



OIL AND GAS OPERATOR AGREEMENT

THIS OIL AND GAS OPERATOR AGREEMENT ("Agreement") is made and entered into this 27th day of August, 2013 ("Effective Date"), by and through Sovereign Operating Company, LLC, and its affiliates, 475 17TH ST., Suite 1200, DENVER, CO, 80202 (referred to hereinafter as the "Operator"), and The City and County of Broomfield, Colorado (referred to hereinafter as the "City") with an address of One DesCombes Drive, Broomfield, Colorado 80020, which may be collectively referred to herein as the "Parties", or individually as a "Party."

WHEREAS, the Operator engages in the exploration, development, production and marketing of natural gas, oil and natural gas liquids in Broomfield, Colorado, for those ten well sites depicted on Exhibit A, attached hereto and by reference made a part hereof, and are further defined in section 2 of this Agreement.

WHEREAS, the City and the Operator value a balanced approach to oil and gas development that is protective of public health, safety and welfare, including the environment and wildlife resources. To that end, in order to achieve those goals in a cooperative manner, the City and the Operator enter into this Agreement to identify best management practices ("BMPs") for the Operator's drilling and production operations for the Well Sites.

WHEREAS, those BMPs include, but are not limited to, the requirement that all gas generated at the Well Sites will be captured and sent to a sales line if available, or used onsite. Gas that cannot be captured and routed to a sales line or used onsite must be sent to a thermal oxidizer or flare unit operationally designed to destroy at least 98% of any methane and volatile organic compounds (VOC).



WHEREAS, the Colorado Oil and Gas Conservation Act, C.R.S. §34-60-101 *et seq.* (the "Act"), authorizes the Colorado Oil and Gas Conservation Commission ("COGCC" or "Commission") to adopt statewide rules and regulations, which the Commission has done. Further, the Commission continues to consider changes to the rules and regulations, and it is anticipated that the Commission will adopt changes in its rules over time.

WHEREAS, the Colorado Air Pollution Prevention and Control Act, C.R.S. §25-7-101 *et seq.* ("APPCA") authorizes the Colorado Department of Public Health and the Environment ("CDPHE") to adopt emission control regulations for significant sources of air pollutants. CDPHE has promulgated specific emission control requirements for oil and gas facilities and it is anticipated that CDPHE will propose and adopt revisions to these requirements over time.

WHEREAS the APPCA, C.R.S. §25-7-128, authorizes local governments to enact local air pollution resolutions or ordinances which may be the same as, or more restrictive than, state emission control regulations.

WHEREAS the U.S. Environmental Protection Agency regulates various aspects of oil and gas activities under national statutes designed to protect air, water and other environmental resources and public health including the Clean Water Act, 33 U.S.C. 1251 *et seq.* and the Clean Air Act, 42 U.S.C. 7401 *et seq.*

NOW THEREFORE, in consideration of the covenants and mutual promises set forth in this Agreement, including in the recitals, the Parties agree as follows:

1. Effective Date/Term. This Agreement will be effective upon City Council's approval by resolution and signature by both Parties, and will continue in effect for five (5)



years from the Effective Date ("Initial Term"), at which time the Agreement may be renewed and extended for successive five (5) year terms, by mutual written agreement of the City and Operator. For all wells (and related facilities) subject to the requirement to employ the BMPs set forth in this Agreement, the Operator shall continue to employ such BMPs to the operations of such wells and facilities beyond the Initial Term and until the date of plugging and abandonment of such wells in accordance with applicable law. This Agreement shall terminate early if the Operator fails to conduct its operations at the Well Sites in accordance with the terms and conditions of this Agreement. If the City believes Operator has failed to conduct its operations at the Well Sites in accordance with the terms and conditions of this Agreement, then as a condition precedent to terminating this Agreement early, the City must provide written notice to Operator specifying, in reasonable detail, the failure and the remedy required. Operator shall then have a period of 45 days in which to remedy the failure, or if the failure is of a nature that cannot be remedied within that 45-day period, Operator shall have commenced to remedy the failure and will diligently complete the remedy. If Operator fails to remedy a material default in the manner set forth above, then upon written notice, the City may terminate this Agreement early, as to the well(s) in material default, and revoke any or all approvals for Approved/Pending Wells and New Wells (as defined below) that are in material default. Upon such revocation, Operator shall shut-in such well(s) until it obtains approval for such wells under the then-applicable City code.



2. Definitions.

a. "Approved/Pending Wells" means the wells on the following well pads, which have been approved by the City by an approved Use By Special Review Permit, which Permit was approved on or before the Effective Date of this Agreement:

- i. Six Wells approved for the Webber H Unit 1 Well Pad, by City Council Resolution No. 2013-22, dated February 12, 2013;
- ii. Four Wells approved for the Hulstrom G Unit 1 Well Pad by City Council Resolution No. 2013-23, dated February 12, 2013;
- iii. Four Wells approved for the Brozovich MA 8-2 Well Pad by City Council Resolution No. 2013-55, dated August 27, 2013;
- iv. Six Wells approved for the Memorial 22-3 Well Pad by City Council Resolution No. 2013-55, dated August 27, 2013;
- v. Six Wells approved for the Nordstrom 2-4 Well Pad by City Council Resolution No. 2013-55, dated August 27, 2013; and
- vi. Five Wells approved for the Nordstrom 5-4 Well Pad, by City Council Resolution No. 2013-55, dated August 27, 2013.

b. "Best Management Practices" or "BMP" shall mean the items listed in Appendix A.

c. "Existing well" shall include the wells already existing on the Well Sites, including any production facilities directly associated with such well, and its associated well pad, insofar as it covers lands located in the City limits, except to the extent such facilities constitute all or part of a New Well under this Agreement.



d. "Facility" shall include wells, flowlines, storage, metering, and all equipment necessary and appurtenant to such wells and pipelines.

e. "New Well" shall mean any Operator well during the term of this Agreement and located on the Well Sites, including any new or expanded production facilities directly associated with such well, and its associated well pad, insofar as it covers lands located in the City limits.

f. "Refiled Well" shall mean any Operator well previously permitted and approved by the COGCC and the City and located on an existing Well Site, in which Operator has resubmitted for a new APD (Form 2) and/or Oil and Gas Location Assessment (Form 2A).

g. "Well Sites" shall mean those well pads depicted on Exhibit A and further described as the Brozovich MA 8-11 well pad, the Brozovich MA 8-13 well pad, the Brozovich MA 8-14J well pad, the Webber H Unit 1 Pad as approved by the City per Resolution No. 2013-22, the Hulstrom G Unit 1 Pad as approved by the City per Resolution No. 2013-23, and the Brozovich 8-8J well pad, as well as, four well pads with use by special review permit applications currently before City Council: the Nordstrom 5-4 well pad, the Nordstrom 2-4 well pad, and the Brozovich MA 8-2 well pad, and the Memorial 22-3 well pad, with those ten well pads hereinafter referred to collectively as the "Well Sites."

3. The Operator's Best Management Practices ("BMPs") within City Limits.
The Operator shall include the BMPs listed in Appendix A, attached hereto and by reference made a part hereof, and the related plans as required by Appendix B, on all Applications for Permit-to-Drill, Form 2, and Oil and Gas Location Assessments, Form



2A, submitted to the Commission for a "New Well" on the Well Sites, except as otherwise expressly stated in Appendix A. The BMPs listed in Appendix A (and the related plans as required by Appendix B) shall also be a condition of approval to be issued by the City and the conditions shall be enforceable against the Operator pursuant to the City code, including but not limited to code provisions on enforcement and penalties for Memoranda of Understanding for oil and gas wells pursuant to Chapter 17-54 of the Broomfield Municipal Code, as that chapter is amended from time to time. The BMPs shall apply to all New Wells and Refiled Wells drilled by the Operator on the Well Sites, while this Agreement is effective. For the purposes of this Agreement, a New Well shall include the re-entry of a previously plugged and abandoned well.

4. City Regulatory Approvals.

- a. The Operator shall not be required to obtain from the City Council any use by special review approvals or approval under the then existing Oil and Gas Regulations in the Broomfield Municipal Code for any wells subject to the terms and conditions of this Agreement, including any Approved/Pending Wells or any New Wells and/or Refiled Wells on the Well Sites, as long as the Operator complies with the terms and conditions contained herein, and this Agreement shall control all oil and gas operations conducted by the Operator on the Well Sites during the Term of this Agreement.
- b. The City shall issue administrative approvals, by the City Manager or his designee, for such operations, including for Approved/Pending Wells, New



Wells and/or Refiled Wells on the Well Sites, as applicable, following the procedures set forth in this Agreement, if such wells comply with the requirements of Appendices A and B to this Agreement, except that the requirements of Appendix A paragraphs 3, 4, 5, and 6 shall not apply to Approved/Pending Wells or Refiled Wells on the Well Sites.

- c. At the later of the submission of a COGCC Form 2 and/or Form 2A to the COGCC or the Effective Date of this Agreement, the Operator shall meet with the City to review the proposed oil and gas operations to ensure compliance with this Agreement, all applicable state and federal regulations, and any site-specific concerns, which concerns may include overall project impacts and economically and technically feasible mitigation measures or BMPs related to field design and infrastructure construction to minimize potential adverse impacts to public health, safety, welfare and the environment.
- d. The City shall review and approve all amendments to any the submittals required in Appendix B, if such submittals meet the requirements of this Agreement.

5. Operations on Existing Facilities. For any Facility owned by the Operator and existing prior to the Effective Date and located within the City limits, the Parties hereby agree that the Operator may perform routine maintenance operations on said Facility and perform such operations the Operator deems prudent and necessary, including, but not limited to, stimulating existing wells through hydraulic fracturing and temporarily storing chemicals on existing well pads for that purpose. The Operator agrees to



conduct such operations as a prudent operator in accordance with the rules and regulation of the COGCC. The Operator shall also apply BMPs identified in Appendix A, except as expressly provided in that Appendix. The Operator understands and agrees that inclusion of the Brozovich MA 8-11 well pad, the Brozovich MA 8-13 well pad, and the Brozovich MA 8-14J well pad under the terms and conditions of this Agreement is subject to a separate and definitive settlement agreement being entered into among developer of the surface estate, the Operator, and the City, in a form acceptable to the City.

6. Comprehensive Gas Development Plan (CGDP). Within 90 days of its planned submittal of a permit to COGCC, the Operator agrees to submit a Comprehensive Gas Development Plan (CGDP) to the City for the area affected by its planned operations for the next ten years, to maximize planning and minimize the impacts of the planned operations. The affected area includes the Well Sites and other locations within the City where the Operator may conduct gas exploration or production activities and install supporting infrastructure (compressor stations, waste water treatment facilities, roads, pipelines, etc.) for a period of ten years. Operator is encouraged to coordinate with other operators whose geographic planning units overlap to develop integrated plans to improve use of existing and new infrastructure, to share or co-locate infrastructure, and to minimize cumulative impacts. The Operator is not obligated to develop all the pads, wells or supporting infrastructure identified in the CGDP. The Operator agrees to discuss any concerns of the City with regard to the CGDP and address all commercially reasonable issues requested by the City. The Operator is encouraged to utilize



COGCC Rules 216 and 513 as appropriate. The Operator is encouraged to utilize the following planning principles in the plan:

- a) Use multi-well, clustered drilling pads to minimize surface disturbance;
- b) Comply with location restrictions, setbacks and other environmental requirements of State and local law and regulations and this Agreement;
- c) Avoid, minimize and mitigate impact on sensitive resources;
- d) Preferentially locate operations on disturbed, open lands or lands zoned for industrial activity;
- e) Co-locate linear infrastructure with existing roads, pipelines and power lines;
- f) Consider impacts from other gas development projects and land use conversion activities and plan to minimize cumulative surface impacts; and
- g) Minimize fragmentation of intact open space.
- h) Additional planning elements include:
 - 1) Identification of travel routes;
 - 2) Sequence of well drilling over the lifetime of the plan that places commercially reasonable priority on locating the first well pads in areas removed from sensitive natural resource values; and
 - 3) Consistency with local zoning ordinances and comprehensive planning elements.

7. Force Majeure. Neither Party will be liable for any delay or failure in performing under this Agreement in the event, and to the extent, that the delay or failure arises out of causes beyond a Party's control, despite a Party's commercially reasonable efforts to



fulfill its obligations under this Agreement. For purposes of this paragraph, the requirement that a Party exercise commercially reasonable efforts to fulfill its obligations includes using commercially reasonable efforts to anticipate any potential Force Majeure and commercially reasonable efforts to address the effects of any Force Majeure as it is occurring and following the potential Force Majeure, such that delay and any adverse effects of the delay are minimized to the greatest extent possible. For purposes of this Agreement, a "Force Majeure" does not include the financial inability, for any reason, to perform an obligation. A Party who asserts a claim of Force Majeure shall take all commercially reasonable measures to minimize the effects of such Force Majeure occurrence upon the Party's obligations under this Agreement. If any event occurs or has occurred that may cause a delay or failure in performance of an obligation under this Agreement for which a Party intends to assert a claim of Force Majeure, such Party shall give timely (within seven (7) days) and reasonably detailed written notice and explanation to the other party of the Force Majeure event.

8. Future Regulations. The City reserves the right in the future to enact and apply prospectively oil and gas regulations that are general in nature and are applicable to all similarly situated oil and gas activities subject to land use regulation by the City, even though such regulations may be more or less stringent than the standards applicable to the Well Sites by virtue of this Agreement.

9. Reservation of Rights on Impact Fees. Nothing in this Agreement affects the ability of the City to in the future impose a transportation impact fee on the Operator, as applicable to similar operations within the City. Nothing in this Agreement affects the ability of the Operator to otherwise challenge such impact fees.



10. Agreement Limited to Well Sites. This Agreement applies only to operations at the Well Sites and to New Wells drilled at the Well Sites during the Term of this Agreement and does not apply to any operations at locations other than the Well Sites.
11. Responsibility for Operations. Operator is solely responsible for its operations and nothing in this Agreement places any operational or other related responsibilities on the City.
12. Authority to Execute Agreement. Each Party represents that the undersigned have the full right and authority to enter into this Agreement and bind the Parties to the terms and conditions contained herein. This Agreement may be amended only by an instrument executed by both Parties hereto.
13. Successors and Assigns. The terms and conditions of this Agreement shall bind and extend to the City and the Operator, and the Operator's successors and assigns, and the Operator shall require any successor and assign, by written agreement, to adhere to all terms and conditions of this Agreement, and to expressly assume the defense and indemnity obligations to the City as set forth herein in a document acceptable in form to the City. Such assignment shall not relieve the assignee of any obligations that accrue during the period of operation of the assignee or otherwise arising out of the actions or inactions of the assignee during its period of operation. The Operator expressly agrees that this paragraph shall be a condition of the COGCC permit, and that failure to comply with this paragraph shall entitle the City and COGCC to revoke the permits for which ownership was assigned under this section 13.
14. No Third Party Beneficiaries. Except for the rights of enforcement by the Commission with respect to the BMPs and as set forth in section 13 herein, this



Agreement is not intended to, and does not create, any right, benefit, responsibility or obligation that may be enforced by any non-party. Additionally, nothing in the Agreement shall entitle any third party to any claims, rights or remedies of any kind.

15. Notices. All notices and other correspondence related to this Agreement shall be in writing and shall be delivered by: (i) certified mail with return receipt, or (ii) hand delivery with signature or delivery receipt provided by a third party courier service (such as FedEx, UPS, etc.) to the designated representative of the Party as indicated below. A Party may change its designated representative for notice purposes at any time by written notice to the other Party. The initial representatives of the Parties are as follows:

City: City & County of Broomfield
One DesCombes Drive
Broomfield, CO 80020
Attn: City & County Manager
Telephone: 303-438-6300

Operator: Sovereign Operating Company, LLC
475 17TH St., Suite 1200
DENVER, CO, 80202
Attn: Thomas S. Metzger
Telephone: (303) 297-0347

16. Default; Remedies. If either party believes that the other Party has failed to comply with any provision of this Agreement, or if any other kind of dispute arises under any provision of this Agreement that cannot be resolved by good faith negotiation between the Parties, the Party claiming that a breach of this Agreement has occurred or seeking resolution of any other dispute under this Agreement shall send written notice to the other Party, specifying its position in the matter and invoking the dispute resolution process in this section. Within fifteen (15) days of the date of delivery of such notice, the Parties shall meet to resolve the matter described in the notice. If either Party believes that mediation would be advantageous in connection with such meeting,



or if a resolution of the matter cannot be achieved at the meeting, both parties agree to make a reasonable effort to work through and with a mutually acceptable mediator to attempt to resolve the dispute. Notwithstanding the foregoing, if either Party believes that the dispute will not otherwise be resolved in a sufficiently prompt and effective manner, such Party may, at its discretion, take such legal action and seek such legal or equitable remedies as it determines to be appropriate or necessary to protect and enforce its rights under this Agreement. Such remedies may include, without limitation, an injunction to stop an alleged violation or an order requiring the performance of all acts and things required to be performed hereunder by the other Party, or other remedies permitted under law or this Agreement.

17. Defense and Indemnity. Operator agrees to defend and indemnify the City, its employees, boards, agents and councilmembers (collectively "City Entities") from and against all claims and liability against the City Entities arising out of or related to the operations of the Operator at the Well Sites and any action or inaction of the Operator at or in connection with the Well Sites, including but not limited to claims for bodily injury, death, property or other damage, remediation or other costs, or claims under any local, state or federal environmental law. As used in this paragraph, the term "claim" means a claim filed in any judicial forum, any administrative proceeding and any administrative order. This defense and indemnity does not apply to a claim or liability that arises from the sole active negligence of the City Entities. The obligations of this paragraph shall survive the termination of this Agreement.



18. Integration Clause. This Agreement, along with all exhibits and appendices attached hereto encompasses the entire agreement of the Parties and supersedes all previous understandings and agreements between the Parties, whether oral or written.

19. Governing Law/Enforceability. This Agreement shall be governed and construed in accordance with the laws of the State of Colorado without reference to its conflicts of law's provisions.

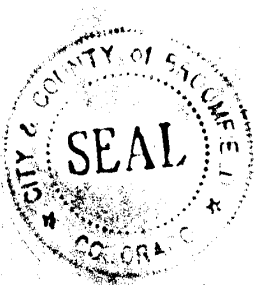
The Parties understand and agree that the enforcement provisions of Chapter 17-54, as amended, of the Broomfield Municipal Code shall apply to this Agreement.

20. Recording. This Agreement may be recorded by the City with the Clerk and Recorder of the City and County of Broomfield.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by a duly authorized representative on the day and year first written above.

THE CITY:

THE CITY AND COUNTY OF BROOMFIELD,
COLORADO,
a Colorado Municipal Corporation and County



ATTEST:

Tricia Hegeneis
City & County Clerk, Deputy


Mayor

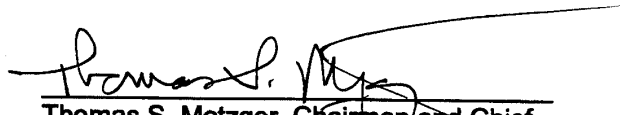
APPROVED AS TO FORM:

Bonnie Cell
City & County Attorney, Deputy



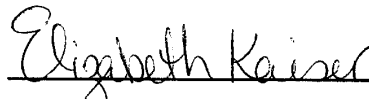
THE OPERATOR:

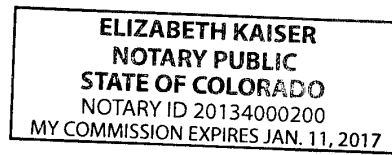
SOVEREIGN OPERATING COMPANY, LLC


Thomas S. Metzger, Chairman and Chief
Operating Officer

State of Colorado)
County of Denver) ss.

The foregoing instrument was acknowledged before me this 26 day of August, 2013 by Thomas S. Metzger, Chairman and Chief Operating Officer of Sovereign Operating Company, LLC.


Notary Public



My Commission expires: Jan. 11, 2017

(Seal)



List of Exhibits

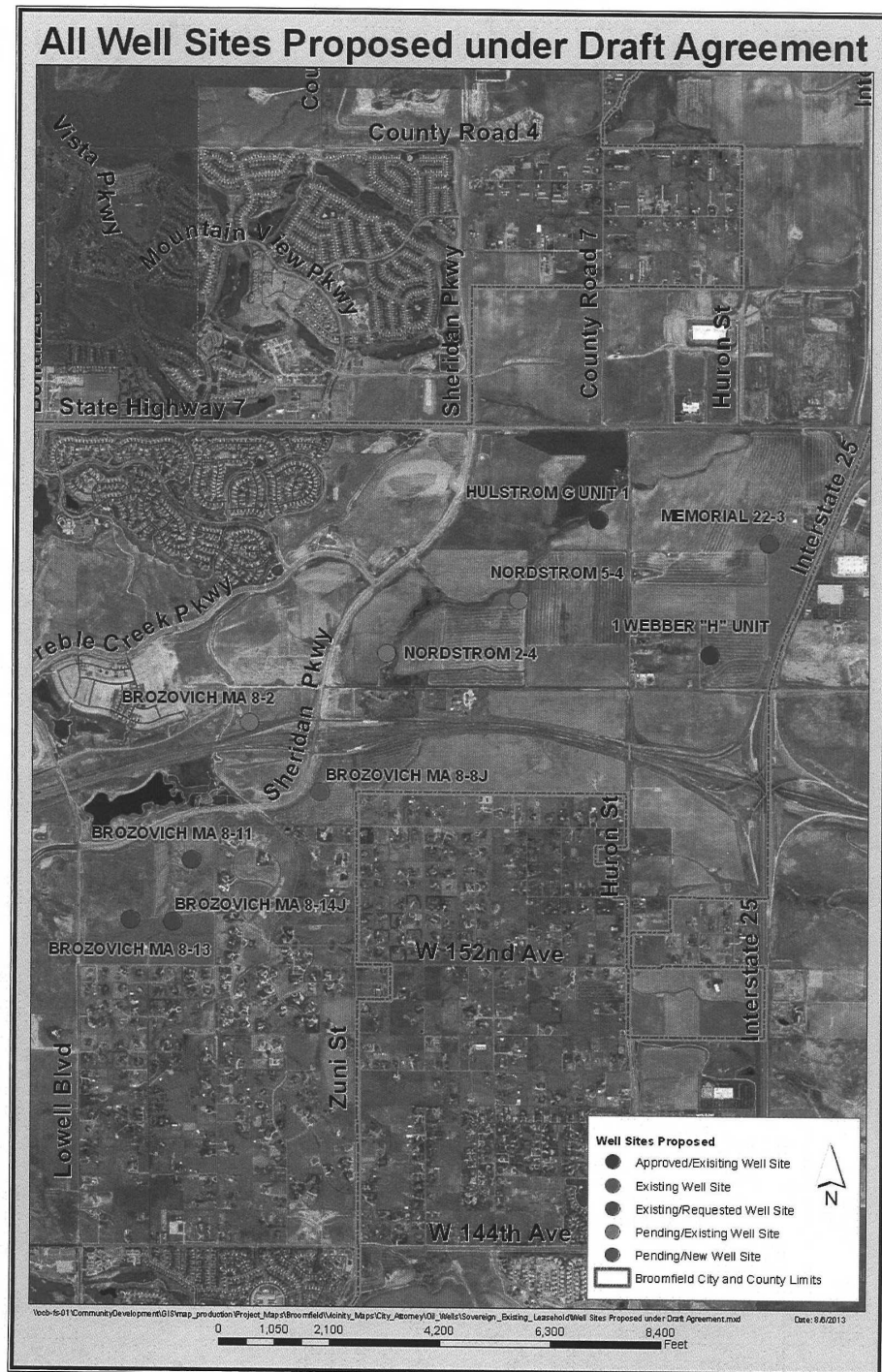
Exhibit A - Map of the Well Sites

Appendix A – List of BMPs

Appendix B – Submittal Requirements



EXHIBIT A





APPENDIX A

BEST MANAGEMENT PRACTICES FOR WELL SITES AND NEW WELLS AT WELL SITES

Pursuant to the terms of this Agreement, the Operator shall include as Conditions of Approval all or a portion of, as determined by the City, the best management practices listed below and the plans submitted in accordance with the Agreement in Appendix B on all Applications for Permit-to-Drill, Form 2, and Oil and Gas Location Assessments, Form 2A, submitted to the Commission for New Wells and all wells approved by the City as set forth in the Pending Applications that the Operator drills after the Effective Date on the Well Sites and for all New Wells at the Well Sites already permitted by adding the BMPs to the approved Drilling Permit Form 2 or to an approved Location Assessment Form 2A. The best management practices in this Appendix A and the related plans as required in Appendix B shall also be a condition of the special review approval to be issued by the City for wells associated with the Pending Applications. Additionally, paragraphs 3, 4, 5, and 6 below shall apply to New Wells on the Well Sites within the City, but shall not apply to Refiled Wells, Existing Wells or the Approved/Pending Wells.

1. *Regulations.* The Operator shall comply with all applicable state, and federal regulations in addition to the terms of this Agreement and the Best Management Practices listed below. Any exploration or drilling activity conducted by the Operator must comply with the revised rules adopted by the COGCC on January 9, 2013, even though such rules will not officially take effect until August 1, 2013, and as may be amended thereafter. Whichever regulation or Best Management Practice is most stringent shall apply. The City agrees that it will



not impose any fine on the Operator for violation of a local regulation if the activity or condition that created the violation is also subject to regulation by the COGCC, and if the violation results in the actual imposition of a fine by the COGCC on the Operator.

2. *Setbacks for New Wells.* It is the intent of the Operator to maximize equipment and wellhead setbacks from occupied buildings and residences beyond the setbacks required by the COGCC to the extent commercially feasible and practicable. The Parties acknowledge that the COGCC rules require a minimum of five hundred (500) feet safety setback for New Well construction from a Building Unit and one thousand feet (1,000) from a High Occupancy Building.

Any New Wells drilled, shall conform to the COGCC setback rules as established effective August 1, 2013, and as such rules may be amended thereafter. Notwithstanding the previous sentence, Operator shall provide (a) that the center of the wellhead for a New Well on the Well Sites, shall not be located closer than 1,000 feet from a Building Unit and/or High Occupancy Building (as such terms are defined by the COGCC) existing upon the Effective Date of this Agreement ("Setback Requirement"), and (b) that the associated pumping units, tanks, treaters and processing equipment shall not be located closer than 1,000 feet from a Building Unit and/or High Occupancy Building existing upon the Effective Date of this Agreement. The City Manager may grant a ten (10) percent variance to the Setback Requirement, if the Operator demonstrates such variance will allow for the effective consolidation of facilities to minimize surface impact and/or that there is no technology commercially available at a reasonable cost to



conduct the proposed oil and gas operations in compliance with the provision and granting a variance from the operation of the provision will not have an adverse effect on the public health, safety or welfare or on the environment.

3. *Conceptual Review.* No less than thirty (30) days prior to the submission of an Application for a Permit to Drill, the Operator agrees to schedule a meeting with the City to review the proposed new well or drilling activity; provided, however, in no event will compliance with this Section 3 delay the submission of the Application for a Permit to Drill more than 30 days after the Company has notified the City. The goal of this meeting shall be for staff and the Operator to review the proposed oil and gas operation in a manner that ensures compliance with the operator agreement and applicable state and federal regulations. This pre-submittal meeting shall also allow the Operator and staff the opportunity to explore, to the extent commercially reasonable, site-specific concerns, discuss project impacts and potential mitigation methods including field design and infrastructure construction to minimize impacts, to discuss coordination of field design with other existing or potential development and operators, to identify sampling and monitoring plans for air and water quality, and other elements of the operator agreement as contained in Appendices A and B. Based upon the foregoing, Operator is encouraged to conduct the pre-submittal meeting with the City prior to completing well siting decisions, to the extent reasonably feasible.
4. *Mailed Notice.* The City shall mail notice of the pending Application for a Permit to Drill no more than ten (10) days after the conceptual review meeting has taken place. Owners of record shall be ascertained by the City according to the



records of the Broomfield Assessor's Office, unless more current information is made available in writing to the City prior to the mailing of the notices. Notice of the pending application shall include reference to the neighborhood meeting, if applicable, and be made as follows:

- To the surface owners of the parcels of land on which the oil and gas operation is proposed to be located;
- To the surface owners of the parcels of land within five hundred (500) feet of a proposed gathering line;
- To the surface owners of the parcels of land within two thousand six hundred forty (2,640) feet of the parcel on which the oil and gas operation is proposed to be located; and
- To persons registered in writing with the City as representing bona fide neighborhood groups and organizations and homeowners' associations within the area of notification.

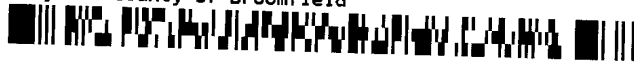
5. *Posted Notice.* The real property proposed to be developed shall also be posted with a sign, giving notice to the general public of the proposed development. For parcels of land exceeding ten (10) acres in size, two (2) signs shall be posted. The size of the sign(s) required to be posted shall be as established in the Supplemental Notice Requirements of Chapter 17-52 of the City's Land Use Code. Such signs shall be provided by the City and shall be posted on the subject property in a manner and at a location or locations reasonably calculated by the City to afford the best notice to the public, which posting shall occur within ten (10) days following the Conceptual Review meeting.



6. *Neighborhood Meetings.* A neighborhood meeting shall be required before application to the COGCC for any New Well on the Well Sites, other than those wells associated with the Webber H Unit 1 Pad, Hulstrom G Unit 1 Pad or the Pending Applications on existing Well Pads, that requires an Application for a Permit to Drill. Notice of the neighborhood meeting shall be provided in accordance with Sections 3, 4 and 5 above. The Operator shall attend the neighborhood meeting. The City shall be responsible for scheduling and coordinating the neighborhood meeting and, to the extent possible, shall hold the meeting in the vicinity of the proposed development. A written summary of the neighborhood meeting shall be prepared by the City. The written summary shall be included in the Local Government Designee (LGD) comments provided to the COGCC at the time of the public hearing or permit review to consider the Application for a Permit to Drill; provided however, as long as the Application for a Permit to Drill complies with the requirements of this Agreement, the summary may not include any matters not within the scope of this Agreement.
7. *Notification to the City and the public regarding commencement of operations.* No less than thirty (30) days in advance of commencement of any new drilling or associated earth disturbance operations, the Operator shall provide to the City Manager for posting on the website the information outlined in Appendix B regarding commencement of operations, which the Operator may revise from time-to-time during operations, with prior approval from the City.



8. *Inspections.* The City shall have the right to enter the Drill Sites and inspect the Operator's onsite operations and its sites during business hours, upon the giving of forty eight (48) hour advance written notice to the Operator. Such notice shall identify the person who will conduct the inspection, which person must be qualified and experienced in oil and gas operations. Such inspections shall be at the sole costs and risk of the City and the persons conducting the inspection, and the City will hold Operator harmless from any claims for injury, death or loss or damage of property arising from or in connection with such inspections to the extent that such claims for injury, death or loss or damage of property are caused solely by the City or its agents. The City may use the information collected on the inspections to enforce this Agreement or other City requirements. The City may also report this information to appropriate state officials, including but not limited to information regarding violations of State rules. City hereby acknowledges that nothing herein shall grant the City authority to assess fees for the inspection of the operations conducted by Operator hereunder. City inspections conducted outside the fence line of the property may be conducted at any time and without notice.
9. *Containment berms.* The Operator shall utilize steel-rim berms around tanks and separators at the Well Sites with sufficient capacity to contain 1.5 times the volume of the largest tank enclosed by the berm plus sufficient freeboard to prevent overflow. All berms and containment devices shall be inspected by the Operator at regular intervals and maintained in good condition. No potential ignition sources shall be installed inside the secondary containment area unless



the containment area encloses a fired vessel. For purposes of this paragraph, "regular intervals" shall mean daily, unless remote sensing equipment approved by the City is utilized.

- a) Containment berms shall be constructed of steel rings, designed and installed to prevent leakage and resist degradation from erosion or routine operation.
 - b) Secondary containment for tanks shall be constructed with a synthetic or engineered liner that contains all primary containment vessels and is mechanically connected to the steel ring to prevent leakage.
10. *Closed Loop Pitless Systems for the Containment and/or Recycling of Drilling Fluids.* Wells shall be drilled, using closed loop pitless systems for containment and/or recycling of all drilling, fluids. Flowback and produced water shall be recycled to the maximum extent practicable. Such recycling shall occur on the pad site of generation if commercially practicable and agreed to by surface owner. If the Operator does not plan to recycle all or a portion of the flowback and/or produced water the Operator shall submit documentation to the City demonstrating that such recycling is not commercially practicable.
11. *Anchoring.* All New Well equipment at drilling and production sites shall be anchored to the extent necessary to resist flotation, collapse, lateral movement, or subsidence. All guy line anchors left buried for future use shall be identified by a marker of bright color not less than four (4) feet in height and not greater than one (1) foot east of the guy line anchor.
12. *Burning.* No open burning shall occur on the site of any oil and gas operation.



13. *Chains.* Traction chains from heavy equipment shall be removed before entering a City street.
14. *Chemical disclosure and storage.* Prior to the bringing of such chemicals onto the property, the Operator shall provide to the City, in table format, the name, Chemical Abstracts Service (CAS) number, volume, storage, containment and disposal method for all drilling and completion chemicals (solids, fluids, and gases) (including but not limited to chemicals used for fracturing) to be used on the Well Pad, which the City may make available to the public as public records. Fracture chemicals shall be uploaded onto the Frac Focus website within sixty days of the completion of fracturing operations. The Operator shall not permanently store hydraulic fracturing chemicals, flowback from hydraulic fracturing, or produced water in the City limits. The Operator shall remove hydraulic fracturing chemicals, and flowback from hydraulic fracturing, within 60 days of completion of fracturing operations.
15. *Color.* Facilities shall be painted in a uniform, non-contrasting, non-reflective color, to blend with the surrounding landscape and, with colors that match the land rather than the sky. The color should be slightly darker than the surrounding landscape. This paragraph shall also apply to existing wells when such wells are repainted for general maintenance purposes.
16. *Cultural and Historical Resource Protection.* If a significant surface or sub-surface archaeological site is discovered during construction, the Operator shall be responsible for immediately contacting the City to report the discovery. If any



disturbance of the resource occurs, the Operator shall be responsible for mitigating the disturbance to the cultural or historical property through a data recovery plan approved by the City.

17. *Discharge valves.* Open-ended discharge valves on all storage tanks, pipelines and other containers shall be secured where the operation site is unattended or is accessible to the general public. Open-ended discharge valves shall be placed within the interior of the tank secondary containment. As used in this paragraph, the term “secured” means locked or otherwise secured such that the public cannot operate the valve. If practicable, such valves shall contain remote alarms to alert the operator that a valve has been opened.
18. *Fugitive Dust suppression.* Dust associated with on-site activities and traffic on access roads shall be minimized throughout construction, drilling and operational activities such that there are no visible dust emissions from access roads or the site to the extent practical given wind conditions. No untreated produced water or other process fluids shall be used for dust suppression. The Operator will avoid dust suppression activities within three hundred (300) feet of the ordinary high water mark of any waterbody, unless the dust suppressant is water. Safety Data Sheets (SDS) for any chemical based dust suppressant shall be submitted to the City prior to use.
19. *Electric equipment.* The Operator shall take all reasonable efforts to use electric-powered engines for motors, compressors, and drilling and production equipment and for pumping systems in order to mitigate noise and to



reduce emissions, unless the Operator demonstrates to the City that the use of such equipment in a particular situation is not economically feasible or practical. If electricity from the grid is not available, the Operator shall use propane or natural gas to power pumps and motors, if feasible.

20. *Emergency preparedness plan.* The Operator is required to develop an emergency preparedness plan for each specific facility site, which is in compliance with the applicable fire code. The plan shall be filed with the City and the North Metro Fire Rescue District and updated on an annual basis or as conditions change (responsible field personnel change, ownership changes, etc.). The emergency preparedness plan shall consist of at least the following information:

- a) Name, address and phone number, including twenty-four (24)-hour emergency numbers for at least two persons responsible for emergency field operations.
- b) An as-built facilities map in a format suitable for input into the City's GIS system depicting the locations and type of above and below ground facilities including sizes, and depths below grade of all oil and gas flow lines and associated equipment, isolation valves, surface operations and their functions, as well as transportation routes to and from exploration and development sites, for emergency response and management purposes. The information concerning flow lines and isolation valves shall be held confidentially by the City and shall only be disclosed in the event of an emergency or to emergency responders. The City shall deny the right of



inspection of the as-built facilities maps to the public or for the training of emergency responders pursuant to C.R.S. § 24-72-204.

- c) Detailed information addressing each reasonable potential emergency that may be associated with the operation. This may include any or all of the following: explosions, fires, gas, oil or water pipeline leaks or ruptures, hydrogen sulfide or other toxic gas emissions, or hazardous material vehicle accidents or spills. A provision that any spill outside of the containment area, that has the potential to leave the facility or to threaten waters of the state, or as required by the City-approved Emergency Preparedness Plan shall be reported to the local emergency dispatch and the COGCC Director in accordance with COGCC regulations.
- d) Detailed information identifying access or evacuation routes, and health care facilities anticipated to be used.
- e) A project specific emergency preparedness plan for any project that involves drilling or penetrating through known zones of hydrogen sulfide gas.
- f) A statement and detailed information indicating that the Operator has adequate personnel, supplies, and training to implement the emergency response plan immediately at all times during construction and operations.
- g) The Operator shall have current Safety Data Sheets (SDS) for all chemicals used or stored on a site. The SDS sheets shall be provided immediately upon request to City officials, a public safety officer, or a health professional as required by COGCC Rule 205.
- h) The plan shall include a provision establishing a process by which the



Operator notifies the surrounding neighbors to inform them about the on-site operations and provides sufficient contact information for surrounding neighbors to communicate with the Operator.

- i) All training associated with the Emergency Preparedness plan shall be coordinated with the City and the North Metro Fire Rescue District.
 - j) A provision obligating the Operator to reimburse the appropriate emergency agencies for their expenses resulting from the Operator's operations, to the extent required by Colorado State Statutes.
21. *Air quality.* The following apply at the Well Sites, including New and Pending Applications wells and equipment at the Well Sites, except as noted.
- a) Compliance with state and federal law, as amended over time.
 - 1) Operator shall comply with emissions regulations promulgated by the Colorado Department of Public Health and Environment (CDPHE), Air Pollution Control Division (APCD), COGCC and U.S. EPA.
 - 2) Air emissions from wells and associated production equipment shall be in compliance with the permit and control provisions of the Colorado Air Quality Control Program, Title 25, Section 7, C.R.S., COGCC Rule 805, and all applicable state, local and federal regulations.
 - 3) The Operator must comply with 40 CFR Subpart OOOO as published on August 16, 2012 (Quad O) or revised.
 - b) General Duty to Minimize Emissions. The Operator shall incorporate in the development plan: operations, procedures, and field design features that



minimize air pollutant emissions including but not limited to:

- 1) Consolidation of product treatment and storage facilities;
 - 2) Centralization of compression facilities;
 - 3) Liquids gathering and water delivery systems;
 - 4) Systems, designs and equipment to minimize or if feasible, eliminate, venting during maintenance activities; and
 - 5) Telemetric control and monitoring systems;
- c) Capture of Gas. During normal operations, all continuously operated equipment, including but not limited to, storage vessels and tanks, separators, pneumatic pumps, dehydrators, and compressors, shall route all natural gas and VOC vapors to a capture or control device with at least a 98% VOC destruction or control design efficiency. Operators shall submit manufacture test or other data demonstrating a 98% VOC destruction or control design efficiency and Operator shall operate such equipment in accordance with manufacturer's specifications. "Normal Operations" means all periods of operation, excluding malfunction. For storage tanks, normal operation includes but is not limited to liquid dumps from the separator or wellhead. A "malfunction" is defined as any sudden and unavoidable failure of air pollution control equipment or process equipment or unintended failure of a process to operate in a normal or usual manner. Failures that are primarily caused by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered to be malfunctions.



- d) Plunger Lifts and Well Maintenance. Operator shall use plunger lifts with well automation controls or other similar technology to minimize and control emissions. If manual well blowdowns are utilized, (a) the Operator shall be present during all manual blowdowns and minimize the venting of gas and (b) to the extent feasible, the operator shall flare the vapors associated with such maintenance activities. If a flare meeting the requirements of paragraph 21 (g) cannot be utilized for this purpose, a temporary flare with a lower efficiency may be utilized for vapors associated with well maintenance activities, notwithstanding paragraph 21 (g)..
- e) Well, Tank and Pipeline Maintenance. Operator shall employ technologies and practices in the design, construction, operation and maintenance of wells, tanks and pipelines that minimize, or if feasible, eliminate, emissions and spills during maintenance of wells, tanks and pipelines, including the use of equipment to capture vapors and liquids. If any maintenance activity will involve the intentional venting of gas from a well, tank or pipeline, the Operator shall provide twenty four (24) hour advance written notice to the City of such proposed venting. Such notice shall identify the duration and nature of the venting event, a description as to why venting will be necessary, a description of the vapors that will be vented, and a description of the steps to be taken to ensure the duration and extent is minimized, to best extent practicable. If emergency venting is required, the Operator shall provide such notice to the City of such event as soon as possible, but in no event longer than 24 hours from the time of the event.



- f) No Bleed Pneumatic Controllers. Operator shall use no bleed pneumatic controllers.
- g) Flaring of Gas. Where flaring is allowed, flaring shall be conducted in the following manner:
- 1) The flare unit shall be fired with natural gas and designed to operate with a ninety eight (98) percent or higher VOC destruction efficiency;
 - 2) The flare unit shall be designed and operated in a manner that shall ensure no visible emissions, pursuant to the provisions of 40 CFR 60.18(f), except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours. Where applicable, flares shall also be in compliance with 5 CCR 1001-9 Regulation 7 Section XVIIB for non-condensate oil;
 - 3) The flare unit shall be operated with a flame present at all times when emissions may be vented to it, pursuant to the methods specified in 40 CFR 60.18(f); and
 - 4) An automatic pilot system or continuous ignition system shall be used.
In addition Operator may elect to use a telemetry alarm system or an on-site visible indicator showing proper function.
- h) Leak Detection and Repair ("LDAR"): The Operator shall develop and maintain a LDAR program that is comparable to EPA Method 21 for equipment used in permanent operations. LDAR shall be performed on newly installed equipment, and then on a quarterly basis. If a FLIR camera is used for this purpose, on an annual basis, the Operator shall notify the City



prior to FLIR camera use in case the City wishes to observe the method. Detailed recordkeeping of the inspections for leaky equipment, including: the date and time of inspections; identification of components for which leaks are detected and repaired; and justification for lack of repair for any components for which repairs were not done. If an IR camera or FLIR is used, operators must retain an infrared image or video of all leaking components before and after repair. Such records must be maintained for five years and must be made available to the City upon request. The Operator shall submit a proposed LDAR program to the City for review and approval within 60 days of the Effective Date.

i) Ambient Air Sampling Program. The Operator agrees to fund and cooperate with an ambient air sampling program to be completed by the City, at its discretion, as follows:

- 1) One-time Baseline Sampling Program to be completed prior to additional drilling. Operator shall provide \$5000 towards this sampling program per well pad;
- 2) One-time air sampling during drilling operations. Operator shall provide \$1000 towards this sampling at a rate of one program per well pad;
- 3) Ongoing Air Quality Monitoring. Operator shall provide \$1000 towards this sampling program per well pad per year. The City may use these funds for sampling within its discretion;



- 4) Access and Cooperation. Operator shall provide access to the City or its contractors to permit air sampling to occur;
 - 5) Additional Air Sampling. If ambient air testing indicates that the drill sites are causing an unacceptable risk to air quality, then the operator shall conduct additional testing and analysis to identify the source of the emissions and the appropriate remedial steps to address those emissions. Such sampling frequency and analysis shall be based on the risks associated with the type and concentration of the contaminants identified; and
 - 6) Emergency Response Sampling. The City may require the Operator to conduct additional air monitoring as needed to respond to emergency events such as spill, process upsets, or accidental releases or in response to odor complaints in City limits.
- j) Air Quality Action Days. The Operator shall respond to air quality Action Day advisories posted by the Colorado Department of Public Health and Environment for the Front Range Area by implementing suggested air emission reduction measures as feasible. Emission reduction measures shall be implemented for the duration of an air quality Action Day advisory and may include measures such as:
- 1) Minimize vehicle and engine idling;
 - 2) Reduce truck traffic and worker traffic;
 - 3) Delay vehicle refueling;



4) Suspend or delay use of fossil fuel powered ancillary equipment;
and

5) Postpone construction activities, if feasible.

k) Technical Impracticability Variance. If achieving a requirement of this section 21 is not technically practicable, the Operator may seek a variance of the requirement from the City, provided that the requirement is not otherwise required by state or federal law. The City Manager may in its discretion issue a variance for the requirement if it determines that the requirement is not technically practicable given the specific facts applicable to the operations at a particular Well Site.

l) Certification of Compliance. The Operator must submit annual reports to the City certifying (a) compliance with these air quality requirements and documenting any periods of non-compliance, including the date and duration of each deviation and a compliance plan and schedule to achieve compliance (b) that the equipment at the Well Sites continues to operate within its design parameters, and if not, what steps will be taken to modify the equipment to enable the equipment to operate within its design parameters. The annual report must contain a certification as to the truth, accuracy and completeness of the reports, by a responsible corporate official. The annual report may be a facsimile of the annual report(s) the Operator submits to the CDPHE to the extent that such report meets the substantive reporting requirements of this Agreement.



22. *Green completions.*

- a) Gas gathering lines, separators, and sand traps capable of supporting green completions as described in COGCC Rule 805 shall be installed per the provisions of COGCC Rule 805.
- b) Operator shall comply with 40 CFR 60.5375(a)(1), (2) for green completions.
- c) Venting is prohibited, except as required for safety to avoid explosion or fire.
- d) Temporary flowback flaring and oxidizing equipment shall include the following:
 - 1) Adequately sized equipment to handle 1.5 times the largest flowback volume of gas from a vertical/directional and/or horizontally completed well respectively as reported to the COGCC in a ten mile radius;
 - 2) Valves and porting available to divert gas to flaring and oxidizing equipment; pursuant to the above Rules 40 CFR 60.5375 & COGCC Rule 805;
 - 3) Auxiliary fueled with sufficient supply and heat to combust or oxidize non-combustible gases in order to control odors and hazardous gases. The flowback combustion device shall be equipped with a reliable continuous ignition source over the duration of flowback, except in conditions that may result in a fire hazard or explosion; and



- 4) The Operator has a general duty to safely maximize resource recovery and minimize releases to the atmosphere during flowback and subsequent recovery/operation.
23. *Exhaust.* The exhaust from all engines, motors, coolers and other mechanized equipment shall be vented up or in a direction away from the closest existing residences.
24. *Fencing.* Permanent perimeter fencing shall be installed around production equipment unless such fencing is not required by the Visual Mitigation Plan approved by the City, and shall be secured. The main purpose of the fencing is to deter entrance by unauthorized people. The Operator shall use visually interesting fencing, when feasible, but the parties recognize that there is a need for air circulation, and for the field personnel who regularly inspect the facilities to be able to identify visual operational deficiencies when driving by. Landscaping may be used for screening. If a chain link fence is required to achieve safety requirements set by the COGCC, then landscaping and other screening mechanisms shall be required that comply with the City's Land Use Code regulations and the Operator's safety requirements.
25. *Flammable material.* All ground within twenty five (25) feet of any tank, or other structure containing flammable or combustible materials shall be kept free of dry weeds, grass or rubbish, and shall conform to COGCC 600 Series Safety Regulations and the applicable Fire Code.



26. *Floodplains.* All oil and gas operations shall comply with Chapter 17-40 of the City Municipal Code.
27. *Water Quality Monitoring Plan.* The Operator shall comply with COGCC Rule 609 and the steps identified in this paragraph that go beyond that rule. In summary, this requires pre- and post-drilling testing. The rules require oil and gas operators to sample all "Available Water Sources" with a cap of four (4) water sources, within one-half (1/2) mile radius of a proposed well, multi-well site, or dedicated injection well. Water sources include registered water wells, permitted or adjudicated springs, and certain monitoring wells. The Operator agrees to the following requirements above and beyond the COGCC requirements: follow sampling procedures and analysis as set forth in COGCC Rule 609 and sampling intervals shall include baseline (before drilling), post-drilling at one and six years. Analytical results shall be shared with the COGCC, the City, and the landowner. All spills occurring in connection with new and existing wells shall be managed in accordance with COGCC regulations.
28. *Landscaping.* All landscaping shall be in compliance with the City requirements and in compliance with the safety requirements of the Operator. Existing vegetation shall be minimally impacted. Motorized equipment shall be restricted to the Well Sites and access roads to the Well Sites. A Visual Mitigation Plan, subject to City Code, on a site specific basis shall include the type and location of all fencing and landscaping.



29. *Lighting.* Except during drilling, completion or other operational activities requiring additional lighting, down-lighting is required, meaning that all bulbs must be fully shielded to prevent light emissions above a horizontal plane drawn from the bottom of the fixture. Prior to installation of permanent lighting on any facility, the Operator agrees to submit to the City for review and approval a lighting plan to establish compliance with this provision. The lighting plan shall indicate the location of all outdoor lighting on the site and any structures, and include cut sheets (manufacturer's specifications with picture or diagram) of all proposed fixtures.
30. *Maintenance of machinery.* Routine field maintenance of vehicles or mobile machinery shall not be performed within three hundred (300) feet of any water body.
31. *Mud Tracking.* The Operator shall take all practicable measures to ensure that vehicles do not track mud or debris onto City streets. If mud or debris is nonetheless deposited on City streets, in excess of *de minimus* levels, the streets shall be cleaned immediately by the Operator. If for some reason this cannot be done, or needs to be postponed, the City shall be notified of the Operator's plan for mud removal.
32. *Noise mitigation.* Noise mitigation measures shall be constructed along any edge of any oil and gas operation site if such edge is adjacent to the oil and gas operation and existing residential development or land which is zoned for future residential development. The noise mitigation measures shall, to the maximum



extent practicable, decrease noise from the oil and gas operations to comply with the sound limitation regulations set forth in COGCC 800 Series Aesthetic and Noise Control Regulations for residential/agricultural/rural uses. A noise mitigation study shall be submitted with the application to demonstrate that noise will be decreased to the maximum extent practicable.

33. *Flow lines.* Any newly constructed or substantially modified flow lines on site shall be constructed and operated under the provisions of the COGCC 1100 Series Flow line Regulations and any applicable surface use agreements with the surface owners. Any newly constructed or substantially modified flow lines on site shall meet the following requirements:

- (a) To the maximum extent feasible, all flow lines, shall be sited a minimum of fifty (50) feet away from existing general residential, commercial, and industrial buildings, as well as the high-water mark of any surface water body. This distance shall be measured from the nearest edge of the pipeline.
- (b) To the maximum extent feasible, pipelines shall be aligned with established roads in order to minimize surface impacts and reduce habitat fragmentation and disturbance.
- (c) To the maximum extent feasible, operators shall share existing pipeline rights-of-way and consolidate new corridors for pipeline rights-of-way to minimize surface impacts.
- (d) To the maximum extent feasible, operators shall use boring technology when crossing streams, rivers, or irrigation ditches with a pipeline to minimize negative impacts to the channel, bank, and riparian areas.



34. *Recordation of flowlines.* All new flow lines shall have the legal description of the location recorded with the Clerk and Recorder of the City within thirty (30) days of completion of construction. Abandonment of any recorded flowlines shall be recorded with the Clerk and Recorder of the City within thirty (30) days after abandonment.
35. *Removal of debris.* When an oil and gas operation becomes operational, all construction-related debris shall be removed from the site for proper disposal. The site shall be maintained free of debris and excess materials at all times during operation. Materials shall not be buried or burned on-site.
36. *Removal of equipment.* All equipment used for drilling, re-completion and maintenance of the facility shall be removed from the site within thirty (30) days of completion of the work, weather conditions permitting, unless otherwise agreed to by the surface owner. Permanent storage of removable equipment on Well Pad sites shall not be allowed.
37. *Soil Gas Monitoring.* The City, at its discretion, and provided that it does not interfere with Operator's ongoing production operations, may conduct soil gas monitoring. If the City elects to conduct such testing, the City shall endeavor to complete this testing within ninety (90) days of New Well completion. The City shall notify the Operator at least forty-eight (48) hours in advance of entering the site for soil gas monitoring. The Operator agrees to contribute a one-time amount of \$5000 towards this soil gas testing. If soil gas testing indicates that contamination may impact water quality cross and down gradient resulting from the Operator's drilling operations, then the Operator shall conduct additional post-



completion testing to identify any impacts to groundwater and surface water. Sampling frequency and contaminants analyzed shall be based on the risks associated with the type and concentration of the contaminants identified and the beneficial use of the water body or groundwater, in accordance with the approved Water Quality Monitoring Plan.

38. *Spills.* The Operator shall report chemical spills and releases in accordance with applicable state and federal laws, including the Emergency Planning and Community Right To Know Act, the Comprehensive Environmental Response, Compensation and Liability Act, the Oil and Pollution Act, the Clean Water Act, the Resource Conservation and Recovery Act , as applicable and as amended over time. If a spill or release impacts or threatens to impact surface water or a water well, the Operator shall notify the affected or potentially affected owner immediately following discovery of the release, and the spill or release shall be reported to the City and to the surface water or water well owner within twenty-four (24) hours of becoming aware of the spill or release.
39. *Stormwater control plan.* All oil and gas operations shall comply and conform with the City's regulations in place at the time, including submission of an Erosion Control Report and Plan.
40. *Temporary access roads.* Temporary access roads associated with oil and gas operations shall be reclaimed and re-vegetated to the original state. Erosion should be controlled and damage to environmentally sensitive areas should be avoided.

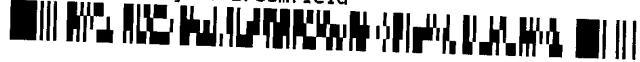


41. *Trailers.* A construction trailer is permitted as an accessory use during active drilling and well completion only.
42. *Transportation and circulation.* The Operator shall include in each application for drilling and completion operations (New Wells) detailed descriptions of all proposed access routes for equipment, water, sand, waste fluids, waste solids, mixed waste, and all other material to be hauled on the public streets and roads of the City. The submittal shall also include the estimated weights of vehicles when loaded, a description of the vehicles, including the number of wheels and axles of such vehicles, trips per day and any other information required by the Traffic Engineer. Preliminary information is required for this item for the Conceptual Review meeting, in accordance with Appendix B. The Operator shall comply with all Transportation and Circulation requirements as contained in the Land Use Code as may be reasonably required by the City's Traffic Engineer.
43. *Wastewater and Waste Management.* All fluids shall be contained and there shall be no discharge of fluids. Waste shall be stored in tanks, transported by tanker trucks and/or pipelines, and disposed of at licensed disposal or recycling sites. New secondary containment shall be constructed of steel, with sufficient perimeter and height to hold one and one-half (1.5) times the volume of the largest tank plus sufficient freeboard to prevent overflow. No potential ignition sources shall be installed inside the secondary containment area unless the containment enclosed a fired vessel. The requirements for secondary containment will meet the City's stormwater criteria. No land treatment of oil



impacted or contaminated drill cuttings are permitted. Spills on the pad must be cleaned up as soon as practicable and the waste material properly disposed of in accordance with law. In addition, the design must allow for the transfer of stormwater and other liquids that collect on the pad to storage tanks on the pad or to trucks that can safely transport the liquid for proper disposal. The collection of stormwater and other liquids may cease only when all potential pollutants have been removed from the pad and appropriate, approved stormwater management can be implemented. The use of a closed loop drilling system precludes discharge of produced water or flowback to the ground or the use of pits. Produced water or flowback will not be used for dust suppression and the water used shall be reuse water meeting the City's non-potable, reuse water standards. A copy of the Operator's Spill Prevention, Control, and Countermeasure Plan (SPCC) will be given to the City, which describes spill prevention and mitigation practices. The Operator will provide the City documentation of waste disposal and its final disposition.

44. *Water supply.* The Operator agrees to comply with applicable State of Colorado, Department of Natural Resources and other applicable State regulations concerning the source of water used in drilling and completion operations. The Operator shall identify in the site plan its source for water used in both the drilling and production phases of operations. The sources and amount of water used in the City shall be documented and this record shall be provided to the City annually or sooner, if requested by the City Manager. The disposal of water used on site shall also be detailed including anticipated haul routes,



approximate number of vehicles needed to supply and dispose of water and the final destination for water used in operation.

45. *Weed control.* The Operator shall be responsible for ongoing weed control at oil and gas operations, flow lines, and along access roads during construction and operation, until abandonment and final reclamation is completed per City or other applicable agency regulations.
46. *Plugged and Abandoned Wells.* In the event, Operator drills horizontal wells, then it shall comply with the COGCC DJ Basin Horizontal Offset Policy, dated June 20, 2013 (and as amended from time to time). In addition, the Operator shall identify any plugged and abandoned wells located within 1500 feet of the bottom hole location of any well on the Well Sites, and assess such plugged and abandoned wells for risk, taking into account cementing practices reported in the plugged and abandoned reports. Operator shall notify the City and COGCC of all results of all risk assessment of plugging procedures.
47. *Insurance.* The Operator shall, with respect to the initial drilling and completion of a New Well, provide liability insurance that covers pollution, cleanup and general liability in the amount of \$1,000,000 per occurrence and \$2,000,000 in the aggregate, and in addition shall provide general liability umbrella coverage in the amount of \$5,000,000. Following completion, the Operator shall provide ongoing pollution, cleanup and general liability coverage in the amount of \$1,000,000 per occurrence and \$2,000,000 in the aggregate, and general liability umbrella coverage in the amount of \$5,000,000. The Operator shall identify the



City as an additional insured under these policies. Upon request, Operator shall provide certificates from the insurance company demonstrating its compliance with this paragraph.

48. *Gas STAR Program.* Operator agrees to participate in good faith in the Natural Gas STAR program, to encourage innovation in pollution controls at drill sites.
49. *General Maintenance.* Operator shall operate and maintain all equipment pursuant to manufacturer specifications consistent with technological limitations and reasonable and customary maintenance practices.
50. *Statutory References.* References to statutes or regulations include references to statute and regulations as amended over time. Nothing in this document is intended to relieve the Operator from compliance with applicable state or federal law.



APPENDIX B

SUBMITTAL REQUIREMENTS FOR THE OPERATOR FOR NEW WELL LOCATIONS WITHIN THE CITY LIMITS

1. *Conceptual Review Submittal Requirements.* The following documents shall be submitted prior to the Conceptual Review meeting outlined in Appendix A:
 - a) A detailed site plan for all Well Sites that includes submittal to the City of all documents required to be submitted with COGCC Form 2A , a depiction of all visible improvements within 400 feet of the proposed location, to include buildings/residences, public roads and trails, major above-ground utilities, railroads, pipelines, mines, oil/gas/injection/water/plugged wells, etc. as required by COGCC Rule 303.d(3)C, and the site plan requirements of the Broomfield Municipal Code, as amended.
 - b) A preliminary summary of planned operations, including identified access points and operational timeline for posting to a local community information web-page;
 - c) A preliminary site plan for site preparation, mobilization and demobilization;
 - d) A preliminary plan for interim reclamation and revegetation of the well pad and final reclamation of the well pad;
 - e) A preliminary plan for noise, light and dust mitigation;
 - f) A preliminary traffic management plan;



- g) A preliminary Visual Mitigation Plan, including but not limited to, a list of the proposed colors for the operations' equipment, proposed fencing and screening in accordance with Appendix A;
 - h) A preliminary list of permits that shall be submitted in conjunction with the APD and any exceptions proposed to be requested;
 - i) A draft air quality mitigation plan in accordance with Appendix A;
 - j) A draft emergency response preparedness plan in accordance with Appendix A; and
 - k) A preliminary list of chemicals proposed to be disclosed through the "Frac Focus" uploading mechanism and regulated through the COGCC Rule 205.
2. *Submittal Requirements Prior to Commencement.* The following documents shall be submitted by the Operator prior to the commencement of drilling and completion:
- a) A response letter that outlines how staff comments from the Conceptual Review were addressed during the APD permitting process;
 - b) A summary of planned operations, including identified access points and operational timeline for posting to a local community information web-page;
 - c) A site plan for site preparation, mobilization and demobilization;
 - d) A plan for interim reclamation and revegetation of the well pad and final reclamation of the well pad;
 - e) A plan for noise, light and dust mitigation, to the extent reasonably feasible;
 - f) A traffic management plan, if applicable, and a reasonable bond to cover any damage to public infrastructure during active drilling and completion;



- g) A Visual Mitigation Plan, including but not limited to, a list of the proposed colors for the operations' equipment, proposed fencing and screening in accordance with Appendix A;
 - h) Copies of all permits requested, including any exceptions;
 - i) A final air quality mitigation plan in accordance with Appendix A;
 - j) A final emergency response preparedness plan in accordance with Appendix A;
 - k) Updated preliminary Chemical disclosure using the "Frac Focus" uploading mechanism, and Chemical Inventory per COGCC Rule 205; and
 - l) Baseline water quality data collected in accordance with the Water Quality Monitoring Plan.
3. *Submittal Requirements Post Well-Completion.* The following documents shall be submitted by the Operator after well-completion:
- a) Chemical disclosure using the "Frac Focus" uploading mechanism, and Chemical Inventory per COGCC Rule 205;
 - b) Water quality data collected at 1 and 6 year post-completion intervals, as described in Appendix A;
 - c) Air quality and other data collected throughout the post-completion phase, as identified in Appendix A; and
 - d) A Comprehensive Gas Development Plan.