

Dave Kubeczko - DNR

From: Dave Kubeczko - DNR
Sent: Thursday, December 28, 2017 3:33 PM
To: Dave Kubeczko - DNR
Subject: COGCC Comment Response Documentation: URSA Operating Company LLC, BMC L Pad, SENW Sec 8 T7S R95W, Garfield County, Form 2A#401235005
Attachments: Scan No. 2108322_URSA Operating Co, BMC L Pad_Comment Response Letter_2A#401235005_12282017.pdf
Importance: High
Categories: Documents

Scan No. 2108322
LGD CORRESPONDENCE
COMMENT RESPONSE DOCUMENT TO LGDs
2A #401235005

From: Dave Kubeczko - DNR [mailto:dave.kubeczko@state.co.us]
Sent: Thursday, December 28, 2017 3:30 PM
To: Kirby Wynn; bnelson@bmmetro.com
Subject: COGCC Comment Response Documentation: URSA Operating Company LLC, BMC L Pad, SENW Sec 8 T7S R95W, Garfield County, Form 2A#401235005
Importance: High

Kirby and Bill,

COGCC appreciates Garfield County's and Battlement Mesa Metro District's participation in the LGD comment portion of the Form 2 and Form 2A permitting process. Attached is COGCC's Comment Response Document providing responses to Garfield County's and Battlement Mesa Metro District's LGD Comments and Public Comments (submitted or received during July 2017) for the Form 2A and Form 2s associated with the following Oil and Gas Location within the Battlement Mesa Planned Unit Development in Garfield County:

URSA Operating Company LLC, BMC L Pad, SENW Sec 8 T7S R95W, Garfield County, Form 2A#401235005

This Comment Response Document will become an attachment to the COGCC Oil and Gas Location files for both the BMC "B" Pad and the BMC "D" Pad. If you have any questions, please do not hesitate to call me at (970) 309-2514 (cell), or email (dave.kubeczko@gmail.com). Thanks.

Dave

David A. Kubeczko, PG
Oil and Gas Location Assessment Specialist
Western Colorado



Colorado Oil & Gas Conservation Commission
Northwest Area Office
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Rifle, CO 81650
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COLORADO

**Oil & Gas Conservation
Commission**

Department of Natural Resources

796 Megan Avenue, Suite 201
Rifle, CO 81650

December 28, 2017

Kirby Wynn,
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0375 County Road 352, Bldg 2060
Rifle, CO 81650-8412
Phone: 970-625-5905
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William L. Nelson
Local Government Designee, Special District
Battlement Mesa Metropolitan District
35 Locust Way
Battlement Mesa CO 81635
Phone: (970) 285-9806
Via E-mail: BNelson@BmMetro.com

**Re: URSA Operating Company LLC, BMC "L" Pad, SENW Sec 8 T7S R95W, Garfield
County, Form 2A #401235005
Response to LGD Comments and Public Comments**

Dear Mr. Wynn and Mr. Nelson,

The Colorado Oil and Gas Conservation Commission (COGCC) has received and reviewed the Oil and Gas Location Assessment permit and all associated Local Governmental Designee (LGD) and public comments pertaining to the Oil and Gas Location proposed by URSA Operating Company LLC (URSA): the BMC "L" Pad, SENW Sec 8 T7S R95W, Garfield County, Form 2A #401235005.

By statutory mandate, the COGCC has adopted and enforces rules regulating oil and gas development to protect public health, safety, and welfare, including the environment and wildlife resources. In 2009, amended rules took effect and established the Form 2A, Oil and Gas Location Assessment process, which provides for a site-specific review of surface disturbance associated with a proposed Oil and Gas Location. In 2013, additional amended rules took effect and established setback requirements and mitigation measures for locating oil and gas facilities, drilling, and well servicing operations near residences, schools, and other cultural features. In 2015, the COGCC adopted additional rules which govern

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Commissioners: Andrew L. Spielman - Chairman, Ashley L. Ager, John H. Benton,

James W. Hawkins, Tommy Holton, Kent Jolley, W. Perry Pearce, Robert W. Randall, Dr. Larry Wolk

John W. Hickenlooper, Governor | Robert W. Randall, Executive Director, DNR | Matthew J. Lepore, Director



permitting and operations of large urban mitigation area facilities. During the COGCC's review process, the COGCC utilizes onsite inspections, consultation and input from the Colorado Department of Public Health and Environment (CDPHE), Colorado Division of Parks and Wildlife (CPW), the surface owner, local governments, and interested public. Using this input, the COGCC reviews the Rules and the operator's proposed site-specific operations, plans, and best management practices (BMPs) in consideration of all the geographic and environmental conditions observed and evaluated and may apply conditions of approval (COAs) to address situations that require additional safeguards beyond the extent of the Rules.

[LGD Comment Review Process and Development of Site-Specific BMPs](#) - As part of the COGCC's review of this Form 2A permit application, and at the request of the Garfield County (GarCo) LGD, COGCC reviewed the 32 BMC "L" Pad COAs placed on the county's Planning and Development Department Special Use Permits to determine which, if any, could be incorporated into the Form 2A (those that can be enforced by COGCC). COGCC has incorporated portions or all of the following thirteen (13) GarCo COAs - 7, 8, 9, 10, 11, 12, 14, 19, 25, 26, 28, 30, and 31 into COGCC's COAs.

In addition, the operator had developed site-specific BMPs to address Noise, Vibrations (C-Scale Noise), Dust Control, Lighting, Construction and Completions, Flowlines, Air Quality and Leak Detection, Green Completions, Noxious Weeds, Monitoring Well Installation, Monitoring Well Sampling, Development Timing, Haul Route, Sound Barrier/Noise, and Silica Proppant. The detailed BMPs are included in the Form 2A.

[Public Comment Review and Response Process](#) - COGCC has reviewed the fifteen (15) public comments received for the Form 2A and Form 2 permit applications, which are provided as Attachment 1 - Numbered List of Public Comments for Reference. Comments 1 to 4 are supportive of the operator's Form 2A permit, and require 'no formal response from COGCC or the operator'. Comments 10 and 13 are for the BMC "A" Pad and the associated injection well at the BMC "A" Pad, and were not addressed in the BMC "L" Pad comment response document (those two comments have been placed on the BMC "A" Pad Form 2A #401234964).

COGCC carefully considered the issues and concerns contained in the other nine (9) public comments and worked with the operator to ensure that all issues that are within COGCC's authority to address have been addressed through existing COGCC Rules, site-specific COAs, or operator developed BMPs. COGCC identified twenty-five (25) issues and concerns presented in the public comments. The COGCC and the operator prepared a detailed Comment Response Table (provided as Attachment 2 - Public Comment Response Table) as part of this formal response to public comments. The complete Comment Response Document (which includes the comment response letter, the comment response table, and the list of site-specific COAs) has been placed in the BMC "L" Pad Form 2A.

[Form 2A Permit Review Process and Development of Site-Specific COAs](#) - The COGCC's Oil and Gas Location Assessment (OGLA) group, Permit group, and Engineering group reviews permits for compliance with our rules, and then applies COAs where necessary to provide enhanced environmental or public health and safety protections. COAs have been used

statewide especially in residential areas, sensitive wildlife areas, and environmentally sensitive areas. The mission of the COGCC is to be both protective of the environment and the public, while developing the state's natural resources in a responsible way.

During the permit-specific Form 2A review process, the COGCC reviewed 1) environmental information - including proximity to surface water, depth to groundwater and proximity to water wells, soil type and characteristics, topography, climate, and wildlife; 2) cultural information - including housing density, proximity to residences and other public use areas, schools and school bus routes, churches, and traffic patterns; and 3) planned activities for the location - including type of equipment, duration of planned activities, and operational plans and practices. In addition, the COGCC attended an onsite consultation meeting with CDPHE, CPW, the operator (URSA), Garfield County LGD, Battlement Mesa Metro District (BMMD) Water Treatment Plant personnel, the surface owner (Battlement Mesa Partners/Company), and Battlement Mesa Service Association LGD at which parties discussed proposed operations, issues and concerns, and potential impacts to the public, wildlife, and the environment and how those potential impacts would be avoided, minimized, or mitigated.

COGCC has reviewed the 15 Public Comments, all of the Form 2A attachments, data, and information; the Garfield County Special Use Permits; attended numerous site visits to the BMC "L" Pad between February and August 2017; attended the Garfield County Planning Commission meetings in Glenwood Springs between September and November 2017, and the Garfield County Board of County Commissioner (BOCC) meetings concerning the special use permits.

The COGCC has carefully considered the input received from CDPHE, CPW, Garfield County, Battlement Mesa, the surface owner, non-governmental organizations, and from the public regarding this application. Based on the issues and concerns for the Oil and Gas Well Pad Location, COGCC has developed a comprehensive set of site-specific COAs (Attachment 3) which clarify operational requirements and provide additional protection for public health, safety, welfare, and the environment. The forty-one (41) COAs regarding planning, notifications, construction, drilling and completions, and material handling and spill prevention have been placed on the approved Form 2A document. These COAs will require the operator to implement additional emissions controls, air quality monitoring, noise monitoring and mitigation, storm water control measures, supplemental reclamation, and fluids containment.

The COGCC has also required the operator of this oil and gas location to provide 48 hour advance notification to the COGCC for many stages of the planned activities, with similar notifications required for local governmental agencies and the public. These notifications will allow for the COGCC Oil and Gas Location Assessment Specialist for Western Colorado (Dave Kubeczko) and other COGCC staff to conduct coordinated inspections as needed at appropriate times operations and work with the operator to ensure that the prescribed protective measures are in place and effective. If warranted, the COGCC can work with the operator to further refine or enhance the measures taken.

Mr. Wynn and Mr. Nelson,

December 28, 2017

Page 4

[Form 2A Comment Response Summary](#) - In summary, the COGCC has reviewed and considered the numerous public comments placed on this Form 2A during the comment period. COGCC has also engaged with the operator and local government officials regarding the Form 2A and the public's comments. In addition, COGCC has considered this Form 2A in light of existing COGCC Rules, and site specific Best Management Practices and Conditions of Approval. Based on all of the foregoing, COGCC has determined that approval of this Form 2A is consistent with COGCC's mission to foster the responsible development of the oil and gas resource. COGCC has determined that the applicant has demonstrated that the development will occur in a manner that will avoid or minimize adverse environmental impacts, and will protect public health, safety and welfare.

We recognize the valuable input that the LGDs and the public have provided during this review process and thank you and the public for participating in the oil and gas permitting process. If you have any questions, please do not hesitate to call me at (970) 309-2514, or email (dave.kubeczko@state.co.us).

Sincerely,



David Kubeczko, PG
Oil and Gas Location Assessment Specialist
Western Colorado



Colorado Oil & Gas Conservation Commission
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Attachment 1 - Numbered List of Public Comments for Reference

Attachment 2 - Public Comment Response Table

Attachment 3 - List of Conditions of Approval (COAs)

Public Comment No. 11

URSA Operating Company LLC, BMC L Pad; Form 2A #401235005
7/7/2017 11:28:24 AM

We strongly support Ursas application to permit the L Pad. Ursa has given a lot of thought into designing the L Pad site, a large pad that gives them access to a large number of downhole locations within the Battlement Mesa PUD. In part this accessibility to their leased mineral estate (oil and gas estate) allows them to eliminate the prospective M Pad from their plans.

Many of us living in Battlement Mesa find the prospective M Pad (located close to and between Battlement Mesa Parkway and the iconic Battlement Mesa golf course) extremely onerous, particularly in terms of visibility and sound. For example the prospective pad is located about 180 feet or so directly below our home, so would be visible all the time and, despite sound walls, would be very noisy during drilling and fracking activities. The L Pad, on the other hand will be almost invisible to most of the residents of Battlement Mesa and sound walls would dampen the sound since the pad is located higher than most residential buildings.

In addition, Ursa's plans include systems of pipelines (water and gas) that virtually eliminate traffic to and from their sites, including the L Pad. This is a huge plus in terms of safety, sound, and dust emissions.

Finally we personally recognize and support Ursa's right to access and produce their leased mineral estate within the PUD. That said, in a larger sense, we urge the COGCC and other agencies to approve the requisite permits (provided they meet all the terms and conditions) rather than dragging it out (get in-get out).

Robert and Sara McCurdy
251 Eagle Ridge Drive
Battlement Mesa, CO 81635

Public Comment No. 21

URSA Operating Company LLC, BMC L Pad; Form 2A #401235005
7/25/2017 10:47:10 PM

I support the Form 2A submitted by URSA for the Oil and Gas Location Assessment application for the BMC L Pad. With the proposed location for the BMC L Pad and the number of wells proposed for this pad, it will eliminate the previously identified BMC M Pad and the associated pipelines within the Planned Unit Development (PUD), thus reducing additional disturbance within the community. The proposed grading of the pad, the orientation of the road, the berm and landscaping of the pad will diminish the view of the BMC L Pad from the residents of Battlement Mesa.

The proposed inclusion of the water and gas pipelines to be connected to already existing pipelines within the PUD will reduce the need for truck traffic making the community safer. URSA has indicated that they will finish the drilling and completion activities within a three year period. I support URSA's proposed activities and encourage them to achieve this effort in the timeliest way through the best management practices while protecting the health, safety and welfare of the Battlement Mesa Residents.

Charles Hall
149 Willow Creek Trail
Battlement Mesa, Colorado

Public Comment No. 31

URSA Operating Company LLC, BMC L Pad; Form 2A #401235005
7/26/2017 9:33:00 PM

As they have the right to drill, just get it done and get the place cleaned up.

Fred Inman
51 Rampart

Battlement Mesa, Colorado

Public Comment No. 4L

URSA Operating Company LLC, BMC L Pad; Form 2A #401235005
7/26/2017 9:38:17 PM

By allowing URSA to proceed with the the application for the BMAC L Pad, the gas and oil company will be able to eliminate another pad. URSA's proposed grading, orientation of the road and berm will hide the view of this area, to some extent, for residents. This will be truer when future planting will be in place. Water and gas pipelines connected to existing pipelines in the PUD will reduce truck traffic. All activities are proposed to end in three years.

Frances D. Rose

Public Comment No. 5L

URSA Operating Company LLC, BMC L Pad; Form 2A #401235005
7/28/2017 8:58:48 PM

Dear Commissioners:

The proposed A L pads constitute yet more invasions into our community and in proximity to multiple homes. The pads with multiple wells and related activities constitute heavy industry that is incompatible with residential property. Their associated health hazards and nuisances should not be allowed in densely populated areas like Battlement Mesa. It is particularly galling when the natural gas can otherwise be accessed from further away. Even more disturbing, is that a toxic waste facility is being entertained inside the community when access to resources is not even a factor. These facilities can be located anywhere and still serve their intended purpose. Please protect our residents and insist that these facilities be located outside our planned community.

Public Comment No. 6L

URSA Operating Company LLC, BMC L Pad; Form 2A #401235005
7/29/2017 10:55:20 AM

Dear Commissioners,

I am writing to comment on Ursa's Battlement Mesa Phase II application now under consideration.

First and foremost, the COGCC must deny Ursa's request to place an injection well on the A Pad and thus within the PUD boundaries. The CDPHE and the Garfield County community development staff, as well as GarCo citizens, agree that toxic injection wells do not belong in residential areas or so close to the Colorado River.

Even though Ursa has provided an "alternative location analysis," Battlement Mesa resident and PE Bob Arrington has submitted documents to the COGCC which show that these minerals could be accessed outside of the PUD with current drilling technology and higher drilling angles.

The A pad in particular has setback issues. The closest home will be less than 500 feet from the proposed location and there will be over 25 homes within 1,000 feet of the location. As proposed, the L pad will be located within 1,000 feet of more than 25 homes. These setbacks would be in violation of COGCC's setback regulations.

There is no mitigating a bad location and so many wells so close to a large number of homes is simply a bad location. Distance is the best protection against constant nuisance and emissions. Ursa's equipment should be moved as far from residents' homes as possible.

The COGCC should include all applicable conditions of approval and best management practices that the COGCC and Garfield County required on B and D pads. According to newly revised rules, Ursa should be required to regularly evaluate and employ the "best available technology" available to lessen impacts on residents, including any new technology available from the past year. Due to the close proximity of these well pads to homes, Ursa must go beyond expectations to protect the health of residents.

Attachment 1 - Numbered List of Public Comments for Reference
URSA Operating Company LLC, BMC L Pad, Garfield County; Form 2A#401235005

To protect air quality, Ursa must be required to:

- use technologies with at least 95% efficiency on tanks that emit over 2 tons of volatile organic compounds per year;
- commit to repair detected leaks within 24 hours of discovery or shut down the well;
- use Ward Diesel No Smoke filters on all diesel equipment on Battlement Mesa well sites.

In addition, the results of site specific air monitors should be publicly available and reported to the BOCC on a regular basis, including specificity about the frequency of reporting results.

Ursa must be required to keep noise levels below COGCC standards.

A curfew must be applied to all drilling activity, including completions. All disruptive activities such as pipeline construction and installation of pipelines and other drill pad infrastructure should be limited to the hours between 7:00 a.m. and 7:00 p.m.

For the L Pad specifically, activity must be stopped at the request of the Grace Bible Church out of respect for religious activities (services, weddings, funerals).

All outdoor storage facilities for fuel, raw materials and products must be enclosed by a fence or wall adequate to conceal such facilities from adjacent property.

Currently Ursa treats noise and odors as isolated incidents, which puts the burden on residents to track down location, identify noise and/or odor, and then report the complaint. Ursa must be required to provide a plan on how to address known impacts from noise and odors as well as permanent solutions for the residents. Any and all complaints received and investigated by Ursa should be published online in the same manner as COGCC's complaint process. Residents deserve transparency to understand what is happening in their community and how their comments are being addressed.

When it comes time for reclamation, Ursa must establish re-vegetation on disturbed sites; and Battlement Mesa Company should be required to supply irrigation water to maintain vegetation and ground cover.

The best way for the COGCC to restore the trust of Colorado citizens is to steadfastly protect public health, safety, welfare, and our environment and hold oil gas operators accountable for the strictest conditions of approval and best management practices.

Thank you for your attention.

Public Comment No. 7L

URSA Operating Company LLC, BMC L Pad; Form 2A #401235005
7/29/2017 10:56:54 AM

Please do not grant or allow more permits for drilling in the Battlement Mesa area. We need to consider air quality and water purity for all the residents there and in the surrounding area. The air is already tremendously compromised. The health of our valley and its residents is priority and should hold focus in all decision making and policy.

Thank you.

Public Comment No. 8L

URSA Operating Company LLC, BMC L Pad; Form 2A #401235005
7/29/2017 11:07:45 AM

TO: John Noto, COGCC Oil and Gas Location Assessment Supervisor

Email: john.noto@state.co.us

Dave Kubeczko, Western Location Specialist

Email: dave.kubeczko@state.co.us

Kent Kuster, Oil and Gas Liaison, CDPHE

Attachment 1 - Numbered List of Public Comments for Reference
URSA Operating Company LLC, BMC L Pad, Garfield County; Form 2A#401235005

Email: kent.kuster@state.co.us

RE: Comment on Form 2A # 401235005 - Ursa L Pad

July 29, 2017

Introduction

Battlement Concerned Citizens (BCC), a member group of the Grand Valley Citizens Alliance, is providing the following comments on Ursa Operating Company's (Ursa's) 2A location assessment for the L Pad within the Battlement Mesa community in Garfield County. BCC is consistent in its position that oil and gas facilities do not belong within the Battlement Mesa Planned Unit Development (PUD). Ursa claims in its Form 2A that, at the request of COGCC and Garfield County staff, it moved the L Pad location an additional 115 feet farther from homes and the Grace Bible Church to prevent the location from qualifying as a Large Urban Mitigation Area (UMA) facility. BCC appreciates any role the COGCC staff took in improving the location. But merely shifting a location 115 feet should not preclude the COGCC staff from requiring additional condition of approvals for this location similar to what was required for the B and D Pads. The hundreds of wells inside and just outside of the Battlement Mesa PUD continue to be a huge impact on Battlement Mesa residents.

COGCC Rules 305A.a, 305A.b.(2) and 604.c(2)E.

Siting Rationale must include an analysis of alternate locations

The Ursa 2A failed to provide a "siting rationale" that includes an analysis of alternative locations. COGCC Rule 305A.b(2) requires that the notice of intent to construct a Large UMA Facility include "A description of the siting rationale for proposing to locate the facility within the Urban Mitigation Area, including a description of other sites considered and the reasons such alternate sites were rejected". Ursa's "siting rationale" fails to include a description of other sites considered. COGCC Rule 604.c.(2)E reads that, "Multi-well production facilities shall be located as far as possible from Building Units." The COGCC has interpreted COGCC Rule 604.c.(2)E to require an analysis of alternative locations and some explanation of why alternatives farther from homes were not selected. Only through an "alternative location analysis" can an operator comply with Rules 305A.b(2) and 604.c.(2)E. and demonstrate that other alternatives, farther from homes, are not technologically feasible or economically practicable.

The original L Pad location was required to comply with both Rules 305A.b(2) and 604.c.(2)E because it was initially proposed as a Large UMA facility and a multi-well production facility located within 1,000 feet of a building unit. However, Ursa's BMC L Pad LUMA Siting Rationale did not consider any alternative locations. Ursa came to the conclusion that it had adequately considered alternatives without presenting any evidence of what other locations were considered. Not surprisingly, Ursa concludes in its siting rationale that "the proposed location is the best option."

The COGCC staff notified Ursa that it could avoid being a Large UMA facility by simply shifting the location 115 feet. The fact that Ursa did not consider adjusting its location as part of its siting rationale is strong evidence that Ursa either did not understand, or chose to disregard, the requirements of Rules 305A.b(2) and 604.c.(2)E. The COGCC should reject as incomplete any proposal that does not consider alternative locations when required by its rules.

Proposed Best Management Practices

Many of the "Best Management Practices" that are listed in the Form 2A are merely recitations of existing COGCC regulations. Six pages of existing COGCC regulations in a Form 2A is not a list of "Best Management Practices" – it is simply padding the application.

BCC appreciates the inclusion of the following Best Management Practices that do go beyond current COGCC rules. However, some changes are still needed to ensure the BMP serves its stated purpose of mitigating the impacts of the oil and gas development. If Ursa is not willing to make these changes to its BMPs, the language proposed below should be required as Conditions of Approval by the COGCC.

1) ADDRESSING COMPLAINTS.

Attachment 1 - Numbered List of Public Comments for Reference
URSA Operating Company LLC, BMC L Pad, Garfield County; Form 2A#401235005

“Ursa has a dedicated phone line to address complaints 24 hours a day, seven days a week...All complaints received by Ursa are documented, investigated, responded to immediately with appropriate corrective actions and communicated to the complainant, landowner, county LGD and appropriate state agency officials.” Form 2A, Page 8.

As required under the B and D Pad location approvals, the Ursa complaint system is already active. Battlement Mesa residents appreciate having a dedicated phone line for complaints but do not believe that the Ursa complaint system is in communication with the COGCC. Battlement Mesa residents’ experience is that their complaints to Ursa are not forwarded to county and state officials. Residents deserve transparency to understand what is happening in their community and how their comments are being addressed.

This BMP should include, “All complaints received and investigated by Ursa will be published online in the same manner as COGCC’s complaint process or sent to the COGCC as formal complaints.”

2) LDAR

“All facilities onsite shall be subjected to an instrument-based leak detection and repair (LDAR) inspection at least monthly during drilling and completion and quarterly during production.” Form 2A, Page 10.

BCC supports this requirement so long as it is clear that is requiring protections beyond current regulations. CDPHE Regulation 7 allows fewer inspections as production numbers decline. Requiring at least quarterly LDAR inspections, regardless of production, would be appropriate since the location is in a residential area.

BCC suggests adding this language to the BMP: “Quarterly inspections will be conducted at this location, regardless of the potential to emit, until the location is plugged and abandoned.”

3) AIR QUALITY

“If a leak over 10,000 ppm hydrocarbons is discovered, the first attempt to repair the leak shall be made as soon as reasonably possible and in accordance with state law.” Form 2A, Page 10.

The BMP should clarify that large leaks (over 10,000 ppm hydrocarbons) will not be allowed to continue for more than 24 hours.

The following statement should be added, “If a leak over 10,000 ppm hydrocarbon cannot be repaired within 24 hours, the well will be shut in until repairs can be made.”

4) HOURS OF OPERATION

“Construction shall be limited to the hours of 7:00 AM to 7:00 PM., with the exception of episodic events....” Form 2A, Page 11.

“Well completion activity shall be limited to occurring between 7:00AM and 7:00PM. Once the wells are in production, vehicle trips to the pad shall be limited to the hours of 7:00AM to 7:00PM, with the exception of emergencies and episodic events beyond Ursa’s control.” Form 2A, Page 12.

BCC appreciates that Ursa has limited its hours of operation for construction, completion and vehicle trips. Since the L Pad has been proposed in a residential area, BCC requests that all Ursa’s activities be limited to the hours of 7:00 AM to 7:00 PM. This should include drilling operations and pipeline construction and installation. BCC understands that some pipelines are not under the jurisdiction of COGCC but water pipelines, and flow lines, are under COGCC jurisdiction.

Please add the following language: “Construction,” in this case, includes pipeline construction and installation.”

Ursa’s BMPs allow for “episodic events” when construction or vehicle trips may have to continue after 7:00PM. The community would ask for the same courtesy. With adequate advance notice, Ursa should be willing to suspend operations during the day to accommodate special events (i.e. weddings, funerals, etc.) at the nearby Grace Bible Church.

Public Comment No. 9L

URSA Operating Company LLC, BMC L Pad; Form 2A #401235005
7/29/2017 11:10:39 AM

Requested Conditions of Approval

The COGCC should add all conditions of approval that were approved for B and D Pads. To better protect a residential area that is already extremely impacted, and to add consistency that will eliminate public and operator confusion, all locations within the Battlement Mesa PUD should be subjected to the same standards required for the B and D pads. The requirements for B pad are included as Exhibit 1 and are made part of these comments.

The need for increased health and safety measures within a residential area should be self-evident. In a residential area, health and safety should be of supreme concern to the operator and the COGCC.

Over the past three years of operation, Ursa has had difficulty in reducing nuisance noise and odors on its well sites located both outside and inside the PUD. Many Battlement Mesa residents have made complaints over the years, although not all have been captured in the COGCC database as many people have been told to call Ursa's employees rather than filing a complaint with the COGCC. The complaint log from the COGCC website is attached as Exhibit 2.

Noise, odors, and safety conditions of approval from B and D Pads are highlighted below.

Health and Safety

- * PLN 2 - (1) Provide advanced notice and community awareness to neighborhoods and meet with the neighborhood residents regarding schedule and activities, include local emergency response agencies (Fire/Police). Operator may satisfy these public notification requirements through direct correspondence, Community Counts, publication in local newspapers, or through the Garfield County, Parachute, and Battlement Mesa Local Governmental Designees (LGDs).; (2) post schedule changes at a location convenient to residents, as well as notifying local emergency response agencies (Fire/Police) of schedule changes; (3) notify all local emergency responders (Fire/Police) 7 days prior to mobilization in, rig up (MIRU); and (4) notify all homes within a ¼-mile radius 7 days prior to MIRU.
 - * CON 4 - Operator will provide temporary engineering controls to prevent uncontrolled public access during drilling and completion activities. Site security must be maintained during production.
 - * CON 6 - Operator must equip all condensate and produced water storage tanks with an electronic level monitoring device that automatically shuts in all wells on the pad to prevent overflowing or during an upset condition, such as a leak or a fire. Produced water pipelines will be manned at all times while in operation. In the event of an upset condition, all pumps will be shut down immediately by trained personnel onsite.
 - * CON 7 - A truck loading and metering system that allows loading without opening thief hatches must be installed, pursuant to COGCC Rule 604.c.(4).B.v.
 - * CON 8 - Operator must install electronic level monitoring within the secondary containment for production facilities that will shut in all of the wells on the pad and any produced water pipelines leading to or leaving from the well pad to prevent an upset tank release from overflowing the containment device.
 - * CON 9 - Operator must use electric grid power or solar power to power all permanent Production Facilities and pumps on this Oil and Gas Location.
 - * CON 10 - Operator must utilize only welded connections for all buried flowlines. Operator must bed and partially backfill flowlines on the pad with non-native backfill to eliminate the corrosive soil concern.
 - * DC 4 - All Operator and contractor personnel working at the location during drilling and completion operations must be trained on COGCC requirements for spill response and reporting (documentation of this training will be maintained in the operator's office/onsite trailer). Operator will hold and document weekly meetings during drilling and completion operations to refresh all personnel onsite regarding response and reporting requirements and staff responsibilities during spill events.
 - * DC 5 - Operator will conduct daily inspections of equipment for leaks and equipment problems. All equipment deficiencies must be corrected immediately or as soon as practical (all identified problems and corrections/repairs will be documented and records will be maintained in the operator's office/onsite trailer).
-

Attachment 1 - Numbered List of Public Comments for Reference
URSA Operating Company LLC, BMC L Pad, Garfield County; Form 2A#401235005

Daily monitoring can end 14 days after first date of production; however, timely inspections should continue during the production phase.

* DC 13 - Operator must monitor wildfire potential daily during all construction, drilling, and completion operations at this Oil and Gas Location, and coordinate as necessary with the local fire department on Red Flag Days to ensure appropriate response to any fire emergencies.

Nuisance: Odor

Odor complaints have been pervasive in Battlement Mesa. Ursa often describes odors as “temporary annoyances” and has stated publicly that “just because it smells bad, it does not mean it will hurt you.” However resident experiences beg to differ. Results from well pad “episodic” events have ranged from persisting eye irritation to unbearable odors inside a home. As a solution, Ursa has offered to put people up in a motel until the event is over. Battlement Mesa residents would rather be able to live in their homes without fearing for their health. What is needed and expected is that extreme and prolonged discomfort will be avoided. The following Conditions of Approval from B and D Pads should be applied in this case as well.

* CON 6 - Operator must equip all condensate and produced water storage tanks with an electronic level monitoring device that automatically shuts in all wells on the pad to prevent overflowing or during an upset condition, such as a leak or a fire. Produced water pipelines will be manned at all times while in operation. In the event of an upset condition, all pumps will be shut down immediately by trained personnel onsite.

* CON 7 - A truck loading and metering system that allows loading without opening thief hatches must be installed, pursuant to COGCC Rule 604.c.(4).B.v.

* CON 8 - Operator must install electronic level monitoring within the secondary containment for production facilities that will shut in all of the wells on the pad and any produced water pipelines leading to or leaving from the well pad to prevent an upset tank release from overflowing the containment device.

* CON 9 - Operator must use electric grid power or solar power to power all permanent Production Facilities and pumps on this Oil and Gas Location.

* DC 3 - A closed loop system must be implemented during drilling. No diesel/oil-based drilling mud (OBM) or high chloride/TDS-based drilling mud (salt-SBM) may be used at this Oil and Gas Location. The moisture content of water/bentonite-based mud (WBM) generated cuttings managed onsite must be kept as low as practicable to prevent accumulation of liquids greater than de minimis amounts as indicated on the Form 2A.

* DC 11 - Flares (such as TCI’s portable flare with high combustion rate, low noise, and low visibility flare) will be utilized and will have appropriate VOC emission controls.

* DC 12 - Operator must install emission control devices (including the most current VOC destruction and capture technology) on all permanent condensate/oil and produced water storage tanks, regardless of the potential to emit. Operator must conduct monthly infrared camera or Method 21 inspections on the well pad.

* DC 14 - Flowback and stimulation fluids must be sent to a closed system capable of containing and managing vapors, fumes, or gases under pressure. Open top tanks may not be used to capture, contain, or store flowback fluid. Flowback fluid containment and storage vessels must be located in an area sufficiently impervious to prevent migration of any spilled or released material into groundwater.

* DC 15 - Air quality and odor controls will be implemented and will include the following: 1) the flowback stream must be routed from the wellhead to a series of separation units, consisting of an initial horizontal-type separator to remove sand or proppant; then to a vertical-type separator (a “four-phase” separator capable of removing and segregating (sand/proppant, condensate/oil, produced water, and natural gas), and then to another vertical-type separator (a “three-phase” separator capable of segregating condensate/oil, produced water, and methane); 2) any oil or condensate captured during the separation process will be sent to a tank with emissions controls; 3) from this point, the salable gas captured during the separation process will be sent to the sales line; 4) the produced water stream will then be sent to a series of sealed flowback tanks (closed top / closed hatches), where any additional, non-salable gas, will be sent to a temporary, fully enclosed flare or permanent VOC combustor; 5) frac fluids/flowback storage tank hatches must be closed and latched; 6) daily

Attachment 1 - Numbered List of Public Comments for Reference
URSA Operating Company LLC, BMC L Pad, Garfield County; Form 2A#401235005

odor monitoring should be conducted during well completions using a Nasal Ranger, or COGCC approved equivalent, to monitor compliance with detectable odor limits in Colorado Regulation 2, documentation of such monitoring must be maintained and made available to COGCC or CDPHE upon request; and 7) maintain a portable meteorological weather station during well drilling and completion operations, that includes a data logger to archive wind speed/direction, temperature, and humidity; 8) Data must be kept on file by the Operator and provided to COGCC or CDPHE upon request.

Nuisance: Noise

Noise has been the subject of repeated complaints from people living as far as 2,000 ft from the existing Ursa pads. Noise complaints from Ursa's B V pad just across the Colorado River are ongoing. (See Exhibit 2).

Sound barriers have been ineffective for many residents. Property owners have complained that they couldn't entertain people on their patio because they could not hear each other over the din. One resident said they had to change bedrooms at night in order to sleep. People have been awakened repeatedly during the night. Others have not been able to hear their TV.

The following Conditions of Approval from the B and D pads should be added in this case.

* PLN 6 - In order to evaluate ambient/baseline noise levels at the BMC "B" Pad, operator must conduct a minimum 72 hour baseline noise survey from a minimum of three points prior to the commencement of construction.

* CON 9 - Operator must use electric grid power or solar power to power all permanent Production Facilities and pumps on this Oil and Gas Location.

* DC 1 - Operator must perform continuous sound monitoring surveys during construction, drilling, and completion activities with data collection instruments placed as mutually agreed to with the Garfield County LGD and COGCC and will be located to the east-southeast between the Oil and Gas Location and the residential Building Units. The operator must have a documented process for responding to sound levels that exceed COGCC sound limits and must provide continuous sound monitoring data to COGCC on tables or graphs within 48 hours of COGCC's request. The Operator must have a documented process for managing data collection instrumentation in intermittent or occasional events of downtime outside the Operator's Control.

BCC also recommends the following language as a Condition of Approval. This language is taken from operator agreements in both the Town of Erie and City of Brighton.

Noise Mitigation Measures. Operator shall prepare and implement a noise mitigation plan. The noise mitigation plan shall detail the reasonably practicable efforts to be used to reduce db(A) scale noise level for operations subject to the light industrial zone noise standard under COGCC Regulations 802.b and 604.c.(2)(A) to sixty (60) db(A) and to reduce the noise level for operations subject to the industrial zone noise standard under COGCC Regulations 802.b and 604.c.(2)(A) five (5) db(A) below the maximum level permitted by those Regulations. As set forth in COGCC Regulation 802.b, the noise levels shall be subject to increase for a period not to exceed fifteen (15) minutes in any one (1) hour period and reduction for periodic, impulsive or shrill noises.

Enforcement

BCC believes that the BMPs and Conditions of Approval placed on oil and gas development within Battlement Mesa are only as good as their enforcement. There are over 11,000 wells in Garfield County and the COGCC inspectors cannot inspect every site annually. Drilling in the Battlement Mesa PUD should be subjected to higher standards of operation and to more frequent inspections.

BCC is requesting the COGCC to require the operator to annually certify compliance with each Condition of Approval. The signed certification should state who certified compliance and when. This information should be made publically available.

Conclusion

Attachment 1 - Numbered List of Public Comments for Reference
URSA Operating Company LLC, BMC L Pad, Garfield County; Form 2A#401235005

BCC opposes the L Pad location but recognizes that it is in compliance with state rules. BCC calls on the COGCC, and CDPHE, to ensure that the operator employs practices and technologies to protect the health, safety and welfare of Battlement Mesa residents.

Sincerely,
Dave Devanney
Battlement Concerned Citizens
Leslie Robinson
Grand Valley Citizens Alliance

Public Comment No. 10L

URSA Operating Company LLC, BMC L Pad; Form 2A #401235005
7/29/2017 11:44:04 AM

The COGCC should deny Ursa's request to place an injection well on the A Pad and thus within the PUD boundaries.

Ursa has provided an "alternative location analysis" in the state applications showing that these minerals could be accessed outside of the PUD with current drilling technology and higher drilling angles. Toxic Injection wells do not belong in residential areas or so close to the Colorado River.

Public Comment No. 11L

URSA Operating Company LLC, BMC L Pad; Form 2A #401235005
7/29/2017 11:46:28 AM

To the drilling company:

Your intention to drill in an occupied residential location is probably illegal but definitely immoral, inconsiderate, thoughtless and above all, dangerous to a settled community. Clearly money is your only consideration as you plan to just damn the folks who live there, many of whom will have to abandon their homes. For you, cheaper, nearer a highway, better bottom line may be acceptable but your unconscionable pursuit of this project at Battlement Mesa marks a new low in the mining business. Shame on you! Go drill where you wont be ruining the lives of the citizens of this great nation, theres plenty of room to do that. Battlement Mesa is SETTLED; do not drill there, period. Do not drill within 5 miles of the nearest house! Above all stop making a bad name for yourselves!

I am incredibly disappointed by this action.

Public Comment No. 12L

URSA Operating Company LLC, BMC L Pad; Form 2A #401235005
7/29/2017 11:48:31 AM

Comments for COGCC Regarding the L Pad and F Pad

The proposed L pad is located off the North Battlement Parkway. This will be within 1,000 feet of Grace Bible Church with its childcare facility and active congregation. If this pad is to be allowed within our PUD, URSA must do everything possible to protect the health of residents. To protect air quality, they should 1) use technologies with at least 95% efficiency on tanks that emit over 2 tons of volatile organic compounds per year and 2) commit to repair detected leaks within 24 hours of discovery or shut down the well. URSA should be required to use WARD DIESEL NO SMOKE filters on all diesel equipment. The COGCC should include all applicable conditions of approval and best management practices that COGCC and Garfield County included for the B and D pads.

Timing limitations should be applied to more than just completions. All disruptive activities such as construction of pipelines and instillation of pipelines and other drill pad infrastructure should be limited to the hours of 7 am to 7 pm. Many Battlement Mesa residents have already experienced impacts from noise and odors from current development. I have filed two complaints to the COGCC for excessive noise emanating from the B and V pad—

Attachment 1 - Numbered List of Public Comments for Reference
URSA Operating Company LLC, BMC L Pad, Garfield County; Form 2A#401235005

just outside the PUD. URSA must provide a plan on how to address these impacts for permanent solutions for the community rather than treat them as isolated incidents. URSA should be held accountable for keeping noise levels below COGCC standards, not as a voluntary activity, but as a requirement. URSA should be required to use best available technologies to meet lower noise levels that Encana has agreed to on the Front Range. Battlement Mesa residents are just as impacted!

The F pad will be built as a water facility. This will entail multiple tanks. The same conditions of approval should apply. Both tanks and pipelines can leak. The best available technology should be employed, including any new technology available from the past year.

I welcome any comments or questions.

Public Comment No. 13L

URSA Operating Company LLC, BMC L Pad; Form 2A #401235005
7/29/2017 11:51:06 AM

COGCC Staff
Colorado Oil and Gas Conservation Commission
120 Lincoln St #801
Denver, CO 80203

I am submitting the following detailed presentation against the proposed Pad A application submitted by:

Ursa Resources Group II, Inc.
Headquarters
1600 Broadway, Suite 2600
Denver, CO 80202
Or corresponding Field Office

Pad A is located in Battlement Mesa next to the public waste treatment facility and the Colorado River. The site is nestled into the hillside and is planned with a retaining wall. It is approximately 600 feet from the river, less than 500 feet from homes, and "sound walls will be useless for homes.

Pad fire catching brush on fire between homes and pad will be able to race upslope and, with incendiary type of brush, will be able to equal the devastation recently witnessed in Elko, Nevada. However, there will be no time for evacuations as it can reach the homes in minutes raining burning embers. If one of the waste storage tanks for injection blows-up, as in the Greely injection well fire, it could land up on the hill and maybe the homes.

The pad is within a 1000 feet of the storage reservoir for Battlement water supply and it will be easy for fugitive benzene to contaminate.

The CDPHE should still be concerned with this location, water supply, and LUMA location.

My concern goes much deeper to the geology they are proposing for this location as an injection well site. Besides the problems discovered with the Pad B site, the close injection from Pad A to a Basement fault and the location in an identified upper strata site of faults and joints. Moving a mile to a mile and a half to the Southeast would be far more prudent to attempt an injection well. I have recommended in my enclosure at looking to the WPX seismic work that was done recently to see if it would clear up the fault geology that they were encountering.

I would say that the public might not tolerate another Firestone disaster and there is no need for these risks. Moreover, unless the Colorado Supreme Court rules to the contrary, the COGCC has been charged by the Colorado Appeals Court to regard Health, Safety and Well Being, not as a "balance", but as a protection to be preserved.

This is a dangerous site and the potentials have been sounded. Please examine very carefully before "approving" this site. The injection well is NOT a necessary part of this application and can be located elsewhere or trucked

Attachment 1 - Numbered List of Public Comments for Reference
URSA Operating Company LLC, BMC L Pad, Garfield County; Form 2A#401235005

out from a nearby pad "Speakman" on Stone Quarry Road with the installation of a "terminal" for waste water truck loading. The Speakman Pad already has injection operations and no more quantity should be allowed.

NOTE: I will be sending a pdf file with graphs and pictures to Mr. Noto to accompany this comment.

Public Comment No. 14L

URSA Operating Company LLC, BMC L Pad; Form 2A #401235005
7/29/2017 12:07:13 PM

Under the rules your board passes last year regrading large scale drilling in residential areas, I object to Ursa's proposal to keep developing large pads within Battlement Mesa.

Under these new rules, Ursa can still drill within 1,000ft of many of our homes, but then even skirt the rules by moving the L pad a mere 100 ft away from the Grace Bible Church to avoid complying with the few new expectations that were passes last year for so called "LUMAs."

L pad is a large pad with many wells and is still within a residential area, so the same rules for "LUMA" pads should be applies. Residents of Battlement mesa are surrounded by oil and gas and deal with the impacts everyday, even if not everyone makes a complaint to the state.

One only needs to look at the complaints happening in regards to the PV pad across the river in Parachute to see what happens if the same conditions of approval and best management practices are not applied to large scale pads near where people live.

If none of the decision makers have ever lived within 1,000; of an active drilling and fracking pad, then you have not a clue about how greatly this industry affects a person's health and live. It is noise and pollutes the air. No matter how strict the rules and required mitigations, it is clear that we will still feel the impacts.

The health and well-being of Battlement Mesa residents is still at stake and just as important as it was last year before the first pads were approved. As much scrutiny that was applied to B and D pads must be applied to L pad even tho it is not a "LUMA."

Thank you.

Public Comment No. 15L

URSA Operating Company LLC, BMC L Pad; Form 2A #401235005
7/29/2017 12:11:30 PM

Suggestions for Additions/Changes to
Conditions of Approval for "L" Pad

Refer to COAs for the B Pad when commenting on some we would like to see included with the L Pad:

COA #

7(1) Volume of sound generated... - Add text to the effect that "During specified church services at Grace Bible Church -- on occasion and with notice to the operator -- leadership may request temporary suspension of drilling operations out of respect for the activity (i.e. weddings, funerals, etc.). Granting suspension should be accommodated.

7(5) Remove the words "At the discretion of the County Commissioners", so that the text will read, "All outdoor storage facilities for fuel, raw materials and products shall be enclosed by a fence or wall adequate to conceal such facilities from adjacent property."

10 "Construction shall be limited to the hours of 7:00 AM to 7:00 PM., with the exception of episodic events...." This timeframe should also apply to pipeline construction and installation.

"Drilling may occur 24 hours a day. Well completion activity (fracking) shall be limited to occurring between 7:00 AM and 7:00 PM." I would like to see all drilling activities during the 7 AM to 7 PM timeframe. This will probably never fly, so then I would like to see wording to the effect that "If there is anticipated unusual noise involved

Attachment 1 - Numbered List of Public Comments for Reference
URSA Operating Company LLC, BMC L Pad, Garfield County; Form 2A#401235005

with a procedure during nighttime operations, attempt to schedule that type of work so that it occurs during daytime hours. Otherwise, notify neighboring residents as a courtesy about what they can expect and the anticipated length of time.

21 Refers to the Site Specific Air Monitor - "Results of the air monitoring will be publicly available and reported to the BOCC on a regular basis." I would like to see this included in the COAs for the L Pad, but there should be specificity about the frequency of reporting results, (i.e. monthly, quarterly, etc.). The word "regular" is too vague.

Refer to the Best Management Practices for the L Pad. These are some suggested changes:

BMP #

7 Complaints – "All complaints received by Ursa are documented, investigated, responded to immediately with corrective actions and communicated to the complainant, landowner, county LGD and appropriate state agency officials." This information should be posted online in the same manner as the COGCC's complaint process for accountability purposes. Such information collected through Community Counts should also be available. (Complaints do not always involve Ursa.) Add the new link to the complaint process below the one for the COGCC.

40 Noise Mitigation – Refers to 604.c(2)A - Change the second sentence to read "Additional noise monitoring above and beyond COGCC regulations will be conducted by Ursa." Remove the word "voluntary" from that paragraph.

43 Interim Reclamation – Add these words after "irrigation water will be applied until vegetation is established, (also a requirement under the Garfield County Special Use Permit)." "Thereafter, it will be the responsibility of the Applicant (or Battlement Mesa Land Investments) to supply irrigation water."

Note: Emily Hornback is submitting these comments on behalf of Battlement Mesa residents who discussed them at one of their monthly meetings. It is supplemental to the letter submitted for BCC and GVCA by Matt Sura.

LGD Comment No. 16L

URSA Operating Company LLC, BMC L Pad; Form 2A #401235005
7/28/2017 8:58:48 PM

This location within the Battlement Mesa Planned Unit Development requires a Garfield County Special Use Permit (SUP). SUP approval can only be provided through a public hearing process with the Board of County Commissioners. Ursa Operating Company has only very recently submitted the SUP application to the county and as such the initial hearing and in-depth technical reviews at the Planning Commission cannot be scheduled before September 2017 with further in-depth technical review and a Board of County Commissioner's hearing to follow at a later date. As such Garfield County is unable, at this time, to provide the substantive comments and guidance to COGCC we will provide regarding Best Management Practices and Conditions of Approval that should be attached to the COGCC permit and that would meet the needs of both Garfield County and COGCC. Ursa Operating Company has indicated to Garfield County they will request that COGCC "withhold decision on approvals of the Form 2A and associated Form 2s for this pad location until the time the Local Government permitting process has reached resolution, therefore providing agreement as to the siting of the pad location as required by Rule 305A. If the technical review has been completed by COGCC staff prior to obtaining local government approval, Ursa will request that the permits be put in an "On Hold" status until the Garfield County process has concluded. As the Garfield County permitting process has been initiated and is moving forward, Ursa does not anticipate the need for mediation nor a Commission hearing to make a determination on these applications. Work on this location will not commence until permits are received from both the Local Government and the COGCC."

Garfield County asks COGCC to honor a forthcoming request from Ursa Operating Company to withhold a decision on the Form 2A and associated Form 2s for this location until the County permitting process is complete. Garfield County further asks COGCC to carefully consider and adopt relevant county SUP Conditions of Approval and/or Best Management Practices to protect the health, safety and welfare of the local community.

COGCC Response:

12/19/17 - COGCC reviewed all 32 of the Garfield County Special Use Permit conditions of approval (COAs) for the BMC L Well Pad site (attached as 'Garfield County Special Use Permit Resolution and COAs') and evaluated which COAs could be placed on the Form 2A; COGCC has incorporated portions or all of the following GarCo COAs - 7, 8, 9, 10, 11, 12, 14, 19, 25, 26, 28, 30, and 31 into COGCC's COAs.

LGD Comment No. 17L

URSA Operating Company LLC, BMC L Pad; Form 2A #401235005
9/08/2017 2:45:00 PM

LGD COMMENT received from Battlement Mesa Metro District LGD, Bill Nelson on 09-08-2017; 2:45 PM:

Here are my comments for the referenced Ursa applications: 2A#401235005 BMC L Pad

Moving this proposed pad from the originally proposed site keeps it out of the LUMA classification.

Proposed mitigation considerations in regard to noise and odors could be improved by suspending operations during some special events.

Location is relatively convenient to the parkway, which is already used by heavy trucks.

Definitely a better location than the originally proposed BMC M Pad.

COGCC Response:

12/19/17 - COGCC reviewed all 32 of the Garfield County Special Use Permit conditions of approval (COAs) for the BMC L Well Pad site (attached as 'Garfield County Special Use Permit Resolution and COAs') and evaluated which COAs could be placed on the Form 2A; COGCC has incorporated portions or all of the following GarCo COAs - 7, 8, 9, 10, 11, 12, 14, 19, 25, 26, 28, 30, and 31 into COGCC's COAs.

COGCC has added a COA concerning timing limitations for construction and completion activities at the BMC L Pad during Sunday morning services (9:00 a.m. to 12:00 p.m.) and other special activities at the Grace Bible Church.

Attachment 2 - Public Comment Response Table; URSA, BMC L Pad, Form 2A #401235005

No.	Summary of Issues or Concerns	Number of References Within Comments	Public Comment Number(s)	Addressed by COGCC Rules ?	Addressed by Operator BMPs ?	Addressed by COGCC COAs ?	COGCC Response / Operator Response
1	Industrial Activities are not Compatible within Residential Areas	7	5L, 6L, 7L, 8L, 9L, 11L, 14L	YES	NA	YES	<p>Operator Response: Garfield County passed a 1982 resolution allowing for mineral extraction and processing in all zones within the Battlement Mesa Planned Unit Development (BM PUD). A copy of the resolution was provided to Garfield County as part of the county special use permit (SUP) process, and also to the COGCC as part of public comment responses on April 27, 2016. Extraction of oil and gas resources is not proposed within subdivisions that have covenants prohibiting oil and gas development. In addition, a Surface Use Agreement was in place prior to the COGCC setback rules (2013) and the Large Urban Mitigation Area (LUMA) rules (March 2016). An average of approximately 45 residents participated in Ursa's community meetings. The county affirmed that Ursa maintains the legal authority for oil and gas extraction within the BM PUD. Ursa has also made significant commitments through compliance plans to address Federal and State regulations, COGCC permit BMPs and subsequent COAs. Ursa's unprecedented commitment to BMPs and COAs addressed key concerns such as noise, odors, lighting, traffic and air emissions. Ursa and its predecessor have worked extensively with the community since 2009 to address any potential impacts to the community.</p>
2	No Drilling Pads Inside the Battlement Mesa Planned Unit Development (BM PUD)	7	5L, 6L, 7L, 8L, 9L, 11L, 14L	NA	NA	NA	<p>Operator Response: This concern has been addressed on multiple occasions in community meetings, one-on-one meetings, and in Garfield County hearings. The number of locations in the BM PUD was reduced from 14 to four (4) the Phase I pads (BMC B and D pads) and the currently proposed Phase II pads, which includes the BMC A and L pads and BMC F Temporary Water Storage Facility. In all aforementioned meetings, Ursa provided the basis for alternatives considered. In addition to the authority granted under the Garfield County Resolution and SUA, Ursa considered a number of factors to determine the location feasibility. These issues included the ability to access minerals using the best available proven technology, cultural setbacks, natural resource concerns, community health and safety, and more as extensively detailed and addressed in the alternatives and reach analysis provided to both COGCC and Garfield County. A detailed "reach analysis" was provided to both Garfield County and the COGCC, which was conducted by professionals and licensed engineers with extensive oil and gas, drilling and production experience. This was discussed in several meetings with a BCC representative and Garfield County. Considerable related comment and discussion was held with BCC members over the past several years on this concern. Ursa stated on several occasions that if an alternative location were available outside of the BM PUD, Ursa would certainly have selected that location from a business perspective and may have avoided a substantial financial commitment and planning process.</p>
3	Public Health, Safety, and Welfare	7	5L, 6L, 7L, 8L, 9L, 12L, 14L	YES	YES	YES	<p>Operator Response: Some community residents have expressed concerns regarding development within the BM PUD. Ursa held these focused meetings with Battlement Mesa citizens to balance citizen concerns with Ursa's rights and obligations to develop its mineral interests. The location as planned would provide the greatest distance from homes. BMPs and COAs combined with Ursa's health, safety and environmental plans would minimize the potential for these types of relatively short-term nuisances. Many of Ursa's plans were provided to both the county and COGCC and part of the application submittals. This information is also supported in response to public comment. Ursa's traffic plans (aka haul route) address both residential and public school traffic and potential safety concerns. The contemplated haul route was a part of the original BM PUD in 1982 and has been adopted/approved by Garfield County Road and Bridge. The proposed location doesn't present any traffic or safety concerns that would adversely affect this location, nor present any greater concerns than other locations in similar settings. In addition, Ursa coordinates its activities with the Community Counts Organization, the Garfield Energy Advisory Board, as well as holding periodic community meetings to address upcoming rig moves, construction and operations, etc. Haul routes were established by Garfield County to serve as primary routes for oil and gas development in the vicinity of this location.</p> <p>COGCC Response: Under the Oil and Gas Conservation Act, the Commission's mission is to: Foster the responsible, balanced development, production, and utilization of oil and gas in a manner consistent with protection of public health, safety, and welfare, including protection of the environment and wildlife resources. C.R.S. 34-60-102(1)(a)(I). Responsible development results in: 1) the efficient exploration and production of oil and gas resources in a manner consistent with the protection of public health, safety and welfare; 2) the prevention of waste; 3) the protection of mineral owners' correlative rights; 4) the prevention and mitigation of adverse impacts to the environment and wildlife. COGCC Rule 324.A. prohibits pollution of the environment in order to protect public health. In addition, COGCC has applied several COAs that require the operator implement traffic control plan, contingency plans for releases and spills, fluid containment and spill/release BMPs, leak detection, graveled or equivalent access road material, sediment and dust control access road, site access security, slopes-soil stockpiles-berm stabilization, truck material containment during transport, spill response training, spill response trailer/container and heavy equipment, air quality monitoring, odor and VOC emission control, lighting control and mitigation, flowback fluid containment / management / hydrocarbon separation, and pipeline inspection / testing. COGCC 600 Series Rules specify minimum safety requirements necessary to protect the public. COGCC has required, and the operator has provided, a site-specific emergency response plan and to review the plan with local emergency responders.</p>

Attachment 2 - Public Comment Response Table; URSA, BMC L Pad, Form 2A #401235005

No.	Summary of Issues or Concerns	Number of References Within Comments	Public Comment Number(s)	Addressed by COGCC Rules ?	Addressed by Operator BMPs ?	Addressed by COGCC COAs ?	COGCC Response / Operator Response
4	Air Quality Impacts and Monitoring	6	6L, 7L, 8L, 12L, 14L, 15L	YES	YES	YES	<p>Operator Response: Ursa realizes that air quality is critical to communities. Garfield County and Ursa have participated in the CSU ambient air quality study, the results of which have been released. CDPHE is currently performing a health risk study on the data. Air quality in Garfield County has been improving based on Garfield County studies in the county and site specific monitoring at the BMC D Pad. Currently the county meets both EPA and CDPHE attainment standards. In addition, new CDPHE Regulation 7 now requires both Storage Tank Emission Monitoring (STEM) and Leak Detection and Repair (LDAR) plans. Ursa implemented both of these plans months in advance of the effective date of January 2015. Inspections are conducted routinely at each well pad. Emissions reductions and engineering controls are managed in accordance with the CDPHE Air Permit and regulations. In 2014, an Air Quality presentation was presented to the community. Per Garfield County Phase I (BMC B and D) COA, Ursa has agreed to provide \$50,000 for continuous site-specific air monitoring in Battlement Mesa and \$55,000 for Phase II (BMC A, BMC L and BMC F). In addition, Garfield County has returned its mobile air monitoring equipment to the Battlement Mesa area.</p> <p>COGCC Response: COGCC has placed COAs on the Form 2A requiring the following:</p> <ul style="list-style-type: none"> • 1) air quality and odor control equipment used during flowback operations must be utilized until the flow rate from all wells is within the design parameters of the permanent/long term separation equipment; following removal of flowback air quality and odor control equipment, the permanent/long term separation equipment must not be bypassed during production operations; • 2) flowback and stimulation fluids must be sent to a closed system capable of containing and managing vapors, fumes, or gases under pressure; open top tanks may not be used to capture, contain, or store flowback fluid; • 3) the flowback stream must be routed from the wellhead to a series of separation units, consisting of an initial horizontal-type separator to remove sand or proppant; then to a vertical-type separator (a "four-phase" separator capable of removing and segregating (sand/proppant, condensate/oil, produced water, and natural gas), and then to another vertical-type separator (a "three-phase" separator capable of segregation condensate/oil, produced water, and methane); • 4) any oil or condensate captured during the separation process will be sent to a tank with emissions controls; • 5) the produced water stream will then be sent to a series of sealed flowback tanks (closed top / closed hatches, with carbon blankets over thief hatches on temporary storage tanks to reduce odors), where any additional, non-salable gas, will be sent to a temporary, fully enclosed flare or permanent VOC combustor; • 6) frac fluids/flowback storage tank hatches must be closed and latched; and • 7) daily odor monitoring should be conducted during well completions to monitor compliance with detectable odor limits, documentation of such monitoring must be maintained and made available to COGCC or CDPHE upon request.

Attachment 2 - Public Comment Response Table; URSA, BMC L Pad, Form 2A #401235005

No.	Summary of Issues or Concerns	Number of References Within Comments	Public Comment Number(s)	Addressed by COGCC Rules ?	Addressed by Operator BMPs ?	Addressed by COGCC COAs ?	COGCC Response / Operator Response
5	Noise and Sound	5	6L, 9L, 12L, 14L, 15L	YES	YES	YES	<p>COGCC Response / Operator Response:</p> <p>Under the Oil and Gas Conservation Act, the Commission's mission is to: "Foster the responsible, balanced development, production, and utilization of oil and gas in a manner consistent with protection of public health, safety, and welfare, including protection of the environment and wildlife resources."C.R.S. 34-60-102(1)(a)(I). Responsible development results in: 1) the efficient exploration and production of oil and gas resources in a manner consistent with the protection of public health, safety and welfare; 2) the prevention of waste; 3) the protection of mineral owners' correlative rights; 4) the prevention and mitigation of adverse impacts to the environment and wildlife.</p> <p>COGCC Rule 324A prohibits pollution of the environment (air, water, soil) in order to protect public health. COGCC 600 Series Rules specify minimum safety requirements necessary to protect the public; the proposed application meets or exceeds all safety setbacks. Rule 802 defines statewide noise abatement requirements. COGCC is requiring the operator to institute engineering controls to reduce the sound impact to the neighborhood. At a minimum, the site will have a 32-foot sound wall around the entire perimeter of the working surface, as well as earthen berms along the entire northern, eastern, and southern portions of the disturbed area where trees and plants will be placed for both visual and potential sound mitigation. If warranted, the operator will implement supplemental noise mitigation measures, such as interior sound walls around hydraulic stimulation trucks and equipment, smaller horse power trucks / pumps, and modelling to determine whether additional measures may be needed to reduce noise levels.</p> <p>In addition, COGCC has applied several COAs that require the operator implement traffic restrictions, noise control, and timing limitations for construction and completion activities (the two phases that have the highest potential for generating excessive noise levels). COGCC has required, and the operator has provided, a site-specific emergency response plan and the operator must review the plan with local emergency responders prior to commencement of operations. COGCC has applied a COA requiring an onsite safety officer be present at all times during drilling and completion activities, who has the authority to suspend operations.</p> <p>The BMC D Pad has been in operation for approximately 300 days and the BMC B Pad for approximately 250 days. During this time, Ursa has only received six (6) noise complaints. The following voluntary measures have been successfully employed by Ursa at the B&V pad, located in the Town of Parachute and for the BMC B and BMC D pads located in Battlement Mesa; and may be implemented at the BMC L Pad if warranted:</p> <ul style="list-style-type: none"> • Ursa holds bi-weekly meetings in which detailed noise and complaint information is reviewed and additional, potential mitigation strategies are discussed. • Environmental & Natural Resources Group, Inc (ENRG) has been performing continuous sound monitoring for the Battlement Mesa area pad locations prior to and throughout development activities. • Behrens and Associates, Inc. (Behrens) has been contracted to perform noise modeling for both dBA and dBC frequencies and develop additional mitigation strategies and recommendations for current and future Battlement Mesa area development. • Per the Behrens modeling report and recommendations, Ursa has installed approximately ~240 feet of portable STC 43 sound panels outside of the primary 32' sound walls and on the inside adjacent to the equipment to mitigate dBC levels at the B&V pad location. • An electrical power drop has been installed at the BMC D pad to power generators used on location helping to reduce cumulative noise impacts. The BMC A pad is also planned to have an electrical power drop installed and will be used where possible to reduce overall noise impacts and long term impacts (i.e. injection well pump motor). • Ursa's primary completion contractor, Calfrac, has been investigating dBC level mitigation and are currently working to reduce equipment engine RPM's which would translate directly to reduced noise levels. • Calfrac has completed engine swaps on each of their pump trucks at the B&V pad from the previous engines to quieter QSK-50 Cummins engines.
6	Odors	4	6L, 9L, 12L, 14L	YES	YES	YES	<p>Operator Response:</p> <p>Odors are seldom related to construction, drilling and production. The greatest potential for odors to occur is during the completions phase of operations (generally a 3 to 4 month period). Ursa has incorporated a number of standard operating practices into daily operations to help detect and manage odors which include air monitoring, on-site surveillance by both Ursa and contractors on a daily basis, filter blankets and controls, using additional tanks to fully contain potential odors during completions, newer design screw-down thief hatches, electronic vs. manual tank gauging, etc. Infrared monitoring will take place at increased frequency. Ursa has made a Stakeholder Number & Emergency Number available to the community and general public to address any odor concerns in an expeditious manner. Any and all complaints are responded to, tracked, investigated and corrective actions taken as necessary, provided that Ursa's operations are the source. While odors don't necessarily constitute a health risk, it is acknowledged that odors can be considered a nuisance even over a short period of time. Ursa's goal is to have no odors that would cause a nuisance to the community and general public.</p> <p>The BMC D Pad has been in operation for approximately 300 days and the BMC B Pad for approximately 250 days. During this time, Ursa has only received five odor complaints.</p> <p>COGCC Response:</p> <p>COGCC has placed COAs on the Form 2A requiring the following:</p> <ul style="list-style-type: none"> • 1) odor control equipment used during flowback operations must be utilized until the flow rate from all wells is within the design parameters of the permanent/long term separation equipment. Following removal of flowback odor control equipment, the permanent/long term separation equipment must not be bypassed during production operations; • 2) flowback and stimulation fluids must be sent to a closed system capable of containing and managing vapors, fumes, or gases under pressure; • 3) the flowback stream must be routed from the wellhead to a series of separation units, capable of segregation of condensate/oil, produced water, and methane; • 4) any oil or condensate captured during the separation process will be sent to a tank with emissions controls; • 5) the produced water stream will then be sent to a series of sealed flowback tanks (closed top / closed hatches, with carbon blankets over thief hatches on temporary storage tanks to reduce odors); and • 6) daily odor monitoring should be conducted during well completions to monitor compliance with detectable odor limits.

Attachment 2 - Public Comment Response Table; URSA, BMC L Pad, Form 2A #401235005

No.	Summary of Issues or Concerns	Number of References Within Comments	Public Comment Number(s)	Addressed by COGCC Rules ?	Addressed by Operator BMPs ?	Addressed by COGCC COAs ?	COGCC Response / Operator Response
7	Reach Analysis Indicates Minerals can be Accessed from Pads Outside of the BM-PUD - Other drilling companies have been able to reach their resources from longer distances by drilling at different angles.	4	5L, 6L, 8L, 10L	NA	NA	NA	<p>Operator Response:</p> <p>To maintain proper well spacing and effectively drain the Williams Fork Formation it is standard practice for the wellbore to be vertical through the pay section. Ursa's current practice on long reach wells is to enter the top of gas at a 20-degree inclination and approach vertical several hundred feet below top of gas. Ursa does this to give us the maximum reach on long offset wells while maintaining a safe inclination for perforating operations. Perforating at inclinations greater than 20 degrees could result in stuck perf guns.</p> <p>Higher inclination in the tangent section will create significant hole problems, which will cause longer drill times, stuck pipe issues, key seating and other wellbore integrity issues. Changing the wellbore design may require a potential change in the drilling mud program from freshwater bentonite based mud to oil based mud. Higher inclinations would significantly affect top of cement and it is difficult to achieve a good cement bond between the steel production casing and the borehole. As inclination increases, so do the length and severity of the build and drop sections of the wellbore, resulting in higher torque and drag forces that act on the drill string and casing, which in turn would require a larger, more powerful drilling rig. A larger drilling rig will result in: 1) more truck loads and time to move the rig between locations; 2) more horsepower required, resulting in increased fuel consumption and emissions, and louder noise sources; 3) a taller derrick will be more visible and increase lighting issues; and 4) given the small pad size, a larger rig cannot drill as many wells as a smaller rig can, resulting in the need for more well pads.</p> <p>Wells in Battlement Mesa are primarily dry gas producing wells. During normal declines in production rates the wells will begin to liquid load and will require the use of some form of artificial lift. Many operators use a plunger lift system within the production tubing to assist with unloading water from the tubing to allow gas to flow at lower pressures within the wellbore. Plunger lift may not work in wells with increased inclination. Other systems would include chemicals, well head compression, gas lift systems, or third party trailer mounted systems such as compressed gas units, foam units or nitrogen units; all of which would increase noise levels during production, require additional surface equipment, and increase traffic throughout the PUD.</p>
8	Location Should be Regulated as a LUMA Facility and Previous BMC B and BMC D Pad COAs Should Apply for this Location	4	6L, 8L, 9L, 14L	YES	YES	YES	<p>COGCC Response / Operator Response:</p> <p>The COGCC and operator have agreed to regulate this location as if it was a Large Urban Mitigation Area (LUMA) facility and all of the appropriate COAs from previously permitted Form 2A location within the Battlement Mesa Planned Unit Development (BM PUD) will apply to this location. 600 Series Rules specify minimum safety requirements necessary to protect the public; the proposed application meets or exceeds all safety setbacks (wells and production facilities are a minimum of 1000' from Building Units and the Grace Bible Church (a potential High Occupancy Building Unit). COGCC has applied COAs to restrict site access and a site-specific emergency response plan (which the operator must review with local emergency responders prior to commencement of operations). At a minimum, the site will have a 32-foot sound wall around the entire perimeter of the working surface.</p> <p>COGCC has placed forty-one (41) site-specific COAs on the Form 2A for the BMC L Pad. All pertinent COAs from the 2016 Form 2A permits for the BMC B Pad and the BMC D Pad (both of which were LUMA locations) have been placed on the Form 2A for the BMC L Pad.</p>
9	VOC Emissions	3	6L, 9L, 12L	YES	YES	YES	<p>Operator Response:</p> <p>Ursa acknowledged in both the community meetings and the Garfield County hearings the need for air permits and monitoring and VOC emissions controls. GarCo COAs included submitting a copy of the COGCC permit and funding for site specific air monitoring. Ursa has committed to infrared inspections on a monthly basis in Battlement Mesa which exceeds CDPHE Regulation 7 Storage Tank Emission Monitoring (STEM) and Leak Detection and Repair (LDAR) regulations, which currently only require quarterly or annually on most locations in Battlement Mesa.</p> <p>Air quality in Garfield County has been improving based on Garfield County studies in the county and site specific monitoring at the BMC D Pad. Currently the county meets both EPA and CDPHE attainment standards. In addition, new CDPHE Regulation 7 now requires both Storage Tank Emission Monitoring (STEM) and Leak Detection and Repair (LDAR) plans. Ursa implemented both of these plans months in advance of the effective date of January 2015. Inspections are conducted routinely at each well pad. Emissions reductions and engineering controls are managed in accordance with the CDPHE Air Permit and regulations.</p>

Attachment 2 - Public Comment Response Table; URSA, BMC L Pad, Form 2A #401235005

No.	Summary of Issues or Concerns	Number of References Within Comments	Public Comment Number(s)	Addressed by COGCC Rules ?	Addressed by Operator BMPs ?	Addressed by COGCC COAs ?	COGCC Response / Operator Response
10	Leaks and Spills from Tanks or Pipelines	3	6L, 8L, 12L	YES	YES	YES	<p>Operator Response:</p> <p>A number of regulations and Ursa's plans address potential leaks from tanks and pipelines. Detection of a leak is the most critical component of the process to minimize potential impacts to the environment and community health and safety. Early detection allows rapid response and remediation if required. The components prone to leaking are tanks (air emissions), flowlines and gas gathering lines (fluids). Regarding air leaks, CDPHE Regulation 7 requires both Storage Tank Emission Monitoring (STEM) and Leak Detection and Repair (LDAR) plans. Inspections are conducted routinely at each well pad in accordance with CDPHE regulations. While not required on all locations, the FLIR inspections are conducted monthly in the BM PUD. All production tanks in BM PUD will be equipped with the best air control technology. If leaks are found they are generally repaired within 24 hours. Flowlines transport produced fluids from the wellbore to separators, dehydrators, and tanks on the well pad. Flowlines are tested on a regular basis under COGCC regulations and in accordance with Ursa's Leak Detection and Flowline Management BMP provided to the COGCC. Gas pipelines are pigged and pressure tested periodically in accordance with Public Utility Commissions regulations, ASME and API standards, and accepted industry practices. Cathodic protection is also a standard practice for gas pipelines to prevent corrosion. In the event of a spill, Ursa's Spill Prevention and Response Plan would be implemented which includes notifications, response, and remediation if necessary. These BMPs and practices were discussed in both community meetings and in the Garfield County hearings. The community was also briefed in a community meeting by Ursa and the local fire department on how Ursa will notify residents in the event of an emergency that may affect residences. The emergency response plan would be implemented to immediately notify Battlement Mesa officials, residences and the Fire Department. These concerns were also addressed under various BMPs in the Garfield County and COGCC permit applications. A county COA also requires notification to residences prior to beginning pipeline construction.</p> <p>As discussed in the community meetings and Garfield County hearings, Ursa has two primary plans in place to prevent and management potential spills. These plans and appropriate BMPs are also discussed in the Form 2A application submittals: (1) EPA SPCC plan applicable to tanks, which requires updated site-specific plans, monthly inspections, and corrective actions if warranted, (2) Ursa's Spill Prevention and Response Plan which includes spill prevention, notifications, response and remedial actions.</p> <p>COGCC Response:</p> <p>A number of regulations (COGCC Rules 906.a. and 906.b.) discuss spills.</p> <p>General. Spills/releases of E&P waste, including produced fluids, shall be controlled and contained immediately upon discovery to protect the environment, public health, safety, and welfare, and wildlife resources. Impacts resulting from spills/releases shall be investigated and cleaned up as soon as practicable. The Director may require additional activities to prevent or mitigate threatened or actual significant adverse environmental impacts on any air, water, soil or biological resource, or to the extent necessary to ensure compliance with the concentration levels in Table 910-1, with consideration to WQCC ground water standards and classifications.</p> <p>Reportable spills and reporting requirements for spills/releases. Spills/releases of any size which impact or threaten to impact any waters of the state, residence or occupied structure, livestock, or public byway shall be reported on COGCC Spill/Release Report, Form 19, and shall also be verbally reported to the Director as soon as practicable, but not more than twenty-four (24) hours, after discovery.classifications.</p> <p>COGCC has placed several COAs on the Form 2A that address spills and releases, including spill response training for all onsite personnel, daily inspections of equipment and lines for leaks, an onsite spill response trailer, and heavy equipment for managing and containing any releases or spills.</p>
11	Pipeline Construction Impacts (daylight hours only)	3	6L, 8L, 15L	NO	YES	NO	<p>Operator Response:</p> <p>Pipelines were permitted under a Garfield County SUP as part of the Phase I and II approvals. COGCC has jurisdiction over flowlines under their 1100 rules, however pipelines are primarily regulated by the county and the Colorado Public Utilities Commission. This was discussed in the Garfield County hearings. Several professional engineering drawings and plans were submitted under the county Pipeline SUP to include cuts and fills, stormwater and erosion control, reclamation, notification to landowner prior to construction, emergency response plans, etc. As part of the application submittal, environmental surveys were conducted and land assessments were completed to ensure that any potential impacts to the community and the environment are in compliance with Federal, state and county regulations. Due to the reduction in well pads within the BM PUD to four, a significant number of pipeline routes were eliminated. Hundreds of miles of natural gas transmission and residential pipelines are located within towns, cities and counties throughout the Piceance Basin, including Battlement Mesa. Ursa and its contractors discussed the appropriate engineering and operational standards (FERC and PUC) in both community meetings and Garfield County hearings and has provided evidence of this to the COGCC as part of previous responses to public comment.</p>
12	Activities Must be Stopped at the Request of the Grace Bible Church	3	6L, 8L, 15L	NO	NO	YES	<p>COGCC Response / Operator Response:</p> <p>COGCC has been in contact with the pastor of the Grace Bible Church, who indicated that they would like any site construction and completion activities (pressure pumping) not take place on Sundays, between the hours of 9:00 AM and 12:00 PM. COGCC has placed a COA on the Form 2A indicating this timing restriction, as well as restrictions for other church activities (wddings, funerals, children events and activities) that would be impacted by excessive noise.</p> <p>Ursa agrees to restrict construction and pressure pumping activities on Sundays between 9am and 12pm (noon). Ursa will make best efforts to accommodate special requests/events/activities held at the church with proper notice and communication by both parties (Ursa and Grace Bible Church) as Ursa has demonstrated in the past at various locations. Ursa does not anticipate excessive noise issues to be present at the church or negatively affect church activities due to Ursa's operations, as Ursa will be in compliance with the appropriate rules and regulations applicable to noise.</p>

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No.	Summary of Issues or Concerns	Number of References Within Comments	Public Comment Number(s)	Addressed by COGCC Rules ?	Addressed by Operator BMPs ?	Addressed by COGCC COAs ?	COGCC Response / Operator Response
13	Alternative Location Analysis/Siting Rationale	2	8L, 10L	YES	NA	NO	<p>Operator Response:</p> <p>Ursa has evaluated the proposed location and alternative locations to assess compliance with Federal, state and local regulations and land use codes; while still balancing complex potentially conflicting land uses and concerns. These included mineral lease obligations, existing and reasonably foreseeable land development uses, regulatory setbacks, community concerns, and potential impacts to natural resources, the environment, and wildlife. The proposed location was evaluated for potential natural resource impacts including (but not limited to) sensitive areas, public water supplies, wetlands, floodplains and wildlife. The proposed location is not located within a 100-year floodplain, with no direct potential influence to the Colorado River or its public water supply.</p> <p>The BM PUD was established under the modified 1982 Garfield County Resolution No. 82-121. The resolution allowed for the "extraction and processing of natural resources" in all zoned districts of the BM PUD. At the time of the county resolution, 14 well pads were proposed within the BM PUD. Ursa has reduced the number of proposed well pads within the BM PUD to four (4) as part of a comprehensive development plan. Of the 299 wells Ursa proposes in the vicinity of the BM PUD, only 56 are proposed to be drilled from the BMC A and L pads within the BM PUD, including the 28 drilled from the BMC D Pad and 24 drilled from the BMC B Pad.</p> <p>All pad locations within the BM PUD are subject to an amended Surface Use Agreement (SUA, 2009) executed between Battlement Mesa Partners, LLC (BM Partners) and Ursa Operating Company LLC (formerly Antero Resources). The SUA established the pad locations for the overall development of the BM PUD. This also meets the intent of the Governor's Task Force and implementing LUMA regulations, as the oil and gas facility is proposed within an approved site specific development plan that establishes vesting property rights and which expressly governs the location of the wells and production facilities on the surface estate. It should be noted that in working closely with Battlement Mesa Partners over the past several years, the comprehensive development plan considered many complex factors, including long-term community development plans and complex operational considerations. Several considerations and criteria weigh significantly in selecting locations to minimize potential impacts to human health, safety, and the environment (including wildlife). Consideration was given to the location most likely available to reach all bottomholes from a single well pad versus multiple pads. The "drill radius" is the maximum radius that the furthest well bottomholes can be reached from the proposed location.</p> <p>The location of the well pad and access road will have minor cuts and fills due to gradually sloping topography and would be the most suitable location in the vicinity in order to reach all bottomholes. Access to this location would only require a short road segment from an existing paved road as shown on the permit application construction drawings. This location is clearly the most feasible location to address a myriad of complex and competing objectives in the vicinity of Battlement Mesa; hence the selection of this site as documented in the SUA. Placement of the well pad at any practicable alternative location able to reach the necessary bottom hole locations would be more intrusive to the community.</p>
14	Diesel Engine Emission Impacts (use of WARD filters)	2	6L, 12L	NO	NA	NO	<p>Operator Response:</p> <p>All vehicles used by Ursa and its contractors comply with Federal and state vehicle emissions standards. In addition, emissions associated with truck traffic will be further reduced through the use of water lines and injection wells already existing in the Battlement Mesa area. Ursa can not require filters (e.g.) regulated by the EPA and CDPHE for mobile emission sources. Ursa will encourage contractors to turn engines off when not in use, or when appropriate, depending upon the scope of work being performed.</p>
15	Storage Tank Emissions (95% efficiency on tanks that emit over 2 tons of VOCs)	2	6L, 12L	YES	YES	YES	<p>Operator Response:</p> <p>Ursa has plans to install combustors on the Phase II pads (BMC A Pad and BMC L Pad) regardless of emissions.</p> <p>COGCC Response:</p> <p>COGCC Rule 324.A. prohibits degradation of the environment. Rule 324.A.c. prohibits violation of any any applicable air quality laws, regulations, and permits as administered by the Air Quality Control Commission or any other local or federal agency with authority for regulating air quality associated with such activities. Rule 805 prohibits oil and gas equipment that emits greater than 5 tons / year from being closer than ¼ mile to a building unit (including schools, offices, and houses). Air quality sampling is will be conducted by the operator throughout the not technically or economically feasible for an exploratory well.</p>
16	Include as Many of Garfield County's COAs as Practical	2	6L, 15L	NA	YES	YES	<p>COGCC Response / Operator Response:</p> <p>Ursa and Garfield County provided the thirty-two (32) final / agreed upon Garfield County (GarCo) Conditions of Approval (COAs) for the BMC "L" Pad on December 12, 2017. The Garfield County Local Governmental Designee (LGD) requested in his comment to this Form 2A for the BMC "L" Pad that COGCC incorporate as many of their COAs into the COGCC's Form 2A permit. On 12/19/2017, COGCC reviewed all 32 of the Garfield County Special Use Permit conditions of approval (COAs) for the BMC L Well Pad site (attached as 'Garfield County Special Use Permit Resolution and COAs' on the Form 2A) and evaluated which COAs (those that COGCC could enforce under our rules and regulations) could be placed on the Form 2A. COGCC has incorporated portions or all of the following thirteen (13) GarCo COAs - 7, 8, 9, 10, 11, 12, 14, 19, 25, 26, 28, 30, and 31 into COGCC's COAs. Several GarCo COAs have been developed as Best Management Practices (BMPs) and submitted on the Form 2A.</p>
17	Who is Checking on Complaints? (send all complaints to COGCC, public complaints online, have Community Counts publish complaints)	2	8L, 15L	NO	YES	NO	<p>COGCC Response / Operator Response:</p> <p>The community has been informed in community meetings, county hearings, and in other stakeholder meetings of Ursa's process for complaints. All complaints are documented, investigated, responded to immediately with appropriate corrective actions, and communicated to the complainant, landowner, county LGD and appropriate state agency officials. Considerable coordination with Kirby Wynn, Garfield County LGD, to ensure the effectiveness of complaint management has occurred over the past two years. Ursa has demonstrated the success of this on multiple occasions in communication with the aforementioned parties. Ursa also has a dedicated phone line to address complaints and responds 24 hours/day, 7 days a week, as has been demonstrated on several occasions within the past year. Ursa can respond faster to complaints rather than COGCC since they have personnel onsite 24/7.</p>
18	Daylight Drilling (7:00 AM to 7:00 PM)	2	8L, 12L	NO	NO	NO	<p>COGCC Response / Operator Response:</p> <p>Because of the nature of the drilling process, it is not possible to limit the hours operation. Drilling operations must occur continuously, to ensure the stability of the borehole, to prevent migration of hydrocarbons, and to prevent freezing of surface equipment. Continuous operation of the drilling rig will also reduce the overall time that the drilling rig is on location. Ursa has already has a proven track record that demonstrates we can drill 24/7 with no compliance issues with the COGCC regulations regarding noise and lighting.</p>

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No.	Summary of Issues or Concerns	Number of References Within Comments	Public Comment Number(s)	Addressed by COGCC Rules ?	Addressed by Operator BMPs ?	Addressed by COGCC COAs ?	COGCC Response / Operator Response
19	Secure Storage Areas with Fencing or Walls from Adjacent Property	2	6L, 15L	NO	YES	NO	<p>Operator Response: COGCC rule 324A prohibits pollution of the environment (air, water, soil) in order to protect public health. COGCC 600 Series Rules specify minimum safety requirements necessary to protect the public; the proposed application meets or exceeds all safety setbacks. COGCC has applied COAs to restrict site access and a site-specific emergency response plan (which the operator must review with local emergency responders prior to commencement of operations). At a minimum the site will have a 32-foot sound wall around the entire perimeter of the working surface. Operator will use adequately sized containment devices for all chemicals and/or hazardous materials stored or used on location. Following completion operations, operator shall maintain and provide annually to COGCC a chemical inventory for all chemicals brought to or used on the site regardless of quantity.</p> <p>COGCC Response: In addition, GarCo COA 7.e.2) states that any outdoor storage facility for fuel, raw materials, and products shall be enclosed by a fence or wall adequate to conceal such facility from adjacent property.</p>
20	Reclamation should Include Irrigation.	2	6L, 15L	NO	YES	NO	<p>Operator Response: Operator has a landscape and reclamation plan for the plants and trees. A final irrigation plan will be implemented once the plants and trees are installed.</p>
21	Noise Mitigation Plan and Noise Monitoring above COGCC Rules	2	9L, 15L	NO	NO	NO	<p>Operator Response: The following voluntary measures have been successfully employed by Ursa at the B&V pad, located in the Town of Parachute and for the BMC B and BMC D pads located in Battlement Mesa; and may be implemented at the BMC L Pad if warranted:</p> <ul style="list-style-type: none"> • Ursa holds bi-weekly meetings in which detailed noise and complaint information is reviewed and additional, potential mitigation strategies are discussed. • Environmental & Natural Resources Group, Inc (ENRG) has been performing continuous sound monitoring for the Battlement Mesa area pad locations prior to and throughout development activities. • Behrens and Associates, Inc. (Behrens) has been contracted to perform noise modeling for both dBA and dBC frequencies and develop additional mitigation strategies and recommendations for current and future Battlement Mesa area development. • Per the Behrens modeling report and recommendations, Ursa has installed approximately ~240 feet of portable STC 43 sound panels outside of the primary 32' sound walls and on the inside adjacent to the equipment to mitigate dBC levels at the B&V pad location. • An electrical power drop has been installed at the BMC D pad to power generators used on location helping to reduce cumulative noise impacts. The BMC A pad is also planned to have an electrical power drop installed and will be used where possible to reduce overall noise impacts and long term impacts (i.e. injection well pump motor). • Ursa's primary completion contractor, Calfrac, has been investigating dBC level mitigation and are currently working to reduce equipment engine RPM's which would translate directly to reduced noise levels. • Calfrac has completed engine swaps on each of their pump trucks at the B&V pad from the previous engines to quieter QSK-50 Cummins engines. • Sound walls have been installed near the residence of the closest neighbor to the BMC B pad to provide additional mitigation for that individual. Ursa has worked closely with this neighbor to ensure the sound wall mitigation was installed to be as effective as possible.
22	COA Certification from Operator	1	9L	NO	NO	NO	<p>COGCC Response / Operator Response: COGCC's Field Inspection Unit will be conducting regular inspections to ensure that COGCC's rules and regulations, the operator's BMPs, and COGCC's COAs are being followed during all phases of oil and gas activities, including construction of the well pad, drilling and completion operations for all wells, production operations, and applicable interim reclamation activities. COGCC does not rely on the operator to inform COGCC that they are in compliance with the COAs.</p>
23	Higher Frequency of Inspections	1	9L	NO	NO	NO	<p>Operator Response: Ursa has plans in place for daily, weekly, monthly and annual inspections both required by agency regulation and as internal Ursa Best Management Practices. COGCC field inspectors and staff will make regular unscheduled inspections throughout the construction phase, the drilling and completion operations, and during long-term production operations. Due to the proximity of these locations to residences and public roads (as well as numerous other oil and gas locations operated by URSA, TEP, Vanguard, and Caerus in and around Parachute and Battlement Mesa), COGCC and Garfield County will be aware of any issues and will be following up on any complaints or concerns raised by the public. supply.quantity.</p> <p>COGCC Response: To date, COGCC's Field Inspection Unit has conducted twelve (12) fully documented inspections at the BMC D Pad and ten (10) fully documented inspections at the BMC B Pad. However, the number of other site visits consisting of observing pad construction, well drilling, and well completion activities is approximately twice that number, as COGCC inspectors and environmental specialists made 5 to 7 visits during each phase of operations.</p>
24	Daylight Timing Restrictions for Site Construction and Well Completions	1	6L	NO	YES	YES	<p>Operator Response: Ursa will comply with GarCo COA 9 which states construction and well completions be limited to the hours of 7:00 am to 7:00 pm with the exception of emergencies and episodic events beyond the operator's control.</p>
25	LDAR Inspections	1	8L	NO	YES	NO	<p>Operator Response: Ursa has revised the following BMP on the Form 2A: "All facilities onsite shall be subjected to an instrument-based leak detection and repair (LDAR) inspection at least monthly during completions and quarterly during production for the first three years then per CDPHE regulations thereafter." COGCC can enforce this BMP just like a COA.</p>

Attachment 3 - List of Site-Specific Conditions of Approval

URSA Operating Company LLC, BMC L Pad, Garfield County; Form 2A#401235005

Planning: The following nine (9) conditions of approval (COAs) will apply to the Form 2A for general planning, notification, and coordination of activities:

- * **PLN 1** - Operator must notify the COGCC 48 hours prior to mobilization in, rig up (MIRU), flowline installation, and flowline testing (flowlines from wellheads to separators to tanks; and/or any temporary surface lines used for hydraulic stimulation and/or flowback operations) using the Form 42 (as described in Rule 316C.m. Notice of Completion of Form 2/2A Permit Conditions).
- * **PLN 2 (GarCo 19)** - Operator shall also provide public awareness for all well pad activities, including: 1) advanced notice and community awareness to neighborhoods and meet with the neighborhood residents regarding schedule and activities, include local emergency response agencies (Fire/Police), operator may satisfy these public notification requirements through direct correspondence, Community Counts, publication in local newspapers, or through the Garfield County, Parachute, and Battlement Mesa Local Governmental Designees (LGDs).; 2) posting schedule changes at a location convenient to residents, as well as notifying local emergency response agencies (Fire/Police) of schedule changes; 3) notifying all local emergency responders (Fire/Police) 7 days prior to mobilization in, rig up (MIRU); and 4) notifying all homes within a ¼-mile radius 7 days prior to MIRU.
- * **PLN 3** - Not less than 10 days prior to meetings, operator must provide email invitation to COGCC Western Slope OGLA Specialist and the Local Governmental Designee (LGD).
- * **PLN 4** - Prior to any oil and gas activities, including site construction, operator must update their site-specific Emergency Response Plan with current information; the plan must describe employee spill response and safety training, organizational structure, site specific response plan for spills and other emergency situations at this Oil and Gas Location, and preventative maintenance provisions. Operator must update the site-specific plan annually and submit to COGCC an attestation (signed by a Vice President of Operations or higher corporate signatory) that the plan has been updated within 30 days of completing the annual update; the plan must be available to COGCC for review upon request.
- * **PLN 5 (GarCo 28)** - Traffic Control Plan - In consultation with Garfield County, Town of Parachute, Battlement Mesa Service Association, and emergency responders, Operator must develop a traffic control plan which addresses all phases of activity at the site. The traffic control plan must include provisions describing limiting site access, signage on local roads warning of increased truck traffic, oil and gas related traffic restrictions (speed and routes), coordination of heavy equipment movement and intense traffic periods to avoid peak times and school bus routes, and flaggers and pilot vehicles.
- * **PLN 6** - In order to evaluate ambient/baseline noise levels at the BMC "L" Pad, operator must conduct a total of 216 hours of baseline noise surveys from a minimum of two points prior to the commencement of construction.
- * **PLN 7** - The approved Form **2A #401235005** for this location will be posted onsite during construction, drilling, and completions operations.
- * **PLN 8** - In the case of any conflict between Ursa's compliance plans, Best Management Practices, or other documents associated with this permit and The Oil and Gas Act (The Act), COGCC Rules, or Conditions of Approval (COA), COGCC will enforce compliance with The Act, Rules, and COAs.
- * **PLN 9 (GarCo 19)** - Based on discussions between COGCC and the pastor of the Grace Bible Church, operator shall not conduct any site construction (heavy equipment usage) and completion activities (primarily pressure pumping operations) on Sundays, between the hours of 9:00 am and 12:00 pm; as well as during other church activities (weddings, funerals, children events) that would be impacted by excessive noise; with the exception of emergencies and episodic events beyond the operator's control.

Construction: The following nine (9) conditions of approval (COAs) will apply to the Form 2A for access road, well pad, flowline, and onsite equipment construction and installation activities:

- * **CON 1** - Since the proposed well pad is situated immediately adjacent to a drainage north of the pad, operator must implement adequate stormwater control measures to prevent ponding upstream, erosion, and off site sedimentation. All stormwater BMPs utilized at the Oil and Gas Location must be stabilized and must be inspected weekly [every 7 days] and within 24 hours after any precipitation event during construction.
- * **CON 2 (GarCo 7)** - Due to the proposed access road's close proximity to nearby intermittent drainages to the south and southwest, the access road will be constructed and maintained to prevent sediment migration from the access road to nearby surface water or any drainages or ditches leading to surface water.
- * **CON 3 (GarCo 7)** - The access road to the Oil and Gas Location must be graveled to reduce fugitive dust. Operator will take active measures to prevent fugitive dust emissions from the graveled access road to the well pad access entrance will be controlled during construction, drilling, and completion operations. Dust reducing access road surfaces must be maintained during production.
- * **CON 4** - Operator will provide temporary engineering controls to prevent uncontrolled public access during drilling and completion activities. Site security must be maintained during production.
- * **CON 5** - Cut slopes, fill slopes, soil stockpiles, and berms must be stabilized immediately following construction of pad and placement of stockpiles.
- * **CON 6 (GarCo 14)** - Operator will implement measures (covers, misting, etc.) to reduce dust and PM emissions during transport of solids materials to and from the water storage facility site.
- * **CON 7** - Operator must use electric grid power or solar power to power all permanent production facilities and pumps on this Oil and Gas Location.
- * **CON 8 (GarCo 10)** - Operator must utilize only welded connections for all buried flowlines. Operator must bed and partially backfill flowlines on the pad with non-native backfill to eliminate the corrosive soil concern.
- * **CON 9 (GarCo 9)** - Construction of the BMC "L" Pad well site shall be limited to the hours of 7:00 a.m. to 7:00 p.m. with the exception of emergencies and episodic events beyond the operator's control.

Drilling/Completions: The following twenty (20) conditions of approval (COAs) will apply to the Form 2A for all well drilling and completion activities:

- * **DC 1 (GarCo 7)** - Operator must perform continuous sound monitoring surveys, including A-weighting (dBA) and C-weighting (dBC) scale, during construction, drilling, and completion activities with data collection instruments placed to the north between the Oil and Gas Location and the cluster of residential building units. The operator must have a documented process for responding to sound levels that exceed COGCC sound limits and must provide continuous sound monitoring data to COGCC on tables or graphs within 48 hours of a request. The operator must have a documented process for managing data collection instrumentation in intermittent or occasional events of downtime outside the operator's control.
- * **DC 2 (GarCo 19)** - Open top tanks are not permitted for storage of any fluids other than freshwater.
- * **DC 3 (GarCo 19)** - A closed loop system must be implemented during drilling. No diesel/oil-based drilling mud (OBM) or high chloride/TDS-based drilling mud (salt-SBM) may be used at this Oil and Gas Location. The moisture content of water/bentonite-based mud (WBM) generated cuttings managed onsite must be kept as low as practicable to prevent accumulation of liquids greater than de minimis amounts as indicated on the Form 2A.
- * **DC 4** - All Operator and contractor personnel working at the location during drilling and completion operations must be trained on COGCC requirements for spill response and reporting (documentation of this training will be maintained in the operator's office/onsite trailer). Operator will hold and document weekly meetings during drilling and completion operations to refresh all personnel onsite regarding response and reporting requirements and staff responsibilities during spill events.
- * **DC 5 (GarCo 11 and 19)** - Operator will conduct daily inspections of equipment for leaks and equipment problems. All equipment deficiencies must be corrected immediately or as soon as practical (all identified problems and corrections/repairs will be documented and records will be maintained in the operator's office/onsite trailer). Daily monitoring can end 14 days after first date of production; however, timely inspections should continue during the production phase.
- * **DC 6 (GarCo 7)** - A spill response trailer or spill response container will be on location 24 hours a day, 7 days a week during construction, drilling, and completion operations to facilitate a timely response to any spills that may occur. The spill response trailer must be available within 15 minutes during production operations.
- * **DC 7** - Appropriate heavy equipment (e.g., a backhoe, front end loader) will be staged at the location during all drilling and completion operations so that any emergency diversions or pits to contain spills can be built immediately upon discovery; or to quickly build additional earthen berms in the event of a spill outside of containment.
- * **DC 8 (GarCo 7)** - Operator must follow all requirements of COGCC's current policy - NOTICE TO OPERATORS, Rule 912. VENTING OR FLARING PRODUCED NATURAL GAS - STATEWIDE, dated January 12, 2016.
- * **DC 9** - Operator must have production facilities and pipelines, including the natural gas sales line, in place prior to flowing back oil or gas from any wells on the pad. Wells will be shut in at "gas cut" if sales line is not yet available.
- * **DC 10** - The Operator must shield or enclose all flares used during drilling and completion operations to prevent the flame from being visible beyond the boundaries of the oil and gas location; or must have the gas thermally oxidized in an appropriately sized emissions control device (ECD).
- * **DC 11 (GarCo 19)** - Flares (such as TCI's portable flare with high combustion rate, low noise, and low visibility flare) will be utilized and will have appropriate VOC emission controls.

Drilling/Completions: Continued:

- * **DC 12 (GarCo 19)** - Operator must install emission control devices (including the most current VOC destruction and capture technology) on all permanent condensate/oil and produced water storage tanks, regardless of the potential to emit. Operator must conduct monthly inspections on the well pad, via infra-red camera or Method 21, for the first three years of production, and then in accordance with the Air Pollution Control Division (APCD) requirements thereafter.
- * **DC 13** - Operator must monitor wildfire potential daily during all construction, drilling, and completion operations at this Oil and Gas Location, and coordinate as necessary with the local fire department on Red Flag Days to ensure appropriate response to any fire emergencies.
- * **DC 14 (GarCo 12 and 19)** - Flowback and stimulation fluids must be sent to a closed system capable of containing and managing vapors, fumes, or gases under pressure. Open top tanks may not be used to capture, contain, or store flowback fluid. Flowback fluid containment and storage vessels must be located in an area sufficiently impervious to prevent migration of any spilled or released material into groundwater.
- * **DC 15 (GarCo 7 and 12)** - Air quality and odor controls will be implemented and will include the following: 1) the flowback stream must be routed from the wellhead to a series of separation units, consisting of an initial horizontal-type separator to remove sand or proppant; then to a vertical-type separator (a "four-phase" separator capable of removing and segregating (sand/proppant, condensate/oil, produced water, and natural gas), and then to another vertical-type separator (a "three-phase" separator capable of segregation condensate/oil, produced water, and methane); 2) any oil or condensate captured during the separation process will be sent to a tank with emissions controls; 3) from this point, the salable gas captured during the separation process will be sent to the sales line; 4) the produced water stream will then be sent to a series of sealed flowback tanks (closed top / closed hatches, with carbon blankets over thief hatches on temporary storage tanks to reduce odors), where any additional, non-salable gas, will be sent to a temporary, fully enclosed flare or permanent VOC combustor; 5) frac fluids/flowback storage tank hatches must be closed and latched; 6) daily odor monitoring should be conducted during well completions to monitor compliance with detectable odor limits, documentation of such monitoring must be maintained and made available to COGCC or CDPHE upon request; 7) maintain a portable meteorological weather station during well drilling and completion operations, that includes a data logger to archive wind speed/direction, temperature, and humidity; and 8) data must be kept on file by the Operator and provided to COGCC or CDPHE upon request.
- * **DC 16 (GarCo 12)** - Air quality and odor control equipment used during flowback operations must be utilized until the flow rate from all wells is within the design parameters of the permanent/long term separation equipment. Following removal of flowback air quality and odor control equipment, the permanent/long term separation equipment must not be bypassed during production operations.
- * **DC 17 (GarCo 26 and 31)** - Operator shall implement the mitigation measures outlined in the "Supplement to the Noise Assessment" to address impacts from noise in the dB(C) range as needed for the Oil and Gas Location.

Drilling/Completions: Concluded:

- * **DC 18 (GarCo 25)** - The moisture content of water/bentonite based mud (WBM) generated drill cuttings managed onsite shall be kept as low as practicable to prevent accumulation of liquids greater than de minimis amounts. The operator has indicated in the 'DRILLING WASTE MANAGEMENT PROGRAM SECTION' of the Form 2A; that 'Cuttings Disposal' will be "OFFSITE" and that the 'Cuttings Disposal Method' will be "Beneficial reuse", 'Other Disposal Description' as "PLEASE SEE ATTACHED WASTE MANAGEMENT PLAN". Any proposed offsite disposal or beneficial reuse of cuttings to another oil and gas location shall not occur until approval of a Form 4 Sundry Notice specifying disposal or beneficial reuse location and cuttings material sampling and characterization methods. Remediated or amended cuttings shall not be made available as fill material to the general public (as indicated in the Waste Management Plan, which states "3] made available as fill material to the general public"). Any changes to drill cuttings management and disposal on this location will require submittal (via a Form 4 Sundry Notice) and approval of a Beneficial Reuse Plan detailing the changes (specifying cuttings characterization methods, cuttings management, amendment, and onsite disposal location[s]). Any of the WBM drill cuttings that will remain on the well pad location must be sampled and meet the applicable standards of Table 910-1.
- * **DC 19 (GarCo 9)** - Well completion activities at the BMC "L" Pad well site shall be limited to the hours of 7:00 a.m. to 7:00 p.m. with the exception of emergencies and episodic events beyond the operator's control.
- * **DC 20 (GarCo 8)** - All lighting, except as demonstrated for safety reasons, shall be directed inward and downward and be shaded in order to prevent direct reflection on adjacent property or nearby residences. LED lights will be used when possible and practical. Workers will be advised when moving light plants to ensure that the light is focused directly on the work being done.

Attachment 3 - List of Site-Specific Conditions of Approval

URSA Operating Company LLC, BMC L Pad, Garfield County; Form 2A#401235005

Material Handling and Spill Prevention: The following two (2) conditions of approval (COAs) will apply to the Form 2A for all well pad flowline activities:

* **MH 1 (GarCo 10)** - All permanent flowlines from wellheads to separators and from the separators to the tank will be pressure tested annually, regardless of operating pressures.

* **MH 2** - Operator must install a telemetry system to monitor for upset conditions and provide for remote well shut in capabilities.

Final Reclamation: The following condition of approval (COA) will apply to the Form 2A for final reclamation and reference area identification:

* **FRCL 1** - Operator shall provide a Reference Area Map and four (4) color photographs of the Reference Area, taken during the growing season of vegetation and facing each cardinal direction (each photograph shall be identified by date taken, well or Oil and Gas Location name, and direction of view); and submitted within twelve (12) months of the Form 2A permit approval.

Wildlife: The following fifteen (15) best management practices (BMPs), which were developed by the operator and CPW to avoid and minimize impacts to wildlife from the proposed development, are contained within the approved Battlement Mesa Wildlife Mitigation Plan (WMP), and apply to this location:

- *1) Closed loop (pitless) drilling systems.
- *2) Annual raptor and other bird surveys will be conducted in accordance with protocols provided by CPW.
- *3) Rig shift changes will take place when practical at 6am and 6pm and will utilize one (1) vehicle to minimize impacts to wildlife.
- *4) Development program is planned to include four phases as a means for mitigating wildlife impacts. These phases will be based on infrastructure construction schedules and will be coordinated with affected land owners, the Battlement Mesa Services Association (BMSA), local municipalities, Garfield County, COGCC, and CDPHE during the Comprehensive Drilling Plan and the Major Land Use Impact Review process.
- *5) Well pad location visits during the production phase of operations (post drilling and completion for all wells on a well pad location) will be restricted when/where possible to between the hours of 10:00 a.m. and 3:00 p.m. to minimize impacts to wildlife unless operational concerns warrant pad visits outside this timeframe.
- *6) Buried water and gas pipelines will be utilized as means to reduce truck traffic and impacts to wildlife.
- *7) Restrict rig operation to no more than 2 rigs per section (or equivalent acreage) within the big-game seclusion areas during the winter.
- *8) Maintaining a ¼ mile no surface occupancy buffer around active bald eagle nests.
- *9) New pad construction not to exceed 3 acres of working surface.
- *10) Pad density not to exceed 1 pad per 160 acres.
- *11) Bury all gas and water pipelines adjacent to roads whenever possible.
- *12) A weed management plan will be developed and implemented to monitor and control noxious and invasive weeds.
- *13) Noxious weed control includes three treatments per year.
- *14) Existing weed infestations will be mapped prior to the development of each pad, access road and pipeline when practicable.
- *15) Antero (now Ursa) has completed all habitat restoration contributions contained within the WMP.

These wildlife BMPs have been added to the 'Operator BMP/COA' tab of the Form 2A (**GarCo 30**).