pipelines and power lines, fixtures, improvements, and other equipment and structures attached thereto or located on certain real property in Carbon County, Utah, more specifically described on **Exhibit A** attached hereto and incorporated herein by this reference ("**GVH Project Real Property**"). Grantor and Grantee may hereinafter be referred to individually as a "**Party**" and collectively as the "**Parties.**"

Except as otherwise provided above, Grantor makes no other representations or warranties pertaining to any of the GVH Project Real Property, including any representations and warranties of merchantability or fitness for a particular purpose.

As part of the consideration for this Special Warranty Deed, Grantee hereby assumes and agrees to discharge and perform certain of Grantor's obligations and liabilities relating to the GVH Project Real Property as further provided in the Mine Methane Extraction Asset Sale and Purchase Agreement, effective February 27, 2017 ("**Asset Sale Agreement**"), entered into between the parties, which shall survive the delivery hereof to Grantee as expressly provided therein. Grantor, however, specifically excludes and retains exclusive ownership, control, and responsibility for all of the West Ridge Coal Mine's ("**Mine**") underground mine working and other assets unrelated to the GVH Project Real Property as described on Exhibit "A" and in the Asset Sale Agreement. A copy of the Asset Sale Agreement is available for inspection during regular business hours at Grantee's office at the address set forth above upon three (3) days prior written notice.

At the request of either Party, the Parties shall execute and provide any other documents and instruments necessary to complete the transfer of the GVH Project Real property pursuant to this Special Warranty Deed.

**SPECIAL WARRANTY DEED**



IN WITNESS WHEREOF, the parties have executed this Special Warranty Deed effective this    day of December, 2017.

**GRANTOR:**

**West Ridge Resources, Inc.**

By: David Hibbs

Name: David Hibbs

Title: President

**GRANTEE:**

**Global Carbon Strategies Corporation**

By: Daniel L. Wilson

Name: DANIEL L. WILSON

Title: President

**ANDALEX Resources Inc.**

By: David Hibbs

Name: David Hibbs

Title: President

STATE OF UTAH )  
 ) ss.  
COUNTY of CARBON )

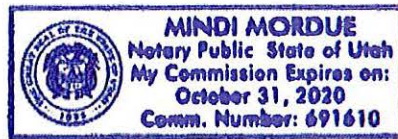
The foregoing instrument was acknowledged before me this 11<sup>th</sup> day of DECEMBER, 2017, by DAVID HIBBS, the PRESIDENT of West Ridge Resources, Inc.



My Commission Expires:

NOTARY PUBLIC

10/31/20



STATE OF UTAH )  
 ) ss.  
COUNTY of CARBON )

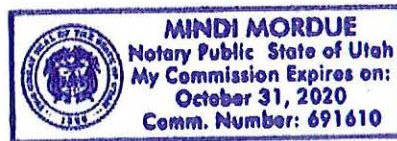
The foregoing instrument was acknowledged before me this 11<sup>th</sup> day of DECEMBER, 2017, by DAVID HIBBS, the PRESIDENT of ANDALEX Resources, Inc.



My Commission Expires:

NOTARY PUBLIC

10/31/20



STATE OF Texas )  
 ) ss.  
COUNTY of Harris )

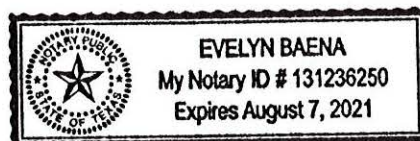
The foregoing instrument was acknowledged before me this 13<sup>th</sup> day of December, 2017, by Daniel L. Wilson, the President of Global Carbon Strategies Corporation.



My Commission Expires:

NOTARY PUBLIC

08/07/21



SPECIAL WARRANTY DEED

**EXHIBIT A**  
**TO**  
**SPECIAL WARRANTY DEED**  
**BETWEEN**  
**WEST RIDGE RESOURCES, INC.**  
**AND**  
**ANDALEX RESOURCES INC. (COLLECTIVELY, GRANTOR)**  
**AND**  
**GLOBAL CARBON STRATEGIES CORPORATION (GRANTEE)**

**GVH Project Real Property Description**

The "GVH Project Real Property" consists of all of Grantor's rights, interests, duties, and obligations in and to the following assets used in West Ridge Coal Mine's ("Mine") historic coal mine methane extraction operations:

▪ **Gob Vent Holes**

Five (5) gob vent holes ("GVHs") together with all casing, piping, fixtures, improvements, equipment, and other structures attached to or located on or about three (3) acres, more or less, in Section 3 NW1/4NE1/4SW1/4SE1/4, Township 14 South, Range 13 East, Carbon County, Utah ("GVP Project Site" or "Site") on land subject to Utah State Coal Lease M.L No. 49287 held by Grantor and Utah State Limited Methane Lease No. 53402 – OBA held by Grantee, all as further described below:

▪ **GVH Project Permit**

Air Quality Approval Order (Degas Engines). The Mine's Approval Order, dated February 13, 2013, (DAQE-AN121670001-13) (AO), as administratively amended, including the portion of the AO related to four (4) degasification engines (Emission Units 046, 74, 253, and 614) permitted to operate at the GVH Project Site. The Utah Division of Air Quality approved an amendment to include other equipment and partial transfer to Grantee of the AO (DAQE – AN157360002-17) on November 21, 2017.

The portion of the AO covering all other mining operations and equipment at the Mine remains in Grantor.

▪ **Fixtures, Improvements, Equipment, and Other Structures**

All of Grantor's right, title, and interest in and to all equipment, fences, fixtures, improvements, instruments, pipelines (water or gas), power lines, sheds, structures, tanks, and well pads attached to the GVHs or located on or under the surface of the Site that comprise part of the GHV Project Real Property, which includes the following:

<b>QTY</b>	<b>Item Description</b>
5	9 5/8 to 10" flange adapter
5	10" SS gate valve
5	10" Check valve



<b>QTY</b>	<b>Item Description</b>
4	10" fabricated Wye
8	10" Gear actuated butterfly valves
4	10" flex hose w/ flange ends x 12'
4	10" long sweep 90° Els
6	10" Flame Arrestors
4	10" x 8" Adapters
4	8" x 10' Metering Spool
4	Verabar Flow Meter
1	Monitoring PLC
4	Control Panels w/ methanometer & programmable logic controller (PLC)
4	10" x 8" Adapters
4	10" x 8" Tee
4	8" check valves
4	Vent Stack Adapters
4	Fiberglass vent stacks
4	10" long sweep 90° Els
4	10" Inlet Filter
	10" 150# ss Gasket
	10" 150# Blind Flange
4	14w 10h 36 long Tent
192	7/8 x 4 3/4 Stud w/ nut
18	Gasket
4	Leveling Base
4	Support Frame
1	Viper 60-80 air compressor
4	Methane Extractor Units (operating)
1	Methane Extractor Unit (spare)
2	Air Diaphragm pump
2	Hose & ftg kit
18	Gasket

In addition, any and all other infrastructure and improvements on the Site and adjacent property used in connection with the GVH Project's operations.

▪ **Grantor's Excluded Assets.**

The assets that comprise the GVH Project Real Property do not include, and Grantor specifically retains exclusive ownership, control and responsibility for: (i) all of the Mine's underground mine workings; (ii) all other assets, Mine Permits (as defined in the Asset Sale Agreement), equipment, and facilities used in coal mining and reclamation operations conducted at the Mine or on all other real property owned, leased, or controlled by the Mine, and (iii) all books, records, files, material information, and data obtained, prepared or received by Grantor during historic methane extraction operations at the Mine.



WHEN RECORDED, RETURN TO:

Collon Kennedy  
Vice President  
Global Carbon Strategies Corporation  
743 Horizon Court, Suite 383  
Grand Junction, Colorado 81506

### **SPECIAL WARRANTY DEED**

For Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, **West Ridge Resources, Inc.**, ("WRR") a Utah corporation, and **ANDALEX Resources, Inc.** ("ARI"), a Delaware corporation, with offices at 794 North "C" Canyon Road, P.O. Box 910, East Carbon, Utah 84520 ("WRR" and "ARI" are individually or collectively referred to as "**Grantor**"), hereby grants, conveys, sells, and transfers to **Global Carbon Strategies Corporation**, a Colorado corporation authorized to transact business in Utah, with offices located at 743 Horizon Court, Suite 383, Grand Junction, Colorado 81506 ("**Grantee**"), "AS IS, WHERE IS," without representations or warranties of title, but free and clear of all causes of action, claims, liens, liabilities, and encumbrances arising by, through, or under Grantor, all of their respective rights, title, interests, and privileges appurtenant thereto (including beneficial title or possessory rights implied at law) in and to certain gob vent holes ("GVH"), pipelines and power lines, fixtures, improvements, and other equipment and structures attached thereto or located on certain real property in Carbon County, Utah, more specifically described on **Exhibit A** attached hereto and incorporated herein by this reference ("**GVH Project Real Property**"). Grantor and Grantee may hereinafter be referred to individually as a "**Party**" and collectively as the "**Parties**."

Except as otherwise provided above, Grantor makes no other representations or warranties pertaining to any of the GVH Project Real Property, including any representations and warranties of merchantability or fitness for a particular purpose.

As part of the consideration for this Special Warranty Deed, Grantee hereby assumes and agrees to discharge and perform certain of Grantor's obligations and liabilities relating to the GVH Project Real Property as further provided in the Mine Methane Extraction Asset Sale and Purchase Agreement, effective February 27, 2017 ("Asset Sale Agreement"), entered into between the parties, which shall survive the delivery hereof to Grantee as expressly provided therein. Grantor, however, specifically excludes and retains exclusive ownership, control, and responsibility for all of the West Ridge Coal Mine's ("Mine") underground mine working and other assets unrelated to the GVH Project Real Property as described on Exhibit "A" and in the Asset Sale Agreement. A copy of the Asset Sale Agreement is available for inspection during regular business hours at Grantee's office at the address set forth above upon three (3) days prior written notice.

At the request of either Party, the Parties shall execute and provide any other documents and instruments necessary to complete the transfer of the GVH Project Real property pursuant to this Special Warranty Deed.

### **SPECIAL WARRANTY DEED**

IN WITNESS WHEREOF, the parties have executed this Special Warranty Deed effective this \_\_ day of December, 2017.

**GRANTOR:**

**West Ridge Resources, Inc.**

By: David Hibbs

Name: David Hibbs

Title: President

**GRANTEE:**

**Global Carbon Strategies Corporation**

By: Daniel L. Wilson

Name: DANIEL L. WILSON

Title: President

**ANDALEX Resources Inc.**

By: David Hibbs

Name: DAVID Hibbs

Title: President

STATE OF UTAH )  
 ) ss.  
COUNTY of CARBON )

The foregoing instrument was acknowledged before me this 11<sup>th</sup> day of DECEMBER, 2017, by DAVID HUBBS, the PRESIDENT of West Ridge Resources, Inc.



My Commission Expires:

NOTARY PUBLIC

10/31/20



STATE OF UTAH )  
 ) ss.  
COUNTY of CARBON )

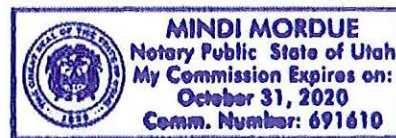
The foregoing instrument was acknowledged before me this 11<sup>th</sup> day of DECEMBER, 2017, by DAVID HUBBS, the PRESIDENT of ANDALEX Resources, Inc.



My Commission Expires:

NOTARY PUBLIC

10/31/20



STATE OF Texas )  
 ) ss.  
COUNTY of Harris )

The foregoing instrument was acknowledged before me this 13<sup>th</sup> day of December, 2017, by Daniel L. Wilson, the President of Global Carbon Strategies Corporation.



My Commission Expires:

NOTARY PUBLIC

08/07/21

SPECIAL WARRANTY DEED



**EXHIBIT A**  
**TO**  
**SPECIAL WARRANTY DEED**  
**BETWEEN**  
**WEST RIDGE RESOURCES, INC.**  
**AND**  
**ANDALEX RESOURCES INC. (COLLECTIVELY, GRANTOR)**  
**AND**  
**GLOBAL CARBON STRATEGIES CORPORATION (GRANTEE)**

**GVH Project Real Property Description**

The "GVH Project Real Property" consists of all of Grantor's rights, interests, duties, and obligations in and to the following assets used in West Ridge Coal Mine's ("Mine") historic coal mine methane extraction operations:

▪ **Gob Vent Holes**

Five (5) gob vent holes ("GVHs") together with all casing, piping, fixtures, improvements, equipment, and other structures attached to or located on or about three (3) acres, more or less, in Section 3 NW1/4NE1/4SW1/4SE1/4, Township 14 South, Range 13 East, Carbon County, Utah ("GVP Project Site" or "Site") on land subject to Utah State Coal Lease M.L No. 49287 held by Grantor and Utah State Limited Methane Lease No. 53402 – OBA held by Grantee, all as further described below:

▪ **GVH Project Permit**

Air Quality Approval Order (Degas Engines). The Mine's Approval Order, dated February 13, 2013, (DAQE-AN121670001-13) (AO), as administratively amended, including the portion of the AO related to four (4) degasification engines (Emission Units 046, 74, 253, and 614) permitted to operate at the GVH Project Site. The Utah Division of Air Quality approved an amendment to include other equipment and partial transfer to Grantee of the AO (DAQE – AN157360002-17) on November 21, 2017.

The portion of the AO covering all other mining operations and equipment at the Mine remains in Grantor.

▪ **Fixtures, Improvements, Equipment, and Other Structures**

All of Grantor's right, title, and interest in and to all equipment, fences, fixtures, improvements, instruments, pipelines (water or gas), power lines, sheds, structures, tanks, and well pads attached to the GVHs or located on or under the surface of the Site that comprise part of the GHV Project Real Property, which includes the following:

<b>QTY</b>	<b>Item Description</b>
5	9 5/8 to 10" flange adapter
5	10" SS gate valve
5	10" Check valve



QTY	Item Description
4	10" fabricated Wye
8	10" Gear actuated butterfly valves
4	10" flex hose w/ flange ends x 12'
4	10" long sweep 90° Els
6	10" Flame Arrestors
4	10" x 8" Adapters
4	8" x 10' Metering Spool
4	Verabar Flow Meter
1	Monitoring PLC
4	Control Panels w/ methanometer & programmable logic controller (PLC)
4	10" x 8" Adapters
4	10" x 8" Tee
4	8" check valves
4	Vent Stack Adapters
4	Fiberglass vent stacks
4	10" long sweep 90° Els
4	10" Inlet Filter
	10" 150# ss Gasket
	10" 150# Blind Flange
4	14w 10h 36 long Tent
192	7/8 x 4 3/4 Stud w/ nut
18	Gasket
4	Leveling Base
4	Support Frame
1	Viper 60-80 air compressor
4	Methane Extractor Units (operating)
1	Methane Extractor Unit (spare)
2	Air Diaphragm pump
2	Hose & ftg kit
18	Gasket

In addition, any and all other infrastructure and improvements on the Site and adjacent property used in connection with the GVH Project's operations.

▪ **Grantor's Excluded Assets.**

The assets that comprise the GVH Project Real Property do not include, and Grantor specifically retains exclusive ownership, control and responsibility for: (i) all of the Mine's underground mine workings; (ii) all other assets, Mine Permits (as defined in the Asset Sale Agreement), equipment, and facilities used in coal mining and reclamation operations conducted at the Mine or on all other real property owned, leased, or controlled by the Mine, and (iii) all books, records, files, material information, and data obtained, prepared or received by Grantor during historic methane extraction operations at the Mine.



CARBON  
COUNTY  
UTAH

Int 437586 Bk 890 Pg 361  
Date: 12-AUG-2017 3:42:15PM  
Fee: None Filed By: CR  
CARBON COUNTY RECORDER, Recorder  
CARBON COUNTY CORPORATION  
For: CARBON COUNTY PLANNING & ZONING

**CONDITIONAL USE PERMIT  
COUNTY OF CARBON  
DEPARTMENT OF PLANNING**

THIS CERTIFICATE ISSUED AS PER SECTION 5.1.2 AND (zone-code#) OF THE  
DEVELOPMENT CODE OF CARBON COUNTY TO:

**Global Carbon Strategies Corporation  
743 Horizon Court, Suite 383, Grand Junction, CO 81506**

GRANTING A CONDITIONAL USE PERMIT TO OPERATE A Coal Mine Methane Emission  
Reduction Project

DATED: "(DATE OF APPROVAL)" 8-16-17

**CONDITIONS:**

1. Comply with all laws, regulations and restrictions of applicable state, federal and regulatory agencies in effect at the time of issuance of this conditional use permit
2. Comply with all laws, codes and ordinances of Carbon County pertaining to this business in effect at the time of issuance of this conditional use permit
3. Any buildings constructed for the project shall comply with adopted codes.
4. The property shall be kept free of debris, refuse, weeds (including but not limited to noxious weeds) and other flammable material that may constitute a fire hazard.
5. No trash, used materials, or wrecked or abandoned vehicles or equipment shall be stored in an open area. Containers for trash storage shall be maintained on the entire operating property.
6. Install a 6' fence around the property.
7. Outdoor storage of materials limited to the height of the site obscuring fence.
8. Prepare and abide by a storm drainage plan approved by the Carbon County Engineer
9. Maintain entrance to the property free from debris and obstructions and clean up any debris on road from any vehicles used.
10. Promptly respond to spills or accidents of hazardous materials or other contaminated waters or fuels, and maintain a plan for containment and cleanup.
11. Mitigate any dust as dictated by road/weather conditions.

DATE/CUP/NAME

LEGAL DESCRIPTION:

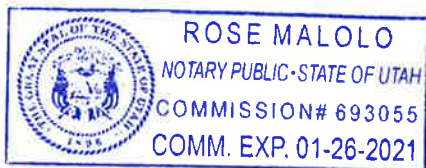
West Ridge Mine, Carbon County, UT; located on 3 acres in Sections 3 and 10, T14S, R13E, northwest of the Mine's surface facilities.

SIGNED: Richard Tatton DATE 8-22-17  
Richard Tatton, Chairman  
Carbon County Planning Commission

STATE OF UTAH )  
:SS  
COUNTY OF CARBON )

Witness my hand and official seal hereto affixed:

On this 22<sup>nd</sup> day of August 20 17, personally appeared before me,  
Richard Tatton, the signer(s) of the foregoing document, who duly  
acknowledge to me that he executed the same.



Rose Malolo  
Notary Public

Residing at Price UT

My Commission Expires 1-26-2021

SIGNED: [Signature] DATE 8-16-17  
Carbon County Board of Commissioners

STATE OF UTAH )  
:SS  
COUNTY OF CARBON )

Witness my hand and official seal hereto affixed:

On this 16<sup>th</sup> day of August 20 17, personally appeared before me,  
Casey Hopes, the signer(s) of the foregoing document, who duly  
acknowledge to me that he executed the same.



Lori Perez  
Notary Public

Residing at Carbon County

My Commission Expires 6-20-18

DATE/CUP/NAME

8/16/17 / CUP / Global Carbon Strategies Corp



GARY R. HERBERT  
Governor

SPENCER J. COX  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

November 22, 2017

David Hibbs, President  
West Ridge Resources, Inc.  
P.O. Box 910  
East Carbon, Utah 84520-0910

Subject: Final Approval of Post Mining Land Use Change and Phase III Bond Release for GVH Project, Task #5464, West Ridge Resources, Inc., West Ridge Mine, C/007/0041

Dear Mr. Hibbs:

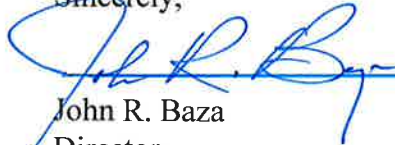
West Ridge Resources, Inc's application for a Post Mining Land Use Change and Removal of the Gob Vent Hole (GVH) Project from the SMCRA permit through Phase III bond release was conditionally approved on November 3, 2017. The conditions required OSM's concurrence with the bond release and West Ridge to submit clean copies of the application. The Office of Surface Mining submitted a letter dated November 20, 2017 which agreed with the Division's findings and decision document and concurred with the bond release action and the clean copies were received on November 13, 2017.

The Division finds that West Ridge Resources, Inc. has met the regulatory requirements for an alternate post-mining land use change and for Phase III bond release on the .36 acre GVH site. You are hereby granted final approval. The .36 acre area associated with the GVH project is now the responsibility of Global Carbon Strategies Corporation who has acquired the right to use the site through a lease with SITLA. West Ridge Resources is released from any further liability for the .36 acres under your SMCRA permit.

A stamped incorporated copy of the approved post-mining land use change and phase III bond release is included for insertion into your copy of the Mining and Reclamation Plan.

If you have any questions, please call Daron Haddock at (801) 538-5325.

Sincerely,



John R. Baza  
Director

JRB/DRH /ss

Enclosure

cc: Lavonne Garrison

Denise Dragoo

Collon Kennedy

O:\007041.WR\WG5464 PMLU\Dec Package\Final Approval.doc







## State of Utah

GARY R. HERBERT  
*Governor*

SPENCER J. COX  
*Lieutenant Governor*

## Department of Environmental Quality

Alan Matheson  
*Executive Director*

DIVISION OF AIR QUALITY  
Bryce C. Bird  
*Director*

DAQE-AN157360002-17

November 21, 2017

Collon Kennedy  
Global Carbon Strategies Corporation  
1524 East 8th Avenue  
Denver, CO 80218

Dear Mr. Kennedy:

Re: Approval Order: Modification to Approval Order DAQE-AN157360001-17 to Change Mine  
Ownership and Add Equipment  
Project Number: N15736-0002

The attached document is the Approval Order for the above-referenced project. Future correspondence on this Approval Order should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. The project engineer for this action is Ms. Catherine Wyffels, who may be reached at (801) 536-4232.

Sincerely,

Bryce C. Bird  
Director

BCB:CW:kw

cc: Southeastern Utah District Health Department

**STATE OF UTAH**

**Department of Environmental Quality**

**Division of Air Quality**

**APPROVAL ORDER: Modification to Approval Order  
DAQE-AN157360001-17 to Change Mine  
Ownership and Add Equipment**

**Prepared By: Ms. Catherine Wyffels, Engineer  
Phone: (801) 536-4232  
Email: cwyffels@utah.gov**

**APPROVAL ORDER NUMBER**

**DAQE-AN157360002-17**

**Date: November 21, 2017**

**Global Carbon Strategies Corporation  
West Ridge Mine Degasification Engines**

**Source Contact:  
Collon Kennedy  
Phone: (303) 808-6905  
Email: nolloc08@aol.com**

**Bryce C. Bird  
Director**

## Abstract

Global Carbon Strategies Corporation (GCS) has requested a transfer of ownership and a modification to AO DAQE-AN157360001-17, dated August 28, 2017, for the West Ridge Mine. The West Ridge Mine is an underground coal mine located approximately five miles northwest of the city of Sunnyside in "C" Canyon in Carbon County. DAQE-AN157360001-17 includes the degasification engines at the West Ridge Mine. GCS is acquiring the degasification engines in DAQE-AN157360001-17 from West Ridge Resources, Inc. and will be holder and party responsible for complying with the terms and conditions contained in this AO.

GCS requested a modification to add a flare and associated pipeline to destroy Coal Mine Methane (CMM) from the mine and generate credits or offsets for the California Air Resources Board (CARB) cap and trade program. This program was adopted to allow methane destruction from both abandoned and active underground mines. As part of this project, GCS anticipates reducing the global warming potential of the mine gas that would otherwise be emitted over time by 87%. GCS will use the four (4) existing degasification engines to extract CMM from the underground mine. The CMM will be sent directly to the flare for destruction. The flare and degasification engines are powered by CMM from the mine, so no supplemental fuel will be needed.

The source is located in Carbon County, which is an attainment area of the NAAQS for all pollutants. NSPS (40 CFR 60 Subparts A and JJJJ) and NESHAP (40 CFR 63 Subparts A and ZZZZ) regulations apply to the source. Title V of the CAA regulations do not apply to this source.

The PTE, in TPY, will change as follows:  $PM_{10} +0.02$  (which includes  $PM_{2.5}$ ),  $PM_{2.5} +0.02$ ,  $NO_x +12.72$ ,  $CO +39.2$ ,  $VOC +0.66$ ,  $SO_2 -0.003$ ,  $HAP -0.40$ ,  $CO_2(e) -593,274$ .

The PTE, in TPY, will be as follows:  $PM_{10} = 0.13$  (which includes  $PM_{2.5}$ ),  $PM_{2.5} = 0.13$ ,  $NO_x = 39.4$ ,  $CO = 80.5$ ,  $VOC = 1.13$ ,  $SO_2 = 0.004$ ,  $HAP = 0.22$ ,  $CO_2(e) = 1,279$ .

This air quality AO authorizes the project with the following conditions and failure to comply with any of the conditions may constitute a violation of this order. This AO is issued to, and applies to the following:

**Name of Permittee:**

Global Carbon Strategies Corporation  
1524 East 8th Avenue  
Denver, CO 80218

**Permitted Location:**

West Ridge Mine Degasification Engines  
P.O. Box 1077  
794 North "C" Canyon Road  
Price, UT 84501

**UTM coordinates:** 547,909 m Easting, 4,384,517 m Northing, UTM Zone 12

UTM Datum: NAD83

**SIC code:** 1222 (Bituminous Coal Underground Mining)

### **Section I: GENERAL PROVISIONS**

- I.1 All definitions, terms, abbreviations, and references used in this AO conform to those used in the UAC R307 and 40 CFR. Unless noted otherwise, references cited in these AO conditions refer to those rules. [R307-101]
- I.2 The limits set forth in this AO shall not be exceeded without prior approval. [R307-401]
- I.3 Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved. [R307-401-1]
- I.4 All records referenced in this AO or in other applicable rules, which are required to be kept by the owner/operator, shall be made available to the Director or Director's representative upon

request, and the records shall include the two-year period prior to the date of the request. Unless otherwise specified in this AO or in other applicable state and federal rules, records shall be kept for a minimum of two (2) years. [R307-401-8]

- I.5 At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this AO, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded. [R307-401-4]
- I.6 The owner/operator shall comply with UAC R307-107. General Requirements: Breakdowns. [R307-107]
- I.7 The owner/operator shall comply with UAC R307-150 Series. Emission Inventories. [R307-150]
- I.8 The owner/operator shall submit documentation of the status of construction or modification to the Director within 18 months from the date of this AO. This AO may become invalid if construction is not commenced within 18 months from the date of this AO or if construction is discontinued for 18 months or more. To ensure proper credit when notifying the Director, send the documentation to the Director, attn.: NSR Section. [R307-401-18]

## **Section II: SPECIAL PROVISIONS**

### **II.A The approved installations shall consist of the following equipment:**

- II.A.1 **West Ridge Mine Degasification Engines**
- II.A.2 **Enclosed Ground Flare System (New Equipment)**  
Rating: 72 MMBtu/hr  
Fuel: Coal mine methane gas
- II.A.3 **Degasification Engine #046**  
Rating: 190 hp  
Fuel: Coal mine methane gas  
Manufacture Date: February 2008  
NSPS Applicability: 40 CFR 60 Subpart JJJJ  
MACT Applicability: 40 CFR 63 Subpart ZZZZ
- II.A.4 **Degasification Engine #746**  
Rating: 190 hp  
Fuel: Coal mine methane gas  
Manufacture Date: August 2007  
NSPS Applicability: 40 CFR 60 Subpart JJJJ  
MACT Applicability: 40 CFR 63 Subpart ZZZZ
- II.A.5 **Degasification Engine #253**  
Rating: 190 hp  
Fuel: Coal mine methane gas  
Manufacture Date: October 2005  
MACT Applicability: 40 CFR 63 Subpart ZZZZ



**II.A.6      Degasification Engine #614**

Rating: 190 hp

Fuel: Coal mine methane gas

Manufacture Date: October 2005

MACT Applicability: 40 CFR 63 Subpart ZZZZ

**II.A.7      Propane Storage Tanks**

Propane storage tanks used to startup engines and to ignite flare pilot light during startups.

**II.B      Requirements and Limitations**

**II.B.1      Sitewide Limitations and Requirements**

II.B.1.a      The owner/operator shall not exceed the following limits per rolling 12-month period:

A.      24 MMscf of coal mine methane gas combusted in all degasification engines combined

B.      7,884 hours of operation for the enclosed ground flare

[R307-401-8]

II.B.1.a.1      The owner/operator shall demonstrate compliance with the above limitations on a rolling 12-month total. To determine compliance with a rolling 12-month total the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Records of coal mine methane consumption and hours of operation shall be kept for all periods when the plant is in operation. Coal mine methane consumption shall be determined using a flow meter and recorded on a daily basis. Hours of operation shall be determined by supervisor's monitoring and maintenance of a daily operations log.  
[R307-401-8]

II.B.1.b      Unless otherwise specified in this AO, the owner/operator shall not allow visible emissions from any stationary point or fugitive emission source on site to exceed 10% opacity. [R307-401-8]

II.B.1.b.1      Unless otherwise specified in this AO, opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9. [R307-201-3]

II.B.1.c      The owner/operator shall route all extracted coal mine methane gas to the flare for destruction or to the degasification engines to be used as fuel. [R307-401-8]

**II.B.2      Degasification Engine Requirements**

II.B.2.a      The owner/operator shall not allow visible emissions from the degasification engines to exceed 10% opacity. [R307-201]

II.B.2.a.1      Opacity observations of emissions from stationary sources shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9. [R307-201-3]

**II.B.3      Flare Requirements**

II.B.3.a      The flare shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. [R307-401-8]

II.B.3.b      The flare shall operate with no visible emissions. [R307-401-8]

- II.B.3.b.1 Visual determination of emissions from each combustor shall be conducted according to 40 CFR 60, Appendix A, Method 22. [R307-401-8]

### **Section III: APPLICABLE FEDERAL REQUIREMENTS**

In addition to the requirements of this AO, all applicable provisions of the following federal programs have been found to apply to this installation. This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including UAC R307.

NSPS (Part 60), A: General Provisions

NSPS (Part 60), JJJJ: Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

MACT (Part 63), A: General Provisions

MACT (Part 63), ZZZZ: NESHAP for Stationary Reciprocating Internal Combustion Engines

### **PERMIT HISTORY**

This AO is based on the following documents:

Supersedes	AO DAQE-AN157360001-17 dated August 28, 2017
Is Derived From	NOI dated May 24, 2017
Incorporates	Ownership Change Notification dated May 30, 2017
Incorporates	Additional Information dated August 21, 2017
Incorporates	Additional Information dated August 29, 2017

### **ADMINISTRATIVE CODING**

The following information is for UDAQ internal classification use only:

Carbon County

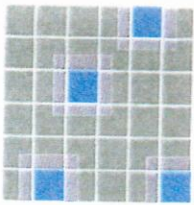
CDS B

MACT (Part 63), Attainment Area, NSPS (Part 60)

**ACRONYMS**

The following lists commonly used acronyms and associated translations as they apply to this document:

40 CFR	Title 40 of the Code of Federal Regulations
AO	Approval Order
BACT	Best Available Control Technology
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CDS	Classification Data System (used by EPA to classify sources by size/type)
CEM	Continuous emissions monitor
CEMS	Continuous emissions monitoring system
CFR	Code of Federal Regulations
CMS	Continuous monitoring system
CO	Carbon monoxide
CO <sub>2</sub>	Carbon Dioxide
CO <sub>2e</sub>	Carbon Dioxide Equivalent - 40 CFR Part 98, Subpart A, Table A-1
COM	Continuous opacity monitor
DAQ/UDAQ	Division of Air Quality
DAQE	This is a document tracking code for internal UDAQ use
EPA	Environmental Protection Agency
FDCP	Fugitive dust control plan
GHG	Greenhouse Gas(es) - 40 CFR 52.21 (b)(49)(i)
GWP	Global Warming Potential - 40 CFR Part 86.1818-12(a)
HAP or HAPs	Hazardous air pollutant(s)
ITA	Intent to Approve
LB/HR	Pounds per hour
MACT	Maximum Achievable Control Technology
MMBTU	Million British Thermal Units
NAA	Nonattainment Area
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOI	Notice of Intent
NO <sub>x</sub>	Oxides of nitrogen
NSPS	New Source Performance Standard
NSR	New Source Review
PM <sub>10</sub>	Particulate matter less than 10 microns in size
PM <sub>2.5</sub>	Particulate matter less than 2.5 microns in size
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
R307	Rules Series 307
R307-401	Rules Series 307 - Section 401
SO <sub>2</sub>	Sulfur dioxide
Title IV	Title IV of the Clean Air Act
Title V	Title V of the Clean Air Act
TPY	Tons per year
UAC	Utah Administrative Code
VOC	Volatile organic compounds



State of Utah  
School & Institutional  
Trust Lands Administration

Gary R. Herbert  
Governor

Spencer J. Cox  
Lieutenant Governor

David Ure  
Director

675 East 500 South, Suite 500  
Salt Lake City, UT 84102-2813  
801-538-5100  
801-355-0922 (Fax)  
[www.trustlands.utah.gov](http://www.trustlands.utah.gov)

December 4, 2017

EMAIL TO ADDRESSEE – NO HARD COPY TO FOLLOW

Global Carbon Strategies

ATTENTION: Mr. Collon Kennedy, Vice-president  
1524 East 8<sup>th</sup> Avenue  
Denver, CO 80202

RE: Final Plan of Operations  
ML 53402

Dear Mr. Kennedy:

SITLA has reviewed the final Plan of Operations submitted by Global Carbon Strategies for its methane destruction project at the West Ridge mine. SITLA will accept the final plan subject to the addition of the following language being added to and made a part of Section 8.2 of such plan:

"Global Carbon Strategies will provide a schematic of the system showing the piping diagram, safety related controls that are automatically and/or remotely activated (with activation levels), monitoring to detect operating and alarm (activation) levels, and the emergency shutdown controls with any associated (activation) levels. This can be added to the plan once designed, installed and tested."

Please indicate Global Carbon Strategies' acceptance of this addition to the plan by signing and returning one copy of this letter to the undersigned by electronic mail. Electronic signatures are accepted by the agency as originals signatures for all intents and purposes.

Yours very truly,

LaVonne J. Garrison  
Assistant Director/Oil & Gas

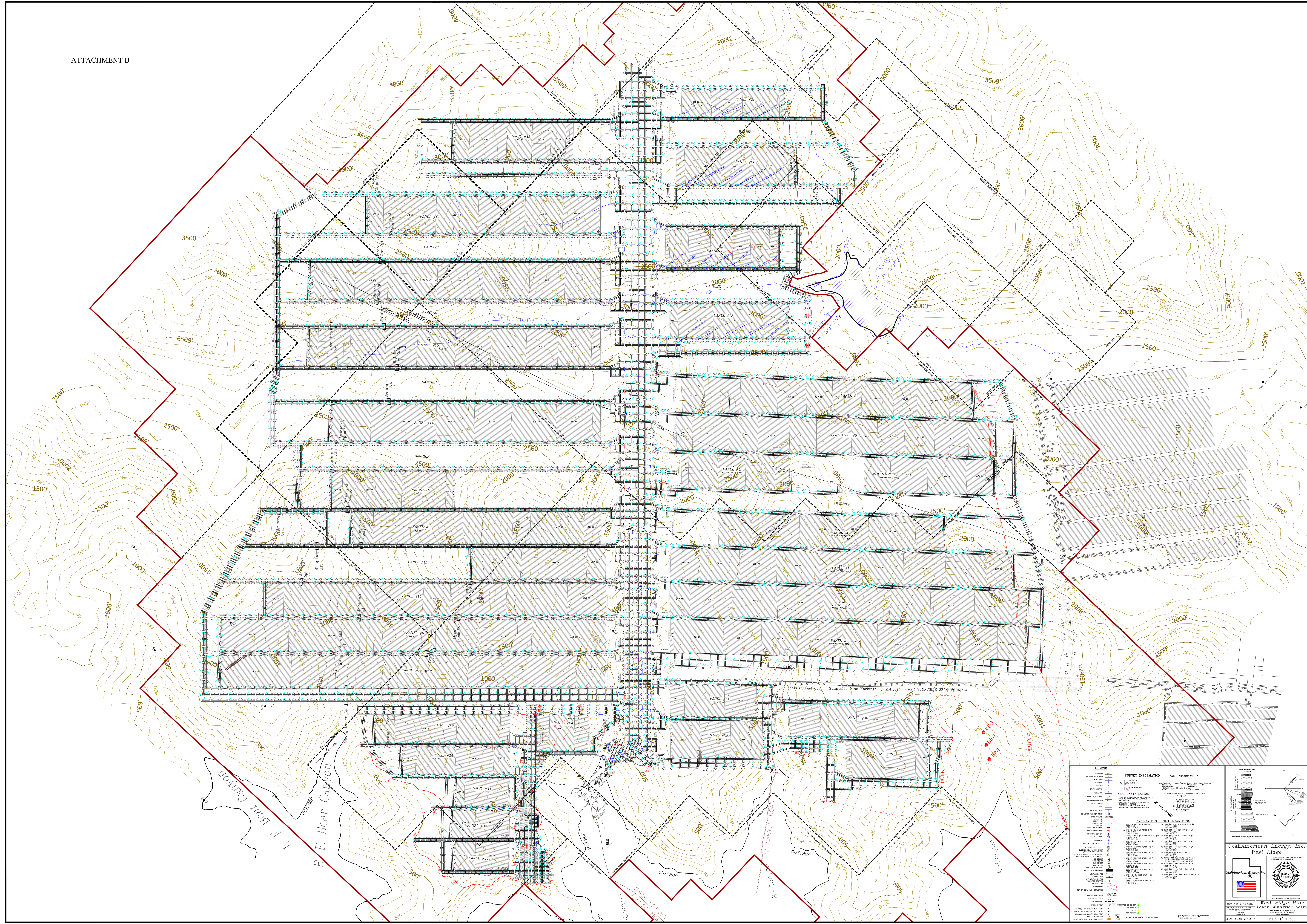
ACCEPTED AND AGREED TO THIS 14th DAY OF DECEMBER 2017.

By:   
Its: Vice President

Global Carbon Strategies Corporation

**UTAH**  
LIFE ELEVATED





**LEGEND**

**SURVEY INFORMATION:**

- Survey Line
- Survey Point
- Survey Station
- Survey Elevation
- Survey Date
- Survey Method
- Survey Instrument
- Survey Operator
- Survey Reviewer
- Survey Date
- Survey Method
- Survey Instrument
- Survey Operator
- Survey Reviewer

**FAN INFORMATION**

**SEAL INSTALLATION**

- Seal Location
- Seal Type
- Seal Size
- Seal Material
- Seal Installation Date
- Seal Installation Method
- Seal Installation Operator
- Seal Installation Reviewer
- Seal Installation Date
- Seal Installation Method
- Seal Installation Operator
- Seal Installation Reviewer

**EVALUATION POINT LOCATIONS**

- 1. Evaluation Point Location
- 2. Evaluation Point Location
- 3. Evaluation Point Location
- 4. Evaluation Point Location
- 5. Evaluation Point Location
- 6. Evaluation Point Location
- 7. Evaluation Point Location
- 8. Evaluation Point Location
- 9. Evaluation Point Location
- 10. Evaluation Point Location
- 11. Evaluation Point Location
- 12. Evaluation Point Location
- 13. Evaluation Point Location
- 14. Evaluation Point Location
- 15. Evaluation Point Location
- 16. Evaluation Point Location
- 17. Evaluation Point Location
- 18. Evaluation Point Location
- 19. Evaluation Point Location
- 20. Evaluation Point Location

**UTAHAMERICAN ENERGY, INC.**

**West Ridge**

**West Ridge Mine**

**Lower Sunnyside Seam**

**Scale: 1" = 500'**





ATTACHMENT C  
BLUESOURCE GCS BEAR CANYON  
Project Diagram Supplement

2(a): Location of wells and boreholes included in the project:

GVH-1:

- 1) Currently existing
- 2) Not previously connected to non-qualifying destruction device at any time
- 3) Post-mining gob well
- 4) N/A

GVH-2:

- 1) Currently existing
- 2) Not previously connected to non-qualifying destruction device at any time
- 3) Post-mining gob well
- 4) N/A

GVH-3:

- 1) Currently existing
- 2) Not previously connected to non-qualifying destruction device at any time
- 3) Post-mining gob well
- 4) N/A

GVH-4:

- 1) Currently existing
- 2) Not previously connected to non-qualifying destruction device at any time
- 3) Post-mining gob well
- 4) N/A

GVH-5:

- 1) Currently existing
- 2) Not previously connected to non-qualifying destruction device at any time
- 3) Post-mining gob well
- 4) N/A

2(b): Location of equipment used to collect, treat, store, meter, and destroy AMM in use prior to offset project commencement:

**#1:** Methane Extraction Unit (MEU #1)

- 1) Included in project
- 2) MEU consists of gas dehydrator, regulator, flow meter, engine (see Project Description) and blower.

**#2:** Methane Extraction Unit (MEU #2)

- 1) Included in project

- 2) MEU consists of gas dehydrator, regulator, flow meter, engine (see Project Description) and blower.

**#3: Methane Extraction Unit (MEU #3)**

- 1) Included in project
- 2) MEU consists of gas dehydrator, regulator, flow meter, engine (see Project Description) and blower.

**#4: GVH Collection Pipe**

- 1) Included in project
- 2) 10" HDPE CMM pipe from GVH-1, -2, -4 and -5 to Methane Extractiopn Units (MEU) 1, 2 and 3. Pipe transports AMM from wells to MEUs.

2(c): Location of equipment used to collect, treat, store, meter, and destroy AMM installed as part of the project:

**#1: AMM Pipe**

- 1) 8" HDPE insulated AMM pipe to header pipe. Routes AMM from MEUs to flare header pipe.

**#2: AMM Pipe**

- 1) 10" HDPE insulated AMM pipe to flare pipe. Routes AMM from post-MEU pipes to stainless steel flare pipe.

**#3: Flare Pipe**

- 1) 10" stainless steel pipe to flare. Final flare linkage.

**#4: Generator**

- 1) Generator (previously MEU #4) to provide power for flare and automation control systems

**#5: Control shed**

- 1) Automation control systems and telemetry housing

**#6: Flare**

- 1) An enclosed flare approximately 132" in diameter and 45' high with a 72 MMBtu/hr rating and a Methane Destruction Efficiency of 98+%; Thermal Mass Flow Meter; Ecotec FAU-TDL, 2 Gas Analyzer (CH<sub>4</sub>, and O<sub>2</sub>); Yokogawa FX-1012 chart recorder.
- 2) Expected operational on 2/1/2018
- 3) This flare is a qualifying destruction device.