

AMENDED OIL AND GAS OPERATOR AGREEMENT

THIS OIL AND GAS OPERATOR AGREEMENT ("Agreement") is made and entered into this 29th day of May, 2013, by and through Prospect Energy, LLC, whose address is 1600 Stout Street, Suite 1710, Denver, CO 80202 (referred to hereinafter as the "Company"), and The City of Fort Collins (referred to hereinafter as the "City") with an address of 300 LaPorte Avenue, Fort Collins, CO 80522, which may be collectively referred to herein as the "Parties", or individually as a "Party".

WHEREAS, the Company and its affiliates, namely, Black Diamond Minerals, LLC ("BDM"), the parent of the Company, engage in the exploration, development, production and marketing of natural gas, oil and natural gas liquids in the Rocky Mountains, including the State of Colorado. The Company currently operates the Fort Collins Field (the "Field") located in Larimer County, with certain portions of the Field located within the City, as depicted in Exhibit A, and, as such, is the only operator with active oil and gas operations within the City. The Company also holds certain leasehold interests within the City described as the Undeveloped Area (the "UDA"), as depicted in Exhibit B.

WHEREAS, the Field was discovered in 1924, and has continually produced oil and associated hydrocarbons to this day. As is common with other older, once remote, oil and gas developments around the state, urban growth and subsequent annexation of certain lands by the City have encroached upon the Field. These annexations, including the Richard's Lake subdivision (developed in the late 1990's) and the Hearthfire subdivision (developed in the mid 2000's), have allowed developers to place residential areas in the vicinity of active oil and gas operations. Some property lines are now within 150 feet of oil wells constructed on then-rural well pads.

WHEREAS, the Field is an oil producing field unitized for waterflood operations from the Muddy Sandstone Formation (which yields the majority of the Field's production), but the Field also produces oil from the Niobrara, Codell, Dakota, and Lyons Formations, all of which may need future development.

WHEREAS, recent engineering and geological analysis indicates that certain parts of the Field may yield substantial incremental resource recovery by expanding the secondary recovery waterflood project by drilling and hydraulic fracturing new wells drilled from lands currently called Waters Edge, Richard's Lake and Hearthfire subdivisions (the "Subdivisions"). The Company is presently studying the UDA to assess whether it would support the development of mineral resources.

WHEREAS, in the Field and UDA, the Company has entered into Surface Use Agreements with the surface owners, dated December 19, 1988, as amended April 19, 2001, and

March 17, 2011, respectively, which expressly govern the locations of wells and associated facilities within the Subdivisions, and other specified terms, including, but not limited to, landscaping and fencing around wells and associated production equipment.

WHEREAS, the City and the Company 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 Company enter into this Agreement to identify best management practices (“BMPs”) for the Company’s future drilling operations within the City’s boundaries.

WHEREAS, the Field extends beyond the City limits and the Company, as a responsible oil and gas operator, has installed a vapor recovery unit at its existing production facility located just south of Douglas Road (the “Fort Collins Tank Battery”) as shown in the Exhibit A attached hereto which lies outside of the City limits. All water, oil and gas produced from any New Well, as defined herein, and located in the Field, will flow into existing or future pipelines to the Fort Collins Tank Battery where gas will be captured and sent to the thermal oxidizer for destruction. Equipment, both at the Fort Collins Tank Battery and within City limits, will capture and 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.

WHEREAS, on December 18, 2012, by the adoption of Ordinance 145, 2012, the City Council imposed a temporary moratorium until July 31, 2013 on the acceptance, processing and approval of any land use applications relating to new oil and gas development (the “Moratorium”).

WHEREAS, on March 5, 2013, by the adoption of Ordinance No. 032, 2013, the City Council enacted Sec. 12-135 of the City Code prohibiting the use of hydraulic fracturing in the City, as well as the storage in open pits of solid or liquid wastes and /or flowback (the “Ban”) and, through the enactment of City Code Sec. 12-136, exempted from the Ban any oil or gas wells or pad sites existing within the City as of February 19, 2013, that become the subject of an operator agreement between the operator of the same and the City, as long as such agreement includes strict controls on methane release and, in the judgment of the City Council, adequately protects the public health, safety and welfare.

WHEREAS, by Resolution 2013-036, the City Council has approved this Oil and Gas Operator Agreement with the Company, and the Parties agree to the terms and conditions contained below.

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. When this Agreement is presented to the City Council for its consideration, City staff will also present to the City Council an ordinance exempting all Company operations within the areas described in Exhibits "A" and "B" from the Moratorium and the Ban, which exemption will continue in effect as long as the Company's operations are conducted in accordance with this Agreement. The Effective Date of such ordinance shall be the "Effective Date" of this Agreement. Notwithstanding the foregoing, this Agreement shall be void and of no effect as of June 1, 2013, unless such ordinance has been approved by the City Council and has taken effect on or before said date.

2. The Company's Best Management Practices ("BMPs") within City Limits. The Company shall include the BMPs listed in Appendix A, attached hereto and by reference made a part hereof, 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". For the purposes of this provision, "New Well" shall mean any Company-operated well spudded during the term of this Agreement, and located on either a currently existing well pad or a New Well pad that is located within the City limits, and a "New Well Pad" shall mean any area that is directly disturbed during the drilling and subsequent operation of a New Well, including any production facilities directly associated with such well, and its associated Well Pad, insofar as it covers lands located in the City limits. The BMPs shall apply to all New Wells drilled by the Company while this Agreement is effective. For the purposes of this Agreement, a New Well shall not include the re-entry of a previously plugged and abandoned well; accordingly, the re-entry of a previously plugged and abandoned well is not allowed.

3. City Regulatory Approvals. The Company shall not be required to obtain any project development plan or final plan approval from the City to conduct its oil and gas operations within the City limits, as long as the Company complies with the terms and conditions contained herein, and this Agreement shall control all oil and gas operations conducted by the Company within the City limits. Prior to the submission of a COGCC Form 2 and/or Form 2A to the COGCC, the Company shall meet with the City to review the proposed oil and gas operation 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 and welfare. At such

time, if at all, that the City and Larimer County, Colorado (the "County") enter into a written agreement that authorizes the City to regulate the oil and gas operations of the Company within the Growth Management Area, such operations shall thereafter be governed by the terms and conditions of this Agreement and shall be subject to the City's regulatory authority as provided in this Agreement. "Growth Management Area" shall be as described in that certain Intergovernmental Agreement entered into by the City of Fort Collins and Larimer County on June 24, 2008, nunc pro func [sic] October 17, 2006.

4. Operations on Existing Facilities. For any Facility owned by the Company and existing prior to the Effective Date and located within the City limits, the Parties hereby agree that the Company may perform routine maintenance operations on said Facility and perform such operations the Company 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 Company agrees to conduct such operations as a prudent operator in accordance with the rules and regulation of the COGCC; however, the Company shall not be subject to the BMP's as attached hereto, except for Appendix A paragraphs 21(j) and 21(k) thereof. "Facility" as used in this provision shall include wells, pipelines, and all equipment necessary and appurtenant to such wells and pipelines.

5. Term. This Agreement is effective upon the Effective Date and shall remain in effect for five (5) years from the Effective Date, at which time the Agreement shall be automatically renewed and extended for successive five (5) year terms, unless and until either Party elects to terminate the Agreement at the end of the then current five (5) year term by providing written notice of such intent to the other party at least thirty (30) days before the expiration of said term.

6. 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 reasonable control, including, without limitation, war, civil commotion, act of God, strike or other stoppage (whether partial or total) of labor, or any law, decree, regulation, or order of any government or governmental body (including any court or tribunal).

7. 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.

8. Successors and Assigns. The terms and conditions of this Agreement shall bind and extend to the City and the Company, and the Company's successors and assigns.

9. No Third Party Beneficiaries. Except for the rights of enforcement by the Commission with respect to the BMPs, 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.

10. 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, (ii) hand delivery with signature or delivery receipt provided by a third party courier service (such as FedEx, UPS, etc.), (iii) fax transmission if verification of receipt is obtained, or (iv) email with return receipt, 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 of Fort Collins
300 LaPorte Avenue
P.O. Box 580
Fort Collins, CO 80522
Attn: City Manager
Telephone: 970-416-2253
Fax: 970-224-6107
Email: datteberry@fcgov.com

Company: Prospect Energy, LLC
1600 Stout Street, Suite 1710
Denver, CO 80202
Attn: Scott D. Hall, Manager
Telephone: 303-973-3228, ext. 223
Fax: 303-346-4893
Email: sdhall@bdminerals.com

11. 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.

12. 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.

13. Governing Law. This Agreement shall be governed and construed in accordance with the laws of the State of Colorado without reference to its conflicts of laws provisions.

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:

CITY OF FORT COLLINS, COLORADO
A MUNICIPAL CORPORATION

By: _____

Darin Atteberry, City Manager

ATTEST:

Wanda Nelson

City Clerk

APPROVED AS TO FORM:

Michael Eckman

Deputy City Attorney

THE COMPANY:

PROSPECT ENERGY, LLC

By (signature):

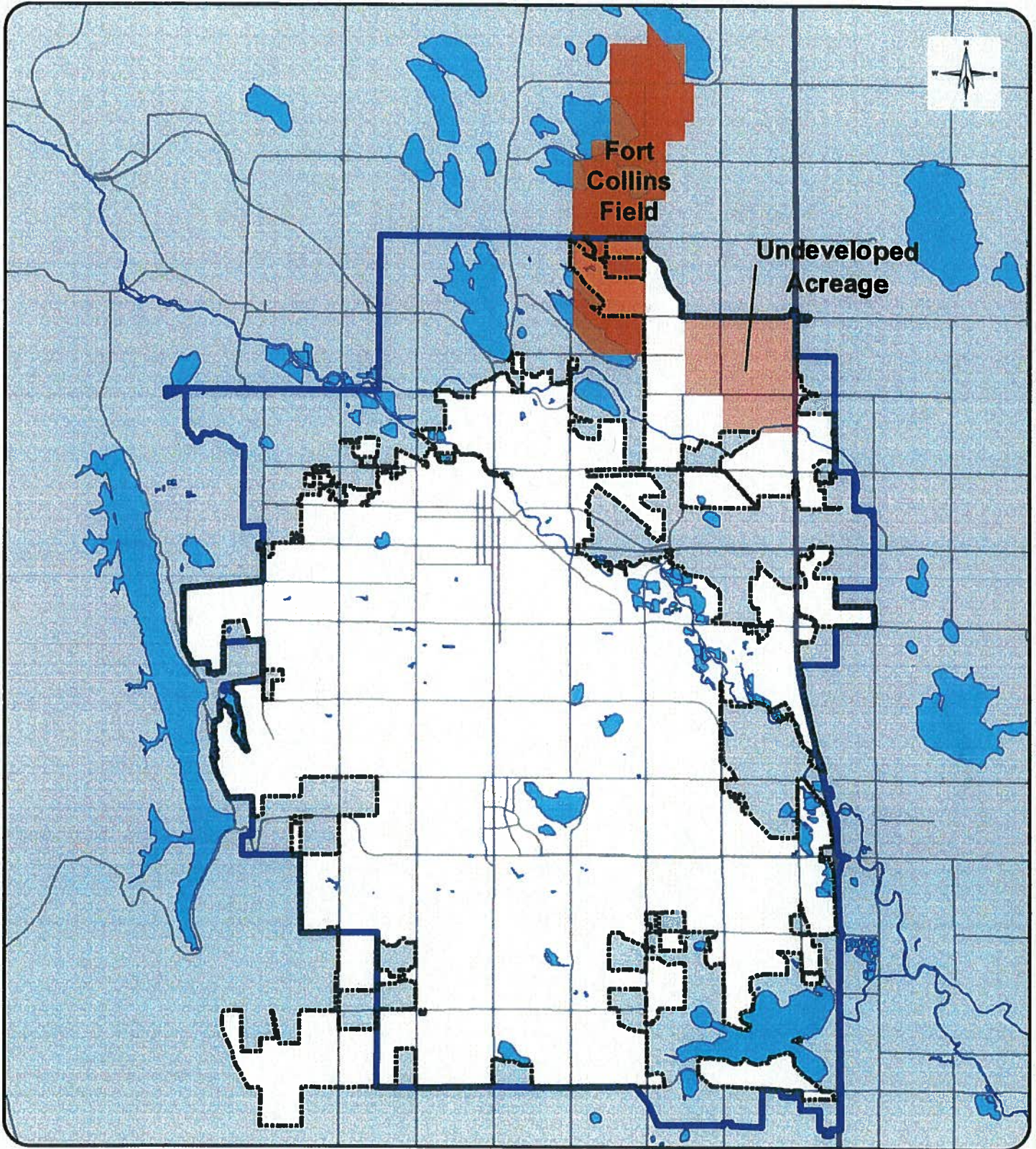
Scott Hall 5/29/13

Scott Hall, CEO

City of Fort Collins





Prospect Energy Oil/Gas Fields

EXHIBIT A



**CITY OF FORT COLLINS
GEOGRAPHIC INFORMATION SYSTEM MAP PRODUCTS**

These map products and all underlying data are developed for use by the City of Fort Collins for its internal purposes only, and were not designed or intended for general use by members of the public. The City makes no representation or warranty as to its accuracy, timeliness, or completeness, and in particular, its accuracy in labeling or displaying circumstances, contours, property boundaries, or placement of location of any map features therein. THE CITY OF FORT COLLINS MAKES NO WARRANTY OF MERCHANTABILITY OR WARRANTY FOR FITNESS OF USE FOR PARTICULAR PURPOSES, EXPRESSED OR IMPLIED, WITH RESPECT TO THESE MAP PRODUCTS OR THE UNDERLYING DATA. Any users of these map products, map applications, or data, accept them AS IS WITH ALL FAULTS, and assumes all responsibility of the use thereof, and further covenants and agrees to hold the City harmless from and against all damage, loss, or liability arising from any use of this map product, in consideration of the City's having made this information available. Independent verification of all data contained herein should be obtained by any users of these products, or underlying data. The City disclaims, and shall not be held liable for any and all damage, loss, or liability, whether direct, indirect, or consequential which users or may arise from these map products or the use thereof by any user or user.

-  Fort Collins Field
-  Undeveloped Acreage
-  City of Fort Collins
-  Growth Management Area

0 1 2 3 4 Miles

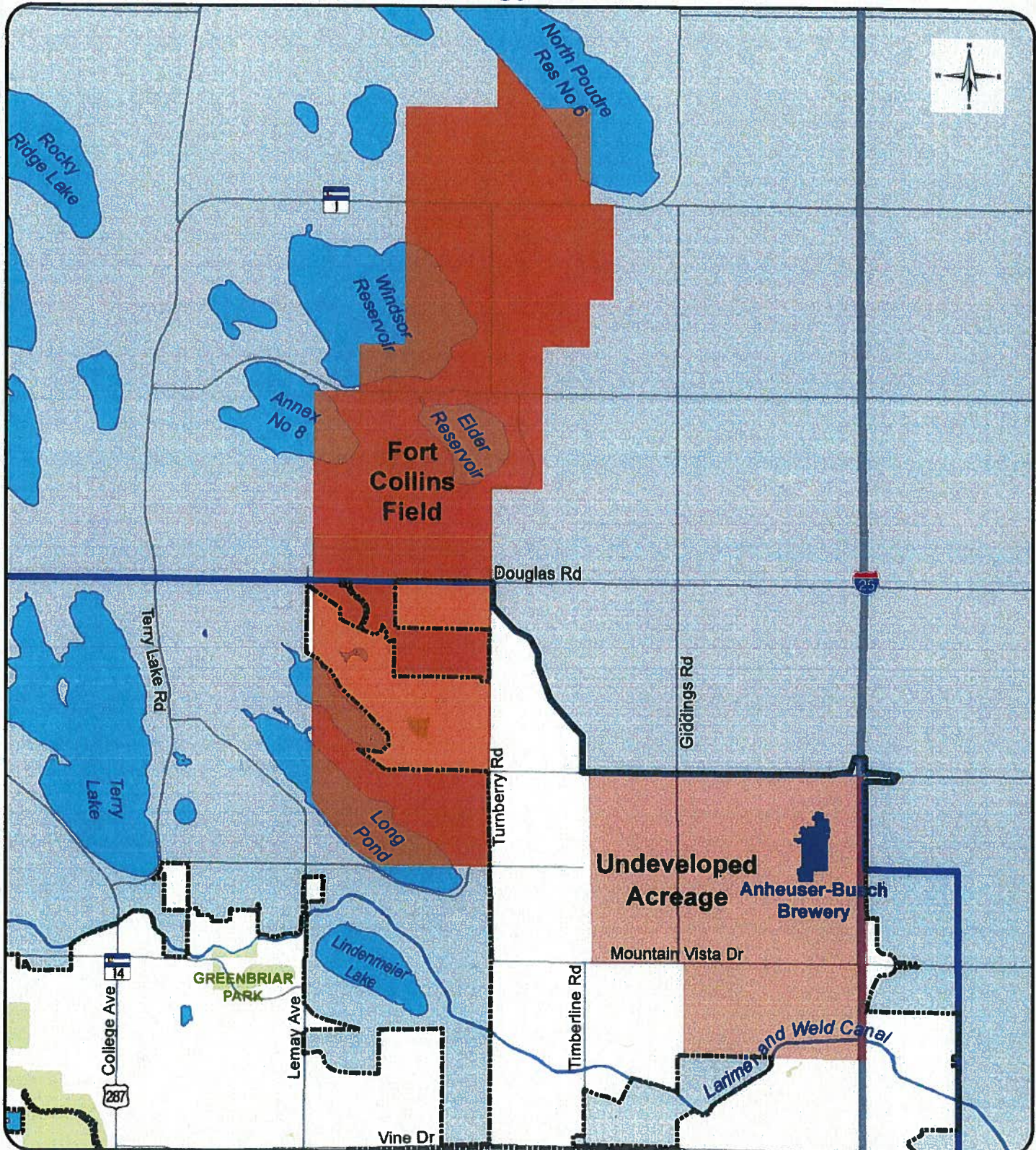
City of
Fort Collins

Printed: March 12, 2013

City of Fort Collins

Prospect Energy Oil/Gas Fields

EXHIBIT B



**CITY OF FORT COLLINS
GEOGRAPHIC INFORMATION SYSTEM MAP PRODUCTS**

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- Fort Collins Field
- Undeveloped Acreage
- City Limits
- Growth Management Area



Printed: March 12, 2013

List of Exhibits

Exhibit A - Map of the Fort Collins Field and City boundaries

Exhibit B - Map of the Undeveloped Acreage (UDA) and City Boundaries

Appendix A – List of BMP's

Appendix B – Submittal Requirements

Appendix C - UDA Outline with Setbacks

APPENDIX A

BEST MANAGEMENT PRACTICES FOR LOCATIONS WITHIN THE CITY LIMITS OF FORT COLLINS

Pursuant to the terms of this Agreement, the Company shall include the best management practices listed below on all Applications for Permit-to-Drill, Form 2, and Oil and Gas Location Assessments, Form 2A, (for New Well Pads only), submitted to the Commission for New Wells the Company drills after the Effective Date within the city limits of Fort Collins. Additionally, certain of the paragraphs below shall also apply to existing wells within the City (but not to existing wells within the City's extraterritorial Growth Management Area) but only if express language is included in such paragraphs extending them to existing wells.

1. *Regulations.* The Company shall comply with all applicable state, and federal regulations in addition to the terms of this agreement and the Best Management Practices included below. Any exploration or drilling activity conducted by the Company 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 such rules may be amended thereafter. Whichever regulation is most stringent shall apply. The City agrees that it will not impose any fine on the Company for violation of a local regulation if the activity or condition that created the violation is also subject to regulation by the COGCC, so that the violation could result in the imposition of a fine by the COGCC.
2. *Setbacks for New Wells.* It is the intent of the Company to maximize equipment and wellhead setbacks from occupied buildings and residences beyond the setbacks required by the COGCC to the extent feasible and practicable.

The Parties recognize that a portion of the Field is within the Fort Collins City Limits and as such, development has occurred within the already established Field. The surface owner has obtained permitted plats for residential areas in the vicinity of existing oil and gas activities, including a constructed city park and contemplated building units and public roads within three hundred fifty (350) feet of an existing well. Further, the Parties acknowledge that the Commission 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 Commission setback rules as established effective August 1, 2013, and as such rules may be amended thereafter. Notwithstanding the previous sentence, Company agrees that the center of the wellhead for a New Well shall not be located closer than 1,000 feet to the western lease line of the UDA acreage covering the NE 1/4 of Section 32, Township 8 North, Range 68 West; nor closer than

1,500 feet to the western lease line of the UDA acreage covering the SE 1/4 of Section 32, Township 8 North, Range 68 West; nor at any location on the UDA acreage located in the NE 1/4 of Section 4, Township 7 North, Range 68 West that is closer than 1,000 feet to a Building Unit (as such term is defined by the Colorado Oil and Gas Conservation Commission to be adopted effectively as of August 1, 2013) only if such Building Unit is located south of the southern UDA lease line located in the NE 1/4 of said Section 4. (See Appendix C for graphic description.) In the Fort Collins Field, New Wells shall be constructed on existing Well Pads, which due to previous setback requirements, and City approval of residential development, do not conform to five hundred (500) feet setbacks, and are given an exemption from the Commission in the Rules now in effect.

The Parties recognize the existence of a Surface Use Agreement (the "SUA") between the Company and the surface owner which expressly governs the locations of wells and associated facilities within the Water's Edge, Richard's Lake and Hearthfire subdivisions (the "Subdivisions"), and that certain terms found in the SUA may affect Commission setbacks and other Commission rules.

3. *Conceptual Review.* No less than thirty (30) days prior to the submission of an Application for a Permit to Drill, the Company agrees to schedule a meeting with the City to review the proposed new well or drilling activity. The goal of this meeting shall be for staff and the applicant 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 applicant and staff to explore site-specific concerns, to 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, applicants are 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. The Company shall reimburse the City for the costs of the mailing. Owners of record shall be ascertained according to the records of the Larimer County 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 Section 2.2.6(D) 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 on any New Well, even 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 4 and 5 above. The Company shall attend the neighborhood meeting. The City shall be responsible for scheduling and coordinating the neighborhood meeting and 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.
 7. *Notification to the City and the public regarding commencement of operations.* Prior to the commencement of any new drilling operations, the Company shall provide to the City Manager for posting on the website the information outlined in Appendix B regarding commencement of operations, which the Company may revise from time-to-time during operations, with prior approval from the City.
 8. *Inspections.* The City shall have the right to inspect the Company's operations and its sites during business hours, upon the giving of twenty-four (24) hour advance written notice to the Company. This paragraph shall also apply to existing wells. City hereby acknowledges that nothing herein shall grant the City authority to assess fees for the inspection of the operations conducted by Company hereunder.

9. *Containment berms.* The Company shall utilize steel-rim berms around tanks and separators at new Well Pads. All berms and containment devices shall be inspected 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. Refer to American Petroleum Institute Recommended Practices, API RP - D16.
 - 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 flowlines and is mechanically connected to the steel ring to prevent leakage.
 - c) For locations within five hundred (500) feet and upgradient of a surface water body, tertiary containment, such as an earthen berm, is required around production facilities.
10. *Closed Loop Pitless Systems for the Containment and/or Recycling of Drilling and Completion Fluids.* Wells shall be drilled, completed and operated using closed loop pitless systems for containment and/or recycling of all drilling, completion, flowback and produced fluids.
11. *Anchoring.* All 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. The first sentence of this paragraph shall also apply to existing wells.
12. *Burning.* No open burning shall occur on the site of any oil and gas operation. This paragraph shall also apply to existing wells.
13. *Chains.* Traction chains from heavy equipment shall be removed before entering a City street. This paragraph shall also apply to existing wells.
14. *Chemical disclosure and storage.* The City shall be provided, 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) used on the Well Pad. Fracture chemicals shall be uploaded onto the Frac Focus website. The Company shall not permanently store hydraulic fracturing chemicals, flowback from hydraulic fracturing, or produced water in the City limits.
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 Company shall be responsible for immediately contacting the City to report the discovery. If any disturbance of the resource occurs, the Company 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.
18. *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 produced water or other process fluids shall be used for dust suppression. The Company 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. Material Safety Data Sheets (MSDS) for any chemical based dust suppressant shall be submitted to the City for approval prior to use. This paragraph shall also apply to existing wells.
19. *Electric equipment.* Electric-powered engines for motors, compressors, and drilling equipment and for pumping systems shall be used in order to mitigate noise and to reduce emissions when feasible. This paragraph shall also apply to existing wells.
20. *Emergency preparedness plan.* The Company is required to develop an emergency preparedness plan for each specific facility site, which shall be in compliance with the International Fire Code. The plan shall be filed with the Poudre Fire Authority and the City of Fort Collins Office of Emergency Management and updated on an annual basis or as conditions change (responsible field personnel change, ownership changes, etc.). This paragraph shall also apply to existing wells. 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 gathering and transmission 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 pipelines and isolation valves shall be held confidentially by the City's Office of Emergency Management and the Battalion Chief, 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) Detailed information showing that the Company has adequate personnel, supplies, and training to implement the emergency response plan immediately at all times during construction and operations.
- g) The Company shall have current Material Safety Data Sheets (MSDS) for all chemicals used or stored on a site. The MSDS sheets shall be provided immediately upon request to City officials, a public safety officer, or a health professional.
- h) The plan shall include a provision establishing a process by which the Company engages with the surrounding neighbors to educate them on the risks of the on-site operations and to establish a process for surrounding neighbors to communicate with the Company.
- i) All training associated with the Emergency Preparedness plan shall be coordinated with the City's Office of Emergency Management and Poudre Fire Authority.

- j) A provision obligating the Company to reimburse the appropriate emergency response service providers for costs incurred in connection with any emergency in accordance with Colorado State Statutes.

21. *Air quality.* The Company must comply with emissions regulations governed by the Colorado Department of Public Health and Environment (CDPHE), Air Pollution Control Division (APCD). Air emissions from wells 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 state and federal regulations for the control of fugitive dust, and control of ozone, ozone precursors, methane, and hazardous air pollutants by the Larimer County Public Health Department, and the CDPHE-APCD. The Company must comply with 40 CFR Subpart OOOO as published on August 16, 2012 (Quad O). Subparagraphs (j) and (k) shall also apply to existing wells.

- a) **General Duty to Minimize Emissions.** The Company shall incorporate in the development plan; operations, procedures, and field design features to the maximum extent feasible 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) Telemetric control and monitoring systems
- 5) Pipeline infrastructure prior to well completion.

- b) In the UDA, the Company shall utilize a high-low pressure vessel (HLP) and vapor recovery unit (VRU) for New Wells that are placed on production. The Company may remove the VRU at such time it determines that the VRU system is no longer necessary due to reduced emission recoveries and/or efficiencies, but no earlier than one (1) year after the New Well is placed on production. The Company may opt to capture gas and send through a thermal oxidizer in lieu of a HLP and VRU.

- c) Plunger lifts are not typically used in the Fort Collins Field due to insufficient gas. However if there is future use of plunger lifts, emissions shall be controlled from the motor control valve using low bleed pneumatic controllers.

- d) There will be no uncontrolled venting of methane. All gas vapors shall be captured to the extent practicable. Vapor capture equipment shall operate at ninety-eight percent (98%) efficiency or better. There are no gas sales lines in the Fort Collins field because the quantity and quality of gas is low and not

marketable. If salable gas were to occur in the UDA, a sales line shall be constructed.

e) Flaring during drilling and completions:

During well completion, the capture and beneficial use of natural gas is preferred over flaring. Minimal flaring may occur in the Fort Collins field, because there is minimal gas in the field. Flaring shall be continuously monitored on-site by the Company, under twenty-four (24) hour watch and is regulated by COGCC Rules 317, 805B(3)B, and 912. No venting of gas may occur, except under COGCC Green Completion Practices (Rule 805 B(3)B), or in very limit cases under Rule 912 with the COGCC Director approval.

f) Flaring during production operations:

- 1) The flare shall be fired with natural gas and shall be operated with a ninety eight (98) percent or higher VOC destruction efficiency.
- 2) The flare 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 XVIIIB for non-condensate oil.
- 3) The flare 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).
- 4) An automatic pilot system shall be used when feasible. Other ignition systems may include the installation and operation of a telemetry alarm system or an on-site visible indicator showing proper function.

g) Leak Detection and Repair (LDAR) – The Company shall develop and maintain a leak detection and component repair program according to EPA Method 21 for equipment used in permanent operations. LDAR shall be performed on newly installed equipment, and then on an annual basis. A Forward-Looking Infrared (FLIR) camera shall be used as the preferred implementation method of EPA Method 21 as available from the state; if unavailable, other methods shall be used in compliance with this method. Upon request from the City, the Company shall implement EPA Method 21 upon additional concerns. At least once per year, the Company shall notify the City prior to FLIR camera use in case the City wishes to observe the method.

- h) **One Time Baseline Air Quality Monitoring** - the Company and the City shall split the cost for a one time Baseline Sampling and Analytical. The work shall be done by a third party consultant agreeable to both parties over a five day sampling period with each location sampled per day. The sampling locations shall be as follows:
- 1) Upwind of Tank Battery
 - 2) Downwind of Tank Battery
 - 3) City Park
 - 4) One location downtown, such as New Belgium Brewery or Wild Boar Coffee
- i) **One Time Air Sampling During Well Completion** – The Company shall conduct air sampling during well completion. The work shall be done by a third party consultant agreeable to both parties. This shall be done over a five day sampling period with each location sampled per day. The sampling shall be for one well completion in the City (City’s choice of which well completion). The sampling locations shall be as follows:
- 1) Upwind of well
 - 2) Downwind of well
- j) **Ongoing Air Quality Monitoring** - Periodic air monitoring shall be performed for hydrogen sulfide (H₂S), a hazardous air pollutant (HAP). The Company shall perform field monitoring using the Jerome 631 XC or equivalent instrument annually, or until such time that odors are not detected past the Fort Collins Tank Battery fence line in City Limits.
- k) The City may require the Company 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.
- 1) In response to emergency events that involve the potential release of hazardous air pollutants, the Company may be required to conduct air sampling in accordance with Subsection i. above.
 - 2) In response to odor complaints, the Company may be required to conduct air sampling in accordance with subsection j above or use a photo-ionization detector (PID) to measure detected levels of VOCs that exceed acute health-based exposure thresholds, or other air sampling methodology depending on the nature of the complaint.

- 1) Air Quality Action Days. The Company 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 air emission reduction measures committed to in the Air Quality Mitigation Plan. 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
- 5) Postpone construction activities

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 at any location at which commercial quantities of gas are reasonably expected to be produced based on existing adjacent wells within one (1) mile or well in the Fort Collins Field, whichever is greater.
- b) Uncontrolled venting is prohibited.
- c) 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 experienced in a one (1) mile radius (or well in the Fort Collins Field), whichever is greater;
 - 2) Valves and porting available to divert gas to flaring and oxidizing equipment; and
 - 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.
 - 4) The Company 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. This paragraph shall also apply to existing wells.

24. *Fencing.* Permanent perimeter fencing shall be installed around production equipment, and shall be secured. The main purpose of the fencing is to deter entrance by unauthorized people. The Company 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 Company's safety requirements.
25. *Flammable material.* All land 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 Section 315 of the International Fire Code. This paragraph shall also apply to existing wells.
26. *Floodplains.* All oil and gas operations shall comply with Chapter 10 of the City Code.
27. *Water Quality Monitoring Plan.* The Company shall comply with COGCC Rule 609. In summary, this requires pre- and post-drilling testing. The rules require oil and gas operators to sample all "Available Water Sources" (owner has given consent for sampling and testing and has consented to having the sample data obtained made available to the public), 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 Company agrees to the following requirements above and beyond the COGCC requirements: analyzing for dissolved metals as indicated in the Land Use Code and sampling intervals to be baseline (before drilling), post-drilling at one, three, and six years. Analytical results shall be shared with the COGCC, the City, and the landowner. All spills, for new and existing wells, shall be managed in accordance with COGCC regulations.
28. *Landscaping.* In the Fort Collins Field, existing Well Pads shall be used for any New Wells and all landscaping shall be in compliance with the City of Fort Collins Land Use Code standards and in compliance with the safety requirements of the Company. Existing vegetation shall be minimally impacted. In the UDA, motorized equipment shall be restricted to the Well Pad and access roads to the Well Pads. A Visual Mitigation Plan, along with fencing and landscaping shall be developed for new construction.
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. A lighting plan shall be developed 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. This paragraph shall also apply to existing wells.

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. This paragraph shall also apply to existing wells.
31. *Mud Tracking.* The Company 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, the streets shall be cleaned immediately by the Company using pressured water from a water truck. This shall be done as part of maintenance. If for some reason it cannot be done, or needs to be postponed, the LGD shall be notified of the Company's plan for mud removal. This paragraph shall also apply to existing wells.
32. *Natural Resources – An Ecological Characterization Study* shall be provided if any New Well is within 500 feet of a Natural Habitat or Feature, and if impacting these resources, mitigation plans to ensure no net resource loss per Fort Collins Land Use Code 3.4.1.
33. *Noise mitigation.* Noise mitigation measures shall be constructed along any edge of any oil and gas operation site if such edge is between 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 feasible, decrease noise from the oil and gas operations to comply with the sound limitation regulations set forth in Commission Rule 802. A noise mitigation study shall be submitted with the application to demonstrate that noise will be decreased to the maximum extent feasible.
34. *Pipelines.* Any newly constructed or substantially modified pipelines on site shall meet the following requirements:
 - (a) To the maximum extent feasible, all flow lines, gathering lines, and transmission lines shall be sited a minimum of fifty (50) feet away from 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. Pipelines and gathering lines that pass within 150 feet of general residential, commercial, and industrial buildings or the high water mark of any surface water body shall incorporate leak detection, secondary containment, or other mitigation, as appropriate.
 - (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.
35. *Recordation of flowlines.* All new flowlines, including transmission and gathering systems, shall have the legal description of the location recorded with the City Clerk and the Larimer County Clerk and Recorder within thirty (30) days of completion of construction. Abandonment of any recorded flowlines shall be recorded with the Larimer County Clerk and Recorder's office within thirty (30) days after abandonment.
36. *Recreational Activity Standards.* The installation and operation of any oil and gas operation shall not cause significant degradation to the quality and quantity of recreational activities in the City. Methods to achieve compliance with this standard include, but are not limited to locating operations away from trails and from property used for recreational purposes, or by using existing Well Pads.
37. *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. This paragraph shall also apply to existing wells.
38. *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, unless otherwise agreed to by the surface owner. Permanent storage of equipment on Well Pad sites shall not be allowed. This paragraph shall also apply to existing wells.
39. *Soil Gas Monitoring* – The City, at its discretion, may conduct soil gas monitoring to assess well casing integrity. This shall be typically completed within ninety (90) days of New Well completion. The City shall notify the Company prior to entering the site for soil gas monitoring.
40. *Spills.* Chemical spills and releases shall be reported 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 and the Spill Control Prevention and Countermeasure plan, as

applicable. If a spill or release impacts or threatens to impact surface water or a water well, the Company 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.

41. *Stormwater control plan.* All oil and gas operations shall comply and conform with the Fort Collins Storm Criteria Manual (FCSCM), including submission of an Erosion Control Report and Plan. This paragraph shall also apply to existing wells.
42. *Temporary access roads.* Temporary access roads associated with oil and gas operations shall be reclaimed and re-vegetated to the original state. This paragraph shall also apply to existing wells.
43. *Trailers.* A construction trailer or office is permitted as an accessory use during active drilling and well completion only. This paragraph shall also apply to existing wells.
44. *Transportation and circulation.* All applicants for drilling and completion operations (New Wells) shall include in their applications 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 Company 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.
45. *Wastewater and Waste Management.* In the Fort Collins Field, all fluids shall be contained and there shall be no discharge of fluids, as described in the Closed Loop System and Green Completions section of this Appendix. Waste shall be stored in tanks, transported by tanker trucks, and disposed of at licensed disposal fields. In the UDA, 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 and 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 Fort Collins Stormwater Criteria Manual. No land treatment of oil impacted or contaminated drill cuttings are permitted. 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. A copy of the field's Spill Prevention, Control, and Countermeasure Plan (SPCC) will be given to

the City, which describes spill prevention and mitigation practices. The Company will provide the City documentation of waste disposal and its final disposition. This paragraph shall also apply to existing wells.

46. *Water supply.* The Company 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. This paragraph shall also apply to existing wells.
47. *Weed control.* The Company shall be responsible for ongoing weed control at oil and gas operations, pipelines, and along access roads during construction and operation, until abandonment and final reclamation is completed per City, Larimer County or other applicable agency regulations. The appropriate weed control methods and species to be controlled shall be determined through review and recommendation by the County Weed Coordinator by reference to the Larimer County Noxious Weed Management Plan and in coordination with the requirements of the surface owner. This paragraph shall also apply to existing wells.
48. The Company shall, with respect to the initial drilling of a New Well through completion, provide liability insurance that covers pollution, cleanup and general liability in the amount of \$10,000,000 per occurrence. Following completion, the Company shall provide ongoing pollution, cleanup and general liability coverage in the amount of \$1,000,000 per occurrence and \$2,000,000 aggregate, and general liability umbrella coverage in the amount of \$5,000,000.

APPENDIX B

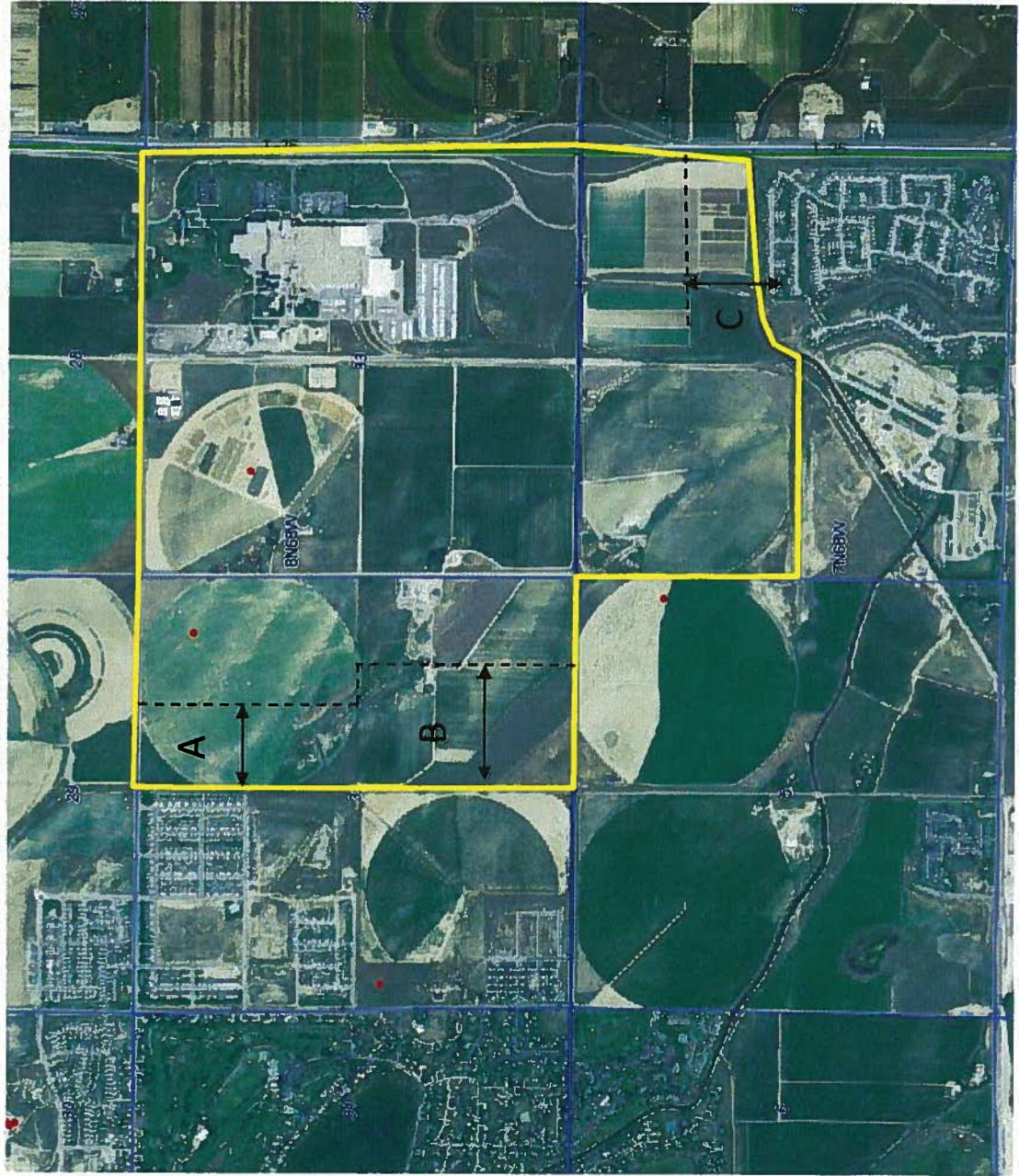
SUBMITTAL REQUIREMENTS FOR THE COMPANY FOR NEW WELL LOCATIONS WITHIN THE CITY LIMITS OF FORT COLLINS

1. *Conceptual Review Submittal Requirements.* The following documents shall be submitted prior to the Conceptual Review meeting outlined in Appendix A:
 - a) A preliminary summary of planned operations, including identified access points and operational timeline for posting to a local community information web-page;
 - b) A preliminary site plan for site preparation, mobilization and demobilization;
 - c) A preliminary plan for interim reclamation and revegetation of the well pad and final reclamation of the well pad;
 - d) A preliminary plan for noise, light and dust mitigation;
 - e) A preliminary traffic management plan;
 - f) 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.
 - g) A preliminary list of permits that shall be submitted in conjunction with the APD and any exceptions proposed to be requested.
 - h) A draft air quality mitigation plan in accordance with Appendix A.
 - i) A draft emergency response preparedness plan in accordance with Appendix A.
 - j) Preliminary list of chemicals proposed to be disclosed through the "Frac Focus" uploading mechanism and regulated through the COGCC Rule 205.
 - k) Proposed sampling locations in accordance with the water quality monitoring plan outlined in Appendix A.

2. *Submittal Requirements Prior to Commencement.* The following documents shall be submitted by the Company 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.
 - 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 Company 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, 3, 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.

UDA Outline With Setbacks



A 1,000' setback
from lease line

B 1,500' setback
from lease line

C 1,000' setback
from Building Unit

----- Setback
Boundary

