

Oil & Gas Permit Application

City of Fort Lupton

Proposed Drilling of Oil & Gas Wells

FL Mountain HZ Wells (10 Wells)

FL MOUNTAIN 30C-4HZ
FL MOUNTAIN 30N-4HZ
FL MOUNTAIN 4N-4HZ
FL MOUNTAIN 18N-4HZ
FL MOUNTAIN 29N-4HZ
FL MOUNTAIN 29C-4HZ
FL MOUNTAIN 6N-4HZ
FL MOUNTAIN 3N-4HZ
FL MOUNTAIN 3C-4HZ
FL MOUNTAIN 28N-4HZ

**Township 1 North, Range 66 West, 6th P.M.
SW/4 SW/4, Section 4
Fort Lupton, Weld County, Colorado
Parcel # 147104300075**

APPLICANT:

**Kerr-McGee Oil & Gas Onshore LP
An Anadarko Company
1099 18th Street
Denver, Colorado 80202**



August 9, 2016

Table of Contents

1.	Narrative _____	5
1.1	Description of Intended Use _____	5
1.2	Site Improvements _____	5
1.3	Characteristics of Installation _____	6
1.4	Characteristics of Drilling and Completion Operations _____	6
1.5	Characteristics of Maintenance _____	6
1.6	Disposal Methods Statement _____	6
1.7	Relative Plans _____	6
2.	Master Site Plan & Production Facility Layout _____	11
3.	Evidence of Leasehold _____	15
3.1	Leasehold Description _____	15
3.2	Oil, Gas and Mineral Leases _____	15
4.	Operator / Surface Owner Information and Adjacent Property Owners _____	19
4.1	Operator Identification _____	19
4.2	Mineral Owners (For Surface Location) _____	19
4.3	Surface Owners Names and Agreement _____	19
4.4	Adjacent Property Owners _____	20
5.	Bond Requirements _____	23
6.	Insurance Requirements _____	27
7.	Operating Plan _____	31
7.1	Drilling Phase _____	31
7.2	Drainage and Erosion Control Plan _____	31
7.3	Water Sources for Drilling Activities _____	31
7.4	Completion Phase _____	32
7.5	Production Phase _____	32
7.6	Weed Control _____	33
7.7	Plugging and Abandonment Phase _____	33
8.	Graphic Representation of Equipment _____	37
8.1	Drilling Rig _____	37
8.2	Typical Wellheads _____	37
8.3	Typical Separators _____	38
8.4	Typical Maintenance (Oil) and Water Tanks _____	39
8.5	LACT Unit _____	39
8.6	Typical Flow Diagram _____	40
9.	COGCC Permits _____	43
10.	Emergency Response & Fire Protection Plan _____	46
10.1	Scope _____	46
10.2	Regulatory Requirements _____	46
10.3	Location of Wells _____	46
10.4	Emergency Response & Contact List _____	46
10.5	Spill/Release Response _____	48
10.6	Safety and Fire Prevention Guidelines _____	48
10.7	Safety Data Sheets (SDS) _____	50
10.8	Emergency Access Road Map _____	50

Narrative

1. Narrative

1.1 DESCRIPTION OF INTENDED USE

Kerr-McGee Oil & Gas Onshore LP (KMG), an Anadarko company, intends to horizontally drill ten (10) oil and gas wells from one pad locations. The proposed wells will be known as the well names listed in Section 1.2. The desired outcome of this application is to permit the wells to all formations. The purpose of the wells is to produce hydrocarbons from underlying formations known to have commercial potential from the production of such substances.

The proposed wells and production facility are located in Township 1 North, Range 66 West 6th P.M. Section 4. See the aerial vicinity map below showing a yellow arrow for the site access.



1.2 SITE IMPROVEMENTS

KMG shall construct one operations area of approximately 13.7 acres for the drilling and completions pad. The location will be reclaimed to approximately 2 acres for the production facilities and 1.1 acre for the access road and well heads.

FL Mountain 13-4HZ Pad

FL Mountain 30C-4HZ
FL Mountain 30N-4HZ
FL Mountain 4N-4HZ
FL Mountain 18N-4HZ
FL Mountain 29N-4HZ
FL Mountain 29C-4HZ
FL Mountain 6N-4HZ
FL Mountain 3N-4HZ
FL Mountain 3C-4HZ
FL Mountain 28N-4HZ

A Master Site Plan is included with this Application for further use and review (See –Master Site Plan).

FL Mountain HZ Wells
T1N-R66W SW/4 SW/4 Section 4
City of Fort Lupton, Weld County, Colorado

After the wells have been drilled to their total depths and completed as wells capable of production, KMG will reclaim the drill site. The reclamation will be in accordance with the applicable rules and regulations of the Colorado Oil and Gas Conservation Commission (COGCC). If any of the wells are not capable of production, that specific well (or wells) will be plugged and abandoned as a dry hole and the same reclamation of the site will apply.

Flowlines will be laid to connect these wells to the production facilities. Pipelines will transport natural gas and oil from the facilities to designated processing facilities throughout the area.

1.3 CHARACTERISTICS OF INSTALLATION

These wells will have a wellhead assembly installed on site as well as production and gathering facilities. Pumping units may be installed should pressure within the wells necessitate their use.

1.4 CHARACTERISTICS OF DRILLING AND COMPLETION OPERATIONS

KMG management will utilize authorized employees and professional contractors to conduct the drilling and completion operations on site. The actual drilling phase is approximately 6 to 11 days per well, under normal circumstances. Drilling will be continuous, 24 hours a day, for this period. Completion operations will be performed on each well subsequent to the drilling phase. The production facilities will be installed and the wells put on-line. KMG anticipates mobilization and pad construction to begin in second quarter 2017 contingent upon approval from the City of Fort Lupton. Completion of all construction activities including site preparation, drilling, completion, facilities and pipeline installation and final re-grading will occur within six months of the completions of hydraulic fracturing, construction of production facility and the initiation of oil and gas production.

1.5 CHARACTERISTICS OF MAINTENANCE

A lease operator will inspect the wells on a regular basis under normal conditions and as required by any special circumstances under the supervision of the KMG Area Manager. In addition all wells and production facilities are remotely monitored 24/7 from our Integrated Operations Center (IOC) located in Platteville, Colorado.

1.6 DISPOSAL METHODS STATEMENT

- Drilling mud will be spread on lands outside of the city limits in a manner approved by the COGCC or taken to a commercial disposal.
- A commercial size trash bin for removing debris will be located on site. This bin will be for use by all parties affiliated with the operation.
- Human waste will be properly handled by portable sanitary facilities located on site. KMG will contract a sanitary service company to provide and maintain the self-contained sanitary facilities throughout the oil and gas operation.
- Produced water will be disposed of off-site as approved by the COGCC.

1.7 RELATIVE PLANS

- Noise: KMG will meet all applicable noise requirements set forth by COGCC regulations during operations. Exhaust from all engines, motors and related equipment, shall be vented in a direction away from occupied buildings where practical. KMG, on a case by case basis, installs a straw bale “wall” as a sound and visual buffer during drilling and completion operations.

-
- Lighting: KMG will meet all applicable visual impact requirements set forth by the COGCC. Where practical lights will be shielded and turned inward toward the rig to minimize disturbance to existing structures or public roadways.
 - Vibration: KMG will meet all applicable vibration requirements set forth by COGCC regulations during operations. There is not any unusual vibration anticipated from the proposed operation.
 - Air and Water Quality: KMG will meet all applicable air and water quality requirements set forth by COGCC regulations during operations. KMG will comply with the Colorado Department of Public Health and Environment regulations by filing an Air Pollution Emissions Notice (A.P.E.N.), along with any other additional required application data. If production volumes exceed required thresholds, KMG will install emissions control devices as warranted to obtain required reductions of ozone precursors. The COGCC sets forth specific requirements for casing depth in order to protect ground water sources. Produced water will be hauled away and properly disposed of in accordance with COGCC regulations.
 - Odor: KMG will meet all applicable odor requirements set forth by COGCC regulations during operations. There is not any noxious, prolonged or unusually high amounts of odor expected from the proposed operation.
 - Visual Impacts: KMG will meet all applicable visual impact requirements set forth by COGCC regulations during operations. The permanent facilities will be painted in accordance with COGCC regulations and in a manner to harmoniously blend with the surrounding environment. The site will be reclaimed to as near the original grades as practicable.
 - Environmental Impacts: A representative of or for KMG's Environmental Department will perform a site inspection to clear the location for environmental constraints (including wildlife and wetlands) prior to site construction activities. KMG will comply with all applicable wildlife and wetland regulatory requirements. Impacts to regulated wildlife species and jurisdictional wetlands are not expected.
 - Waste: Please refer to section above, 1.6 – Disposal Methods Statement.
 - Public Safety: The completed well sites will be surrounded with a chain link fence and gate with adequate lock. KMG personnel will monitor the well sites regularly upon completion of the wells in addition all new well sites are remotely monitored 24/7 by representatives in KMG's Integrated Operations Center (IOC). Authorized representatives and/or KMG personnel shall be on-site during drilling and completion operations. A copy of an Emergency Response Plan is included with this application (See Emergency Response and Fire Protection Plan).
 - Access Road: KMG will utilize a lease access road from Weld County Road 12 for all traffic associated with construction and production of the wells proposed in this application. The road will be properly graded for adequate drainage and shall be surfaced and maintained to prevent dust and mud and provide sufficient access for fire protection; culverts and bridges shall be utilized where necessary.
 - Pipelines: Oil and natural gas pipelines will be installed to remove produced oil and natural gas once the wells are brought online.
 - Required Permits - the following permits are required for this application:
 - Oil and Gas - Form 2 and 2A Permits (COGCC)
 - Oil and Gas Development Permit (Fort Lupton)

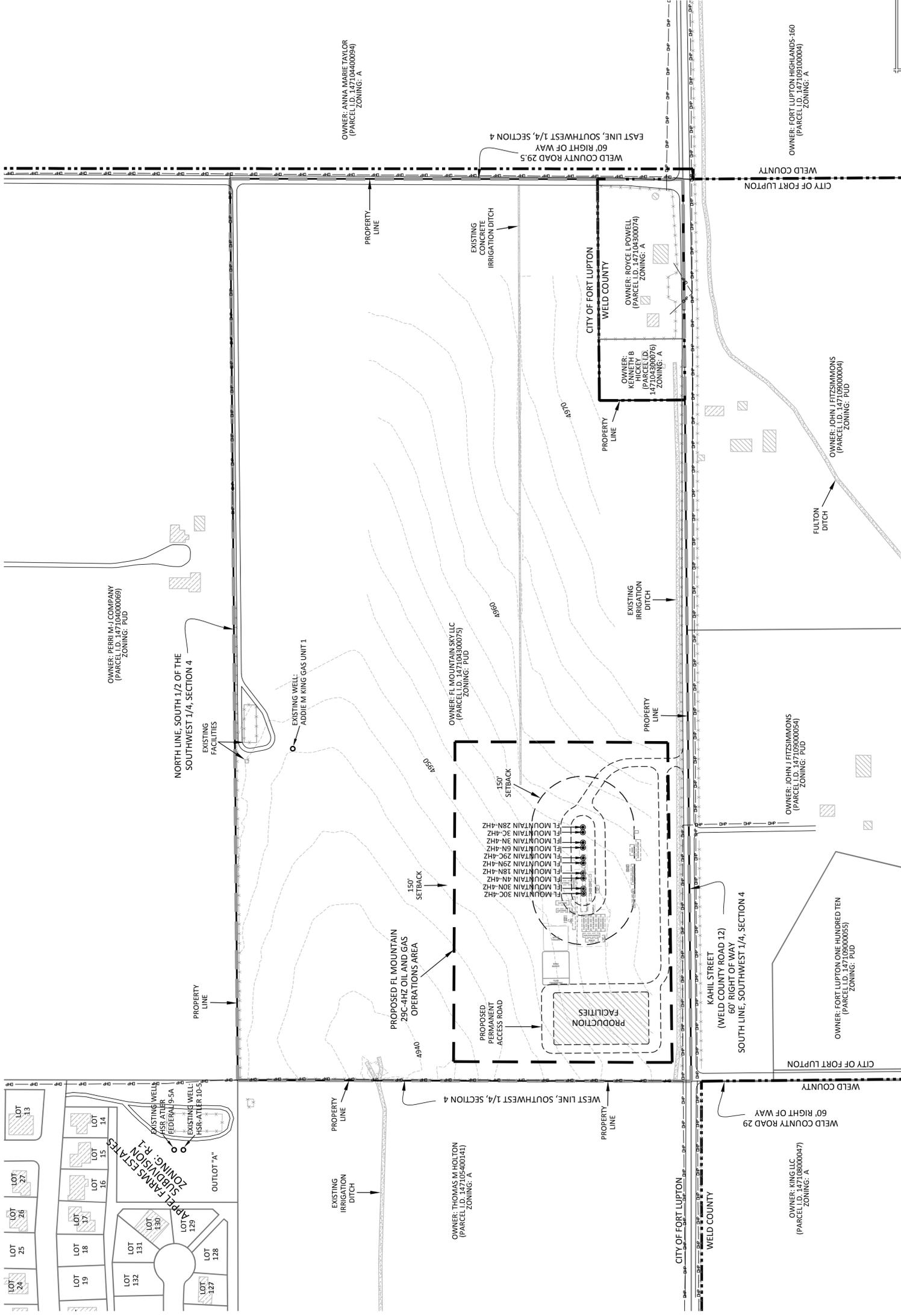
-
- ROW/Access Permit (Fort Lupton)
 - Building Permit (Fort Lupton)
 - Rig Movement Permit (Fort Lupton)
 - Oversize/Overweight Vehicles Permit (Fort Lupton)

**Master Site Plan
And Production Facility Layout**

2. Master Site Plan & Production Facility Layout

MASTER PLAN

FL MOUNTAIN 30C-4HZ, FL MOUNTAIN 30N-4HZ,
 FL MOUNTAIN 4N-4HZ FL, MOUNTAIN 18N-4HZ, FL MOUNTAIN 29N-4HZ, FL MOUNTAIN 29C-4HZ,
 FL MOUNTAIN 6N-4HZ, FL MOUNTAIN 3N-4HZ, FL MOUNTAIN 3C-4HZ & FL MOUNTAIN 28N-4HZ
 LOCATED IN THE SOUTH 1/2 OF THE SOUTHWEST 1/4, SECTION 4,
 TOWNSHIP 1 NORTH, RANGE 66 WEST, 6TH P.M.
 CITY OF FORT LUPTON, COUNTY OF WELD, STATE OF COLORADO



LEGEND

---	FORT LUPTON CITY LIMITS
---	LEASEHOLD/MINERAL INTEREST
---	OIL AND GAS OPERATIONS AREA
---	150' SETBACK
---	EXISTING CONTOURS (2' INTERVAL)
---	EXISTING PIPELINE
---	EXISTING FENCE
---	EXISTING OVERHEAD POWER LINE
○	PROPOSED WELL LOCATION
○	EXISTING WELL LOCATION
□	EXISTING RESIDENCE
□	EXISTING BUILDING



OWNER: ANNA MARIE TAYLOR
 (PARCEL I.D. 147104400094)
 ZONING: A

EAST LINE, SOUTHWEST 1/4, SECTION 4
 60' RIGHT OF WAY
 WELD COUNTY ROAD 29.5

OWNER: FORT LUPTON HIGHLANDS-160
 (PARCEL I.D. 147109100004)
 ZONING: A

OWNER: ROUCE L POWELL
 (PARCEL I.D. 147104300074)
 ZONING: A

OWNER: KENNETH B
 (PARCEL I.D. 147104300076)
 ZONING: A

OWNER: JOHN J FITZSIMMONS
 (PARCEL I.D. 147109000004)
 ZONING: PUD

OWNER: PERRI M COMPANY
 (PARCEL I.D. 147109000069)
 ZONING: PUD

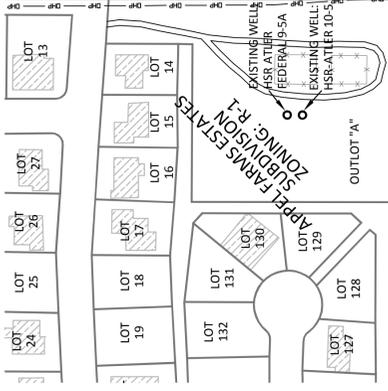
NORTH LINE, SOUTH 1/2 OF THE
 SOUTHWEST 1/4, SECTION 4

EXISTING WELL:
 ADDIE M KING GAS UNIT 1

OWNER: FL MOUNTAIN SKY LLC
 (PARCEL I.D. 147104300075)
 ZONING: PUD

OWNER: JOHN J FITZSIMMONS
 (PARCEL I.D. 147109000054)
 ZONING: PUD

OWNER: FORT LUPTON ONE HUNDRED TEN
 (PARCEL I.D. 147109000055)
 ZONING: PUD



LOVELAND OFFICE
 1635 Foxtrail Drive, Suite 204
 Loveland, Colorado 80538
 Phone 970-776-4331

SHERIDAN OFFICE
 1675 Sherman Avenue, Suite 200
 Sheridan, Wyoming 82801
 Phone 307-674-9609

CONSULTING, LLC

Kerr-McGee Oil & Gas Onshore LP
 1099 18th Street
 Denver, Colorado 80202

SCALE: 1" = 150'	PAGE: 1 OF 1
JOB: 14-105	DATE: 7/1/15
DRAFTED BY: JID	REVISED: 9/21/15

Evidence of Leasehold

3. Evidence of Leasehold

3.1 LEASEHOLD DESCRIPTION

Through Leasehold acquisitions, Kerr-McGee Oil & Gas OnShore LP (KMG), an Anadarko Company, obtained the rights to explore and drill for, as well as produce, oil and gas under the Oil and Gas Lease described below. Copies of the Oil and Gas Leases are attached hereto.

LEASE 1

Lessor: Cecil W. King and Ercelle E. King, Husband and Wife, Route 2, Box 5, Ft. Lupton, Colorado

Lessee: J. B. Bennett

Date: April 13th, 1970

Lands: Township 1 North, Range 66 West, 6th P.M.

Section 4: S/2 SW/4

Section 8: E/2 NE/4

Section 9: SE/4 SE/4

Section 10: SW/4

Weld County, Colorado

Recorded: Book 624, Reception No. 1545691, April 17, 1970

3.2 OIL, GAS AND MINERAL LEASES

(See attached)

3253
9
00112 2601545691
APR-17-70

OIL AND GAS LEASE

AGREEMENT, Made and entered into this 13th day of April 1970, by and between Cecil W. King and Erceile E. King, Husband and Wife, Route 2, Box 5, Ft. Lupton, Colorado

J. B. Bennett, party of the first part, hereinafter called lessor (whether one or more) and _____, party of the second part, lessee.

WITNESSETH: That the lessor for and in consideration of Ten and more Dollars, in hand paid, receipt of which is hereby acknowledged, of the royalties herein provided, and of the agreements of lessee herein contained, hereby grants, leases and lets exclusively unto lessee for the purpose of investigating, exploring, prospecting, drilling and mining for and producing oil, gas, casinghead gas, and all other minerals, laying pipe lines, building tanks, power stations, telephone lines and other structures thereon to produce, save, take care of, treat, transport, and own said products, and housing its employees, the following described land in Weld County, State of Colorado, to-wit:

Township 1 North, Range 66 West
Section 4: S/2SW/4
Section 8: E/2NE/4
Section 9: SE/4SE/4
Section 10: SW/4

Containing 360 acres, more or less. TO HAVE AND TO HOLD the same (subject to the other provisions herein contained) for a term of ten years from this date (called "primary term") and as long thereafter as oil or gas or casinghead gas or either or any of them, is produced therefrom; or as much longer thereafter as the lessee in good faith shall conduct drilling operations thereon and should production result from such operations, this lease shall remain in full force and effect as long as oil or gas or casinghead gas, shall be produced therefrom.

In consideration of the premises it is hereby mutually agreed as follows:

- The lessee shall deliver to the credit of the lessor as royalty, free of cost, in the pipe line to which lessee may connect its wells, the equal one-eighth (1/8) part of all oil produced and saved from the leased premises, or at the lessee's option, may pay to the lessor for such one-eighth (1/8) royalty the market price for oil of like grade and gravity prevailing in the field where produced on the day such oil is run into the pipe line, or into storage tanks.
- The lessee shall pay lessor, as royalty, one-eighth (1/8) of the proceeds from the sale of the gas, as such, for gas from wells where gas only is found, and where not used or sold shall pay Fifty (\$50.00) Dollars per annum as royalty from each such well, and while such royalty is so paid such well shall be held to be a producing well. The lessor to have gas free of charge from any gas well on the leased premises for stoves and inside lights in the principal dwelling house on said land by making his own connections with the well, the use of said gas to be at the lessor's sole risk and expense.
- To pay lessor for gas produced from any oil well and used off the premises or in the manufacturing of gasoline or any other product a royalty of one-eighth (1/8) of the market value, at the mouth of the well, payable monthly at the prevailing market price.
- If operations for the drilling of a well for oil or gas are not commenced on said land on or before one year from this date, this lease shall terminate as to both parties, unless the lessee shall, on or before one year from this date, pay or tender to the lessor or for the lessor's credit in Ft. Lupton, State of Colorado, Bank at Ft. Lupton, Colorado or its successor or successors, which bank and its successors are lessor's agents and which shall continue as the depository regardless of changes in the ownership of the land, the sum of Three hundred sixty and no/100 Dollars, which shall operate as a rental and cover the privilege of deferring the commencement of operations for the drilling of a well one year from said date. In like manner and upon like payments or tenders the commencement of operations for the drilling of a well may be further deferred for like periods successively during the primary term of this lease. And it is understood and agreed that the consideration first recited herein, the down payment, covers not only the privileges granted to the date when said rental is payable as aforesaid, but also the lessee's option of extending that period as aforesaid, and any and all other rights conferred. All payments or tenders may be made by check or draft of lessee or any assignee thereof, mailed or delivered on or before the rental paying date. Lessee may at any time execute and deliver to lessor or place of record a release or releases covering any portion or portions of the above described premises and thereby surrender this lease as to such portion or portions and be relieved of all obligations as to the acreage surrendered and thereafter the rentals payable hereunder shall be reduced in the proportion that the acreage covered herein is reduced by said release or releases. Notwithstanding the death of the lessor, or his successor in interest, the payment or tender of rentals in the manner provided above shall be binding on the heirs, devisees, executors and administrators of such persons.
- If at any time prior to the discovery of oil or gas on this land and during the term of this lease, the lessee shall drill a dry hole, or holes, on this land, this lease shall not terminate, provided operations for the drilling of a well shall be commenced by the next ensuing paying date, or provided the lessee begins or resumes the payment of rentals in the manner and amount above herein provided; and in this event the preceding paragraphs hereof governing the payment of rentals and the manner and effect thereof shall continue in force.
- If said lessor owns a less interest in the above described land than the entire and undivided fee simple estate therein, then the royalties and rentals herein provided for shall be paid the lessor only in the proportion which his interest bears to the whole and undivided fee.
- Lessee shall have the right to use, free of cost, gas, oil, and water produced on said land for its operation thereon, except water from wells of lessor. When requested by lessor, lessee shall bury his pipe lines below plow depth. No well shall be drilled nearer than 200 feet to the house or barn now on said premises, without the written consent of the lessor. Lessee shall pay for damages caused by its operations to growing crops on said land. Lessee shall have the right at any time to remove all improvements, machinery, and fixtures placed or erected by lessee on said premises, including the right to pull and remove casing.
- If the lessee shall commence to drill a well within the term of this lease or any extension thereof, the lessee shall have the right to drill such well to completion with reasonable diligence and dispatch, and if oil or gas or either of them, be found in paying quantities, this lease shall continue and be in force with the like effect as if such well had been completed within the terms of years herein first mentioned.
- If the estate of either party hereto is assigned (and the privilege of assigning in whole or in part is expressly allowed), the covenants hereof shall extend to their heirs, executors, administrators, successors and assigns, but no change of ownership in the land or in the rentals or royalties shall be binding on the lessee until after notice to the lessee and it has been furnished with the written transfer or assignment or a certified copy thereof, and in case lessee assigns this lease, in whole or in part, lessee shall be relieved of all obligations with respect to the assigned portion or portions arising subsequent to the date of assignment.
- If the lease premises shall hereafter be owned in severalty, or in separate tracts, the premises, nevertheless, shall be developed and operated as one lease and all royalties accruing hereunder shall be treated as an entirety and shall be divided among and paid to such separate owners in the proportion that the acreage owned by each such separate owner bears to the entire leased acreage. There shall be no obligation on the part of the lessee to offset wells on separate tracts into which the land covered by this lease may be hereafter divided by sale, devise or otherwise, or to furnish separate measuring or receiving tanks. It is hereby agreed that, in the event this lease shall be assigned as to a part or as to parts of the above described lands, and the holder or owner of any such part or parts shall fail or make default in the payment of the proportionate part of the rent due from him or them, on an acreage basis, such default shall not operate to defeat or affect this lease in so far as it covers a part or parts of said lands upon which the said lessee or any assignee hereof shall make due payment of said rentals.
- If at any time there be as many as six parties (or more) entitled to receive royalties under this lease, lessee may withhold payment thereof unless and until all parties designated in writing in a recordable instrument to be filed with the lessee a Trustee to receive all royalty payments due hereunder and to execute division and transfer orders on behalf of said parties and their respective successors in title.
- Lessee shall have the right to unitize, pool, or combine all or any part of the above described lands with other lands in the same general area by entering into a cooperative or unit plan of development or operation approved by any governmental authority and, from time to time, with like approval to modify, change or terminate any such plan or agreement and, in such event, the terms, conditions, and provisions of this lease shall be deemed modified to conform to the terms, conditions, and provisions of such approved cooperative or unit plan of development or operation and, particularly, all drilling and development requirements of this lease, express or implied, shall be satisfied by compliance with the drilling and development requirements of such plan or agreement, and this lease shall not terminate or expire during the life of such plan or agreement. In the event that said above described lands or any part thereof, shall hereafter be operated under any such cooperative or unit plan of development or operation whereby the production therefrom is allocated to different portions of the land covered by said plan, then the production allocated to any particular tract of land shall, for the purpose of computing the royalties to be paid hereunder to lessor, be regarded as having been produced from the particular tract of land to which it is allocated and not to any other tract of land; and the royalty payments to be made hereunder to lessor shall be based upon production only as so allocated. Lessor shall formally express lessor's consent to any cooperative or unit plan of development or operation adopted by lessee and approved by any governmental agency by executing the same upon request of lessee.
- In the interest of conservation, the protection of reservoir pressures and the recovery of the greatest ultimate yield of oil, gas and other minerals, lessee shall have the right to combine the leased premises with other premises in the same general area for the purpose of operating and maintaining repressuring and recycling facilities; and for such purpose may locate such facilities, including input wells, upon the leased premises, and no royalties shall be payable hereunder upon any gas used for repressuring and recycling operations benefiting the leased premises.
- Lessor hereby warrants and agrees to defend the title to the land herein described and agrees that the lessee, at its option, may pay and discharge any taxes, mortgage, or other liens existing, levied, or assessed on or against the above described lands and, in event it exercises such option, it shall be subrogated to the rights of any holder or holders thereof and may reimburse itself by applying to the discharge of any such mortgage, tax or other lien, any royalty or rentals accruing hereunder.
- All rental payments which may fall due under this lease may be made to above named Lessors one of the above named lessors, in the manner herein stated.
- If within the primary term of this lease production on the leased premises shall cease from any cause, this lease shall not terminate provided operations for the drilling of a well shall be commenced before or on the next ensuing rental paying date; or, provided lessee begins or resumes the payment of rentals in the manner and amount hereinbefore provided. If, after the expiration of the primary term of this lease, production on the leased premises shall cease from any cause, this lease shall not terminate provided lessee resumes operations for drilling a well within sixty (60) days from such cessation, and this lease shall remain in force during the prosecution of such operations and, if production results therefrom, then as long as production continues.
- It is agreed that this lease shall never be forfeited or cancelled for failure to perform in whole or in part any of its implied covenants, conditions, or stipulations until it shall have first been finally judicially determined that such failure exists, and after such final determination, lessee is given a reasonable time therefrom to comply with any such covenants, conditions, or stipulations.
- All expressed and implied covenants of this lease shall be subject to all federal and state laws, executive orders, rules and regulations, and this lease shall not be terminated, in whole or in part, nor lessee held liable in damage for failure to comply therewith if compliance is prevented by or if such failure is the result of any such law, order, rule or regulation, or if such compliance is prevented by or failure is the result of inability of lessee through no fault of its own, to obtain sufficient and satisfactory material and equipment to justify the commencement of drilling operations or to continue production of oil or gas from the leased premises.
- This lease and all its terms, conditions, and stipulations shall extend to and be binding on all successors of said lessor or lessees.
- With respect to and for the purpose of this lease lessor, and each of them if there be more than one, hereby release and waive the right of homestead. WHEREOF witness our hands as of the day and year first above written.

Cecil W. King
Erceile E. King

604081-C

328
mk

**Operator / Surface Owner Information
and Adjacent Property Owners**

4. Operator / Surface Owner Information and Adjacent Property Owners

4.1 OPERATOR IDENTIFICATION

Kerr-McGee Oil & Gas Onshore LP
(An Anadarko company)
1099 18th Street
Denver, Colorado 80202
Tel: (720) 929-6000
Fax: (720) 929-7297
Contact: Kim Mendoza-Cooke
Integrated Operations Center: 866-504-8184

Kerr-McGee Oil & Gas Onshore LP (KMG), an Anadarko Company, is a fully insured and bonded oil and gas operator, organized as a Delaware Limited Partnership and authorized to do business in the State of Colorado as Kerr-McGee Oil & Gas Onshore LP. All insurance and bonds held by KMG meet the requirements as set forth in the rules and regulations as adopted by the Colorado Oil and Gas Conservation Commission.

4.2 MINERAL OWNERS (FOR SURFACE LOCATION)

Raisa DJ Basin I, LP
1580 Lincoln Street
Suite 1110
Denver, Colorado 80203

King Mineral LLC
1840 Oxford Dr.
Cheyenne, Wyoming 82001

Blackriver Niobrara Partners II, LLC
8001 S. Interport Blvd. #260
Englewood, Colorado 80112

4.3 SURFACE OWNERS NAMES AND AGREEMENT

FL Mountain Sky LLC
500 Fairfax Street
Denver, Colorado 80220-5133
Parcel: 147104300075

Surface Use Agreement is attached

**AGREEMENT FOR SETTLEMENT OF SURFACE DAMAGES
AND GRANT OF RIGHTS AND WAIVERS**

This Agreement for Settlement of Surface Damages and Grant of Rights and Waivers ("SDA") is entered into on August 15th, 2015, (the "Effective Date") by and between FL Mountain Sky LLC, a Colorado Limited Liability Company ("Surface Owner"), whose address is 9200 E. Mineral Ave., Suite 365, Centennial, CO 80112, and Kerr-McGee Oil & Gas Onshore LP ("KMG"), with offices at 1099 18th Street, Suite 1800, Denver, Colorado 80202, sometimes referred to herein after as (the "Party" or collectively as the "Parties"), covering certain lands (the "Lands") situated in Weld County, Colorado, described as follows:

Township 1 North, Range 66 West of the 6th P.M.

Section 4: Lot B of Recorded Exemption No. 1471-04-3-RE2046, recorded August 21, 1997 in Book 1622 at Reception No. 2564863, being a part of the S2SW of Section 4, Township 1 North, Range 66 West of the 6th P.M., County of Weld, State of Colorado

NOW, THEREFORE, in consideration of the mutual promises contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Acknowledgement of Rights and Easements of KMG

Surface Owner acknowledges and understands that KMG, as owner or lessee of the oil and gas estate in the Lands, owns an easement and right-of-way that burdens the Lands, and that KMG has a continuing right and entitlement to the reasonable use of the surface of the Lands for its operations, including, but not limited to, access, construction, operation, maintenance, repair and replacement of temporary above-ground water lines and completion fluid lines, subsurface flowlines, gathering lines and other pipelines, data transmission lines, electrical lines and related equipment (both subsurface and above-ground) that may be necessary or convenient to its operations on the Lands.

2. Release of All Claims

Notwithstanding the foregoing, and subject to the terms of that certain Agreement Regarding Compensation ("*Letter Agreement*") between Surface Owner and KMG entered into contemporaneously with this SDA, KMG agrees pay to Surface Owner the sum set forth in that Letter Agreement as full consideration and final settlement and satisfaction for any and all detriment, depreciation, injury or damage of any nature to the Lands or growing crops thereon that may occur as a result of KMG's operations on the Lands, including, but not limited to, KMG's drilling and completion operations, its continuing activities for the production and transportation of oil, gas, other hydrocarbons, water or products associated with such operations and activities, use of the surface of the Lands, ingress, egress, access roads, mud and reserve pits, wellhead equipment, separators, tank batteries, pipelines, gathering lines, flowlines, pipeline interconnections, electrical lines and equipment, and any and all other reasonable and customary uses of the Land related to all such operations or activities.

3. Oil and Gas Operations Area

Pursuant to the terms and conditions of the Letter Agreement, the Parties hereby agree to an "*Oil and Gas Operations Area*" that includes a "*Permanent Operations Area*" and an "*Ancillary Operations Area*," as depicted on Exhibit A. The size and area for the Permanent Operations Area and the Ancillary Operations Area for the Oil and Gas Operations Area being the number of acres generally depicted on Exhibit A to the SDA.

a. Permanent Operations Area. The Parties agree that the Permanent Operations Area shall be an area for KMG to locate wells that produce and drain oil, gas, and other hydrocarbons from the Lands, lands pooled therewith, or nearby lands, and to construct use and maintain the necessary equipment therefore, including but not limited to, separators, tank batteries, production facilities, and related appurtenances and equipment, and conduct operations for the drilling and operation of the same. The Permanent Operations Area is for the exclusive use of KMG for its oil and gas operations and the location of wells and facilities.

b. Ancillary Operations Area. The Parties agree that the Ancillary Operations Area shall be an area for KMG to locate equipment and conduct operations related to the preparation, drilling and completion of wells to be drilled at locations within the Permanent Operations Area and for the temporary location of drilling and production equipment and facilities for such wells. Except for portions of the access roads, flowlines, pipelines, and utilities, and their related appurtenances, KMG may not locate wells or permanent production facilities within the Ancillary Operations Areas without the permission and consent of Surface Owner.

i. Upon written request by the Surface Owner and the written consent of KMG, which shall not be unreasonably withheld, Surface Owner may use any of the Ancillary Operations Area for shallow root landscape, gravel parking and for the temporary location of equipment during those times that the areas are not being utilized by KMG. KMG shall in all events and at all times have priority in the use of the Ancillary Operations Areas for the purposes set forth in this SDA.

ii. KMG shall in no event be liable for loss or damage to Surface Owner or any third-party for any use of the Ancillary Operations Area, except for loss resulting from the intentional acts or gross negligence of KMG. In no event will KMG be liable for Surface Owner or any third party's inability to use the Ancillary Operations Areas. Further, in no event will KMG be responsible or liable for costs of Surface Owner or third parties, arising out of its activities in and around the Operations Area in accordance with the terms of this SDA.

Notwithstanding anything else herein, KMG, may locate pipelines, gathering lines, flowlines, pipeline interconnections, electrical lines and equipment, outside of the Oil and Gas Operations Area, as otherwise set forth in the Letter Agreement. The form of utility easement and right-of-way for above-ground and subsurface utilities for use related to operations on the Lands is attached to the Letter Agreement.

In the event that KMG is unable to utilize the Oil and Gas Operations Area, pipeline and electrical easements or access roads as generally depicted on Exhibit A to the SDA, for whatever reason, including technological or economical limitations, permit or regulatory conflicts or issues with the COGCC, the State, County, Army Corp of Engineers, the Town of Fort Lupton or any other governmental or regulatory entities that retain jurisdiction over such approval, the Parties agree that said Oil and Gas Operations Area, pipeline and electrical easements or access roads shall be replaced with another location and selected by the Parties. The new locations selected will need to accommodate current technological limitations as well as be economically feasible for the Operator.

4. Grant of Grant of Additional Easements

Surface Owner hereby grants and conveys to KMG and its successors and assigns, non-exclusive, perpetual subsurface easements through the Lands for the placement of wellbores for the purpose of drilling, operating and producing oil and gas wells that produce and drain hydrocarbons from nearby lands.

5. Pipeline Easement and Right-of-Way

Pursuant to the terms and conditions of the Letter Agreement, Surface Owner grants and agrees to execute and deliver to Kerr-McGee Gathering LLC, an affiliate of KMG, or another third party gatherer designated by KMG a non-exclusive pipeline easement and right-of-way to construct, operate, and remove pipelines to transport oil, gas, hydrocarbons, water, or other products produced from the Lands or nearby lands. Said easement and right-of-way shall be limited to seventy-five (75) feet during construction and fifty (50) feet thereafter and generally located along the outer boundaries of the Lands, except where the easement and right-of-way must traverse the Lands to access the Oil and Gas Operations Area, in which event the Parties will mutually agree on the location of any easement and right-of-way that must traverse the Lands to access the Oil and Gas Operations Area, which agreement shall not be unreasonably withheld.

6. Waivers and Regulation

Surface Owner, for itself and its successors and assigns, hereby waives the right to, and covenants not to, protest or object to the use of the surface of the Lands as provided in this SDA and the Letter Agreement. Furthermore, Surface Owner and its successors and assigns will provide KMG and its successors and assigns with all

written waivers and other evidence of support they may reasonably require to obtain permits from the Colorado Oil and Gas Conservation Commission ("COGCC") or any local jurisdiction.

As provided in COGCC Rule 318A or any successor rule or amendment adopted by the COGCC, or in any rule or ordinance of a local jurisdiction, relating to the location of wells within the Greater Wattenberg Area ("GWA"), Surface Owner hereby consents to, and waives its right to protest or object to surface well locations that are outside of designated GWA windows and surface well locations that are more than 50 feet from an existing well.

Surface Owner further understands and acknowledges that COGCC rules and regulations govern the distance between a wellhead and public roads, production facilities, buildings, building units and surface property lines, among other things. To the fullest extent possible, Surface Owner hereby waives all setback requirements in COGCC Rules 603 and 604 and any successor rules or amendments, including Exception Zone setbacks and any other state or local setback requirements or other laws, requirements or regulations that would prohibit or interfere with the rights of KMG and its successors and assigns to explore for and produce oil and gas from the Lands or other lands. Surface Owner agrees to not establish any "Designated Outside Activity Area" as defined by the COGCC.

Surface Owner acknowledges that KMG and its successors and assigns may cite the waivers in this SDA in order to obtain exceptions and variances from the COGCC or from any other state or local body having jurisdiction over oil and gas operations. Surface Owner agrees that this SDA satisfies any requirement for a consent to an exception or variance signed by the surface owner, Building Unit Owner (as that term is defined in the COGCC Rules and any successor rules or amendments), homeowner or the like and agrees that KMG and its successors and assigns may provide a copy of this SDA to the COGCC or to any other state or local body in satisfaction of such requirement. In addition, Surface Owner agrees to execute and deliver to KMG and its successor and assigns all consents and waivers requested, including waivers required from Building Unit Owners, homeowners and the like.

7. Vacating Existing Building Envelope

Surface Owner and KMG acknowledge that a 300' x 300' building envelope (the "*Building Envelope*") was created by Recorded Exemption No. 1471-04-3-RE2046 recorded at Reception No. 2564863 in the records of the Clerk and Recorders Office of Weld County, Colorado. Whereby upon execution of this Agreement, Surface Owner acknowledges its desire and intent to immediately vacate the Building Envelope to allow KMG to utilize the area for a portion of its Oil and Gas Operations Area. Surface Owner shall diligently work to legally vacate the Building Envelope by filing a Corrected Recorded Exemption with Weld County, Colorado and will furnish a copy to KMG upon recording no later than January 15, 2016. In the event that the Building Envelope cannot, for any reason, be vacated prior to January 15, 2016, Surface Owner must immediately inform KMG in writing of the same and the SDA and this Agreement will be null and void.

8. Notice to Future Owners

In order to provide notice to all buyers and assignees of an interest in the Lands (or any portion thereof), including all builders, property owners, property owners' associations, and special districts, (each, a "*Future Owner*") of the existence of this SDA, the grants and waivers contained herein and the fact that Surface Owner has agreed to the amount of compensation for surface damages, for the grant of additional rights and easements and for the agreements and waivers in this SDA, this SDA shall be recorded with the Clerk and Recorder of Weld County, Colorado and it is expressly understood and agreed by Surface Owner and KMG that the waivers, notice requirements and the obligations assumed by Future Owners as set forth in this SDA are, and shall be construed to be, covenants that run with the Land.

9. Following the execution of the SDA, the Letter Agreement and any of the easements and rights-of-way referenced therein, Surface Owner agrees to modify its subdivision application for the Lands to reflect the terms of the foregoing documents, and upon doing so KMG agrees to withdraw its objection to the proposed subdivision of the Lands and not to oppose any application by Surface Owner to subdivide the Lands provided that any such

application is consistent with the terms of this SDA, the Letter Agreement and any of the easements and rights-of-way referenced therein.

10. Assignment

KMG may assign this SDA in whole or in part.

11. Binding Agreement

The terms of this SDA shall constitute covenants running with the land and shall be binding upon the heirs, executors, administrators, successors, and assigns of the parties hereto.

12. Counterpart Signatures

This SDA may be executed in any number of counterparts, each of which shall be deemed an original instrument but all of which together shall constitute one and the same instrument.

The undersigned have executed this SDA on the date first above written.

FL Mountain Sky LLC

By:  _____

Name: Gene A. Osborne

Title: Manager

FL Mountain Sky LLC

By:  _____

Name: Guy R. James

Title: Manager

Kerr-McGee Oil & Gas Onshore LP

By:  _____

Name: Ronald H. Olsen

Title: Agent & Attorney-in-Fact

ACKNOWLEDGEMENTS

STATE OF Colorado)
)ss
COUNTY OF Douglas)

The foregoing instrument was acknowledged before me this 26 day of August 2015, by Gene A. Osborne, as Manager of FL Mountain Sky LLC, a Colorado Limited Liability Company.

Witness my hand and official seal.

Kim J. Harrison
Notary Public

My commission expires 5/23/16



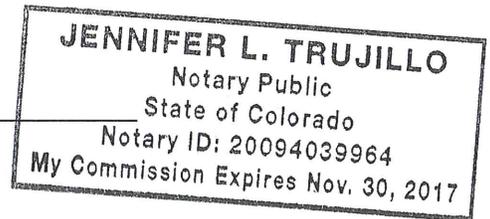
STATE OF Colorado)
)ss
COUNTY OF Denver)

The foregoing instrument was acknowledged before me this 26th day of August 2015, by Guy R. James, as Manager of FL Mountain Sky LLC, a Colorado Limited Liability Company.

Witness my hand and official seal.

Jennifer L. Trujillo
Notary Public

My commission expires 11/30/2017



STATE OF COLORADO)
)ss
CITY AND COUNTY OF DENVER)

This instrument was acknowledged before me this 24th day of September 2015, by Ronald H. Olsen, Agent & Attorney-in-Fact of Kerr-McGee Oil & Gas Onshore LP, on behalf of said limited partnership.

Witness my hand and official seal.

Alexandra G. Weaver
Notary Public

My commission expires 11/21/2017

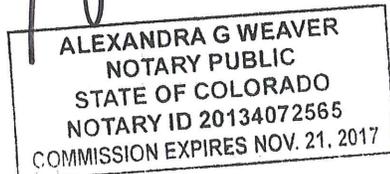
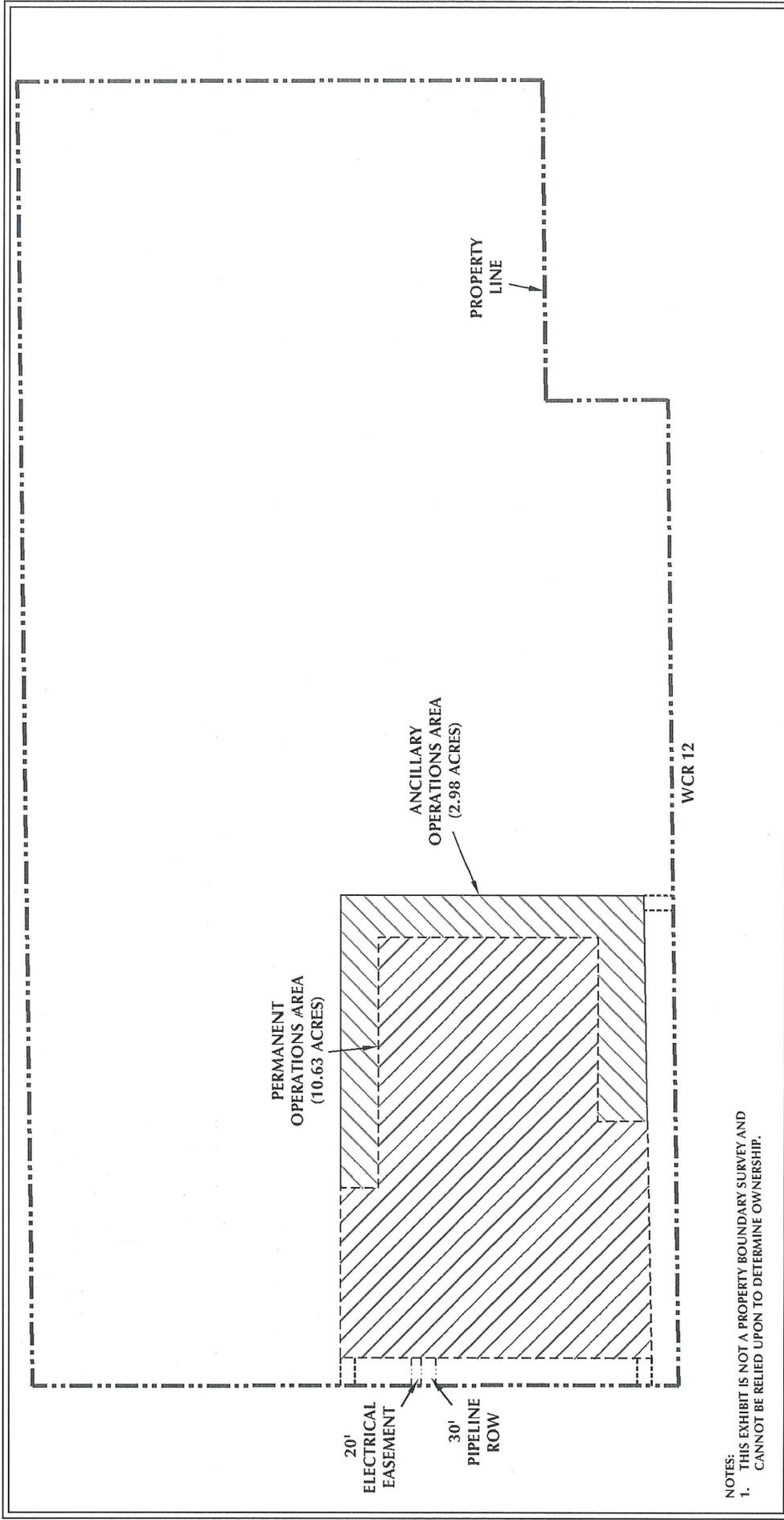


EXHIBIT "A" TO THE SDA BETWEEN FL MOUNTAIN SKY, LLC AND KMG



<p>LEGEND</p> <p>----- PROPERTY LINE</p> <p>----- ACCESS ROAD EASEMENT</p> <p>▨ PERMANENT AREA</p> <p>▧ ANCILLARY AREA</p>	 	<p>LOCATED IN S1/2 SW1/4 SECTION 4, T1N, R66W, 6TH P.M. WELD COUNTY, COLORADO</p>
		<p>PREPARED FOR: Kerr-McCee Oil & Gas Onshore L.P.</p>
		<p>DATE SURVEYED: 4/16/15 DATE: 8/25/15 DRAFTER: JFE REVISED: 8/25/15</p>
		<p>609 CONSULTING, LLC LOVELAND OFFICE 10000 E. 10th Avenue, Suite 200 Loveland, Colorado, 80538 Phone: 970-776-1511</p> <p>SHERIDAN OFFICE 10000 E. 10th Avenue, Suite 200 Sheridan, Wyoming, 82801 Phone: 307-674-6009</p>

4.4 ADJACENT PROPERTY OWNERS

Adjacent surface owners within 500 feet of proposed wells and production facilities on parcel 147104300075.

Account	Parcel	Owner	Mailing Address
R0007990	147104000069	PERRI M-J COMPANY	14286 HIGHWAY 52 FORT LUPTON, CO 806218223
R7503298	147104300074	POWELL ROYCE L	14425 COUNTY ROAD 12 FORT LUPTON, CO 806218205
R7503398	147104300075	FL MOUNTAIN SKY LLC	500 FAIRFAX ST DENVER, CO 802205133
R7503498	147104300076	HICKEY KENNETH B	14405 COUNTY ROAD 12 FORT LUPTON, CO 806218205
R6783157	147104400094	TAYLOR GEORGE PAUL III	
R6783157	147104400094	TAYLOR ANNA MARIE	1308 7TH ST FORT LUPTON, CO 806211628
R3248504	147105400141	HOLTON THOMAS M	12032 HIGHWAY 52 FORT LUPTON, CO 806218360
R1505102	147105401049	APPEL FARMS HOMEOWNERS ASSOC INC	P O BOX 30 FREDERICK, CO 805300030
R2672804	147105402139	APPEL FARMS HOMEOWNERS ASSOC INC	P O BOX 30 FREDERICK, CO 805300030
R8750800	147108000047	KING LLC	4707 COUNTY ROAD 29 FORT LUPTON, CO 806218322
R6215686	147109000004	FITZSIMMONS CYNTHIA J	
R6215686	147109000004	FITZSIMMONS JOHN J	PO BOX 1412 NEDERLAND, CO 804661412
R6217286	147109000054	FITZSIMMONS CYNTHIA J	
R6217286	147109000054	FITZSIMMONS JOHN J	PO BOX 1412 NEDERLAND, CO 804661412
R6217486	147109000055	FORT LUPTON ONE HUNDRED TEN	C/O JOHN J VANDEMOER 8791 CIRCLE DR WESTMINSTER, CO 800313675
R6780888	147109100004	FORT LUPTON HIGHLANDS- 160	C/O JOHN J VANDEMOER 8791 CIRCLE DR WESTMINSTER, CO 800313675

Bond Requirements

5. Bond Requirements

KMG, a subsidiary of Anadarko Petroleum Corporation, is a bonded oil and gas operator authorized to do business in the state of Colorado and organized as a Delaware Company. All bonds held by KMG meet the requirements as set forth in the rules and regulations as adopted by the Colorado Oil and Gas Conservation Commission

SURETY DETAIL INFORMATION

Surety ID:	2001-0126
Status:	ACTIVE
Operator Number:	47120
Bond Amount:	\$50,000.00
Instrument:	INSURANCE
Instrument Number:	2971100-2690
Coverage:	BLANKET
Bond Type:	GAS FACILITIES
Limitation:	
Deposit Number:	
PDPA Number:	
Received Date:	9/28/2001
Approved Date:	10/2/2001
Maturity Expire Date:	
FA Provider Number:	75949
FA Provider Name:	SAFECO INSURANCE COMPANY OF AMERICA
Deposit Date:	
Release Request Date:	N/A
Release Date:	N/A

Insurance Requirements

6. Insurance Requirements

KMG, a subsidiary of Anadarko Petroleum Corporation, is insured oil and gas operator authorized to do business in the state of Colorado and organized as a Delaware Company. All insurance held by KMG meet the requirements as set forth in the rules and regulations as adopted by the Colorado Oil and Gas Conservation Commission.

SURETY DETAIL INFORMATION

Surety ID:	2001-0126
Status:	ACTIVE
Operator Number:	47120
Bond Amount:	\$50,000.00
Instrument:	INSURANCE
Instrument Number:	2971100-2690
Coverage:	BLANKET
Bond Type:	GAS FACILITIES
Limitation:	
Deposit Number:	
PDPA Number:	
Received Date:	9/28/2001
Approved Date:	10/2/2001
Maturity Expire Date:	
FA Provider Number:	75949
FA Provider Name:	SAFECO INSURANCE COMPANY OF AMERICA
Deposit Date:	
Release Request Date:	N/A
Release Date:	N/A

Operating Plan

7. Operating Plan

7.1 DRILLING PHASE

The drilling operations are expected to take three to four months (under normal circumstances). Initially the subject land is surveyed and a well location is staked in accordance with Colorado Oil and Gas Conservation Commission (COGCC) regulations. The drilling pad is designed to prevent run off so that any spills would be contained on site. The pad is lined with a layer of compacted clay materials to help prevent fluids from migrating vertically to the subgrade. From this point forward, twenty-four (24) hour operations of dirt work equipment begin preparing the location including leveling the surface where the drilling rig will be located. After the location has been prepared, a drilling rig will move in to drill the surface intervals of the wells and cement the surface pipe to protect ground water formations. This process will take approximately 1 day per well under normal circumstances, subsequently a 10 well pad will take 10 days to drill and cement the surface casing pipes. Depending on the size/type of rig utilized to drill the surface interval, production drilling operations will either begin immediately with the same rig or a different rig will be moved onto location at a later date to drill the production interval. Drilling the production interval of the well will take 4 to 5 days per well, under normal circumstances. The actual drilling proceeds at a constant rate unless below the surface or mechanical problems are encountered.

If the well is deemed viable, casing is run in the hole and cemented (alternatively the well is plugged according to COGCC regulations). The casing, constructed of steel pipe, is designed to specific criteria to provide an integral conduit for transporting hydrocarbons to the surface. The casing strength is further enhanced by the cementing process. Cement is placed in the space between the casing and the wall of the hole. The cement anchors the casing, provides increased burst resistance, and contains the fracturing and produced fluids. The cement is also designed to special criteria. The cement is then allowed to cure and concurrently the rig is moved off location. At this point the drilling phase is complete.

7.2 DRAINAGE AND EROSION CONTROL PLAN

Changes in the current drainage patterns are not anticipated. The well site will be monitored during the drilling and completion phases for any problems with drainage or erosion. Necessary measures will be taken to correct any problems. Once the drilling and completion phases are complete, the drill site will be restored as near as practical, to its original grade and vegetation planted as required by regulations and surface use agreements. KMG will continue to monitor the site until all applicable regulatory requirements for revegetation have been met.

KMG uses a closed loop or “pitless” system for drilling and fluid management and does not construct a reserve pit. The drilling company will actively manage the area around the rig equipment such that any minor fluid spills will be diverted and drain to small pumps strategically located and from there, if only water, will be pumped into the drilling fluid system. If the fluid is contaminated by fluids other than water, it will be pumped into a separate container and removed from the site to an approved disposal facility

7.3 WATER SOURCES FOR DRILLING ACTIVITIES

Water for use in drilling operations will be secured by KMG through its own “Water On Demand” system, or from a water supplier in the immediate area of the drill site. Water use will be approved for commercial and industrial use and will be subject to a mutually acceptable agreement between KMG and the water supplier.

7.4 COMPLETION PHASE

Sometime after the drilling rig has rigged down, horizontal completions operations may begin. The construction of the production facility, where practical may occur concurrent with the drilling operations. Completion operations include all operations performed after drilling the well up to delivering a producing well to be managed by the Production Operations group. These completions operations consist of well preparation, fracture stimulation, and preparing the well for production to sales.

The well preparation phase of completions operations are performed to prepare for the fracture stimulation operation. Initially, the necessary wellhead equipment is installed to conduct well preparation operations. KMG wells are designed, built, operated and maintained to the highest standards. Logging is performed to confirm the cement quality behind the well casing meets KMG and regulatory standards. The wellbore is pressure tested to confirm the casing can withstand the high pressures associated with a fracture stimulation. A wellbore clean out operation is performed to remove any foreign objects and/or cement obstructions and then the casing perforated at the distal end of the wellbore to prepare the well for the initial fracture stimulation. Lastly, the remaining necessary wellhead equipment is installed to ready the well for fracture stimulation. A crew of 1 to 6 people are required to perform the above operations. The cumulative duration of the well preparation operations is 3 to 4 days.

The fracture stimulation operation is conducted to stimulate the flow of hydrocarbons from the targeted geologic formation to the wellbore and up to the wellhead. Fracture stimulation consists of pumping a water and sand mixture into the wellbore at a high pressure and flow rate. The water/sand mixture exits the wellbore to contact the rock formation through perforations made to the well casing. The stimulation operation for each well is performed in stages to concentrate the stimulation of the rock formation at designed intervals along the wellbore. In the event multiple wells are included in the fracture stimulation operations, only one well is under stimulation at one time. During stimulation, a crew of 35 to 45 people are required. The cumulative duration of the fracture stimulation operation is 3 to 7 days per well.

At the conclusion of the fracture stimulation operation, the well is prepared for long-term production. A coiled tubing unit is utilized to mill the plugs set in the wellbore to isolate the stimulation stages and to clean out the wellbore. Production tubing is installed to direct the flow of hydrocarbons inside the wellbore to the wellhead at surface. Once the production tubing is landed, the well is managed by the Production Operations group. The cumulative duration of the post fracture stimulation operations is 1 to 3 weeks with a crew of 3 to 10 people.

The completion process is a 24 hour/7 day operation and crews are rotated every 12 hours for continuous operations. Once fracture stimulation operations begin there will be varying activity on location until the well is turned over to permanent production operations.

7.5 PRODUCTION PHASE

The production phase may overlap the completion phase. After the completions fleet has cleared location, the wells are connected to a production facility. Gathering equipment may also be installed on location by a third party gathering company. The production and gathering facilities, may consist of maintenance/oil tank(s), water tank(s), separator(s), LACT(s) units (Lease Automatic Custody Transfer), vapor recovery unit(s) (VRU), emission control device(s) (ECD), and a meter(s) house. In addition, pumping units may be installed. The tank batteries will be connected to the wells by pressure tested flowline buried approximately four feet deep. At this point, the gas purchaser is preparing to connect the gas sales meter loop. The production facility installation is completed by constructing an

earthen or metal berm around the production tank(s) and separator. The berm will be constructed around tanks in the absence of remote impounding. Both methods shall enclose an area with sufficient volume to contain the entire contents of the largest tank in the enclosure in addition to adequate freeboard to contain the volume of the largest tank and precipitation from a 24 hour 25 year precipitation event. The berms will be inspected at regular intervals and maintained in good condition. When a berm is provided around tanks no potential ignition sources shall be installed inside that area.

The lease operator then begins his monitoring of the well. Reports consist of tank measurements, gas sales estimates, and pressure reading. This information is compiled monthly and filed with the COGCC.

When a well is completed for production, all disturbed areas no longer needed will be restored and re-vegetated as soon as practicable. All segregated soil horizons removed from crop lands shall be replaced to their original relative positions and contour, and shall be tilled adequately to re-establish a proper seedbed. The area shall be treated if necessary and practicable to prevent invasion of undesirable species and noxious weeds, and to control erosion. Any perennial forage crops that were present before disturbance shall be re-established. All segregated soil horizons removed from non-crop lands shall be replaced to their original relative positions. The segregated soil horizons will contour as near as practicable to achieve erosion control and long-term stability, and shall be tilled adequately in order to establish a proper seedbed. The disturbed area then shall be re-seeded in the first favorable season.

At some point in the well's life, tubing may be run in the well with the possible addition of a plunger lift and/or pumping unit. This will extend the well's producing life and maximize reserves.

7.6 WEED CONTROL

All locations, including wells and production facilities, will be kept free of weeds; rubbish, and other waste material. During drilling, production, and reclamation operations, all disturbed areas shall be kept reasonably free of noxious weeds and undesirable species. When a well is completed for production, all disturbed areas no longer needed will be restored and revegetated as soon as practicable.

7.7 PLUGGING AND ABANDONMENT PHASE

Plugging and abandonment is the cementing of a well and removal of its associated production facilities. This also includes the removal or abandonment in-place of its flowline and the remediation and reclamation of the well site.

Upon the plugging and abandonment of a well, all cellars will be backfilled. All debris, abandoned gathering line risers, and flowline risers, and surface equipment will be removed, and the location will be graded and re-contoured. Within ninety (90) days after a well is plugged and abandoned, the well site shall be cleared of all non-essential equipment, and debris. All access roads to the plugged and abandoned wells and associated production facilities shall be closed, graded and re-contoured in accordance with the COGCC regulations and Surface Use Agreement (if applicable). Culverts and any other obstructions that were part of the access road(s) shall be removed. Well locations, access roads and associated facilities shall be reclaimed. As applicable, compaction alleviation, restoration, and revegetation of well sites and access roads shall be performed. After plugging a well, reclamation work will be completed within three (3) months on crop land, twelve (12) months on non-crop land, or with landowner consent reclamation will occur during optimal re-vegetation times of the year.

Successful Final Reclamation of the well sites and access roads will be considered completed when:

1. Reclamation of crop land has been performed and over two growing seasons has indicated no significant un-restored subsidence.
2. Reclamation of non-crop land has been performed and the total cover of live perennial vegetation, excluding noxious weeds, provides sufficient soils erosion control. The total cover of live perennial vegetation of adjacent or nearby undisturbed land, not including overstory or tree canopy cover, having similar soils, slope and aspect of the reclaimed area.
3. Disturbances resulting from flow line installations shall be adequately reclaimed when the disturbed area is reasonably capable of supporting the pre-disturbance land use.
4. A Sundry Notice, Form 4, will be submitted to the COGCC, which describes the final reclamation procedures and any mitigation measures associated with final reclamation.

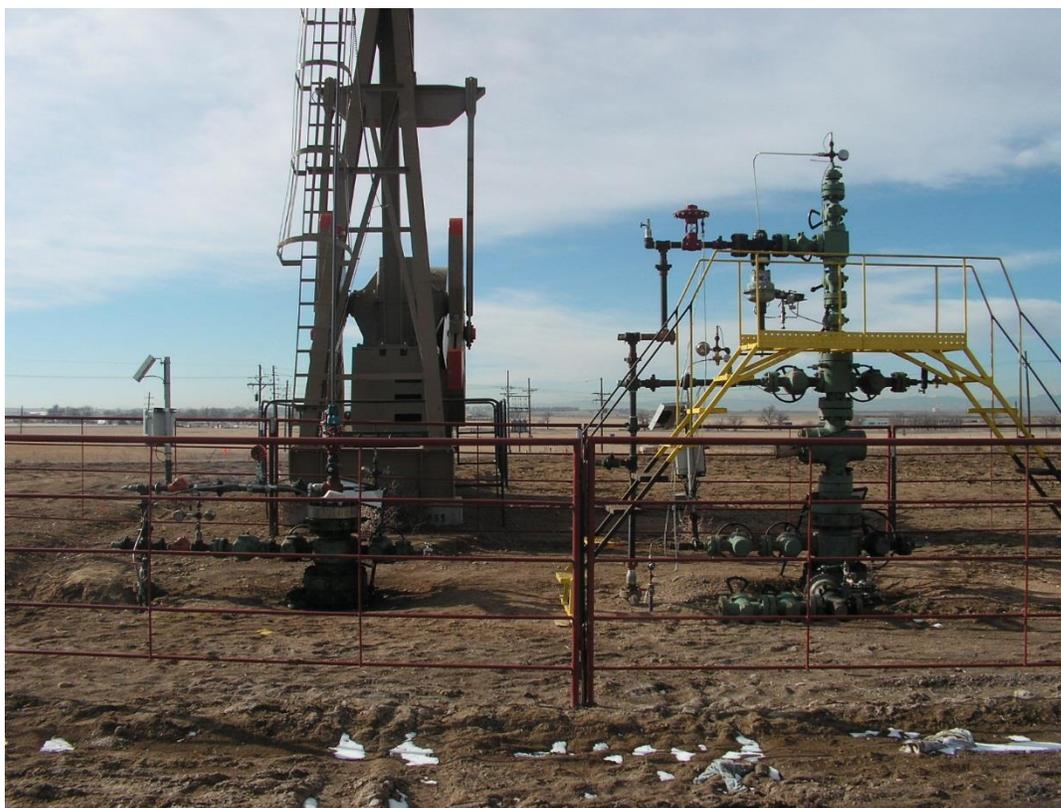
Graphic Representation of Equipment

8. Graphic Representation of Equipment

8.1 DRILLING RIG



8.2 TYPICAL WELLHEADS



FL Mountain HZ Wells
T1N-R66W SW/4 SW/4 Section 4
City of Fort Lupton, Weld County, Colorado

8.3 TYPICAL SEPARATORS



FL Mountain HZ Wells
T1N-R66W SW/4 SW/4 Section 4
City of Fort Lupton, Weld County, Colorado

8.4 TYPICAL MAINTENANCE (OIL) AND WATER TANKS

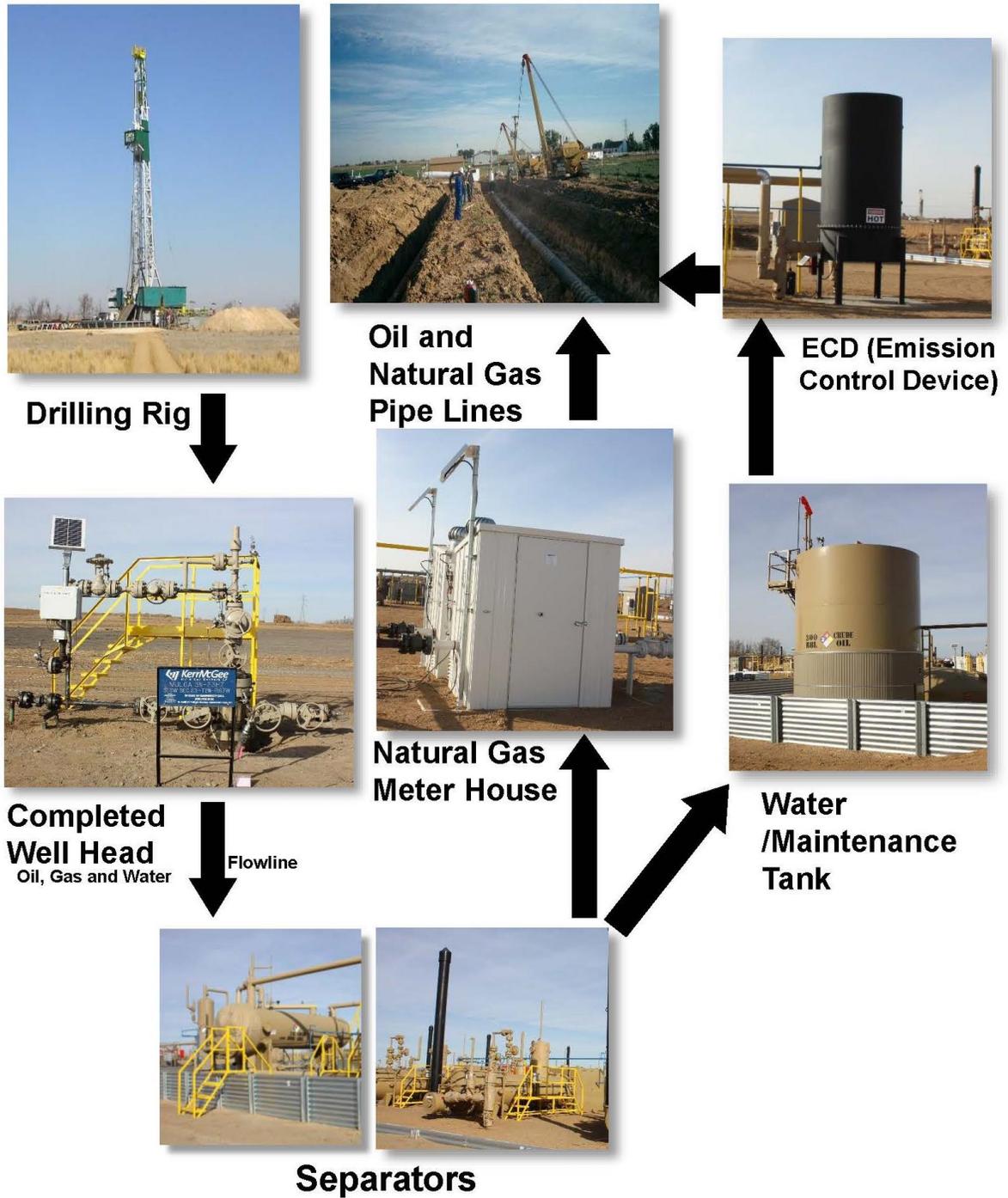


8.5 LACT UNIT



FL Mountain HZ Wells
T1N-R66W SW/4 SW/4 Section 4
City of Fort Lupton, Weld County, Colorado

8.6 TYPICAL FLOW DIAGRAM



COGCC Permits

9. COGCC Permits

Attached

FORM
2
Rev
08/13

State of Colorado
Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:
400959399

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

Date Received:
01/08/2016

TYPE OF WELL OIL GAS COALBED OTHER _____
ZONE TYPE SINGLE ZONE MULTIPLE ZONES COMMINGLE ZONES

Refilling
Sidetrack

Well Name: FL MOUNTAIN Well Number: 29C-4HZ
Name of Operator: KERR MCGEE OIL & GAS ONSHORE LP COGCC Operator Number: 47120
Address: P O BOX 173779
City: DENVER State: CO Zip: 80217-3779
Contact Name: CRAIG RICHARDSON Phone: (720)929.6092 Fax: (720)929.7092
Email: CRAIG.RICHARDSON@ANADARKO.COM

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20010124

WELL LOCATION INFORMATION

QtrQtr: SWSW Sec: 4 Twp: 1N Rng: 66W Meridian: 6
Latitude: 40.073796 Longitude: -104.789348

Footage at Surface: 310 feet FNL/FSL FSL 656 feet FEL/FWL FWL

Field Name: WATTENBERG Field Number: 90750

Ground Elevation: 4954 County: WELD

GPS Data:
Date of Measurement: 08/28/2015 PDOP Reading: 1.5 Instrument Operator's Name: ROB WILSON

If well is Directional Horizontal (highly deviated) **submit deviated drilling plan.**

Footage at Top of Prod Zone: FNL/FSL FEL/FWL Bottom Hole: FNL/FSL FEL/FWL
182 FSL 1238 FWL 122 FNL 1299 FWL
Sec: 4 Twp: 1N Rng: 66W Sec: 4 Twp: 1N Rng: 66W

LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT

Surface Ownership: Fee State Federal Indian

The Surface Owner is: is the mineral owner beneath the location.
(check all that apply) is committed to an Oil and Gas Lease.
 has signed the Oil and Gas Lease.
 is the applicant.

The Mineral Owner beneath this Oil and Gas Location is: Fee State Federal Indian

The Minerals beneath this Oil and Gas Location will be developed by this Well: Yes

The right to construct the Oil and Gas Location is granted by: Surface Use Agreement

Surface damage assurance if no agreement is in place: _____ Surface Surety ID: _____

LEASE INFORMATION

Using standard QtrQtr, Sec, Twp, Rng format, describe one entire mineral lease that will be produced by this well (Describe lease beneath surface location if produced. Attach separate description page or map if necessary.)

Township 1 North, Range 66 West, 6th P.M.
 Section 4: S/2SW/4
 Section 10: SW/4
 Weld County, Colorado

Total Acres in Described Lease: 240 Described Mineral Lease is: Fee State Federal Indian

Federal or State Lease # _____

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 0 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 704 Feet
 Building Unit: 704 Feet
 High Occupancy Building Unit: 4700 Feet
 Designated Outside Activity Area: 5280 Feet
 Public Road: 308 Feet
 Above Ground Utility: 291 Feet
 Railroad: 5112 Feet
 Property Line: 310 Feet

INSTRUCTIONS:

- All measurements shall be provided from center of the Proposed Well to nearest of each cultural feature as described in Rule 303.a.(5).
 - Enter 5280 for distance greater than 1 mile.
 - Building - nearest building of any type. If nearest Building is a Building Unit, enter same distance for both.
 - Building Unit, High Occupancy Building Unit, and Designated Outside Activity Area - as defined in 100-Series Rules.

DESIGNATED SETBACK LOCATION INFORMATION

Check all that apply. This location is within a: Buffer Zone
 Exception Zone
 Urban Mitigation Area

- Buffer Zone – as described in Rule 604.a.(2), within 1,000' of a Building Unit
 - Exception Zone - as described in Rule 604.a.(1), within 500' of a Building Unit.
 - Urban Mitigation Area - as defined in 100-Series Rules.

Pre-application Notifications (required if location is within 1,000 feet of a building unit):

Date of Rule 305.a.(1) Urban Mitigation Area Notification to Local Government: _____

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: 10/21/2015

SPACING and UNIT INFORMATION

Distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation: 171 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 1238 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): _____ Unit Number: _____

SPACING & FORMATIONS COMMENTS

Spacing Unit: 1N-66W-4: W2, 9: N2NW; 2N-66W-33: S2SW

OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
CODELL	CODL		480	GWA

DRILLING PROGRAM

Proposed Total Measured Depth: 12909 Feet

Distance from proposed wellbore to nearest existing or permitted wellbore belonging to another operator:

280 Feet (Including plugged wells)

Will a closed-loop drilling system be used? Yes

Is H2S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No (If Yes, attach an H2S Drilling Operations Plan)

Will salt sections be encountered during drilling? No

Will salt based (>15,000 ppm Cl) drilling fluids be used? No

Will oil based drilling fluids be used? Yes

BOP Equipment Type: [X] Annular Preventor [X] Double Ram [X] Rotating Head [] None

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 318A

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Commercial Disposal

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Please see Comments section. Disposal description will not fit in space provided.

Beneficial reuse or land application plan submitted? Yes

Reuse Facility ID: or Document Number:

CASING PROGRAM

Table with 9 columns: Casing Type, Size of Hole, Size of Casing, Wt/Ft, Csg/Liner Top, Setting Depth, Sacks Cmt, Cmt Btm, Cmt Top. Rows include SURF and 1ST.

[X] Conductor Casing is NOT planned

DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

- Rule 604.a.(1)A. Exception Zone (within 500' of Building Unit)
Rule 604.b.(1)A. Exception Location (existing or approved Oil & Gas Location now within a Designated Setback as a result of Rule 604.a.)
Rule 604.b.(1)B. Exception Location (existing or approved Oil & Gas Location is within a Designated Setback due to Building Unit construction after Location approval)
Rule 604.b.(2) Exception Location (SUA or site-specific development plan executed on or before August 1, 2013)
Rule 604.b.(3) Exception Location (Building Units constructed after August 1, 2013 within setback per an SUA or site-specific development plan)

GREATER WATTENBERG AREA LOCATION EXCEPTIONS

Check all that apply:

- [X] Rule 318A.a. Exception Location (GWA Windows).
[X] Rule 318A.c. Exception Location (GWA Twinning).

RULE 502.b VARIANCE REQUEST

[] Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number

OTHER LOCATION EXCEPTIONS

Check all that apply:

- Rule 318.c. Exception Location from Rule or Spacing Order Number _____
- Rule 603.a.(2) Exception Location (Property Line Setback).

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

OPERATOR COMMENTS AND SUBMITTAL

Comments

Drilling fluids disposal: KMG will reuse water-based drilling fluids to the maximum extent possible, at which point they will either be land applied or taken to a licensed, commercial disposal site; the decision will be based upon laboratory analysis of fluids. KMG will reuse oil-based drilling fluids to the maximum extent possible, at which point they will be returned to the fluids manufacturer for reconditioning or disposal at a licensed, commercial disposal site.

Cuttings disposal: If the surface owner authorizes, and if it is feasible for this location at the time of drilling, water-based cuttings will be disposed of onsite using bioremediation/solidification product. If the surface owner does not authorize onsite disposal and/or it is not feasible for this location at the time of drilling, water-based cuttings will be disposed of using a Centralized E&P Waste Management facility or a private spread field. Oil-based cuttings will be disposed of offsite and at a licensed, commercial disposal site.

This application is in a Comprehensive Drilling Plan _____ CDP #: _____

Location ID: _____

Is this application being submitted with an Oil and Gas Location Assessment application? Yes

I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Signed: _____ Print Name: CRAIG RICHARDSON

Title: REGULATORY ANALYST Date: 1/8/2016 Email: djregulatory@ANADARKO.CO

Operator must have a valid water right or permit allowing for industrial use or purchased water from a seller that has a valid water right or permit allowing for industrial use, otherwise an application for a change in type of use is required under Colorado law. Operator must also use the water in the location set forth in the water right decree or well permit, otherwise an application for a change in place of use is required under Colorado law. Section 37-92-103(5), C.R.S. (2011).

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved:  Director of COGCC Date: 4/21/2016

Expiration Date: 04/20/2018

API NUMBER

05 123 43104 00

Conditions Of Approval

All representations, stipulations and conditions of approval stated in the Form 2A for this location shall constitute representations, stipulations and conditions of approval for this Form 2 Permit-to-Drill and are enforceable to the same extent as all other representations, stipulations and conditions of approval stated in this Permit-to-Drill.

<u>COA Type</u>	<u>Description</u>
	<p>Operator acknowledges the proximity of the non-operated listed well. Operator agrees to: provide mitigation option 1 or 2 (per the DJ Basin Horizontal Offset Policy) to mitigate the situation, ensure all applicable documentation is submitted based on the selected mitigation option chosen, and submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating that appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well.</p> <p>Twombly 1 (API 05-123-12804)</p>
	<p>Operator acknowledges the proximity of the listed wells. Operator agrees to: provide mitigation option 1 or 2 (per the DJ Basin Horizontal Offset Policy) to mitigate the situation, ensure all applicable documentation is submitted based on the selected mitigation option chosen, and submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating that appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well.</p> <p>Addie M King Gas Unit 1 (API 05-123-08357) Addie M King Gas Unit True 1 (API 05-123-11204) Perri 11-4A (API 05-123-20766) Thomas Holton Unit 1 (API 05-123-15469) Mel Anderson Gas Unit 1 (API 05-123-08422)</p>
	<p>1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU (spud notice) for the first well activity with a rig on the pad and provide 48 hour spud notice via Form 42 for all subsequent wells drilled on the pad. 2) Comply with Rule 317.j. and provide cement coverage from TD to a minimum of 200' above Niobrara and from 200' below Sussex to 200' above Sussex. Verify coverage with cement bond log.</p>
	<p>1) Bradenhead test shall be performed within 60 days of rig release and prior to stimulation. Test results shall be submitted on Form 17 within 10 days of test. 2) Bradenhead test shall be performed between 6 and 7 months after rig release and shall be submitted on Form 17 within 10 days of test. 3) Bradenhead test shall be performed within 30 days of First Production as reported on Form 5A and shall be submitted on Form 17 within 10 days of test.</p>

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Planning	604c.(2).E. Multi-Well Pads: In order to reduce surface impact, this application is for a 10-well pad.
2	Planning	604c.(2).Q. Guy Line Anchors: Should guy line anchors be left buried for future use, they shall be identified by a bright marker greater than four (4) feet high and no more than one (1) foot east of the guy line anchor.
3	Planning	604c.(2).R. Tank Specifications: A geosynthetic liner will be laid under the tanks on this location and a metal containment will be constructed. Storage tanks will be designed, constructed and maintained in accordance with National Fire Protection Association (NFPA) Code 30 (2008 version). KMG will maintain written records to verify proper design, construction and maintenance. All records will be available for inspection by the Director.
4	Planning	604c.(2).R. Tank Specifications: Two 500 barrel skid-mounted frac tanks will be temporarily placed on-site for use of the pre-spud rig only. One tank will store water and the other will store water based mud.

5	Planning	604c.(2).S. Access Roads: KMG will utilize a lease access road from CR 12 for drilling and production operations and maintenance equipment. The road will be properly constructed and maintained to accommodate for local emergency vehicle access.
6	Planning	604c.(2).V. Development From Existing Well Pads: Drilling from an existing well pad was not feasible for the development of the wells on this proposed oil and gas location; however, this well pad will be considered for future well locations.
7	Community Outreach and Notification	305.a.(2) A Notice of Intent to Conduct Operations was sent to each building unit owner within the Exception Zone or Buffer Zone Setback. Recipients did not contact KMG. As a part of planning this proposed location, Kerr-McGee held multi-disciplinary Surface Impact Planning Meetings regarding the impacts and mitigations associated with this proposed location. The toll-free hotline number and email for the Anadarko Colorado Response Line will be posted at the entrance to the lease access road for stakeholders during drilling and completion operations at this proposed location. Courtesy Notifications will be sent to impacted stakeholders prior to drilling operations and again prior to completions operations, providing contact information for the Anadarko Colorado Response Line and online resources.
8	Traffic control	604c.(2).D. Traffic Plan: If required by the local government, a traffic plan will be coordinated with the local jurisdiction prior to commencement of operations.
9	General Housekeeping	604c.(2).O. Loadlines: All loadlines shall be bullplugged or capped.
10	General Housekeeping	604c.(2).P. Removal of Surface Trash: A commercial size trash bin for removing debris will be located on site. This bin will be for use by all parties affiliated with the operation.
11	Storm Water/Erosion Control	604c.(2).W. Site-Specific Measures: KMG maintains a Storm Water Management Plan that assesses erosion control for every KMG operated location. This location will be added to this plan once construction begins. This site will be inspected every fourteen (14) days during construction activities, every twenty-eight (28) days after construction is completed, and after any major weather event.
12	Material Handling and Spill Prevention	604c.(2).F. Leak Detection Plan: Automation technology will be utilized at this facility. This technology includes the use of fluid level monitoring for the tanks and produced water sumps, high-level shut offs, and electronic sensors to monitor the interstitial space of double-walled produced water sumps. All automation is monitored by Kerr-McGee's Integrated Operations Center (IOC), which is manned 24 hours per day, 7 days per week.
13	Material Handling and Spill Prevention	604c.(2).N. Control of Fire Hazards: KMG and its contractors will employ best management practices during the drilling and production of its wells and facilities and will comply with appropriate COGCC rules concerning safety and fire. KMG will ensure that any material that might be deemed a fire hazard will remain no less than twenty-five (25) feet from the wellhead(s), tanks and separator(s).
14	Dust control	805.c. Dust: Water will be placed on dirt access roads to mitigate dust as needed. If feasible, magnesium chloride will also be used as needed on access roads to further abate dust.
15	Construction	604c.(2).G. Berm Construction: A geosynthetic liner will be laid under the tanks on this location and a metal containment will be constructed. Berms or other secondary containment devices will be constructed around crude oil, condensate, and produced water storage tanks and shall enclose an area sufficient to contain and provide secondary containment for 150% of the largest single tank.
16	Construction	604c.(2).M. Fencing Requirements: The completed wellsites will be surrounded with a fence and gate with adequate lock to restrict access to authorized personnel only. KMG personnel will monitor the wellsites regularly upon completion of the wells. Authorized representatives and/or KMG personnel shall be on-site during drilling and completion operations.

17	Noise mitigation	604c.(2).A. Noise: Sound surveys have been conducted on each rig type and are utilized to anticipate any additional effective noise mitigation once a drilling rig is determined. Pending a safety review after construction of the location, sound mitigation barriers (straw bales) will be placed along the east, south and west sides of the pad location to damper noise during drilling and completions to the nearby residences and to Weld County Roads 12 and 29 1/2.
18	Drilling/Completion Operations	Kerr McGee acknowledges and will comply with the COGCC Policy for Bradenhead Monitoring during Hydraulic Fracturing Treatments in the Greater Wattenberg Area dated May 29, 2012.
19	Drilling/Completion Operations	Anti-Collision: Kerr-McGee will perform an anti-collision evaluation of all active (producing, shut in, or temporarily abandoned) offset wellbores that have the potential of being within one hundred fifty (150) feet of a proposed well prior to drilling operations for the proposed well. Notice shall be given to all offset operators within one hundred fifty (150) feet prior to drilling.
20	Drilling/Completion Operations	317.p Logging Program: One of the first wells drilled on the pad will be logged with Cased-hole Pulsed Neutron Log with Gamma Ray Log from kick-off point into the surface casing. All wells on the pad will have a cement bond log with gamma-ray run on production casing (or on intermediate casing if production liner is run) into the surface casing. The horizontal portion of every well will be logged with a measured-while-drilling gamma-ray log. The Form 5, Completion Report, for each well on the pad will list all logs run in that well and have those logs attached. The Form 5 for each well shall clearly state "No open-hole logs were run" and shall reference the Rule 317.p Exception granted for the well.
21	Drilling/Completion Operations	604c.(2).B. Closed Loop Drilling System: KMG will use a closed loop or "pitless" system for drilling and fluid management and will not construct a reserve pit.
22	Drilling/Completion Operations	604c.(2).C. Green Completions: Temporary above ground polyethylene water pipelines will deliver water to location operations from larger trunk lines to reduce truck traffic and minimize air pollution. Pipeline infrastructure is in place prior to completions operations to ensure saleable gas, once hydrocarbons are cut, is sent directly to sales without flaring during flowback. Environmental Control Devices or Volatile Organic Compound (VOC) Combustors will be used to control working and breathing vapor losses for oil and water tanks.
23	Drilling/Completion Operations	604c.(2).H. BOPE: Our rigs at a minimum will have a double ram with blind and pipe ram and annular preventer.
24	Drilling/Completion Operations	604c.(2).I. BOPE Testing for Drilling Operations: Upon initial rig-up, BOPEs will be tested at a minimum of every 30 days.
25	Drilling/Completion Operations	604c.(2).J. BOPE for Well Servicing Operations: Blowout prevention equipment will be used on any servicing operations associated with this well. Backup stabbing valves will be used during any future servicing operations during reverse circulation. Valves shall be pressure tested before each well servicing operation using low-pressure air and high-pressure fluid.
26	Drilling/Completion Operations	604c.(2).K. Pit Level Indicators: All storage tanks used for active drilling operations (used in lieu of pits) contain pit level monitors with Electronic Drilling Recorders (EDR). KMG uses EDRs with pit level monitor(s) and alarm(s) for production rigs. Basic level gauges are used on tanks utilized for the surface rig.
27	Drilling/Completion Operations	604c.(2).L. Drill Stem Tests: No drill stem tests are planned and none will be performed without prior approval from the Director.
28	Drilling/Completion Operations	803. Lighting: To the extent practicable, site lighting shall be shielded and directed downward and inward toward operations to avoid glare on public roads and nearby Building Units.
29	Final Reclamation	604c.(2).T. Well Site Cleared: The wellsite will be cleared of all non-essential equipment within ninety (90) days after all wells associated with the pad have been plugged and abandoned.
30	Final Reclamation	604c.(2).U. Identification of Plugged and Abandoned Wells: Pursuant to rule 319.a.(5)., once the well has been plugged and abandoned, KMG will identify the location of the wellbore with a permanent monument that will detail the well name and date of plugging.

Total: 30 comment(s)

Applicable Policies and Notices to Operators

Policy
Notice Concerning Operating Requirements for Wildlife Protection. http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf
Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area. http://cogcc.state.co.us/documents/reg/Policies/PolicyGwaBradenheadMonitoringFinal.pdf

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
400959399	FORM 2 SUBMITTED
400967166	OffsetWellEvaluations Data
400967170	DIRECTIONAL DATA
400967172	PROPOSED SPACING UNIT
400967173	WELL LOCATION PLAT
400967176	DEVIATED DRILLING PLAN
400967178	OTHER
400967180	OPEN HOLE LOGGING EXCEPTION
400967182	SURFACE AGRMT/SURETY
400967184	EXCEPTION LOC WAIVERS
400967185	EXCEPTION LOC REQUEST
400967186	WASTE MANAGEMENT PLAN
400988231	OffsetWellEvaluations Data

Total Attach: 13 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Per operator changed HOBU from 5280' to 4700'. Final Review Completed.	4/14/2016 12:13:54 PM
Permit	ON HOLD: w/o form 2A.	3/30/2016 3:07:54 PM
Permit	Permitting Review Complete.	3/24/2016 2:51:43 PM
Permit	Operator requested Exception to Open Hole Logging Rule 317.p. See attached.	3/24/2016 2:51:42 PM
LGD	<p>The proposed facilities are within City limits and are adjacent to a proposed residential development that is currently going through the subdivision process. It appears that the proposed access will be off of County Road 12, which is within the City's jurisdiction.</p> <p>The applicant has not met with the City to discuss this specific development and has not submitted an oil and gas permit application with the Planning Department. In order to ensure safe and appropriate planning within City limits, especially in light of the future planned residential development, the City requests that this application be held by the State until the applicant has submitted an oil and gas permit application with City of Fort Lupton officials. This will allow the site and access details to be appropriately reviewed though the City application process.</p>	2/1/2016 1:29:18 PM
Permit	Passed completeness.	1/15/2016 8:30:07 AM

Total: 6 comment(s)

FORM
2A

Rev
08/13

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

400884145

0

Date Received:

01/08/2016

Oil and Gas Location Assessment

New Location Refile Amend Existing Location Location#: _____

Submit signed original form. This Oil and Gas Location Assessment is to be submitted to the COGCC for approval prior to any ground disturbance activity associated with oil and gas operations. Approval of this Oil and Gas Location Assessment will allow for the construction of the below specified Location; however, it does not supersede any land use rules applied by the local land use authority. Please see the COGCC website at <http://cogcc.state.co.us/> for all accompanying information pertinent this Oil and Gas Location Assessment.

Location ID:

445489

Expiration Date:

04/15/2019

This location assessment is included as part of a permit application.

CONSULTATION

This location is included in a Comprehensive Drilling Plan. CDP # _____

This location is in a sensitive wildlife habitat area.

This location is in a wildlife restricted surface occupancy area.

This location includes a Rule 306.d.(1)A.ii. variance request.

Operator

Operator Number: 47120

Name: KERR MCGEE OIL & GAS ONSHORE LP

Address: P O BOX 173779

City: DENVER State: CO Zip: 80217-3779

Contact Information

Name: CRAIG RICHARDSON

Phone: (720) 929.6092

Fax: (720) 929.7092

email: craig.richardson@anadarko.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20010124 Gas Facility Surety ID: _____

Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: FL MOUNTAIN

Number: 29C-4HZ

County: WELD

Quarter: SWSW Section: 4 Township: 1N Range: 66W Meridian: 6 Ground Elevation: 4954

Define a single point as a location reference for the facility location. When the location is to be used as a well site then the point shall be a well location.

Footage at surface: 310 feet FSL from North or South section line

656 feet FWL from East or West section line

Latitude: 40.073796 Longitude: -104.789348

PDOP Reading: 1.5 Date of Measurement: 08/28/2015

Instrument Operator's Name: ROB WILSON

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Method: Commercial Disposal

Cutting Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Please see Comments section. Disposal description will not fit in space provided.

Beneficial reuse or land application plan submitted? Yes

Reuse Facility ID: _____ or Document Number: _____

Centralized E&P Waste Management Facility ID, if applicable: 149021

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: FL Mountain Sky, LLC

Phone: 303-907-6982

Address: 9200 E. Mineral Ave. Suite 365

Fax: _____

Address: _____

Email: _____

City: Centennial State: CO Zip: 80112

Surface Owner: Fee State Federal Indian

Check all that apply. The Surface Owner: is the mineral owner

is committed to an oil and Gas Lease

has signed the Oil and Gas Lease

is the applicant

The Mineral Owner beneath this Oil and Gas Location is: Fee State Federal Indian

The Minerals beneath this Oil and Gas Location will be developed from or produced to this Oil and Gas Location: Yes

The right to construct this Oil and Gas Location is granted by: Surface Use Agreement

Surface damage assurance if no agreement is in place: _____ Surface Surety ID: _____

Date of Rule 306 surface owner consultation 10/22/2015

CURRENT AND FUTURE LAND USE

Current Land Use (Check all that apply):

Crop Land: Irrigated Dry land Improved Pasture Hay Meadow CRP

Non-Crop Land: Rangeland Timber Recreational Other (describe): _____

Subdivided: Industrial Commercial Residential

Future Land Use (Check all that apply):

Crop Land: Irrigated Dry land Improved Pasture Hay Meadow CRP

Non-Crop Land: Rangeland Timber Recreational Other (describe): _____

Subdivided: Industrial Commercial Residential

CULTURAL DISTANCE INFORMATION

Provide the distance to the nearest cultural feature as measured from Wells or Production Facilities onsite.

	From WELL	From PRODUCTION FACILITY
Building:	695 Feet	764 Feet
Building Unit:	695 Feet	764 Feet
High Occupancy Building Unit:	4700 Feet	4570 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	308 Feet	83 Feet
Above Ground Utility:	291 Feet	64 Feet
Railroad:	5112 Feet	4538 Feet
Property Line:	310 Feet	81 Feet

INSTRUCTIONS:

- All measurements shall be provided from center of nearest Well or edge of nearest Production Facility to nearest of each cultural feature as described in Rule 303.b.(3)A.
- Enter 5280 for distance greater than 1 mile.
- Building - nearest building of any type. If nearest Building is a Building Unit, enter same distance for both.
- Building Unit, High Occupancy Building Unit, and Designated Outside Activity Area - as defined in 100-Series Rules.
- For measurement purposes only, Production Facilities should only include those items with an asterisk(*) on the Facilities Tab.

DESIGNATED SETBACK LOCATION INFORMATION

Check all that apply. This location is within a: Buffer Zone
 Exception Zone
 Urban Mitigation Area

- Buffer Zone - as described in Rule 604.a.(2), within 1,000' of a Building Unit.
- Exception Zone - as described in Rule 604.a.(1), within 500' of a Building Unit.
- Urban Mitigation Area - as defined in 100-Series Rules.

Pre-application Notifications (required if location is within 1,000 feet of a building unit):

Date of Rule 305.a.(1) Urban Mitigation Area Notification to Local Government: _____
 Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: 08/18/2016

FOR MULTI-WELL PADS AND PRODUCTION FACILITIES WITHIN DESIGNATED SETBACK LOCATIONS ONLY:

- Check this box if this Oil and Gas Location has or will have Production Facilities that serve multiple wells (on or offsite) and the Production Facilities are proposed to be located less than 1,000 feet from a Building Unit. *(Pursuant to Rule 604.c.(2)E.i., the operator must evaluate alternative locations for the Production Facilities that are farther from the Building Unit, and determine whether those alternative locations were technically feasible and economically practicable for the same proposed development.)*
- By checking this box, I certify that no alternative placements for the Production Facilities, farther from the nearest Building Unit, were available based on the analysis conducted pursuant to Rule 604.c.(2)E.i.

In the space below, explain rationale for siting the multi-well Production Facility(ies) that supports your Rule 604.c.(2)E.i determination. Attach documentation that supports your determination to this Form 2A.

The Town of Fort Lupton requested that Kerr McGee and the surface owner come to an agreement on a mutually beneficial siting location to avoid bonding and utilization of drilling windows. The subject parcel is currently under review for residential development with the Town.

The location was placed on southern end of the parcel to reduce the impacts to the subdivision located northwest of the subject parcel. The nearest building unit is owned by an individual who communicates regularly with Kerr McGee on various oil and gas related sites situated on their properties in the area. They are aware of the proposed location and have not raised any concerns with Kerr McGee's surface land contact.

SOIL

List all soil map units that occur within the proposed location. attach the National Resource Conservation Service (NRCS) report showing the "Map Unit Description" report listing the soil typical vertical profile. This data is to used when segregating topsoil.

The required information can be obtained from the NRCS web site at <http://soildatamart.nrcs.usda.org/> or from the COGCC web site GIS Online map page found at <http://colorado.gov/cogcc>. Instructions are provided within the COGCC web site help section.

NRCS Map Unit Name: 76—Vona sandy loam, 1 to 3 percent slopes
 NRCS Map Unit Name: _____

NRCS Map Unit Name: _____

PLANT COMMUNITY:

Complete this section only if any portion of the disturbed area of the location's current land use is on non-crop land.

Are noxious weeds present: Yes No

Plant species from: NRCS or, field observation Date of observation: _____

List individual species:

Check all plant communities that exist in the disturbed area.

- Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye)
- Native Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)
- Shrub Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)
- Plains Riparian (Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)
- Mountain Riparian (Cottonwood, Willow, Blue Spruce)
- Forest Land (Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Pinyon, Aspen)
- Wetlands Aquatic (Bullrush, Sedge, Cattail, Arrowhead)
- Alpine (above timberline)
- Other (describe): _____

WATER RESOURCES

Is this a sensitive area: No Yes

Distance to nearest

downgradient surface water feature: 0 Feet

water well: 1000 Feet

Estimated depth to ground water at Oil and Gas Location 27 Feet

Basis for depth to groundwater and sensitive area determination:

Ditch: 0' E Elev: 4957'

Ditch: 19' S Elev: 4956'

Ditch: 218' N Elev: 4939'

Pond: 440' S Elev: 4965'

Ditch: 867' SE Elev: 4980'

Loc Elev: 4954'

Nearest water wells:

0' E, Permit 204747, depth unknown, Static Water Level unknown, Elev 4954'

1242' SE, Permit 9466, depth 31', Static Water Level 10', Elev 4991'

Sensitive Area Determination: SENSITIVE AREA, downgradient surface water feature within 1,000'

Location is NOT in floodplain according to Weld County and FEMA

Groundwater Depth Calculation

(SWL calc: $(4954 - 4991) + 10 = 27$)

Water wells shown on the map within the D.A. are canceled permits.

Is the location in a riparian area: No Yes

Was an Army Corps of Engineers Section 404 permit filed No Yes If yes attach permit.

Is the location within a Rule 317B Surface Water Supply Area buffer No zone:

If the location is within a Rule 317B Surface Water Supply Area buffer have all public water supply systems within 15 miles been notified: _____

Is the Location within a Floodplain? No Yes Floodplain Data Sources Reviewed (check all that apply)

Federal (FEMA)

State

County

Local

Other

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 318A

DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

- Rule 604.a.(1)A. Exception Zone (within 500' of Building Unit)
- Rule 604.b.(1)A. Exception Location (existing or approved Oil & Gas Location now within a Designated Setback as a result of Rule 604.a.)
- Rule 604.b.(1)B. Exception Location (existing or approved Oil & Gas Location is within a Designated Setback due to Building Unit construction after Location approval)
- Rule 604.b.(2) Exception Location (SUA or site-specific development plan executed on or before August 1, 2013)
- Rule 604.b.(3) Exception Location (Building Units constructed after August 1, 2013 within setback per an SUA or site-specific development plan)

RULE 502.b VARIANCE REQUEST

☐ Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number _____

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

OPERATOR COMMENTS AND SUBMITTAL

Comments

Drilling fluids disposal: KMG will reuse water-based drilling fluids to the maximum extent possible, at which point they will either be land applied or taken to a licensed, commercial disposal site; the decision will be based upon laboratory analysis of fluids. KMG will reuse oil-based drilling fluids to the maximum extent possible, at which point they will be returned to the fluids manufacturer for reconditioning or disposal at a licensed, commercial disposal site.

Cuttings disposal: If the surface owner authorizes, and if it is feasible for this location at the time of drilling, water-based cuttings will be disposed of onsite using bioremediation/solidification product. If the surface owner does not authorize onsite disposal and/or it is not feasible for this location at the time of drilling, water-based cuttings will be disposed of using a Centralized E&P Waste Management facility or a private spread field. Oil-based cuttings will be disposed of offsite and at a licensed, commercial disposal site.

Pipelines: Buried pipelines will be utilized to gather the gas and oil product from the location (3 gas pipelines, 1 oil pipeline). Both gas and oil pipelines will be constructed from steel of suitable wall thickness and material grade to meet the respective gathering systems design pressure. Gas pipelines will range in diameter from 4" to 20"; oil pipelines from 4" to 12". Capacity of pipelines will vary based on diameter. Pipelines will begin at the location and terminate at larger trunk lines in the area. Temporary above ground polyethylene water pipelines (diameter 10" – 12" with a 60 BPM capacity) will deliver water to location operations from larger trunk lines.

Flow Lines: 10 flow lines will flow to the production facility location. During production, flow direction in the flow lines is from the well head to the production facility. The size of flow lines is typically 2". Flow lines will be constructed from steel pipe, buried, and will equal the distance between the well heads and the tank battery, approximately 300'. 10 fuel gas supply lines will also be installed from the well head to the production facility. During operation flow direction in the supply lines will be from the production facility to the well head. The size of the supply lines is typically 1". Supply lines will be constructed from poly or steel pipe, buried, and will equal the distance between the well heads and the tank battery, approximately 300'.

Gas lift lines are also occasionally installed (one per well) from the well head to the production facility. During operation flow direction in the gas lift lines will be from the production facility to the well head. The size of the gas lift lines is typically 2". Gas lift lines will be constructed from steel pipe, buried, and will equal the distance between the well heads and the tank battery, approximately 300'.

CUSTODY TRANSFER: Gas custody transfer occurs at the custody transfer meter located on the proposed production facility pad. Oil custody transfer occurs at the LACT Unit located on the proposed production facility pad. Oil is transferred from the LACT Unit into a pipeline owned by Anadarko Wattenberg Oil Complex LLC.

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: _____ Date: 01/08/2016 Email: djregulatory@anadarko.com

Print Name: CRAIG RICHARDSON Title: REGULATORY ANALYST II

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: Matthew Lee Director of COGCC Date: 4/16/2016

Conditions Of Approval

All representations, stipulations and conditions of approval stated in this Form 2A for this location shall constitute representations, stipulations and conditions of approval for any and all subsequent operations on the location unless this Form 2A is modified by Sundry Notice, Form 4 or an Amended Form 2A.

<u>COA Type</u>	<u>Description</u>

Best Management Practices

No	BMP/COA Type	Description
1	Planning	604c.(2).E. Multi-Well Pads: In order to reduce surface impact, this application is for a 10-well pad.
2	Planning	604c.(2).Q. Guy Line Anchors: Should guy line anchors be left buried for future use, they shall be identified by a bright marker greater than four (4) feet high and no more than one (1) foot east of the guy line anchor.
3	Planning	604c.(2).R. Tank Specifications: A geosynthetic liner will be laid under the tanks on this location and a metal containment will be constructed. Storage tanks will be designed, constructed and maintained in accordance with National Fire Protection Association (NFPA) Code 30 (2008 version). KMG will maintain written records to verify proper design, construction and maintenance. All records will be available for inspection by the Director.
4	Planning	604c.(2).R. Tank Specifications: Two 500 barrel skid-mounted frac tanks will be temporarily placed on-site for use of the pre-spud rig only. One tank will store water and the other will store water based mud.
5	Planning	604c.(2).S. Access Roads: KMG will utilize a lease access road from CR 12 for drilling and production operations and maintenance equipment. The road will be properly constructed and maintained to accommodate for local emergency vehicle access.
6	Planning	604c.(2).V. Development From Existing Well Pads: Drilling from an existing well pad was not feasible for the development of the wells on this proposed oil and gas location; however, this well pad will be considered for future well locations.
7	Community Outreach and Notification	305.a.(2) A Notice of Intent to Conduct Operations was sent to each building unit owner within the Exception Zone or Buffer Zone Setback. Recipients did not contact KMG. As a part of planning this proposed location, Kerr-McGee held multi-disciplinary Surface Impact Planning Meetings regarding the impacts and mitigations associated with this proposed location. The toll-free hotline number and email for the Anadarko Colorado Response Line will be posted at the entrance to the lease access road for stakeholders during drilling and completion operations at this proposed location. Courtesy Notifications will be sent to impacted stakeholders prior to drilling operations and again prior to completions operations, providing contact information for the Anadarko Colorado Response Line and online resources.
8	Traffic control	604c.(2).D. Traffic Plan: If required by the local government, a traffic plan will be coordinated with the local jurisdiction prior to commencement of operations.
9	General Housekeeping	604c.(2).O. Loadlines: All loadlines shall be bullplugged or capped.
10	General Housekeeping	604c.(2).P. Removal of Surface Trash: A commercial size trash bin for removing debris will be located on site. This bin will be for use by all parties affiliated with the operation.
11	Storm Water/Erosion Control	604c.(2).G. Berm Construction: Kerr-McGee will create tertiary containment by construction of a berm or diversion dike, site grading, or other comparable measures sufficient to further protect the ditch located 0' East, 19' and 440', and 218' north and 867' SE of this proposed oil and gas location.
12	Storm Water/Erosion Control	604c.(2).W. Site-Specific Measures: KMG maintains a Storm Water Management Plan that assesses erosion control for every KMG operated location. This location will be added to this plan once construction begins. This site will be inspected every fourteen (14) days during construction activities, every twenty-eight (28) days after construction is completed, and after any major weather event.
13	Material Handling and Spill Prevention	604c.(2).F. Leak Detection Plan: Automation technology will be utilized at this facility. This technology includes the use of fluid level monitoring for the tanks and produced water sumps, high-level shut offs, and electronic sensors to monitor the interstitial space of double-walled produced water sumps. All automation is monitored by Kerr-McGee's Integrated Operations Center (IOC), which is manned 24 hours per day, 7 days per week.
14	Material Handling and Spill Prevention	604c.(2).N. Control of Fire Hazards: KMG and its contractors will employ best management practices during the drilling and production of its wells and facilities and will comply with appropriate COGCC rules concerning safety and fire. KMG will ensure that any material that might be deemed a fire hazard will remain no less than twenty-five (25) feet from the wellhead(s), tanks and separator(s).

15	Dust control	805.c. Dust: Water will be placed on dirt access roads to mitigate dust as needed. If feasible, magnesium chloride will also be used as needed on access roads to further abate dust.
16	Construction	604c.(2).G. Berm Construction: A geosynthetic liner will be laid under the tanks on this location and a metal containment will be constructed. Berms or other secondary containment devices will be constructed around crude oil, condensate, and produced water storage tanks and shall enclose an area sufficient to contain and provide secondary containment for 150% of the largest single tank.
17	Construction	604c.(2).M. Fencing Requirements: The completed wellsites will be surrounded with a fence and gate with adequate lock to restrict access to authorized personnel only. KMG personnel will monitor the wellsites regularly upon completion of the wells. Authorized representatives and/or KMG personnel shall be on-site during drilling and completion operations.
18	Noise mitigation	604c.(2).A. Noise: Sound surveys have been conducted on each rig type and are utilized to anticipate any additional effective noise mitigation once a drilling rig is determined. Pending a safety review after construction of the location, sound mitigation barriers (straw bales) will be placed along the north, south, east and west sides of the pad location to damper noise during drilling and completions to the nearby residences and to Weld County Roads 12 and 29 1/2.
19	Noise mitigation	Point source sound mitigation such as shaker enclosure/vibration reduction and compressor modification have been implemented on the on the drilling rig currently utilized for drilling operations. Kerr McGee will continue to collect sound data and work to mitigate the potential impacts of drilling and completion activities through innovative point source mitigations. The ongoing point source mitigation implementation and research will evolve over time as data is collected and will vary from rig to rig. Hay bales will be utilized to assist in mitigation of potential visual and sound impacts to adjacent property owners. Current data indicates that the proposed FL Mountain location will comply with COGCC Rule 802 utilizing the current rig in operation. Once the location is constructed, the Industrial Hygiene Team will re-evaluate the proposed location considering any rig changes or modifications to determine if additional point source mitigations are required, including but not limited to sound wall(s) and sound panel(s).
20	Drilling/Completion Operations	604c.(2).B. Closed Loop Drilling System: KMG will use a closed loop or "pitless" system for drilling and fluid management and will not construct a reserve pit.
21	Drilling/Completion Operations	604c.(2).C. Green Completions: Temporary above ground polyethylene water pipelines will deliver water to location operations from larger trunk lines to reduce truck traffic and minimize air pollution. Pipeline infrastructure is in place prior to completions operations to ensure saleable gas, once hydrocarbons are cut, is sent directly to sales without flaring during flowback. Environmental Control Devices or Volatile Organic Compound (VOC) Combustors will be used to control working and breathing vapor losses for oil and water tanks.
22	Drilling/Completion Operations	604c.(2).H. BOPE: Our rigs at a minimum will have a double ram with blind and pipe ram and annular preventer.
23	Drilling/Completion Operations	604c.(2).I. BOPE Testing for Drilling Operations: Upon initial rig-up, BOPEs will be tested at a minimum of every 30 days.
24	Drilling/Completion Operations	604c.(2).J. BOPE for Well Servicing Operations: Blowout prevention equipment will be used on any servicing operations associated with this well. Backup stabbing valves will be used during any future servicing operations during reverse circulation. Valves shall be pressure tested before each well servicing operation using low-pressure air and high-pressure fluid.
25	Drilling/Completion Operations	604c.(2).K. Pit Level Indicators: All storage tanks used for active drilling operations (used in lieu of pits) contain pit level monitors with Electronic Drilling Recorders (EDR). KMG uses EDRs with pit level monitor(s) and alarm(s) for production rigs. Basic level gauges are used on tanks utilized for the surface rig.
26	Drilling/Completion Operations	604c.(2).L. Drill Stem Tests: No drill stem tests are planned and none will be performed without prior approval from the Director.

27	Drilling/Completion Operations	803. Lighting: To the extent practicable, site lighting shall be shielded and directed downward and inward toward operations to avoid glare on public roads and nearby Building Units
28	Final Reclamation	604c.(2).T. Well Site Cleared: The wellsite will be cleared of all non-essential equipment within ninety (90) days after all wells associated with the pad have been plugged and abandoned.
29	Final Reclamation	604c.(2).U. Identification of Plugged and Abandoned Wells: Pursuant to rule 319.a.(5)., once the well has been plugged and abandoned, KMG will identify the location of the wellbore with a permanent monument that will detail the well name and date of plugging.

Total: 29 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
1668913	CORRESPONDENCE
1668917	RULE 306.E. CERTIFICATION
1668948	CORRESPONDENCE
400884145	FORM 2A SUBMITTED
400967407	OTHER
400967408	ACCESS ROAD MAP
400967411	SURFACE AGRMT/SURETY
400967414	HYDROLOGY MAP
400967415	LOCATION DRAWING
400967419	MULTI-WELL PLAN
400967422	NRCS MAP UNIT DESC
400967423	WELL LOCATION PLAT
400967427	WASTE MANAGEMENT PLAN
400967544	FACILITY LAYOUT DRAWING
400967720	LOCATION PICTURES

Total Attach: 15 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	4/14/2016 11:57:42 AM
OGLA	Based on the information provided by the Operator, COGCC has determined that this proposed Oil and Gas Location meets the requirements for conditional approval based on compliance with COGCC Rules, including, but not limited to; Rule 604 Series Setback and Mitigation Measures. The Operator has presented a siting rationale for the Production Facilities in the Buffer Zone and Best Management Practices that adequately address site specific environmental, health, safety and welfare concerns.	3/29/2016 12:09:01 PM
OGLA	Operator answered questions regarding noise mitigation - added to BMP section and siting rationale - added as correspondence attachment doc no 1668948. The proposed location is the result of extensive negotiations with the surface owner at the request of the Town of Ft. Lupton. Initially, the surface owner was hesitant to enter into a surface use agreement due to a development plan submitted to the town for review and approval. Kerr McGee was in the process of bonding onto the property to utilize drilling windows to construct two pads for production. At the request of the Town of Ft. Lupton Kerr McGee reentered into surface negotiations with the surface owner (who is not a mineral owner) and the proposed location was identified by the surface owner as having the least impact to the proposed development currently being reviewed by the Town.	3/29/2016 11:56:50 AM

OGLA	Ask Operator via email and phone conversation on 3/7/2016 for more information on siting rationale and more information on noise mitigation. Move to ON HOLD for response from Operator.	3/17/2016 1:54:26 PM
OGLA	Ft. Lupton is satisfied with Anadarko's response. Move back to IN PROCESS	2/25/2016 4:23:11 PM
OGLA	Attached 306e cert provided by operator. Waiting on call back from Ft. Lupton	2/24/2016 4:06:35 PM
Permit	Permitting Review Complete.	2/19/2016 1:36:22 PM
OGLA	Operator response to Ft. Lupton via email Kerr-McGee met with the City of Fort Lupton for a pre-application meeting regarding this location on July 23, 2015. Attendees included Todd Hodges (Planning Director), Marco Carani (Public Works Director), Randal Weigman (Fire Marshall), and JC York (Ft. Lupton Engineer Consultant). Concerns that the City expressed during this meeting were addressed and are represented in this pending Form 2A. Additionally, this location is included in the County Road 12 Improvements Agreement that Kerr-McGee has entered into with the City of Fort Lupton. Kerr-McGee's plans for this location involve applying for a municipal permit with the City of Fort Lupton at a time that is appropriate, given the timing of our development and the terms of that permit expiration.	2/11/2016 11:08:59 AM
LGD	This proposed location is within the City of Fort Lupton. As of today's date, February 3, 2016, the Weld County Oil and Gas Liaison/LGD has not been contacted by any nearby resident(s) regarding this proposed location. Weld County has a Coordinated Planning Agreement with the City of Fort Lupton, which includes a land use referral process. Any issues regarding this proposed location would be worked out between the city, county and the operator. Troy Swain, Weld Oil and Gas Liaison and LGD (970) 353-6100, ext. 3579.	2/3/2016 9:33:29 AM
LGD	The proposed facilities are within City limits and are adjacent to a proposed residential development that is currently going through the subdivision process. It appears that the proposed access will be off of County Road 12, which is within the City's jurisdiction. The applicant has not met with the City to discuss this specific development and has not submitted an oil and gas permit application with the Planning Department. In order to ensure safe and appropriate planning within City limits, especially in light of the future planned residential development, the City requests that this application be held by the State until the applicant has submitted an oil and gas permit application with City of Fort Lupton officials. This will allow the site and access details to be appropriately reviewed through the City application process.	2/1/2016 1:27:28 PM
OGLA	Water well mapped on the location and other two closest water wells are canceled permits. Nearest active water well is approximately 1,000 feet to the northeast permit number 159404. Change nearest water well to 1,000 feet. Water wells shown on hydrology map. According to facility drawing nearest building and building unit are 695 feet away not 704 feet - update cultural distances to match drawing. Ft. Lupton Recreation center has a licensed daycare, update nearest HOBUs to from well 4700 feet and production at 4500 from production. Waiting on 306e when public comment period ends. Update haybales to north, south east, and west on noise BMP. Email correspondence attached.	1/22/2016 2:48:14 PM
Permit	Passed completeness.	1/15/2016 8:27:12 AM
OGLA	Passed Buffer Zone completeness review	1/14/2016 3:22:51 PM
Permit	Referred to OGLA supervisor for a buffer zone review.	1/11/2016 8:32:10 AM

Total: 14 comment(s)

Emergency Response & Fire Protection Plan

10. Emergency Response & Fire Protection Plan

10.1 SCOPE

Kerr-McGee Oil & Gas OnShore LP (KMG), an Anadarko Company, has prepared this Emergency Response and Fire Protection Plan (the Plan). The Plan has been put together to address potential emergency response issues associated with the drilling, completion, and production of 10 oil and gas wells on one well pad. KMG plans to drill the following wells in the second quarter of 2017, within the City of Fort Lupton, Colorado and within the boundaries of the Fort Lupton Fire Department.

10.2 REGULATORY REQUIREMENTS

The Plan has been prepared to comply with the land use regulations of the City of Fort Lupton. Incorporated in the Plan are the best management practices, safety, health, fire prevention, and environmental requirements outlined in the rules of the Colorado Oil and Gas Conservation Commission (COGCC).

FL Mountain 13-4HZ Pad

FL Mountain 30C-4HZ

FL Mountain 30N-4HZ

FL Mountain 4N-4HZ

FL Mountain 18N-4HZ

FL Mountain 29N-4HZ

FL Mountain 29C-4HZ

FL Mountain 6N-4HZ

FL Mountain 3N-4HZ

FL Mountain 3C-4HZ

FL Mountain 28N-4HZ

10.3 LOCATION OF WELLS

The well sites are located in the Section 4, Township 1 North, Range 66 West. The well names, locations, and directions necessary for access by emergency responders are presented below. The wells and tank battery locations are shown on the Access Route Map included as Attachment 1.

Well Pad Name	Location	Directions
FL Mountain 13-4HZ Pad (10 Wells)	SW/4 SW/4 Sect 4, T1N ,R66W	FROM THE INTERSECTION OF 1 st Street (State Hwy. 52) and Denver Avenue (WCR 27) head east on 1st Street (State Hwy 52) approximately 1.5 miles to College Ave (WCR 29.5) turn right (south) for 1/2 mile to WCR 12 turn right (west) for 1/2 mile to the lease access road. Turn right (north) onto the lease access road and proceed to the wells and production facility.

10.4 EMERGENCY RESPONSE & CONTACT LIST

All recompletion and production activities will be performed by KMG and its contractors. This process will be carried out in a manner that is protective of public health, safety, welfare, and the environment, to minimize the potential need for emergency response activities. In the event of fire, injury, spill or release of hazardous materials, or any other incident requiring and emergency response, the following contacts will be made:

FL Mountain HZ Wells
T1N-R66W SW/4 SW/4 Section 4
City of Fort Lupton, Weld County, Colorado

Emergency Response Contact List

Incident	Contact	Phone Number	Comments
Fire, explosion, serious injury	Fort Lupton Fire Department	911 or (303) 857-4603	
	Fort Lupton Police Department	911 or (303) 857-32665	
	COGCC	(303) 894-2100	
Fire, explosion, associated with loss of well control	Fort Lupton Fire Department	911 or (303) 857-4603	
	Fort Lupton Police Department	911 or (303) 857-32665	
	COGCC	(303) 894-2100	
	Wild Well Control, Inc.	(281) 353-5481	Commercial well control contractor.
Spill or release	COGCC	(303) 894-2100	Reporting required for spills of E & P waste or produced water, which exceed 1 barrel outside containment area, or exceeding 5 barrels within containment, and impact surface or ground water.
	Fort Lupton Fire Department	911 or (303) 857-4603	Reporting required for spills impacting surface water or for reportable quantity spills of CERCLA hazardous substances.
	Colorado Department of Public Health and Environment	(800) 886-7689	Reporting required for spills impacting surface water or for reportable quantity spills of CERCLA hazardous substances.
	US EPA	(800) 227-8917	Reporting required for spills impacting surface water or for reportable quantity spills of CERCLA hazardous substances.
	National Response Center	(800) 424-8802	Reporting required for spills impacting surface water or for reportable quantity spills of CERCLA hazardous substances.
KMG and Contractor Contacts	Kris Honas Drilling Operations Manager	(720) 929-6984 o (907) 903-4666 m	Drilling Operations
	Tim Crumrine Completions Operations Mgr	(720)929-6876 o (303)656-7144 c	Completions Operations
	Anadarko/Kerr McGee Integrated Operations Center	(866) 504-8184	24/7 Emergency Response Number
	Ken Wilcox Production Superintendent	(970) 515-1347 o (970) 800-1726 m	Drilling, completion, and production operations
	Paul Schneider, HSE Manager	(720) 929-6726 o (303) 868-6665 m	Drilling, completion and production operations
	Scott Rovira, General Manager Rockies Drilling and Completions	(720) 929-6243 o (281) 702-0652 m	Drilling and completions operations
	David Ziegler, Western Area Production Supervisor	(970) 515-1378 o (970) 301-1548 m	Drilling, completion, and production operations.
	Jeff Jones, Senior Staff HSE Representative	(970)515-1421 o (307)262-2899 m	Drilling, completion, and production operations

Emergency response personnel will have unrestricted access to all KMG wells and production facilities.

FL Mountain HZ Wells
T1N-R66W SW/4 SW/4 Section 4
City of Fort Lupton, Weld County, Colorado

10.5 SPILL/RELEASE RESPONSE

All KMG and contractor activities will be operated in a manner that prevents spills and releases of crude oil, natural gas, produced water, and other wastes to the environment and will comply with federal and state spill response/reporting requirements. KMG utilizes formal spill response and reporting guidelines developed to respond to spills and releases. All KMG field employees are provided with annual spill response training. In addition, all tank batteries comply with federal Spill Prevention Control and Countermeasure (SPCC) requirements.

If a spill or release were to occur, field personnel are instructed to:

- Assess immediate danger or threat to health, safety, and welfare and contact emergency responders, if appropriate;
- Locate and stop the source of the spill, if safe to do so;
- Report the spill to the field supervisor or area manager and arrange for additional response support, including contract support;
- Take whatever steps are necessary to prevent the spill from impacting surface water, public health, safety, and welfare; and,
- Report to the spill to a KMG Environmental representative, who will coordinate follow-up spill clean-up and environmental assessment activities and who will report the incident to appropriate authorities.

10.6 SAFETY AND FIRE PREVENTION GUIDELINES

KMG and its contractors will employ best management practices during the drilling and production of its wells and facilities and will comply with appropriate COGCC rules concerning safety and fire.

- Employees will be familiar with the COGCC rules and regulations concerning safety and fire prevention as they apply to their specific job duties;
- All facilities will be visited daily by KMG field personnel. Unsafe or potentially unsafe conditions will be reported immediately to the field supervisor, Area Manager, or Safety representative;
- Accidents that result in significant injury or property damage will be reported to the COGCC within 24 hours;
- KMG and its contractors will cooperate fully with local and state emergency responders;
- Vehicles not involved in drilling, production, or well servicing operations will be kept at least 100 feet from the well bore, or a distance equal to the height of the drilling derrick, whichever is greater;
- Appropriate weed abatement measures will be taken prior to and during drilling, workover, and production operations to minimize fire danger;
- The drilling rig shall be positioned a distance of 200 feet or one and one-half times the height of the rig derrick, whichever is greater, from any occupied building, public road, major above ground utility line, or railroad;
- During well drilling and well servicing operations, a safety valve with connections suitable for use with each size and type of tool joint or coupling being used will be present on the rig floor
- The drilling rig substructure, derrick, or mast will be designed and operated to prevent the accumulation of static charge;

-
- Prior to well servicing operations, the well's pressure will be checked and appropriate steps taken to remove pressure or operate safely under pressure before beginning servicing operations;
 - Appropriate blowout prevention equipment (BOPs) will be utilized during well drilling, completion, workover, or servicing activities, as required by COGCC Rule 317, and in accordance with American Petroleum Institute (API) RP 53: Recommended Practices for Blowout Prevention Equipment Systems, as amended;
 - BOP equipment will be inspected daily and a preventer operating test shall be performed on each round trip (not to exceed more than once per 24 hour period). Notes of the tests shall be made on the daily report;
 - All fittings, valves, and unions connected to the BOP, well casing, casing head, drill pipe, or tubing will have a working pressure rating suitable for the maximum anticipated surface pressure and will be maintained in good working order;
 - The BOP will contain pipe rams to enable closure of the pipe being used and the choke lines and kill lines will be anchored or secured;
 - All rig employees shall have an adequate understanding to operate the BOP system;
 - The drilling contractor will place a sign or marker at the intersection of WCR 16 and the lease access road that will include emergency contact telephone numbers;
 - The WCR numbers used to access the rig and appropriate emergency response numbers will be posted on the drilling rig;
 - All wells and tank batteries will be kept free of weeds, debris, surplus equipment, and surplus vehicles;
 - Above ground storage tanks (ASTs) for storage of crude oil and hydrocarbon condensate will be constructed of materials compatible with the materials stored in accordance with appropriate API and Underwriters Laboratories, Inc, standards;
 - ASTs will be located at least two tank diameters or 350 feet , whichever is smaller, from property boundaries;
 - ASTs will be located at least one-sixth the sum of their diameters apart;
 - ASTs will be located at least 200 feet from residences, normally occupied buildings, or well defined normally occupied outside areas;
 - Earthen berms or a metal firewall sufficient to contain the contents of the largest AST will be constructed and maintained at each tank battery, and no ignition source will be located within the berm/firewall;
 - ASTs will be located at least 75 feet from the wellhead, any fired vessel, or other ignition source;
 - Hatches on all ASTs will be kept closed when not in use;
 - All fired vessels will be located at least 75 feet from the wellhead;
 - Production facilities will be fenced to prevent access from the public. KMG will comply with the IFC 2003 Fire Codes that require additional labeling of the tanks and storage areas. The required information will be either placards on the storage tanks and containers, or signage at the facility. The information will contain the following language: "FLAMMABLE-KEEP FIRE AND FLAME AWAY". Location signs will be posted and maintained identifying the wells, KMG as the operator, emergency contact telephone members, and directions to the facility;

