Community & Economic
Development Department
www.adcogov.org

ADAMS COUNTY
COLORADO

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Request for Comments

Case Name: HRM Resources II PC Well Pad
Project Number: USR2017-00002

March 7, 2017

Adams County Community and Economic Development Department is requesting comments on the following request:

Request for a Use by Special Review Permit to allow twenty (20) horizontal wells on one (1) well pad for the production of oil and gas and one (1) on-site production facility.

This request is located south of East 132nd Avenue between Sable Boulevard and I-76.

The Assessor's Parcel Number is 0156929100001.

The legal description of the parcel:
SECT, TWN, RNG: 29-1-66 DESC: ALL OF SEC 29 LYING NWLY OF I-76 EXC HIWAY AND RDS 509/1760A

Please forward any written comments on this application to the Department of Community and Economic Development at 4430 South Adams County Parkway, Suite W2000A Brighton, CO 80601-8216 by *Wednesday, March 29, 2017* so that your comments may be taken into consideration in the review of this case. Please send your response by way of e-mail to jrutter@adcogov.org.

Application submittal items and additional information about the case can be found at https://www.adcogov.org/planning/currentcases.

Additional information about oil and gas development can be found at https://www.adcogov.org/oil-and-gas-information.

Thank you for your review of this case.

Jennifer Rutter
Case Manager

Written Explanation

PC Wellpad

Sec. 29 T1S R66W
(N/2 of SW/4)
Adams County, Colorado
Surface: Fee
Mineral Lease: Fee

Written Explanation

The proposed project consists of the construction of one (1) wellpad with up to twenty 20 wells and one access road for an oil and gas location to be operated by HRM Resources II, LLC (HRM). HRM does not intend to drill all (20) wells consecutively. The drilling schedule is subject to change due to economic conditions, business development priorities and equipment availability.

Sequence of Major Activities and Estimated Completion Date

Access Road and WellPad:

Phase I-Pre-Drilling (14 - 21 days)

The access road will be constructed to meet or exceed standards set by Adams County. The access road will be graveled to crown/ditch standards. Ripping and dozing will be done on the contour to prevent erosion while improving the road. There will be minimal traffic during construction. Pad construction will be done simultaneously with road construction. The drilling rig will be moved onto the pad over the bladed road and drilling will begin. Culverts and other good engineering practices will be utilized to insure proper drainage under the access road and around the drill pad. A silt fence and/or ditch with catch ponds, and/or straw bales/waddles will surround the wellpad area during the drilling operations to prevent erosion. Site conditions may dictate alternate erosion control measures which will be chosen appropriately for current on-the-ground conditions.

Phase II-Drilling and Completion (Drilling: 10– 15 days per well, Completion: 5 – 10 days per well)

HRM management will utilize authorized employees and professional contractors to conduct the drilling and completion operations on site. The actual drilling phase is approximately 10-15 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 following the drilling phase. Any additional operations including well stimulation will be done at this point.

Phase III-Production

Well completion activities will be completed by this point and the well may be put online. The production facilities will be installed and the wells put on-line. The surface will be re-graded to

its prior condition as nearly as possible. Phase III can last upwards of 30 years depending on well performance. HRM anticipates mobilization and pad construction to begin in (Q3 2017) contingent upon approval from the Adams County and COGCC.

Construction Standards
Access Road:

Running surface width to be 10'-12', with a maximum running road surface of 16', total distributed width to be no more than 40'. Depending on oil and gas production and exploration in the area per design or private surface owner, the road may be widened into a standard road with a 24' running surface.

Borrow ditches are to be back-sloped 3:1 or shallower or as stipulated by the private surface owner. The borrow ditches along the access roads will be reseeded if the well is completed as a producer. Reseeding of the borrow ditches will reduce the area that will be utilized.

If necessary, culverts will be installed prior to commencement of drilling operations. Drainage to consist of borrow ditches on both sides. Low water crossings are not anticipated. However, if necessary, low water crossings will be used during drilling, as conditions dictate and upon completion. Crossings will be upgraded with corrugated metal pipes and/or gravel-bottomed low water crossings. Culverts will be placed on grade and aligned with the natural channel bed. Culvert sizes will be a minimum of 18" diameter.

Construction materials will be obtained from available permitted sources, if needed, and consist of pit gravel.

Wellpad:

The dimension of proposed facilities is anticipated at 490'x 1058', 400,000 sq/ft (±11.9acres). Wellpad construction will commence approximately two (2) to five (5) weeks prior to drilling.

The traveled portion of production site will be gravel-surfaced prior to moving the drilling rig onsite. Site preparation will be done with standard excavation equipment using native materials. Additional surface material will be obtained from commercial sources or an approved borrow area. Salvaging and spreading topsoil will not be performed when the ground or topsoil is frozen or too wet to adequately support construction equipment. If such equipment creates ruts in excess of four (4) inches deep, the soil will be deemed too wet. In this case, all construction activities which may result in erosion will cease until the soil is deemed dry enough to resume activities.

Production facilities may vary according to the actual reservoir discovered and will be engineered upon completion of well tests. Production facilities will be clustered and placed away from cut/fill slopes to allow maximum recontouring of cut/fill slopes.

Onsite surface production facilities will consist of a maximum of, twenty wellhead manifolds, twenty separators, thirty eight oil tanks, twelve produced water tanks, four vapor recovery towers, eight combustors, two generators, three scrubbers, six vapor recovery units, one gas sales line. Future equipment could include one oil sales line, one LACT unit, and three gas lift compressors. The entire location will be fenced with secure access following the conclusion of completion activities.

Following the construction of the drill site and production facilities, and as-built diagram will be generated, supplied to the county and retained onsite at all times.

Compliance Statement:

The HRM PC Wellpad complies with Section 4-10-02-05-02(3). HRM has worked diligently with the surface owner, in choosing the location that will have the least impacts to the public, environment, and future development. HRM, in conjunction with the landowner, evaluated all potential alternative locations in the area before selecting this site. Please see the Best Management Practices (BMPs) HRM will employ to reduce or eliminate impacts. BMPs may change at any time due to site conditions, enhanced knowledge and technology. The county will be advised if any significant or structural BMP changes. The location was chosen as the ideal site for the following reasons:

- Distance to nearby building units and lack of surrounding building units.
- Alternative locations considered had more building unit conflicts.
- Pad location is outside the Brighton PWS Buffer and Adams County NRCO Overlay.
- Pad access is off a road with minimal traffic.
- There are oil and gas operations planned approximately .5 miles north of the PC pad.
- HRM has plans to utilize locally sourced water found in nearby ditches or hydrants. This will reduce truck traffic which in turn will reduce noise and dust pollution.
- HRM continues to look at midstream options for utilizing pipelines to transfer water, oil and gas. By placing the PC Pad near other proposed oil and gas facilities the prospect for attracting a pipeline increases. If economic, a pipeline will greatly reduce truck traffic in and out of the location for the life of the well. The utilization of pipelines also ensures a safer operation as it greatly reduces the number of tanks that are required on location.

Proposed Mitigation Measures:
Planning

Development from new multi wellpad: HRM is permitting an Oil and Gas Location Assessment - Form 2A as a multi wellpad through the COGCC. This will eliminate the need for multiple wellpads which would ultimately require more surface disturbance. This site was chosen in cooperation with the surface owner to utilize open land as far from building units as possible.

Noise: An ambient sound study will be conducted to determine noise impacts to the nearby residents to the west and north. Based on the results of the noise study, the appropriate sound mitigation design(s) will be implemented. Sound mitigation may include sound walls that once erected will reduce noise pollution.

Odor Mitigation: HRM will comply with COGCC Rule 805 and the Colorado Department of Public Health and Environment (CDPHE), Air Quality Control Commission, Regulation No. 2 Odor Emission, 5 C.C.R. 1001-4, Regulation No. 3 (5 C.C.R. 1001-5), and Regulation No. 7 Section XVII.B.1 (a-c) and Section XII. HRM will also utilize a VOC to reduce odor emissions. The VOC combustor will be placed facing away from the residential buildings.

Visual Mitigation: Pursuant to COGCC Rule 804, the tank battery shall be painted in uniform, non-contrasting, non-reflective color tones with the colors matched to but slightly darker than the surrounding landscape to limit evaporation and waste of liquid hydrocarbons. The site was chosen in cooperation with the developer due to a natural tree barrier to the south that will act as a visual barrier. If sound walls are utilized, they will reduce visual impacts.

Lighting: All permanent lighting will be directed downward and internally. Temporary lighting shall conform to COGCC rules and regulations and not adversely affect adjacent residential

properties. The nearest public road is 100' away. Lighting from the location will not affect visibility on the road. Lights will be directed away from all public ROW. .

Landscaping: HRM will adhere to all Adams County requirements and/or surface owner requests. Where feasible, native vegetation will be minimally impacted. Motorized equipment will be restricted to the wellsite and access road to the wellsite. The location will be fenced to secure the location. Landscaping plan has been agreed to with the surface owner and is included in this application. -See Above Ground Improvements

Weed Control and Management: HRM will manage weed control at the oil and gas facility and along the access road during construction, operations and until final abandonment and final reclamation is completed per Adams County and COGCC regulations.

Dust Mitigation: Fresh water, per COGCC rules, or another approved source will be applied to roads and land surfaces for purposes of dust mitigation as needed. No other liquid or substance generated by the production of the oil and gas facility will be applied to the road and land surface. The wellpad will be graveled, reducing dust pollution.

Erosion Control Measures: HRM will maintain a Stormwater Management Plan with site specific measures for erosion control. HRM will make thorough inspections, in accordance with the requirements set forth by CDPHE Water Quality Division (WQD). The inspection schedule is as follows:

- While site and road is under construction, an inspection is required at least every 14 calendar days;
- Post storm event inspections must be conducted within 24 hours after the end of any precipitation or snowmelt event that causes surface erosion.

Inspection records will be kept on file for a minimum of five (5) years from expiration or inactivation of permit coverage.

Traffic Control: HRM will construct leasehold road and well site to accommodate local emergency vehicle access requirements and will be maintained in a reasonable condition. A Traffic Plan is enclosed. HRM intends to utilize water sources nearby and lay flat surface pipelines which will reduce traffic.

General Housekeeping

Guy Line Anchors: All guy line anchors left buried for future use will be identified by a marker of bright color not less than four feet in height and not greater than one foot further of the guy line anchor.

Removal of Surface Trash: HRM agrees that all trash, refuse pipe, equipment, liquids, chemicals or other materials that are not necessary for the continued operations of the wells will be removed and disposed of no later than 30 days after completion. No such items will be burned or buried on location.

Material Handling and Spill Prevention

Leak Detection Plan: To ensure protection for the surface during fracturing treatment, the location will be specifically constructed to contain any releases or spills. All containment will be constructed of steel with impermeable barriers installed inside and along the internal sidewalks of the containment. Volume capacity will be 110% or greater of the largest tank plus largest annual rainfall.

Leak detection will be monitored by daily operator inspections and remote hi/lo pressure monitoring with electronic shut down functionality. Secondary containment will surround any trucks that carry, mix, or add chemicals to the flow stream as well as connections that could possibly leak fluid. Should any spill or release occur, every reasonable step will be taken to quickly remediate the area disturbed. One (1) to seven (7) inspections per week will be recorded and kept in the district office and available to regulatory agencies. Records will be kept electronically indefinitely. All tanks will have hi level shut down for all producing wells on the pad.

Both gas and oil sales systems will have remote Emergency Shut- Down (ESD) system' functionality and independently tied to the operational status of the purchasing line(s) or vessel, as well as high pressure ESD for all lines and vessels.

Any spills/release reportable to COGCC, will also be reported to Adams County verbally or in writing to the County's Local Government Designee (LGD), Local Planning and Development Department, Sheriff's Office, and the local fire district as soon as possible, but no more than 24 hours after discovery of the spill or release by HRM This includes spills/releases: 1) of any size that impacts or threatens to impacts any waters of the state, a residence or occupied structure, livestock, or public byway; 2) in which one (1) or more barrels of Exploration and Production Waste or produced fluid is spilled or released outside of berms or other secondary containment; and 3) of five (5) or more barrels regardless of whether the spill/release is completely contained within berms or other secondary containment. In addition, HRM will notify the surface owner or the surface owner's tenant of spills/releases in compliance with COGCC rules.

Control of Fire Hazards: HRM and its contractor's will employ best management practices during the drilling and production of its wells and facilities. They will comply with appropriate COGCC and Adams County rules concerning fire and safety. HRM will ensure that any flammable material will remain no less than 25 feet from the wellhead(s), tank(s) and separator(s).

Berm Construction: A steel containment berm or structure will be erected around the oil and water storage tanks. The steel berm will be inspected at least every 14 calendar days while the site is under construction and within 24 hours of a precipitation event. During the production phase one (1) to seven (7) inspections per week will be recorded and kept in the district office and available to regulatory agencies. Records will be kept electronically indefinitely.

Tank specifications: Tanks shall be constructed and maintained in accordance with the National Fire Protection Association Code 30 (2008 version). All tanks will be visually inspected once a day. Recorded inspections will be conducted once a month pursuant to 40 CFR §112.

Material Safety Data Sheets (MSDS) for materials and chemicals used will be kept onsite and updated/modified for each phase of operations. They will be made available to any emergency responders as needed.

Construction

Fencing: The wellsite will be fenced for security and in concurrence with surface owner request.

Drilling/Completion Operations

Closed Loop System: A Closed Loop System will be used for drilling and fluid management. No reserve pit will be used. Water based cuttings will be generated and assessed for land farming applications. Any cuttings other than water based will be hauled to an approved waste disposal site.

Green Completions: Emission Control Systems. Test separators and associated flow lines and sand traps shall be installed on-site to accommodate green completion techniques pursuant to COGCC Rules.

Air Emissions: Air emission sources shall comply with provisions of the state air quality control program and the rules and regulation promulgated by the State Air Quality Control.HRM will employ control measures and operating procedures as are necessary to minimize fugitive particulate emissions into the atmosphere.

Wildlife and Wildlife Habitat: The proposed oil and gas wells fall within the Adams County NRCO district. HRM contracted a independent consultant to evaluate the potential impact of the operations within the NRCO boundary. The study determined HRM will not cause significant degradation of wildlife.

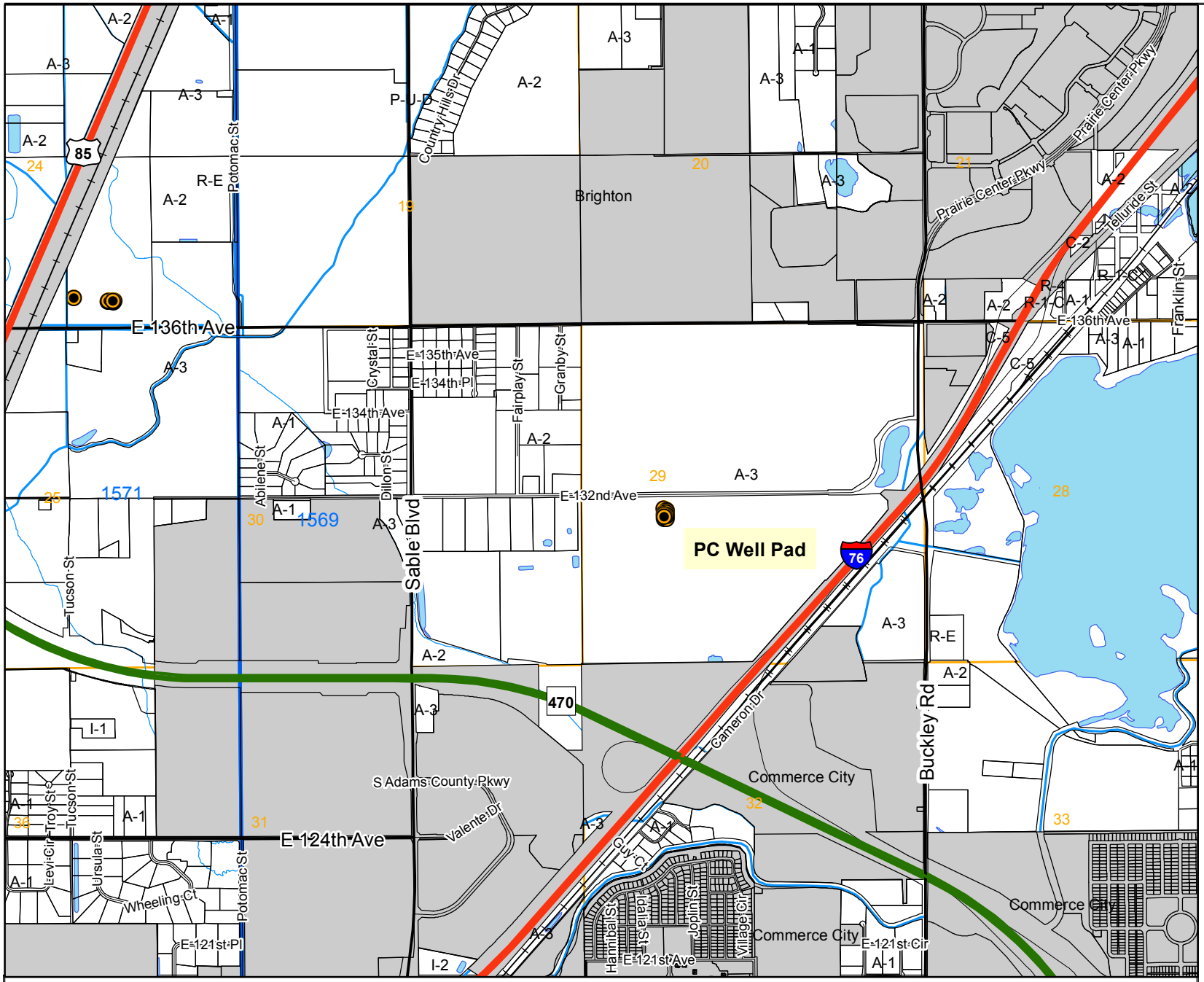
BOPE for well servicing operations: Adequate blowout prevention equipment will be used on any servicing operations associated with this well. Backup staving valves shall be required on well servicing operations during reverse circulation. Valves will be pressure tested before each well servicing operation using both low-pressure and high-pressure fluid.

Water Sampling: HRM will adhere to COGCC Rule 318.A. HRM will utilize COGCC's criteria and protocol for analysis and submission to the COGCC data system. If there are no available water sources within a ½ mile radius of the proposed oil and gas facility, HRM will test the nearest downgradient water source within a one (1) mile radius prior to construction.

Interim Restoration (Production): Rehabilitation of unneeded, previously disturbed areas will consist of back sloping, and contouring all cut/fill slopes. These areas will be reseeded. The portions of the cleared well site not needed for operational and safety purposes will be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Sufficient level area will remain for setup of a workover rig and to park equipment. In some cases, rig anchors may need to be pulled and reset after recontouring to allow for maximum interim reclamation.

Final Reclamation

Well site cleared. Within 90 days subsequent to the time of plugging and abandonment of the entire site, superfluous debris and equipment shall be removed from the site.



LEGEND

- Special Zoning Conditions
- 3 Section Numbers
- Railroad
- Major Water
- Zoning Line
- Sections

Zoning Districts

- A-1
- A-2
- A-3
- R-E
- R-1-A
- R-1-C
- R-2
- R-3
- R-4
- M-H
- C-0
- C-1
- C-2
- C-3
- C-4
- C-5
- I-1
- I-2
- I-3
- CO
- PL
- AV
- DIA
- P-U-D
- P-U-D(P)
- Airport Noise Overlay

PC Well Pad

USR2017-00002

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For display purposes only.

ADAMS COUNTY COLORADO

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