Planning Commission

October 25, 2022 at 1:15 PM
1001 11th Avenue, City Center South, Greeley, CO 80631

Agenda

1. Call to Order
2. Roll Call
3. Approval of the Agenda
4. Approval of September 27, 2022 and October 11, 2022 Minutes
5. A public hearing to consider a request by Kerr-McGee Oil & Gas Onshore LP (KMOG) for an oil and gas development, consisting of 12 oil and gas wells and associated production facility pad site on approximately 12.62 acres of a 160-acre parcel/ The property is located south of County Road 56, east of County Road 19, and west of State Highway 257.
6. A public hearing to consider a request by Kerr-McGee Oil & Gas Onshore LP (KMOG) for an oil and gas development, consisting of 28 oil and gas wells and associated production facility pad site on approximately 26.26 acres of a 237-acre parcel. The property is located north of US Highway 34, east of County Road 19, and west of 131st Avenue.
7. Staff Report
8. Adjournment

City of Greeley, Colorado
PLANNING COMMISSION PROCEEDINGS
September 27, 2022

1. Call to Order

Vice Chair Briscoe called the meeting to order at 1:16 PM.

2. Roll Call

The hearing clerk called the roll.

PRESENT
Chair Justin Yeater
Commissioner Louisa Andersen
Commissioner Erik Briscoe
Commissioner Jeff Carlson
Commissioner Larry Modlin
Commissioner Christian Schulte

ABSENT
Commissioner Brian Franzen

3. Approval of Agenda

There were no corrections or additions to the agenda. It was approved as presented.

4. Approval of September 13, 2022, Minutes

Commissioner Briscoe moved to approve the minutes dated September 13, 2022. Commissioner Modlin seconded the motion. Motion carried 5-0. (Commissioner Franzen absent.)

5. A Public Hearing to consider a rezone from H-A (Holding Agricultural) to the R-H (Residential High Density) zone district. The properties consist of approximately 31.19 acres of property and are located south of 10th Street, north of 13th Street and west of 59th Avenue (ZON2021-0016).

Meg Oren, Planner II, explained the property and described the nearby zoning and land uses. She gave the historic timeline of the site, noting past annexations and a special use review for an oil and gas facility. Ms. Oren discussed the reason for requesting a rezone on this property and what the applicant is proposing. She then stated that the proposed residential high rezoning would have the potential to create a transition between nearby residential neighborhoods, along with commercial activity on 10th Street. Ms. Oren stated that the developer of the site would be required to construct the 63rd / 65th Avenue, from 13th Street to 10th Street , widen portions of 13th Street, and construct 11th Street through the property. She said that as part of the review process, a neighborhood meeting was virtually held on January 5th of this year. A total of 388 notice letters were sent to surrounding property owners

within 1000 feet of the subject site. In response to the letters, she received three phone calls from nearby citizens, who shared concerns regarding traffic, congestion, and a curiosity of what was being proposed.

Commissioner Schulte asked if anyone still has a right to put the use by special review for drilling into effect. Ms. Oren stated that she believed it was expired but wanted to confirm with Becky Safarik, Community Development Director.

Ms. Safarik said that the special use had expired and would no longer be able to drill on the site unless they could meet certain setback requirements and obtain approval by the Planning Commission.

Commissioner Schulte was curious if a past RV park request in the area was still a concern. Ms. Oren said that it was not. .

Chair Yeater stated he knew they are only considering rezoning at this point but wondered if any building on the property would require further construction of 63rd and 65th avenue, and then 11th and 13th street development. Ms. Oren stated that if any future development occurs then it would indeed require the roadway construction.

Commissioner Modlin asked if the intersection of10th Street and 63rd Avenue would warrant a traffic light with the change in zoning. Ms. Oren stated that Thomas Gilbert, Engineer III, would be able to answer that question.

Mr. Gilbert specified that CDOT and the City's Transportation Planner reviewed the project and had no concerns. He told Commissioner Modlin that a traffic light would definitely need to added to that location with future development.

Commissioner Modlin asked if there will be a signal by 13th Street and 59th Avenue. Mr. Gilbert stated that in the short term it does not warrant adding a signal, but there is some concern about it failing with or without the development in the long term. The applicant should address the specific uses in the long-range site plan when that happens.

Clara Russo, 419 Canyon Avenue, Ft. Collins, presented on behalf of Ripley Design Inc. along with Stephanie Thomas with Northern Engineering. She stated a preliminary application was submitted in 2021 and a neighborhood meeting was held in 2022. She also explained how rezoning would align with the intent of the Comprehensive Plan to provide horizontal mixed use in that area. Ms. Russo said that it would provide a nice transition from the commercial uses to the north and single-family residences to the south. She wrapped up but explaining a market study was completed for this proposal, which outlined the need for additional high density housing within the next three years, which would not impact the existing properties.

Chair Yeater opened the public hearing at 1:32 PM.

Roger Richman, 6120 West 15th Street, spoke on behalf of the Fox Run Homeowner's Association. He stated they are already surrounded by problems that come with high-density residential properties and adding more high density would only add to the existing problems. Mr. Richman also spoke about the traffic concerns and the high

school students' speeding issues.

Commissioner Andersen joined the meeting.

Suzanne Mall, 6319 13th Street Road, stated that 13th Street is directly behind her home. She said that the noise is already too much and hopes the city will add a noise abatement in the area. Ms. Mall is also concerned about the congestion this will cause, due to the large number of apartments and additional vehicles.

Heather Boss, 633913th Street Road, believes that she will lose privacy due to the tenants being able to view her home and backyard from the tall apartments. She said that the traffic and noise concern is already a huge problem. Ms. Boss reiterated that point, by sharing a recent story of a truck that crashed into her neighbor's yard. She feels the road has become a racetrack and shared her concern for the high school students' safety since they frequently jog along that road.

Donna Richman, 6120 15th Street, voiced her concern regarding property values going down. Previous buildings have been built in the area but were set too close to Fox Run development. Consequently, many people sold their homes. Ms. Richman requested that an adequate buffer be placed between the existing single-family homes and the apartments.

Chair Yeater closed the public hearing at 1:42 PM.

Ms. Russo noted that at this time, they do not yet have a site plan since they are in the first phase of their land use approval request. She said however, when they get a site plan that it will meet the code as outlined in the R-H zone district. The connection of 63rd / 65th Avenue (from 13th Street to 10th Street) will be developed in the future.

Commissioner Briscoe specified the Planning Commission hearing is only for the rezone request, moving from C-H to R-H to R-L seems like the proper transition. He noted that the R-H zone district would allow for three-story apartments He also believes that a signalized intersection at 63rd /65th Avenue at 10th Street will alleviate some of the traffic concerns.

Commissioner Briscoe moved that, based on the application received and the preceding analysis, the Planning Commission find that the request to rezone from Holding Agriculture to Residential High Density is in compliance with Development Code section 24-204b; and therefore, recommends approval. Commissioner Schulte seconded the motion.

Commissioner Schulte wanted to make sure it was clear to the public that there are more steps between today's decision and the project being built. Before the applicants breaks ground, they will have to approach the city again with a completed site plan. He stated there will be another opportunity for the public to give their feedback.

Chair Yeater said that this will be a nice transition and will open up possibilities for what could be situated there. He also believes that with the addition of roads a lot of traffic concerns could be mitigated.

Commissioner Schulte believes that new developments should help the open country roads feel more like city roads thus reducing the temptation to drive haphazardly.

Commissioner Modlin stated the developer is also using some alternative dwellings in that same zone. He believes it is already very wise in terms of spreading the noise and buffering the high density on the north side.

Motion carried 6-0. (Commissioner Franzen absent).

6. Staff Report

Ms. Safarik stated that there were no business items to report but reintroduced the returning Planner on staff, Caleb Jackson, Planner III.

7. Adjournment

With no further business before the Commission, Chair Yeater adjourned the meeting at 1:50 PM.

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Justin Yeater, Chair

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Becky Safarik, Secretary

City of Greeley, Colorado
PLANNING COMMISSION PROCEEDINGS
October 11, 2022

1. Call to Order

Vice Chair Briscoe called the meeting to order at 1:16 PM.

2. Roll Call

The hearing clerk called the roll.

PRESENT
Chair Justin Yeater
Commissioner Louisa Andersen
Commissioner Erik Briscoe
Commissioner Jeff Carlson
Commissioner Brian Franzen
Commissioner Larry Modlin
Commissioner Christian Schulte

ABSENT
None

3. Approval of Agenda

There were no corrections or additions to the agenda. It was approved as presented.

EXPEDITED AGENDA

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4. A public hearing to consider a request to rezone approximately 19.995 acres of land located west of 23rd Avenue and south of 29th Street from Commercial High Intensity (C-H) to Planned Unit Development (PUD) (Project No. ZON2022-0014)

Kendra Shirley, 1703 61st Avenue, Suite 101, thanked the Commission for considering their application and stated they were available for any questions.

Commissioner Andersen asked the Planning staff about why the proposed use is not included in a commercial high intensity zone district. Kristin Cote, Planner III, stated that the proposed use of the food and beverage - major, is typically only allowed in industrial zone districts. Therefore, a PUD was proposed to add this specific use instead of an industrial zoning that would allow a full range of uses.

Commissioner Anderson then asked if the use is considered as industrial. Ms. Cote said that was correct.

Commissioner Anderson further inquired if the use would be more for wholesale rather than retail sales. Ms. Cote said that this use would be geared more towards a large-scale butchering operation, describing the operation where the meat comes on site and is processed into products that are then shipped to distributors.

Mike Garrott, Planning Manager, clarified that the site is proposed to be more of an industrial operation versus something you would typically see in a grocery store, due to its scale and lack of a retail or commercial component.

Becky Safarik, Interim Community Development Director, said that another way to look at the use in commercial zones is that the butchering that occurs as part of a grocery store is incidental to the sale of the product.

Chair Yeater invited comment from the applicant, who indicated that they were available to answer questions. Chair Yeater then opened and closed the public hearing at 1:21 PM.

Commissioner Andersen moved that, based on the application received and the preceding analysis, the Planning Commission find that the proposed rezoning from Commercial High Density (C-H) to Planned Unit Development (PUD) is in compliance with Title 24-204(b) and therefore, recommends approval. Commissioner Schulte seconded the motion.

Motion carried 7-0.

5. A public hearing to consider a request to establish a PUD on approximately 19.995 acres of land located west of 23rd Avenue and south of 29th Street to establish the use of Manufacturing Food and Beverage – Major and Warehouse/Storage – Limited & General (Project No. PUD2022-0002)

Chair Yeater opened and closed the public hearing at 1:23 PM.

Commissioner Andersen moved that, based on the application received and the preceding analysis, the Planning Commission find that the proposed Planned Unit Development (PUD) plan is in compliance with Title 24-205(c) and therefore, recommends approval. Commissioner Franzen seconded the motion.

Motion carried 7-0.

END OF EXPEDITED AGENDA

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6. Staff Report

Ms. Safarik stated there were no items for the staff report.

7. Adjournment

With no further business before the Commission, Vice Chair Briscoe adjourned the meeting at 1:24 PM.

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Justin Yeater, Chair

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Becky Safarik, Secretary

Planning Commission Agenda Summary

October 25th, 2022

Key Staff Contact: Michael Franke, Planner I, (970) 350-9782

Title:
Public Hearing to consider a Use by Special Review request to allow for 12 oil and gas wells to be constructed on one pad with associated production facility equipment, known as the Blue Chip 6-22 HZ project. The proposed subject site is located approximately ½ mile west of State Highway 257, south of County Road 56, and ½ mile north of County Road 54 in the Holding Agriculture zoning district. (Project: USR2022-0010).

Summary:
The City of Greeley is considering a request by the applicant, Tracy Colling, on behalf of Kerr-McGee Onshore LP (KMOG), for approval of a USR (Use by Special Review) to allow for a new oil and gas development containing 12 wells with associated production facility equipment on one pad in the H-A (Holding Agriculture) zoning district. The subject site is located approximately ½ mile west of State Highway 257, south of County Road 56, and ½ mile north of County Road 54. The subject site parcel is 160-acres in size with the proposed oil and gas development using 3.03-acres of the subject site. The subject site is currently used for other oil and gas wells with production facilities and dry crop farmland. The operation plan for the proposed development consists of a construction & drilling phase, completion phase, production phase, and plugging and abandonment phase. The City of Greeley Development Code states oil and gas development is permitted within all zoning districts upon approval of the USR process due to the highly regulated nature of oil and gas production.

Recommended Action:
Approval:
Based on the application received and the preceding analysis, the Planning Commission finds that the proposed Use by Special Review for an oil and gas operation that consists of 12 oil and gas wellheads and associated production facility equipment on 3.03 acres (permanent) of the 160 acre site, in a H-A (Holding Agriculture) Zone District is consistent with the Development Code criteria of Section 24-206 (Items a through d) and the proposed oil and gas operations will meet the provisions contained in Section 24-1102, Oil and Gas; and therefore, approve the Use by Special Review.

Attachments:
Staff Report
Attachment A – Aerial & Vicinity Map
Attachment B – Existing Zoning Map
Attachment C – Narrative and Operations Plan
Attachment D – Overall Site Plan
Attachment E – Visual Mitigation Plan

Attachment F – Traffic Impact Study
Attachment G – Tactical Response Plan
Attachment H – Noticing Boundary Area

PLANNING COMMISSION SUMMARY

ITEM: Use by Special Review (USR) for Oil and Gas Production Facilities in the H-A (Holding-Agriculture) Zoning District

FILE NUMBER: USR2022-0010

PROJECT: Blue Chip 6-22HZ Oil and Gas Use by Special Review

LOCATION: South of CR 56, ½ mile west of State Highway 257, and ½ mile north of CR 54

APPLICANT: Tracy Colling, on behalf of Kerr-McGee Onshore LP (KMOG)

CASE PLANNER: Michael Franke, Planner I

PLANNING COMMISSION HEARING DATE: October 25th, 2022

PLANNING COMMISSION FUNCTION:
Review the proposal for compliance with Section 24-1102, Oil and Gas Operations, and Section 24-206, Review Criteria/Uses by Special Review, of the City of Greeley Development Code and either approve, approve with conditions, or deny the request.

EXECUTIVE SUMMARY

The City of Greeley is considering a request by Tracy Colling on Behalf of Kerr-McGee Oil and Gas Onshore LP. (KMOG), for approval of a Use by Special Review (USR) to allow up to 12 horizontal oil and gas wellheads, and production facility (see production facility equipment below), on a property located south of County Road 56, east of County Road 17, and approximately ½ mile west of State Highway 257 (*see Attachment A – Aerial & Vicinity Map and Attachment D – Overall Site Plan*). The subject site is approximately 160 acres in size and is zoned H-A (Holding Agriculture).

A. REQUEST

The applicant is requesting approval of a USR to allow for an oil and gas operation for up to 12 oil and gas wellheads and production facility (see production equipment below), on approximately 3.03 acres (permanent) of the 160 acre site (*see Attachment D – Overall Site Plan and Attachment C – Narrative and Operations Plan*).

B. STAFF RECOMMENDATION

Approval.

C. LOCATION

Current Zoning:

H-A (Holding Agriculture) (*see Attachment B – Existing Zoning Map*)

Abutting Zoning:

North: H-A (Holding Agriculture), I-M (Industrial Medium), and PUD (Planned Unit Development)
South: A (AG) - Weld County Property
East: A (AG) - Weld County Property
West: A (AG) - Weld County Property

Surrounding Land Uses:

North: Dry Crop Farmland, Oil and Gas Operation
South: Dry Crop Farmland
East: Dry Crop Farmland
West: Dry Crop Farmland

Site Characteristics:

The site is primarily utilized for dry crop farming and oil and gas operations. There are five existing oil and gas wells on the site that are currently producing (Katie-Hager - #305128, Mary-Hager - #305407, Jean Ann - #305408, Nick-Hager - #305127, and The Champ - #305406).

D. BACKGROUND

The subject site was annexed into the City of Greeley and zoned H-A in 2000, as part of the Gold Hill Annexation #2 (Reception No.2813619) (File No. A 16:00 and Z 32:00). The subject site has remained undeveloped, other than oil and gas operations, since its annexation.

The subject tract was created through the County as a recorded exemption having a legal description that delineates the property.

Colorado Oil and Gas Conservation Commission (COGCC) site location permits have been applied for by KMOG.

E. OPERATION PLAN

The operation plan for the proposed development consists of a construction & drilling phase, completion phase, production phase, and a plugging and abandonment phase.

KMOG intends to horizontally drill 12 proposed wells using facilities, equipment, located on one wellhead pad on approximately 160 acres of land, with a final permanent footprint of approximately 3.03 acres (*see Attachment C – Narrative and Operations Plan*).

Construction & Drilling Phase:

The initial pad construction and drilling operations are expected to take about six to nine months (under normal circumstances). The subject land is first surveyed, and well locations are staked in accordance with COGCC regulations. The drilling pad is designed to prevent run off so that any spills will be contained onsite. The pad is lined with a layer of compacted clay materials to help prevent fluids from migrating vertically to the subgrade. Drilling operations will run 24 hours/day until completed, will commence after the rig is "rigged up". After the location has been prepared, a drilling rig will move onto location to drill the surface intervals of the wells and cement the surface pipe to protect ground water. This process could take approximately one day per well under normal circumstances, subsequently a 12 well pad could take 12 days to complete initial surface drilling operations including cementing the surface casing pipes. Surface casing setting depth is determined from subsurface ground water maps prepared by the State Engineer and supplemented by the latest data available from offsetting wells.

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 would be moved onto location to drill the production interval. Production drilling operations could take four to five days per well, under normal circumstances. The actual drilling proceeds at a constant rate unless subsurface 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 subsequently the rig is moved off location. At this point the drilling phase is complete. (*see Attachment C – Narrative and Operations Plan*).

Completion Phase:

The construction of the production facility may occur concurrent with the drilling and/or completion operations. Completion operations include all operations performed after drilling operations and prior to first production. These completion operations consist of well preparation, fracture stimulation, and preparing the well for production to sales. The well preparation phase of completion operations is performed to prepare for the fracture stimulation operation. Initially, the necessary wellhead equipment is installed to conduct well preparation operations. Logging is performed to confirm the cement quality behind the well casing meets KMOG and regulatory standards. The wellbore is pressure-tested to confirm the casing can withstand the high pressures associated with a fracture stimulation. Lastly, the

remaining necessary wellhead equipment is installed to prepare the well for fracture stimulation. A crew of one to six people are required to perform the above operations. The cumulative duration of the well preparation operations is three to four days.

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 three to seven days per well.

At the end 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 two to five weeks with a crew of three to ten people.

The completion process is a 24 hour a day, seven-days a week 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. (*see Attachment C – Narrative and Operations Plan*).

Production Phase:

After the completion fleet has cleared the 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 facility, may consist of maintenance/oil tank(s), water tank(s), separator(s), Lease Automatic Custody Transfer (LACT) units, vapor recovery unit(s) (VRU), emission control device(s) (ECDs), meter(s) house, E-house, chemical tote(s), purge flare(s), communications tower, temporary produced water tanks, temporary ECDs and temporary generator. The temporary equipment could be on site for six to 12 months and then would be removed. In addition, pumping units may be installed. The production facility would then be connected to the wells by pressure tested flowline buried approximately four feet deep. At this point, the gas and oil purchasers are preparing to connect the gas and oil sales meter loop.

The production facility installation is completed by constructing an earthen or metal berm around the production tank(s) and separator. The enclosed area must have sufficient volume to contain the entire contents of the largest tank plus adequate freeboard to contain a 24-hour

25-year precipitation event. The berms would 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.

When a well is completed for production, all disturbed areas no longer needed must be restored and revegetated 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 to establish a proper seedbed. The disturbed area then shall be re-seeded in the first favorable season. (*see Attachment C – Narrative and Operations Plan*).

Plugging / Abandonment Phase:
Plugging and abandonment is the cementing of a well and removal of its associated production facility. This also includes the removal of flowlines after all the wells on the pad are plugged and the remediation and reclamation of the well site.

When this occurs, KMOG, who is the operator, or its successors would have to engage a plugging rig to remove production equipment from the wellbores and plug the productive zones with a combination of bridge and cement plugs in accordance with COGCC statutes. If the separators were no longer needed for other wells in the area, KMOG or successors would remove them completely. 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 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).

The final phase involves plugging the wells and removing all production facilities no longer in use. At that time, the land would be restored to or as near to its original condition as possible including regrading and reseeding. After plugging a well, reclamation work will be completed within three months on crop land, and six months on non-crop land, or with landowner consent reclamation will occur during optimal revegetation times of the year. KMOG estimates to plug and abandon (P&A) 13 wells and remove 4 facilities, reclaiming approximately 0.75 to 1.5 acres per well. This is contingent upon the approval of permits by the City of Greeley and the COGCC, successful drilling and completion of the proposed wells and bringing them onto production. (*see Attachment C – Narrative and Operations Plan*).

APPROVAL CRITERIA

Uses by Special Review: Uses by Special Review possess characteristics which require a public hearing to determine if a proposed use has the potential to adversely affect other land uses, transportation systems, public facilities, or the like in the surrounding neighborhood. The Planning Commission may require conditions of approval necessary to eliminate or mitigate, to an acceptable level, any potentially adverse effects of the proposed use.

Section 24-206.b of the Development Code contains eight criteria that are used to evaluate Uses by Special Review:

1. **All criteria for site plan review in Section 24-207**

   Staff Comment: The proposed project satisfies the requirements of Section 24-207 of the Development Code. The applicant has addressed all staff comments and included all required materials for the Use by Special Review criteria. Staff is satisfied with the Plan Set submitted for the proposed project. (*Attachment D – Overall Site Plan*).

   The proposal complies with this criterion

2. **The application furthers the intent of the proposed zoning district, does not conflict with the intent of any abutting districts, and is otherwise determined to be consistent with the Comprehensive Plan.**

   - **NR-3.6 Resource Extraction**
     To the extent possible, minimize negative impacts from the extraction of sand, gravel, oil and gas, and other natural resources on the environment and surrounding land uses. Encourage the thoughtful reclamation of land that has been mined.

   - **NR-3.11 Oil and Gas Operations**
     Encourage the co-location of oil and gas facilities, where possible, to minimize the overall footprint of affected areas and impacts on adjacent land uses and the environment.

   - **TM-4.1 Truck Impacts**
     Establish and enforce appropriate truck routes to and through the city, including for hazardous materials. Encourage the co-location of oil and gas facilities in order to minimize impacts of transporting these resources on the community.

Staff Comment: The Comprehensive Plan encourages the colocation of oil and gas well facilities. KMOG proposes to cluster 12 wells onto one pad site. Both the cluster concept and the horizontal drilling, allow the operator to reach resources desired, while reducing the oil and gas footprint on the surface. The drilling operations would allow the owner or lessee of the mineral estate to recover hydrocarbons prior to surface development. This site, because of horizontal drilling, has the potential to reduce the cumulative number of smaller independent sites and plug and abandon sites throughout the area. The proposal allows for access to below-grade mineral rights in a larger geographic area where surface development has already been completed. Surface development at the subject site has not been proposed at this time.

This request complies with these Comprehensive Plan Policies. (*Attachment D – Overall Site Plan*).

The proposal complies with this criterion.

3. **Any associated site development or construction complies with requirements of this code, including any conditions or additional requirements identified for the particular use.**

Staff Comment: The proposed project complies with all development code requirements for site development and construction standards. Additional requirements, such as visual, noise, air quality, environmental, etc. mitigation have been provided within the narrative, operation plans, and submitted studies. Various city departments, external agencies, and abutting municipalities have reviewed the project proposal and are satisfied with the proposal as it meets all requirements for site design, site construction, and production of oil and gas goods.

The proposal complies with this criterion.

4. **Compatibility with the area in terms of operating characteristics such as hours of operation, visible and audible impacts, traffic patterns, intensity of use, and other potential impacts on adjacent property. The cumulative impact of a concentration of similar existing uses may be considered as part of the impact of a particular use.**

Staff Comment: The operating characteristics of the proposed project are within normal standards for the site location and abutting properties. The site location is experienced with other oil and gas operations due to five existing wells on site (Katie Hager 11-22, Mary Hager 21-22, Jean Ann 25-22, Nick Hager 12-22, and The Champ 22-22). The existing operations have similar characteristics as the proposed project (wellheads and production facility on one pad). The surrounding uses of dry crop farmland and oil and gas production create similar impacts to the proposed project and are not unusual for this area of the city.

KMOG has conducted several studies and submitted each to the city for review, such as an Emergency Action Plan (EAP and Tactical Response Plan (TRP), Traffic Study, Final Drainage and Erosion Control Reports and Plans, Light Mitigation Plan, Noise Mitigation Plan, and Topsoil Protection Plan. KMOG must continuously monitor conditions of the site to comply with various mitigation standards. Upon review, staff found all submitted mitigation and response plans to be in compliance with City, County, State, and COGCC requirements.

Traffic impacts would be the greatest during the first six to twelve months of the project during the construction and drilling phases. The applicant would utilize access road County Road 56 at State Highway 257 for all traffic associated with construction and production of the wells proposed for the Blue-Chip Pad. County Road 56 Avenue is a rural, dirt/gravel road, custom to oil and gas production traffic as well as farming equipment traffic. KMOG has obtained an Access Permit application from the Colorado Department of Transportation (CDOT). The project does not propose any traffic impacts unusual to the site and abutting properties. (*Attachment F - Traffic Impact Study),* and *Attachment C – Narrative and Operation Plan*).

The proposal complies with this criterion.

5. **The site is physically suitable for the proposed use, and whether any additional site specific conditions are necessary for the use to be appropriate and meet these criteria.**

Staff Comment: The 160-acre site is currently dry crop farmland with oil and gas wells and production facilities. The site is adjacent to undeveloped, Weld County parcels to the east, west, and south. The nearest structure to the facility is a mechanical equipment shed facility screened by fencing and is unoccupied. The structure is over 2,000 ft away from the proposed project.

All wellheads and on-site production equipment are required to be at least 150 feet from any other wells or associated production equipment. The proposed wells are located at least, if not more than, 150 feet from any occupied building. This is in conformance to the City of Greeley Development Code. The COGCC requires setbacks of at least 500 feet from any occupied building and at least 2,000 feet from any school facility or child care center. The proposed project complies with the COGCC regulations. The site is physically suitable for oil and gas operation and the proposed development meets or exceeds the setback requirements required by the city and the COGCC. *(Attachment D – Overall Site Plan).*

The proposal complies with this criterion

6. **Whether a limited time period for the permit is reasonably necessary to either limit the duration of the use, assess the use against changing conditions in the area, or ensure periodic reporting and ongoing enforcement of the permit.**

Staff Comment: It is not necessary to limit the duration of the use. A Limited time period for the permit operation is not proposed, other than the natural timeline proposed for the project. The proposed use may continue if conditions in the area were to change. The estimated schedule for operational phases of the project begins with pad construction in December of 2022, wrapping up with interim, reclamation in June of 2024. After the interim reclamation period, wells and production equipment would continue to operate until deemed economically unviable. At such time, the wells would be plugged and abandoned as appropriate. Once all wells are plugged and abandoned, including flowline abandonment, permanent and final reclamation of the land shall take place.

Periodic reporting and ongoing enforcement will be provided by KMOG to agencies such as the COGCC for compliance with mitigation regulations. If necessary, City of Greeley Fire Department shall work with the applicant to address any issues violating municipal requirements for oil and gas operations. KMOG must continuously monitor the project site throughout all stages of the project's lifespan via in-person, on-site, inspection, as well as remote monitoring from their Integrated Operations Center (IOC) located in Platteville. From the IOC, KMOG personnel can turn wells and equipment on and off, look at tank levels, verify pressures and temperatures. KMOG staff shall address any aspects of the project that may fall out of compliance to meet regulatory requirements at the local, state, and federal levels.

The proposal complies with this criterion.

7. **The long-range plans for the surrounding area are not negatively impacted considering the permanence of the proposed use, the permanence of existing uses in the area, and any changes in character occurring in the area.**

Staff Comment: The subject area is deemed as suburban land according to Greeley's Land Use Guidance Map within the Imagine Greeley Comprehensive Plan. Due to the land designation appointed by the Land Use Guidance Map, there is anticipated to be future development near the subject area. Currently, the Delantero PUD has been approved to the north of the subject site. The applicant of the Blue Chip project and the applicant of Delantero have been in correspondence regarding each development. Projected long-range uses of this site area would most likely be residential subdivisions. If such development were to be proposed during the lifespan of the Blue Chip project, the applicant of each project would comply with all necessary standards to accompany the new development with the least impact. Existing uses in the area are similar and suitable for oil and gas development, including dry crop farmland, vacant land, and other existing oil and gas operations. Mitigation measures are proposed to reduce impacts, or the cumulative effects associated with continuous oil and gas development within the area.

In general, staff has seen an increase in oil and gas activity on the western and southern portions of the city, as operators look to identify locations that support multiple wells, meet COGCC setback and spacing requirements, and provide accessibility to resources located underdeveloped portions of town. As these sites would operate for several years, staff has encouraged operators to locate away from tracts with potential for residential development and provide some improvements based on the nexus of rough proportionality for each site.

The proposal complies with this criterion.

8. **The recommendations of professional staff or other technical reviews associated with the application.**

Staff Comment: The following departments, agencies, and municipalities have reviewed the proposed project submittal:

- City of Greeley: Planning, Engineering Development Review, Stormwater, MS4, Fire, Water & Sewer, and Traffic.
- Agencies: Colorado Department of Transportation (CDOT) and Colorado Department of Parks and Wildlife (CPW).
- Municipalities: Weld County Planning and Zoning and Town of Johnstown and Town of Milliken.

No formal comment letters were received from the Town of Johnstown, Town of Milliken, Weld County, or CDOT regarding the proposed project. The review bodies listed above have all accepted the proposed project as planned due to compliance with required standards of local, state, and federal policies for oil and gas development and production. KMOG has submitted the proposed project to the COGCC for review and hearing approval.

The proposal complies with this criterion

Oil and Gas Operations

Applications for Uses by Special Review for oil and gas operations are subject to the provisions of Section 24-1102, Oil and Gas. Sections 24-1102.c through Section 24-1102.h address well and production facility setbacks, disposal of production waste, seismic operations, signage, access roads, environmental requirements, recordation of flow lines, reclamation of the site, abandonment and plugging of wells, well operations in high density areas, compliance with COGCC, review criteria, and inspection requirements.

Staff Comment: A review of information submitted by the applicant indicates compliance with Sections 24-1102.c through 24-1102.h. These design and operational requirements are reflected in the site plan, landscape plan and standards attached for potential approval (*Attachment C – Narrative and Operations Plan, and Attachment D – Overall Site Plan).*

This proposal complies with this criterion.

F. PHYSICAL SITE CHARACTERISTICS

1. HAZARDS

There are five existing wells on site (Katie Hager 11-22, Mary Hager 21-22, Jean Ann 25-22, Nick Hager 12-22, and The Champ 22-22). Each of the five existing wells are currently producing wells. Staff is unaware of any additional hazardous conditions or events that have occurred on the site to date.

2. WILDLIFE

The subject site is not within the City's Ecological Significance Areas. For this reason, the applicant was not required to submit an Environmental Report of the site. Nonetheless, the Colorado Department of Parks and Wildlife (CPW) reviewed the proposal at the City's request. CPW had no concerns regarding any wildlife impacts from the proposed project. The applicant will remain in contact with CPW and would have a continual partnership throughout the life of the project.

The Development Code indicates that if there are black-tailed prairie dogs inhabiting portions of the site, they must be properly removed as indicated in Section 24-1102 (e) (2) and destruction of prairie dog towns many not occur during the nesting season (May 15 – September 15) due to the potential presence of the burrowing owl. If burrowing owls are actively nesting on the site or brood-rearing is present, a plan shall be developed by the applicant and approved by the City and/or the Colorado Division of Wildlife. It must be implemented before development occurs.

3. FLOODPLAIN

The subject site is not located in the floodplain or floodway according to Federal Emergency Management Administration (FEMA) flood data.

4. DRAINAGE AND EROSION

A drainage report was submitted by the applicant and reviewed by the Engineering Development Review Division, which indicates Changes in natural drainage patterns are not anticipated. The well site will be monitored during the drilling and completion phases for any stormwater erosion or sedimentation concerns. Necessary measures will be taken to correct any problems, immediately in most cases. 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 COGCC regulations and surface use agreements. KMOG will continue to monitor the site until all applicable regulatory requirements for revegetation have been met. KMOG 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 drained 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.

5. TRANSPORTATION

KMOG will utilize access road, County Road 56, along State Highway 257 for all traffic associated with construction and production of the wells proposed for the Blue Chip Pad. The access road must be constructed at a minimum of 24 to 30 foot wide (based on location on the site, see Site Plans for details), with a minimum 13.5 feet of overhead clearance. All access roads are required to be constructed of Class 5 road base over 6 inches of 95% compacted subgrade and aggregate base course. The access roads would be properly graded for adequate drainage and maintained to prevent dust and mud; culverts shall be utilized where necessary. KMOG has submitted an Access Permit application to Colorado Department of Transportation (CDOT) and is working through the permit requirements. A transportation study/memo has been prepared by a traffic consultant. *(see Attachment F – Traffic Study).*

G. SERVICES

1. WATER

The City of Greeley would not supply water to this area. However, the applicant intends to utilize KMOG's "Water on Demand" (WOD) system or from a water supplier in the immediate area of the drill site. The Water on Demand (WOD) system has been designed functionally to allow for delivery of water from multiple sources. KMOG will choose the best source combination for the job based on the water contract terms, the WOD water system capacity, and the forecasted geographic area of water demand (hydraulic fracturing activity). KMOG maintains contractual agreements with multiple companies that have different water sources. This flexibility allows for efficient water transportation and minimizing traffic, dust, noise impacts which, ultimately, protect the health, safety, welfare of the community, and the environment. (*see Attachment C –Narrative and Operation Plan*).

2. SANITATION

The City of Greeley does not provide sewer service to the area. However, as an unmanned facility, sewer service should not be needed. KMOG proposes to provide and maintain portable sanitary facilities that comply with COGCC standards on location during the

drilling and completion phases of the operation. A KMOG employee or contractor would visit the site daily to ensure responsible sanitation and disposal of any debris.

3. EMERGENCY SERVICES

The property would be served by the City of Greeley's Police and Fire Departments as it serves the residences along County Road 56, west of State Highway 257, and south of US Highway 34. The nearest fire station to the site is Greeley Fire Department Station No. 6, approximately 2.30 miles. Additionally, an Emergency Response and Fire Protection Plan (ERFPP), also called Tactical Response Plan, was reviewed by the Greeley Fire Department and complies with City standards (*see Attachment G – Tactical Response Plan*).

As the emergency response agency, that would be called to mitigate an incident, the Greeley Fire Department has implemented strategies to mitigate the risks associated with potential incidents related to oil and gas facilities, just as they do with the vast array of other risks in the community. These strategies consist of identifying the hazards associated with oil and gas drilling/operations, developing a mitigation strategy, updating the strategy as the risks change, implementing the plan when necessary (response), and then reviewing and making corrections as necessary after an incident.

Some highlights of this strategy include the Greeley Fire Department being actively involved in the review and permitting of oil and gas operations; training and equipping members of their department to be prepared to fight flammable liquids fires; command staff attending courses on handling oil and gas well emergencies; incorporating oil and gas well response into the required training program for all firefighters; reviewing local incidents outside the Departments response area and sharing critique information with all personnel. The Fire Department uses a fire suppression foam trailer to improve flammable liquid fire mitigation response time.

4. PARKS/OPEN SPACES

The City of Greeley's *Parks, Trails, and Open Lands Master Plan* (PTOL) does not identify the area having any future trail along or within the subject parcel. No open space or parks is required with this development, however, sufficient open space (not usable) would be present during the production phase.

5. SCHOOLS

This project would have no impact on area schools. No schools are proposed or located within the site.

H. NEIGHBORHOOD IMPACTS

1. VISUAL

KMOG will be required to meet all applicable visual impact requirements set forth by COGCC regulations during operations. The permanent facilities would be painted in uniform, noncontrasting, nonreflective color tones in accordance Greeley Development Code, Sec. 24-1102 Oil and Gas and the COGCC regulations and in a manner to harmoniously blend with the surrounding environment.

KMOG is proposing Visual Mitigation by incorporation a fence along the west, north and east sides of the oil and gas production facility and well pad to screen the facility. This fence is constructed of corrugated steel and painted a neutral color to blend into the surrounds. The Photo Simulation included in the Exhibits section of this documents models the proposed fence. No landscaping is proposed due to the remoteness of the site location and visual mitigation efforts stated above. (*see Attachment C – Narrative and Operation Plan, and Attachment D – Overall Site Plan*).

2. NOISE

KMOG is required to meet all applicable noise requirements set forth by the City of Greeley and the COGCC Rules. Exhaust from all engines, motors and related equipment, shall be vented in a direction away from occupied buildings where practical. Due to the remote location of this proposed pad and lack of nearby residence or businesses, KMOG does not plan to incorporate sound walls for noise mitigation. KMOG utilizes many other noise mitigation techniques as standard practice including a modified drilling rig with noise reduction features and a quiet completions fleet engineered with pump enclosers to reduce noise. KMOG is submitting as a separate Noise Mitigation Plan that details compliance with regulatory requirements. (*see Attachment F – Noise Mitigation Plan*).

Mitigation of potential impacts, such as noise, would be handled in accordance with COGCC regulations, along with applicable Municipal Code standards.

I. PUBLIC NOTICE AND COMMENT

A neighborhood meeting took place on September 15th, 2022 at 5:00 PM. The meeting was held virtually due to the remoteness of the proposed project site, existing land uses, and minimal impacts to the surrounding area. The virtual platform provides greater accessibility for public participation through flexibility of participation. No members of the community attended the meeting. No phone calls, emails, or letters were received by the City of Greeley or KMOG expressing concerns regarding the project.

Letters, per Development Code requirements, regarding the public hearing for the proposed Use by Special Review were mailed on September 28th, 2022 to property owners within 1,000 feet of the site. A sign was posted on the site on October 5th, 2022. To date, October 18th, 2022, no comments have been received (*see Attachment H – Noticing Boundary Area*).

J. MINERIAL ESTATE OWNER NOTIFICATION

Mineral notice is required for a public hearing. The applicant is the sole owner of the minerals for the subject site; therefore, a thirty (30) days' notice was not required.

K. PLANNING COMMISSION RECOMMENDED MOTION

Approval:

Based on the application received and the preceding analysis, the Planning Commission finds that the proposed Use by Special Review for an oil and gas operation that consists of 12 oil and gas wellheads and associated production facility equipment on 3.03 acres (permanent) of the 160 acre site, in a H-A (Holding Agriculture) Zone District is consistent with the Development Code criteria of Section 24-206 (Items 1 through 8) and the proposed oil and gas operations will meet the provisions contained in Section 24-1102, Oil and Gas; and therefore, approve the Use by Special Review.

Denial:

Based on the application received and the preceding analysis, the Planning Commission finds that the proposed Use by Special Review for an oil and gas operation that consists of 12 oil and gas wellheads and associated production facility equipment on 3.03 acres (permanent) of the 160 acre site, in a H-A (Holding Agriculture) Zone District is not consistent with the Development Code criteria of Section 24-206 (Items 1 through 8) and the proposed oil and gas operations will not meet the provisions contained in Section 24-1102, Oil and Gas; and therefore, deny the Use by Special Review.

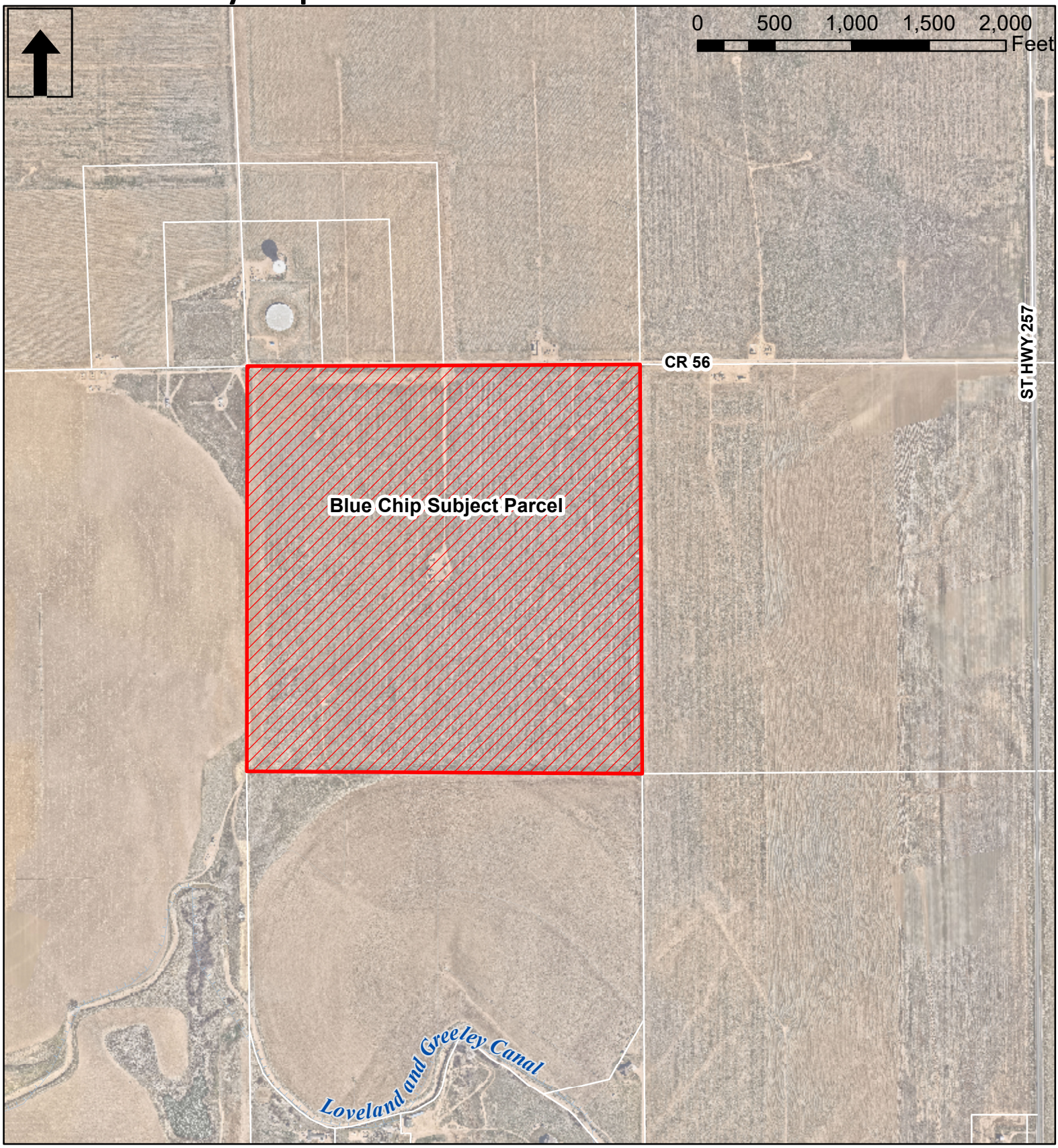
Need to add an alternative motion for denial

ATTACHMENTS

Attachment A – Aerial & Vicinity Map
Attachment B – Existing Zoning Map
Attachment C – Narrative and Operations Plan
Attachment D – Overall Site Plan
Attachment E – Visual Mitigation Plan
Attachment F – Traffic Impact Study
Attachment G – Tactical Response Plan
Attachment H – Noticing Boundary Area

A:
Aerial & Vicinity Map

Kerr-McGee Onshore LP (KMOG) Oil & Gas Proposal
Located south of CR 56, east of CR 17, and 1/2 mile west of ST HWY 257

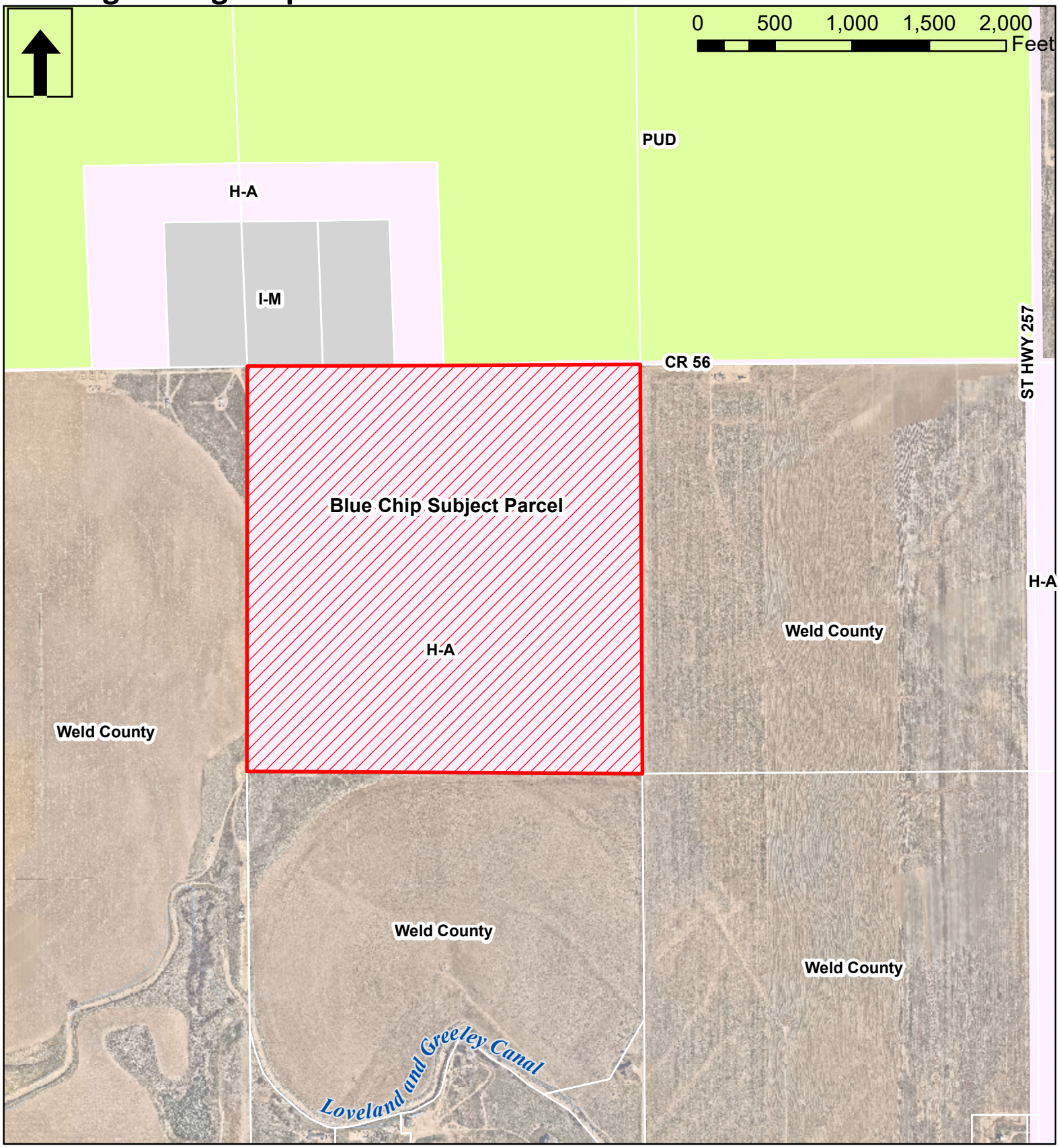


Blue Chip Pad Parcel Location
Greeley Parcels

City of Greeley Colorado
COMMUNITY DEVELOPMENT

B:
Existing Zoning Map

Kerr-McGee Onshore LP (KMOG) Oil & Gas Proposal
Located south of CR 56, east of CR 17, and 1/2 mile west of ST HWY 257



- Blue Chip Pad Parcel Location
- Greeley Parcels
- Conservation District**
- Commercial Low Intensity
- Commercial High Intensity
- Holding Agriculture
- Industrial Low Intensity
- Industrial Medium Intensity
- Industrial High Intensity
- Planned Unit Development
- Residential Estate
- Residential Low Density
- Residential Medium Density
- Residential High Density
- Residential Mobile Home

City of Greeley Colorado
COMMUNITY DEVELOPMENT

C

Use by Special Review Application
City of Greeley

Proposed Oil & Gas Wells

Blue Chip 6-22HZ
Well Pad and Production Facility
(12 Wells on 1 Pad)

Township 5 North, Range 67 West, 6th P.M.
E/2 NW/4 Section 22
Greeley, Colorado

APPLICANT:

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

Submitted: May 25, 2022
Revised: July 8, 2022
Revised: August 19, 2022
Revised: Sept. 19, 2022

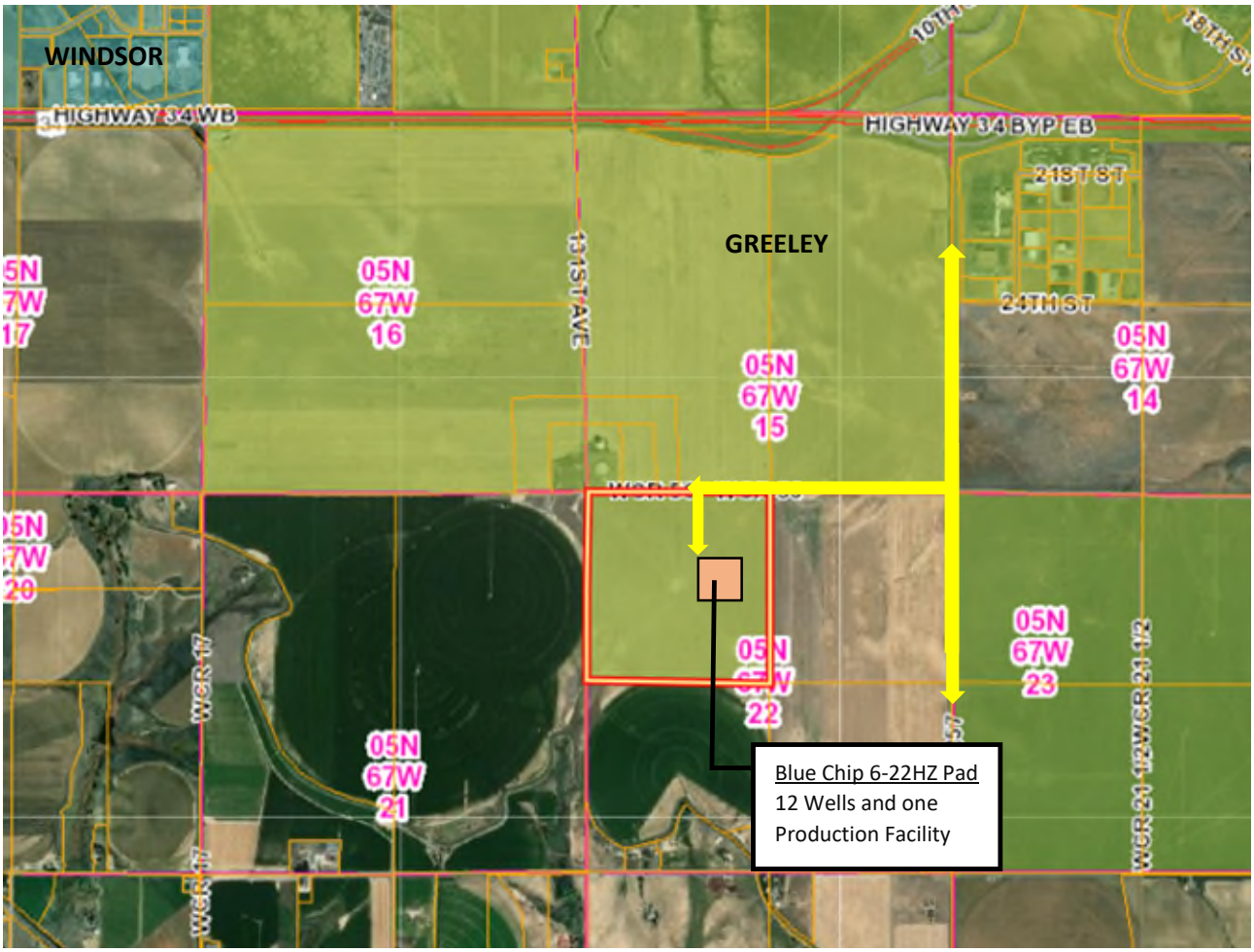
1. Narrative

1.1 DESCRIPTION OF INTENDED USE

Kerr-McGee Oil & Gas Onshore LP (KMOG), a subsidiary of OXY USA Inc., intends to horizontally drill twelve (12) oil and gas wells from one well pad location, on property owned by KMOG. The proposed wells will be known as the Blue Chip 6-22HZ Pad (Blue Chip Pad), the well names are listed in Section 1.2. The desired outcome of this application is to permit the wells to all formations. The purpose of these wells is to produce hydrocarbons from underlying formations known to have commercial potential from the production of the hydrocarbons.

A pre-application meeting with the City of Greeley was held on September 17, 2021, and preliminary siting for the project was reviewed and given preliminary approval to move forward with the development application - Use by Special Review (USR). Members of the Colorado Oil and Gas Conservation Commission (COGCC) staff also attended the meeting (virtually) at the invitation of the City of Greeley.

The wells and production facility are proposed to be located in the east half of the northwest quarter of Section 22, Township 5 North, Range 67 West 6th P.M. See the aerial vicinity map below showing an arrow for the site access from County Road 56.



1.2 SITE IMPROVEMENTS

KMOG shall construct one temporary operations area (Oil & Gas Location) of approximately 12.62 acres for the drilling, completion, and production facility. After drilling and completion activities are finished, the site will be reclaimed to approximately 3.03 acres, (approximately 1.4 acres for the wells and 1.63 acres for the production facility). This is the permanent disturbance areas until such time KMOG evaluates the well production and determines the wells are no longer economically feasible, at which time the wells will then be plugged and abandoned (P&A) and the area reclaimed. Final reclamation will commence one the last well on the site is P&A.

These are the names of the 12 wells proposed for the Blue Chip 6-22HZ pad:

Blue Chip 22-1HZ	Blue Chip 22-7HZ
Blue Chip 22-2HZ	Blue Chip 22-8HZ
Blue Chip 22-3HZ	Blue Chip 22-9HZ
Blue Chip 22-4HZ	Blue Chip 22-10HZ
Blue Chip 22-5HZ	Blue Chip 22-11HZ
Blue Chip 22-6HZ	Blue Chip 22-12HZ

After the wells have been drilled to total depths, completed (hydraulicly fractured) as wells capable of production, KMOG will perform interim reclamation of drilling and completions areas no longer required for production purposes. If any of the wells are not capable of production, that specific well (or wells) will be P&A as a dry hole and the same reclamation of the site will apply. Flowlines will be installed to connect the wells to the production facility. These wells will have a wellhead assembly installed on site. Pumping units may be installed should pressure within the wells necessitate their use.

1.3 CHARACTERISTICS OF DRILLING AND COMPLETION OPERATIONS

KMOG management will utilize authorized employees and professional contractors to conduct the drilling and completion operations on site. Drilling will be continuous, 24 hours a day seven days a week, for this period. Completion operations will be performed on each well following the drilling phase. The production facility will be installed, and the wells put on-line. KMOG anticipates mobilization and pad construction to begin the fourth quarter 2022 contingent upon approval from the City of Greeley and the COGCC.

Estimated schedule for operational phases are as follows:

- Pad Construction December 2022
- Surface Drilling Operations February 2023
- Horizontal Drilling March 2023
- Hydraulic Fracturing September 2023
- Production Facility Construcion May 2023
- Interim Reclamation June 2024

These dates are estimates subject to permitting approvals, drilling schedule, and rig availability.

1.4 CHARACTERISTICS OF MAINTENANCE

Once the wells are brought on to production 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 KMOG Area Manager. In addition, all new well sites are remotely monitored 24 hours a day, seven days a week by representatives in KMOG's Integrated Operations Center (IOC), located in Platteville, Colorado. From the IOC, KMOG personnel can turn wells and equipment on and off, look at tank levels, verify pressures and temperatures.

1.5 COORDINATION WITH THE COGCC RULES

KMOG will comply with the City of Greeley USR permit requirements (Section 24-1102. d.) as well as the COGCC rules relative to oil and gas development.

- Waste: KMOG will comply with City of Greeley regulations and applicable COGCC rules for waste handling and management, including the following:
  a) KMOG uses a closed loop or "pitless" system for drilling and fluid management and does not construct a reserve pit.
  b) 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.
  c) 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.
  d) Human waste will be properly handled by portable sanitary facilities located on site. KMOG will contract a sanitary service company to provide and maintain the self-contained sanitary facilities throughout the oil and gas operation.
  e) Produced water will be hauled away and properly disposed of in accordance with COGCC regulations.
- Abandonment and Plugging (P&A): KMOG will comply with COGCC rules for P&A of wells. In addition, per the City of Greeley requirements, KMOG agrees to notify the Greeley Fire Department at least two hours prior to P&A operations and the removal of production equipment once the final well on location is P&A. Additional details pertaining to the P&A process is described in the Operating Plans section of this document.
- Seismic Operations: KMOG does not have plans for seismic operations related to this application. If this changes KMOG will work with the city regarding the specific requirements as defined in the Greeley Development Code.
- Signs: Well tank and production facility (battery) will be signed in accordance with the COGCC rules. KMOG will maintain these signs in good condition for the life of the wells and production facility. The signs will comply with City of Greeley Chapter 9 sign regulations and the International Fire Code, except where variation of the code is required by the COGCC.
- Reclamation: KMOG will comply with the COGCC requirements relative to reclamation. Additional information about final reclamation is detailed in the Operating Pans section of this document.

1.6 ENVIRONMENTAL MITIGATION

- Noise: KMOG will meet all applicable noise requirements set forth by the City of Greeley and the COGCC Rules. Exhaust from all engines, motors and related equipment, shall be vented in a direction away from occupied buildings where practical. Due to the remote location of this proposed pad and lack of nearby residence or businesses, KMOG does not plan to incorporate sound walls for noise mitigation. KMOG utilizes many other noise mitigation techniques as standard practice including a modified drilling rig with noise reduction features and a quiet completions fleet engineered with pump enclosers to reduce noise. KMOG is submitting as a separate Noise Mitigation Plan that details compliance with regulatory requirements.
- Vibration: KMOG will meet all applicable vibration requirements set forth by COGCC regulations during operations. There is not any unusual vibration anticipated from the proposed operation.
- Visibility: KMOG will meet all applicable visual impact requirements set forth by COGCC regulations during operations. The permanent facilities will be painted in uniform, noncontrasting, nonreflective color tones in accordance Greeley Development Code, Sec. 24-1102 Oil and Gas and the COGCC regulations and in a manner to harmoniously blend with the surrounding environment.

  KMOG is proposing Visual Mitigation by incorporation a fence along the west, north and east sides of the oil and gas production facility and well pad to screening the facility from CR 56. This fence is constructed of corrugated steel and painted a neutral color to blend into the surrounds. The Photo Simulation included in the Exhibits section of this documents models the proposed fence.
- Safety: Authorized representatives and/or KMOG personnel shall be on-site during drilling and completion operations. The completed oil and gas location will be surrounded with a fence and gate with a lock for safety. KMOG personnel will monitor the well sites regularly upon completion of the well. Additionally, all new well sites are remotely monitored 24 hours a day seven days a week by representatives in KMOG's IOC in Platteville, Colorado. A copy of an Emergency Action Plan (EAP) and Tactical Response Plan (TRP) is included with this application, in the Exhibits section of this document.
- Wildlife/Environmental: KMOG contracted with an environmental consultant to perform a complete biological assessment of the location in June of 2021. This assessment was to identify sensitive resources that could be affected by the construction and subsequent operations of the proposed oil and gas development. This assessments studied the potential adverse impacts to sensitive natural resources, including vegetative communities, surface waters, and wildlife. The finding determined potential adverse impacts to the ecosystem are anticipated to be minimal and include disturbance to existing agricultural operations within and surrounding the location and ground or structure nesting birds. Construction at the location will not impact surface waters, federally threatened or endangered species, or Colorado Department of Wildlife (CPW) High Priority Habitats. A Wildlife Protection Plan is included in Section 5.3 of this USR Narrative for reference.

1.7 RELATIVE PLANS

- Air and Water Quality: KMOG will meet all applicable air and water quality requirements set forth by COGCC regulations during operations. KMOG 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, KMOG will install emissions control devices as warranted to obtain required reductions of ozone precursors.

  The COGCC sets forth specific requirements for casing depth to protect ground water sources.

- Odor: KMOG will meet all applicable odor requirements set forth by COGCC regulations during operations. There are no noxious, prolonged or unusually high amounts of odor expected from the proposed operation. KMOG will implement the following to mitigate odor:

  a) Storage of excess drilling fluid (e.g., fluid not being used in the active mud system) in closed, upright tanks.
  b) Drill cuttings will be run through a centrifugal dryer to minimize odor during temporary time on location and during transport to disposal.
  c) Odor neutralizer will be used in the active mud system for management of odors within 24 hours of receipt of a stakeholder grievance.
  d) Drill cuttings will not remain in storage at the oil and gas location for more than a 24-hours period. Disposal will occur before the end of the 24-hour period.

- Dust: A tracking pad will be placed at the access road entrance to mitigate mud and dust on CR 56 and Highway 257. Water will be placed on dirt access roads to mitigate dust as needed. Where feasible, additional dust suppression products may be used to further abate dust.

- Lighting: KMOG 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.

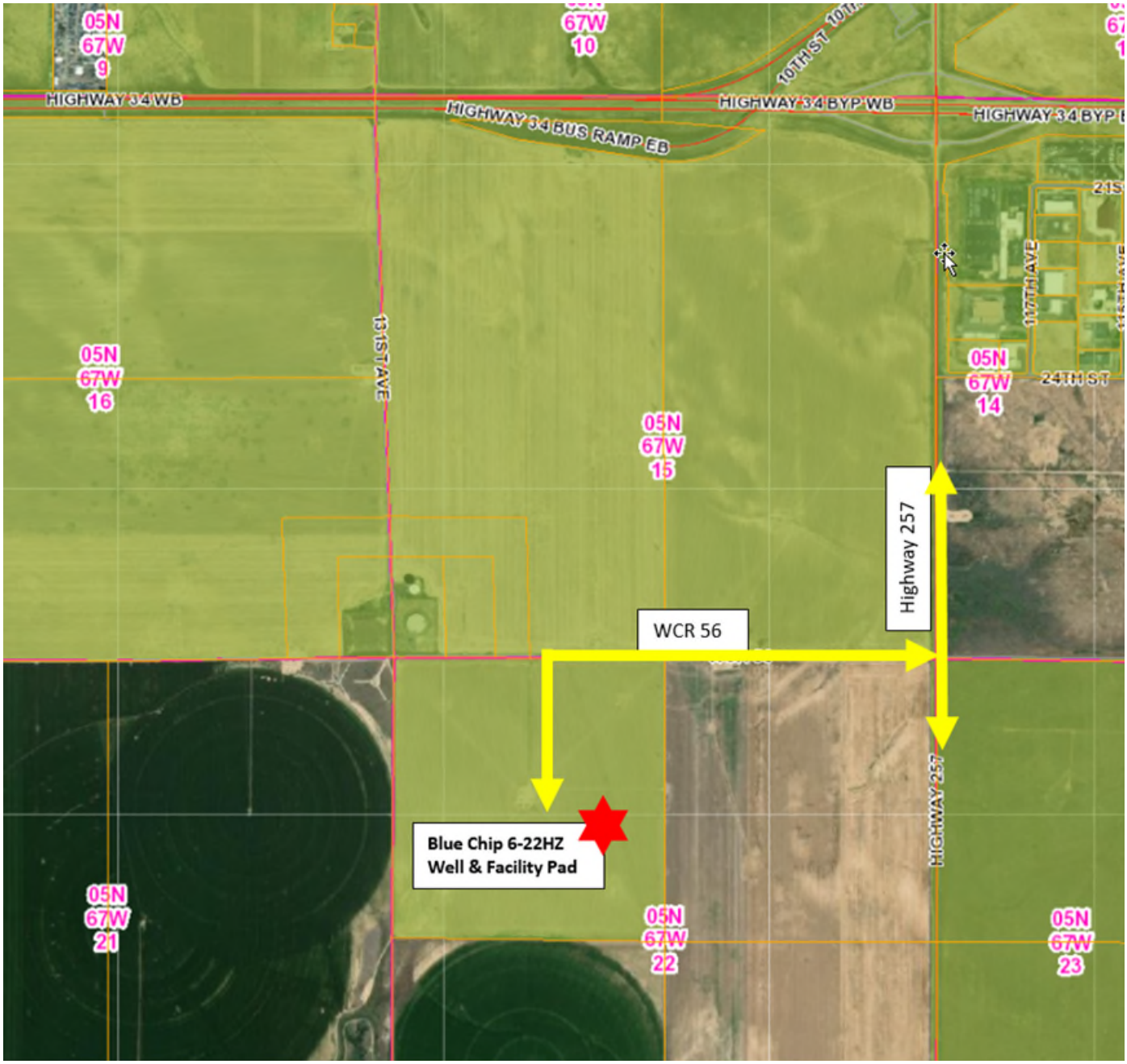
  During drilling and completions, KMOG will have temporary, mobile light towers around the pad pointing towards the equipment. The towers will be directed downward, inward and shielded to avoid glare on public roads and building units. All lights located on the production rig will be pointed down and inward, except for the red aviation warning lights which are required for safety purposes.

  KMOG may use lighting that is necessary for public and occupational safety and as required by the Federal Aviation Administration.

  The only permanent lights on location will be at the facility located on the Lease Automatic Custody Transfer (LACT) buildings. The strobe lights on the buildings are emergency indicators that will activate if there is an upset at the LACT. The strobe light will be downward facing and will have a shroud over it. The other light on the building is for personnel visiting the facility at night.

  The entry light on the building is for personnel visiting the facility at night. This permanent light is mounted on the LACT building next to the entry door. This light is faced downward and shielded to the best extent for light mitigation.

- Access Road and Haul Route: KMOG will utilize the lease access road, County Road 57 and Highway 257 for all traffic associated with construction and production of the wells proposed for the Blue Chip Pad. The access road will be constructed at a minimum of 24 to 30 foot wide (based on location on the site, see Site Plans for details), with a minimum 13.5 feet of overhead clearance. All access roads will be constructed of Class 5 road base over 6 inches of 95% compacted subgrade and aggregate base course. The access roads will be properly graded for adequate drainage and maintained to prevent dust and mud; culverts shall be utilized where necessary. KMOG has submitted an Access Permit application to Colorado Department of Transportation (CDOT) and is working through the permit requirements. A transportation study/memo has been prepared by a traffic consultant and is included with this USR submittal as a separate exhibit.



- Pipelines: KMOG utilizes a comprehensive below ground pipeline system to transport produced oil and natural gas to processing facilities, resulting in a smaller tank production facility with fewer tanks. KMOG does not store oil on-site. This reduces the facility size and creates compact development areas. Oil and natural gas pipelines will be installed and operational once the wells are brought online. KMOG contracts with a third-party midstream company for this pipeline takeaway. The pipeline infrastructure mitigates truck traffic in the area, thereby significantly reducing impacts to roads, noise, and emissions.
- Required Permits: the following permits are required for this application:
    - COGCC Oil and Gas Development Plan (OGDP) – Approved permits will be provided to the City of Greeley upon receipt from the COGCC
    - Use by Special Review - Greeley
    - Access Permit – CDOT Access Permit #422075
    - Building Permit - Greeley
    - Sign permit - Greeley

2. Operator Information

2.1 OPERATOR IDENTIFICATION

Kerr-McGee Oil & Gas Onshore LP
1099 18th Street
Denver, Colorado 80202
Tel:(720) 929-6000
Fax: (720) 929-7297

Kerr-McGee Oil & Gas Onshore LP (KMOG), 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 KMOG meet the requirements as set forth in the rules and regulations as adopted by the COGCC.

2.2 SURFACE OWNER

Blue Chip Properties LLC
155 Boardwalk Dr. Ste 400
Ft. Collins, Colorado 80525

A copy of the fully executed Surface Use Agreement (SUA) is included in the USR Submittal.

3. Operating Plans

3.1 CONSTRUCTION & DRILLING PHASE

The initial pad construction and drilling operations are expected to take about six to nine months (under normal circumstances). The subject land is first surveyed, and well locations are staked in accordance with COGCC regulations. The drilling pad is designed to prevent run off so that any spills will 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 begin to prepare the location, including leveling the surface where the drilling rig will be located. After the location has been prepared, a drilling rig will move onto location to drill the surface intervals of the wells and cement the surface pipe to protect ground water. This process will take approximately one day per well under normal circumstances, subsequently a 12 well pad will take 12 days to complete initial surface drilling operations including cementing 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 to drill the production interval. Production drilling operations will take four to five days per well, under normal circumstances. The actual drilling proceeds at a constant rate unless subsurface 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 subsequently the rig is moved off location. At this point the drilling phase is complete.

3.2 DRAINAGE AND EROSION CONTROL PLAN

Changes in natural drainage patterns are not anticipated. The well site will be monitored during the drilling and completion phases for any stormwater erosion or sedimentation concerns. Necessary measures will be taken to correct any problems, immediately in most cases. 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 COGCC regulations and surface use agreements. KMOG will continue to monitor the site until all applicable regulatory requirements for revegetation have been met.

KMOG 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 drained 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.

3.3 WATER SOURCES FOR ACTIVITIES

Water for use in completion operations will be secured by KMOG 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 KMOG and the water supplier. The water-on-demand system is a network of over 180 miles of underground pipeline

that stretches the length of the 20-mile by 30-mile field to source and transport water to completions crews. This system eliminates more than 2,000 truck trips per day field wide, also reducing associated concerns of traffic, noise, emissions and dust.

The Water on Demand (WOD) system has been designed functionally to allow for delivery of water from multiple sources. KMOG will choose the best source combination for the job based on the water contract terms, the WOD water system capacity, and the forecasted geographic area of water demand (hydraulic fracturing activity). KMOG maintains contractual agreements with multiple companies that have different water sources. This flexibility allows for efficient water transportation and minimizing traffic, dust, noise impacts which, ultimately, protect the health, safety, welfare of the community, and the environment. Detailed daily accounting is maintained for all WOD water supplies and provided to the Colorado Division of Water Resources annually.

3.4 COMPLETIONS PHASE

Upon the conclusion of production drilling operations, and as dictated by operational schedules, the well pad is then prepped for completion operations. The construction of the production facility may occur concurrent with the drilling and/or completion operations. Completion operations include all operations performed after drilling operations and prior to first production. These completion operations consist of well preparation, fracture stimulation, and preparing the well for production to sales.

The well preparation phase of completion operations is performed to prepare for the fracture stimulation operation. Initially, the necessary wellhead equipment is installed to conduct well preparation operations. KMOG wells are designed, built, operated, and maintained to the highest standards. Logging is performed to confirm the cement quality behind the well casing meets KMOG and regulatory standards. The wellbore is pressure-tested to confirm the casing can withstand the high pressures associated with a fracture stimulation. Lastly, the remaining necessary wellhead equipment is installed to prepare the well for fracture stimulation. A crew of one to six people are required to perform the above operations. The cumulative duration of the well preparation operations is three to four 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 three to seven days per well.

At the end 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 two to five weeks with a crew of three to ten people.

The completion process is a 24 hour a day, seven-days a week 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.

3.5 PRODUCTION PHASE

The production phase may overlap the completion phase. After the completion fleet has cleared the 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 facility, may consist of maintenance/oil tank(s), water tank(s), separator(s), Lease Automatic Custody Transfer (LACT) units, vapor recovery unit(s) (VRU), emission control device(s) (ECDs), meter(s) house, E-house, chemical tote(s), purge flare(s), communications tower, temporary produced water tanks, temporary ECDs and temporary generator. The temporary equipment will be on site for six to 12 months and then will be removed. In addition, pumping units may be installed. The production facility will be connected to the wells by pressure tested flowline buried approximately four feet deep. At this point, the gas and oil purchasers are preparing to connect the gas and oil sales meter loop.

The production facility installation is completed by constructing an earthen or metal berm around the production tank(s) and separator. The enclosed area will have sufficient volume to contain the entire contents of the largest tank plus adequate freeboard to contain 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 monitoring of the wells. 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 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, pumping unit or gas lift may be used. This will extend the well's producing life and maximize reserves.

3.6 WEED CONTROL

All locations, including wells and surface production facility, 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.

3.7 PLUGGING AND ABANDONMENT PHASE (P&A)

Plugging and abandonment is the cementing of a well and removal of its associated production facility. This also includes the removal of flowlines after all the wells on the pad are plugged 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 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 months on crop land, and six 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:

- Reclamation of crop land has been performed and over two growing seasons has indicated no significant un-restored subsidence.
- Reclamation on non-crop land, has been performed and stabilized in such a way as to minimize erosion to the extent practicable, or a uniform vegetative cover has been established with total percent plant cover of at least eighty percent (80%) of similar adjacent reference area levels, excluding noxious weeds and overstory or tree canopy cover.
- Disturbances resulting from flow line installations shall be adequately reclaimed when the disturbed area is reasonably capable of supporting the pre-disturbance land use.
- 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

KMOG estimates to plug and abandon (P&A) 13 wells and remove 4 facilities, reclaiming approximately 0.75 to 1.5 acres per well. This is contingent upon the approval of permits by the City of Greeley and the COGCC, successful drilling and completion of the proposed wells and bringing them onto production.

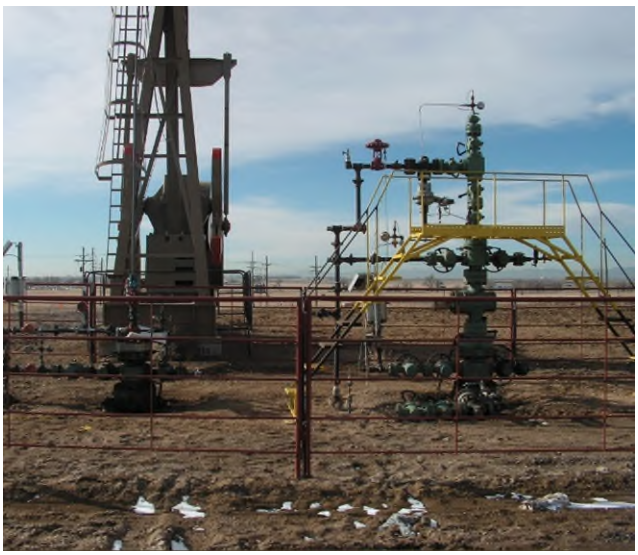
4. Equipment Illustrations

4.1 TYPICAL DRILLING RIG

Temporary, used during the drilling phase.

4.2 TYPICAL WELLHEADS

Permanent equipment for the life of the well.



4.3 TYPICAL SEPARATORS

Permanent equipment, part of the production facility.

Production Separators / Inlet Bulk and Test Separator - takes oil, natural gas and water coming from wells and separates them. These separators are approximately 12 to 20 -feet tall to top of exhaust stack / gas dryer pipe.

Second Stage Bulk Separators - this is the second stage of separation that takes oil and natural gas coming from wells and separates out oil from natural gas. These are approximately 20 feet 8 inches -tall to top of Pressure Safety Valve (PSV) outlet.

4.4 TYPICAL MAINTENANCE – CONDENSATE/OIL AND WATER TANKS

Permanent equipment, part of production facility. These tanks store water produced from the separators, which is later trucked out for off-site disposal. The Maintenance Tank is used for oil storage when separators require maintenance. Both tanks are approximately ten-feet tall (top of tank), 16 feet 6 inches tall to top of vent pipes.

4.5 LACT UNIT - (LEASE AUTOMATED CUSTODY TRANSFER)

Permanent Equipment part of the production facility. LACT contains pumps that run oil through Coriolis meter which read final numbers that go into sales line. Approximately 9 feet 2 inches tall.

4.6 TYPICAL GAS METER BUILDING

Records gas that flows through the site and into gathering system. Also houses the custody transfer gas meter. Approximately 7 feet 8 inches tall.

4.7 TYPICAL ELECTRICAL HOUSE

Houses the electrical circuits, approximately 9 feet 3 inches tall

4.8 TYPICAL WELL MANIFOLD AKA E-HOUSE

The wellhead manifold is where all the flowlines from the wells are brought into the produciton facility, approximately 7 feet 8 inches tall

4.9 TYPICAL GAS LIFT COMPRESSOR

This artificial lift is used to assist the production of the wells as they have less natural pressure help, approximately 15 feet tall.

4.10 VOC COMBUSTOR / EMISSION CONTROL DEVICE (ECD)

Volatile Organic Compound (VOC) Combustor also know as Emission Control Device (ECD) burns off emissions from produced water tanks, approximately 15 feet tall.

4.11 FUEL GAS (FG) SCRUBBER

The fuel gas scrubber dries produced gas to use for the burners on the ECD, VOC and separator burner systems, approximately 14 feet 2 inches tall.

4.12 TYPICAL AIR COMPRESSOR

Air compressor supplies air to the pneumatic valves on location, approximately 9 feet 4 inches tall.

4.13 TYPICAL CHEMICAL TOTE

Chemical totes store and pump corrosions and scale inhibitor products to preserve the integrity of the production equipment, approximately 7 feet 4 inches tall.

4.14 TYPICAL COMMUNICATIONS TOWER

Communication tower is used to remotely monitor the production facility from the Integrated Operation Center (IOC). Approximately 34 feet tall.

4.15 TYPICAL TEMPORARY EQUIPMENT

Tanks (Produced Water Storage)

Tanks store water produced from separator during initial production. Later tanks are trucked out for disposal. Color varies depending on contractor and availability. Temporary tanks are on location for 6-12 months, approximately 10 feet 4 inches tall.

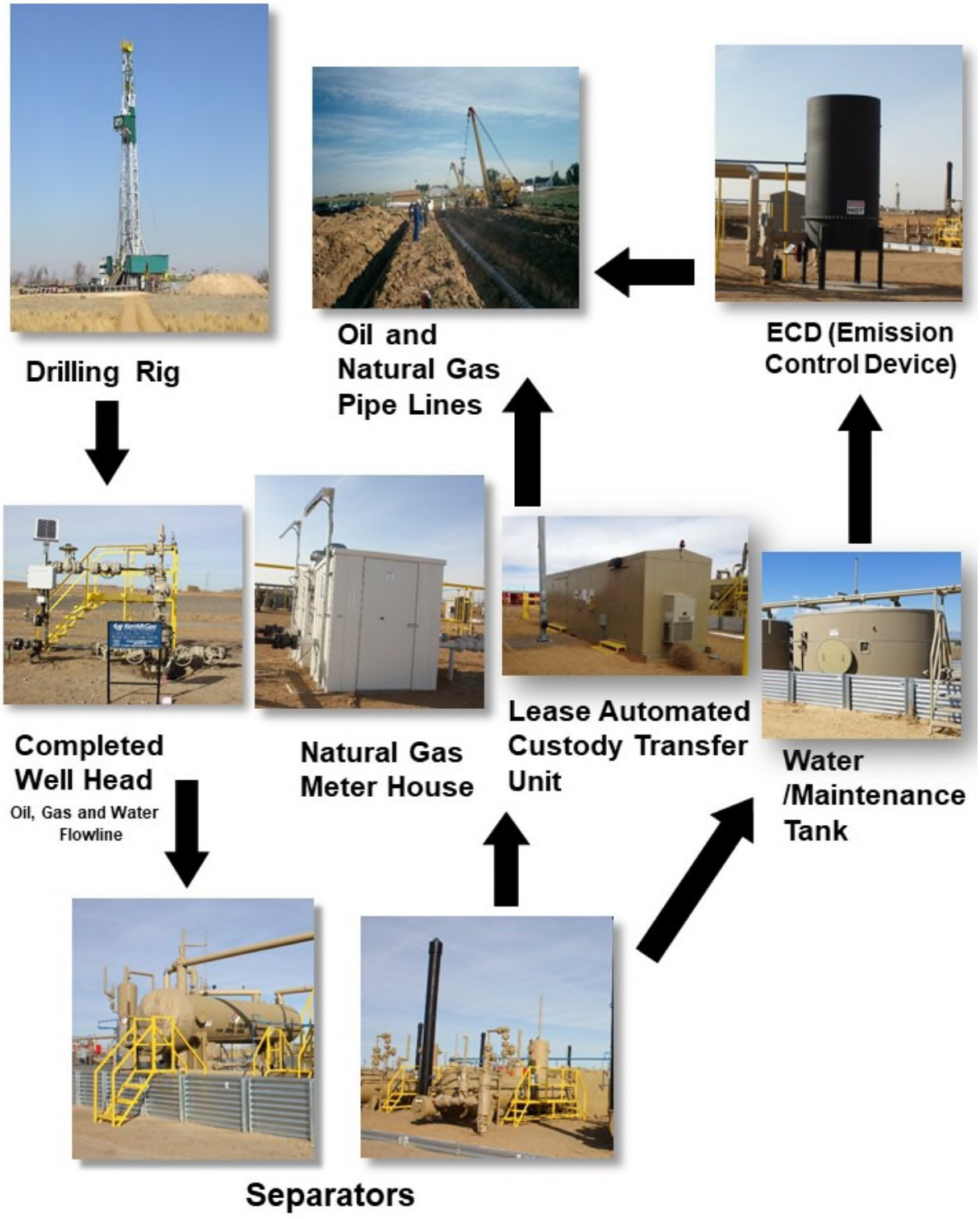
Temporary ECDs

Emission Control Device (ECD) burns off emissions from produced temporary water tanks. Approximately 24 feet 7 inches tall.

Temporary Generator – Used to operate equipment at the facility until such time as power can be brought onto the location, approximately 5 feet tall

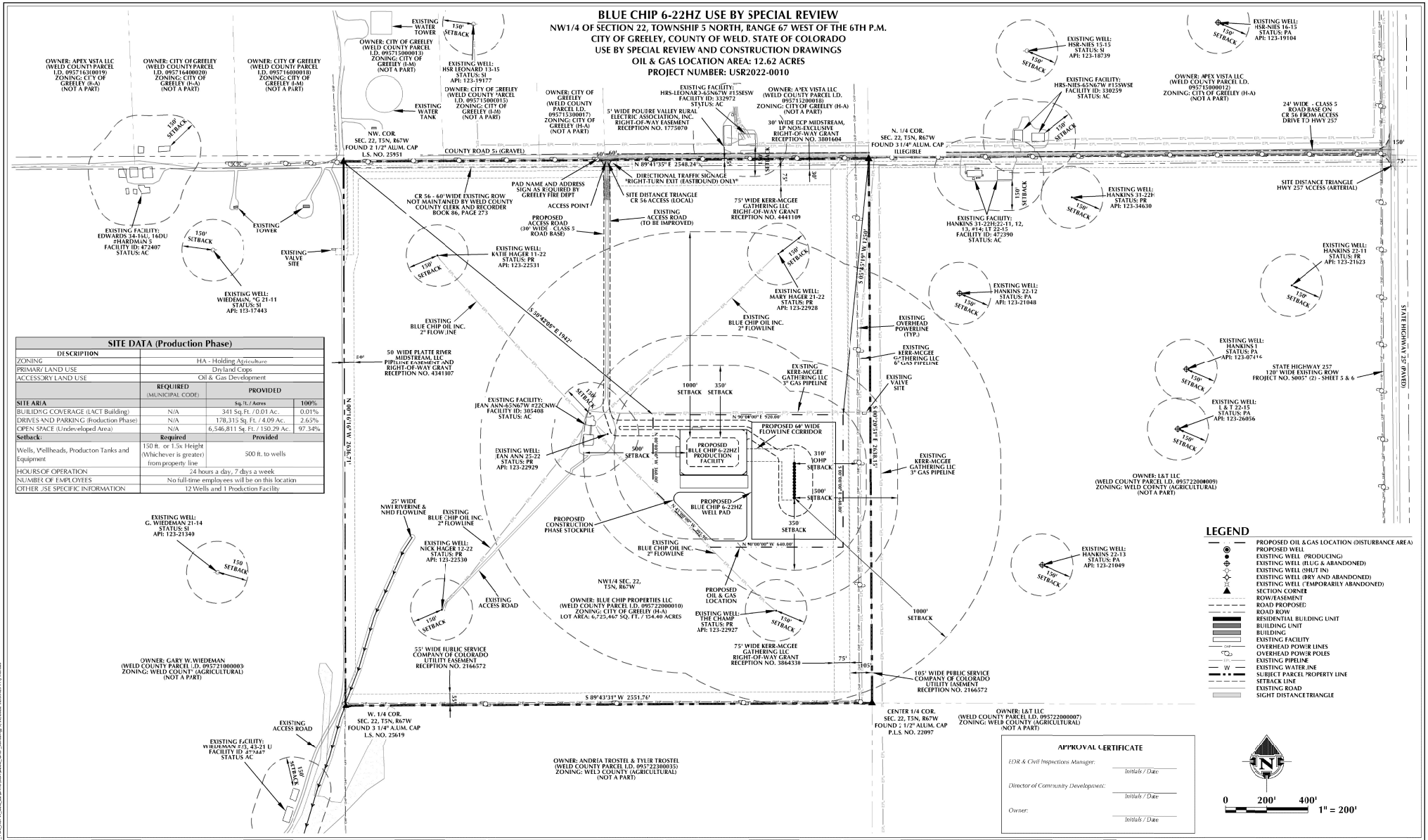
Temporary Purge Flare – Used at the time of facility commissioning to capture gas when purging the facility of oxygen, approximately 24 feet tall

4.16 TYPICAL FLOW DIAGRAM



BLUE CHIP 6-22HZ USE BY SPECIAL REVIEW

NW1/4 OF SECTION 22, TOWNSHIP 5 NORTH, RANGE 67 WEST OF THE 6TH P.M.
CITY OF GREELEY, COUNTY OF WELD, STATE OF COLORADO
USE BY SPECIAL REVIEW AND CONSTRUCTION DRAWINGS
OIL & GAS LOCATION AREA: 12.62 ACRES
PROJECT NUMBER: USR2022-0010



SITE DATA (Production Phase)

DESCRIPTION			
ZONING	HA - Holding Agriculture		
PRIMARY LAND USE	Dryland Crops		
ACCESSORY LAND USE	Oil & Gas Development		
	REQUIRED (MUNICIPAL CODE)	PROVIDED	
SITE AREA		Sq.Ft. / Acres	100%
BUILDING COVERAGE (LACT Building)	N/A	341 Sq.Ft. / 0.01 Ac.	0.01%
DRIVES AND PARKING (Production Phase)	N/A	178,315 Sq. Ft. / 4.09 Ac.	2.65%
OPEN SPACE (Undeveloped Area)	N/A	6,546,811 Sq. Ft. / 150.29 Ac.	97.34%
Setback:	**Required**	**Provided**	
Wells, Wellheads, Production Tanks and Equipment	150 ft. or 1.5x Height (Whichever is greater) from property line	500 ft. to wells	
HOURS OF OPERATION	24 hours a day, 7 dys a week		
NUMBER OF EMPLOYEES	No full-time employees will be on this location		
OTHER USE SPECIFIC INFORMATION	12 Wells and 1 Production Facility		

LEGEND

- PROPOSED OIL & GAS LOCATION (DISTURBANCE AREA)
- PROPOSED WELL
- EXISTING WELL (PRODUCING)
- EXISTING WELL (PLUG & ABANDONED)
- EXISTING WELL (SHUT IN)
- EXISTING WELL (DRY AND ABANDONED)
- EXISTING WELL (TEMPORARILY ABANDONED)
- SECTION CORNER
- ROW/EASEMENT
- ROAD PROPOSED
- ROAD ROW
- RESIDENTIAL BUILDING UNIT
- BUILDING UNIT
- BUILDING
- EXISTING FACILITY
- OVERHEAD POWER LINES
- OVERHEAD POWER POLES
- EXISTING PIPELINE
- EXISTING WATER LINE
- SUBJECT PARCEL PROPERTY LINE
- SETBACK LINE
- EXISTING ROAD
- SIGHT DISTANCE TRIANGLE

APPROVAL CERTIFICATE

EDR & Civil Inspections Manager: _____ Initials / Date
Director of Community Development: _____ Initials / Date
Owner: _____ Initials / Date

0 200' 400'
1" = 200'

GENERAL NOTES:

- PUBLICLY AVAILABLE DATA SOURCES HAVE NOT BEEN INDEPENDENTLY VERIFIED BY 609 CONSULTING, LLC.
- ALL UTILITY LOCATIONS SHOWN ON THESITE DEVELOPMENT PLAN ARE PROPOSED. ALL FINAL UTILITY LOCATIONS WILL BE DEPICTED ON THE FINAL APPROVED CONSTRUCTION PLANS. ANY ADDITIONAL EASEMENTS GRANTED AFTER FINAL CONSTRUCTION PLAN APPROVAL SHALL REQUIRE THE APPLICANT TO SUBMIT UPDATED CIVIL CONSTRUCTION PLAN SHEETS DEPICTING REVISED EASEMENT LOCATION(S).
- ORIGINAL DOCUMENT SIZE: 24" x 36"

609 CONSULTING, LLC
LOVELAND OFFICE
6706 North Franklin Avenue
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Phone 970-776-4331
SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

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

DRAWING REVISIONS		
REV.	DATE	DESCRIPTION
0	5/16/22	FORMAL APPLICATION
1	7/8/22	REVISION #1
2	8/16/22	REVISION #2
3	9/15/22	REVISION #3

BLUE CHIP 6-22HZ
SITE PLAN

DATE: 9/15/22	SHEET: 2 OF 13
SURVEY DATE: 10/08/20	DRAFTED BY: CDJ

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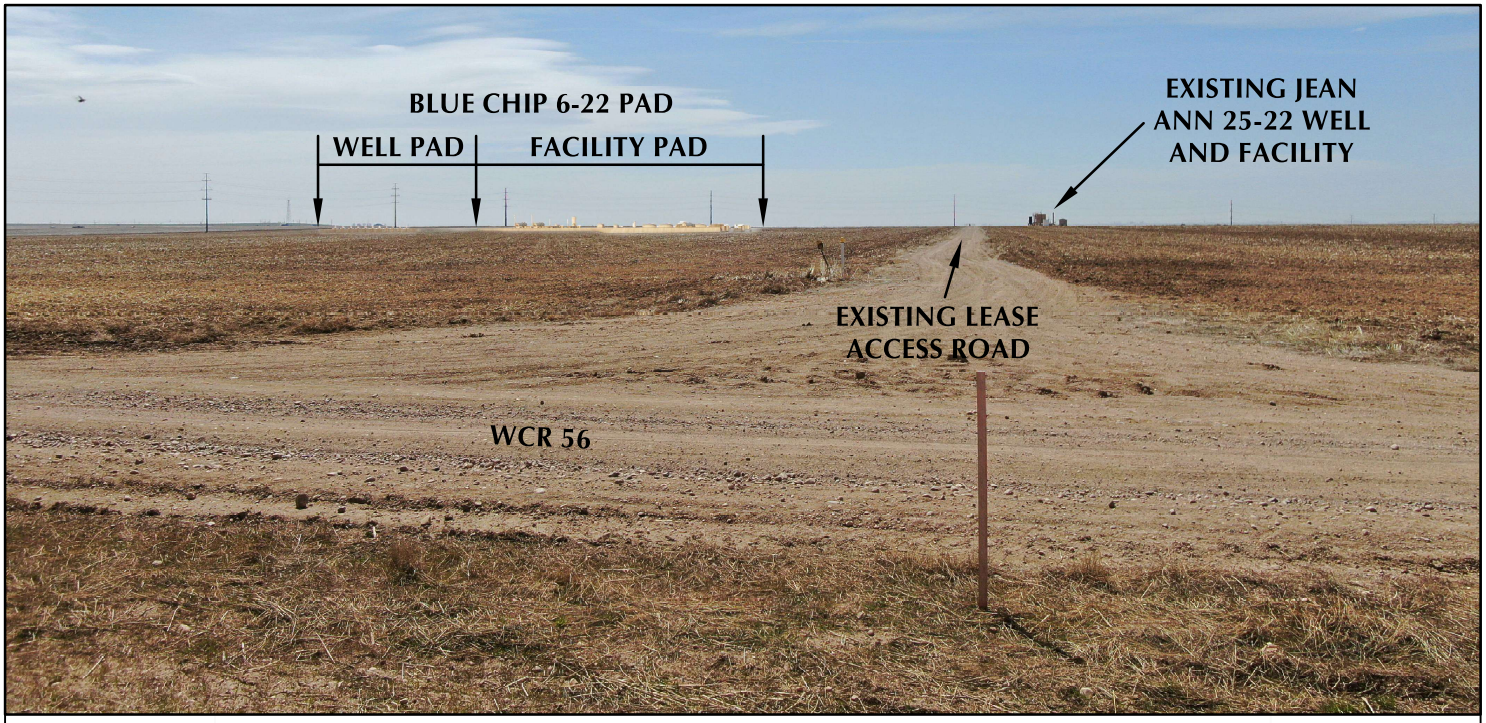
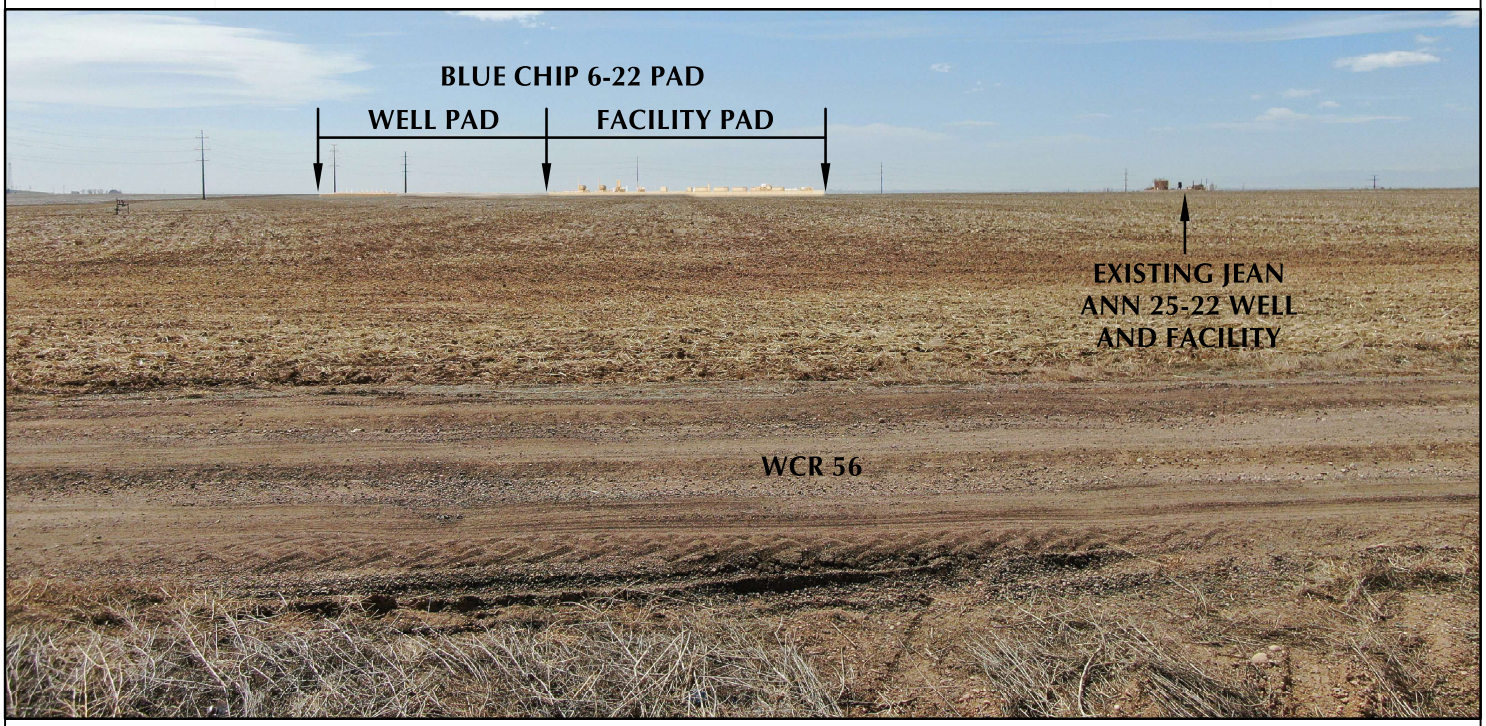
5.2 PHOTO SIMULATIONS – VISUAL MITIGATION



CR 56 SIMULATION PICTURES - LOCATION 1



CR 56 SIMULATION PICTURES - LOCATION 2

PAD - BLUE CHIP 6-22HZ

CR 56 SIMULATION PICTURES
BLUE CHIP 22-1HZ, BLUE CHIP 22-2HZ, BLUE CHIP 22-3HZ, BLUE CHIP 22-4HZ, BLUE CHIP 22-5HZ, BLUE CHIP 22-6HZ, BLUE CHIP 22-7HZ, BLUE CHIP 22-8HZ, BLUE CHIP 22-9HZ, BLUE CHIP 22-10HZ, BLUE CHIP 22-11HZ & BLUE CHIP 22-12HZ
LOCATED IN SECTION 22, T5N, R67W, 6TH P.M.
GREELEY, COLORADO

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

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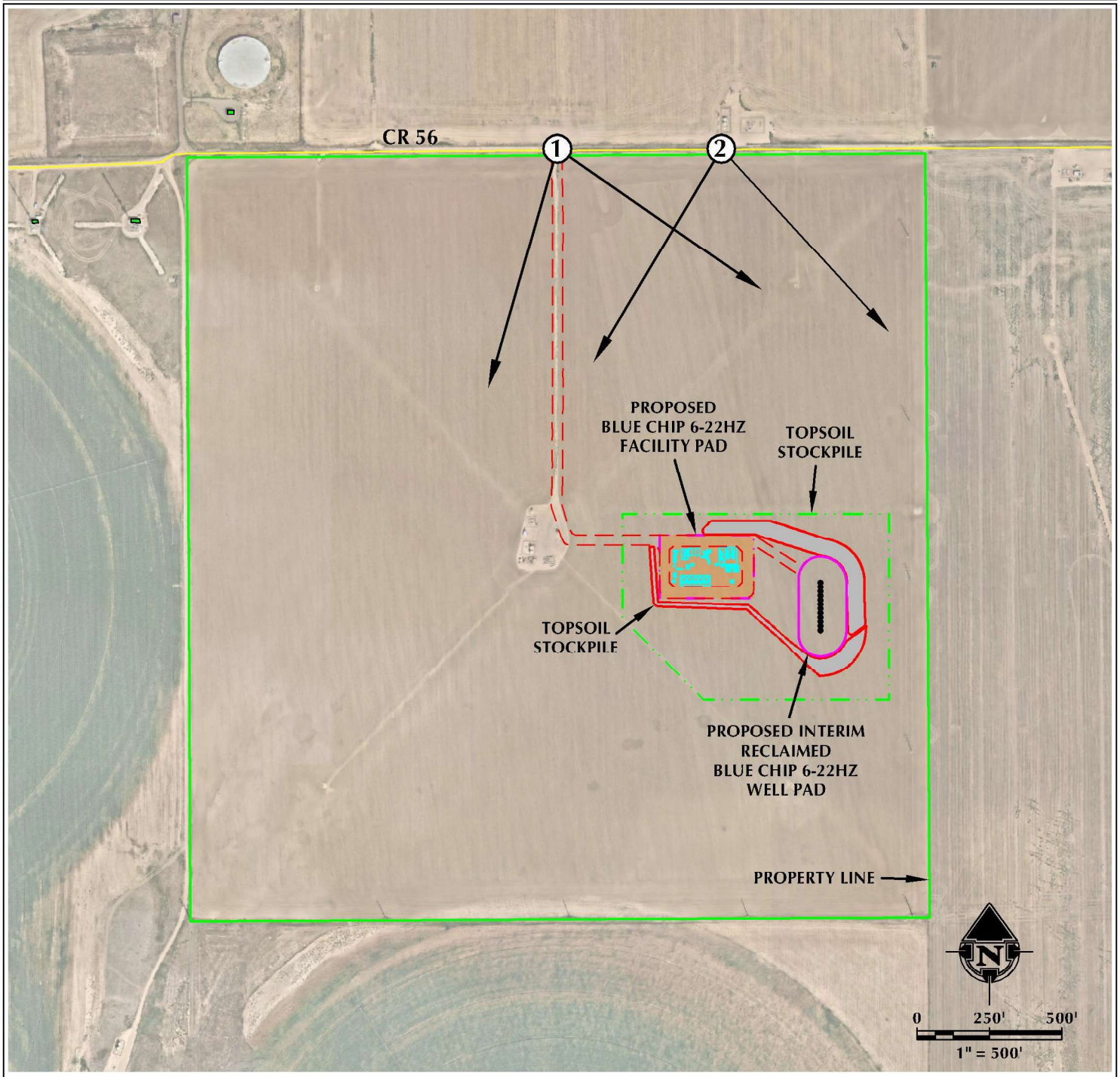
LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331

SCALE: NTS	DATE: 5/6/22	SHEET NO: 1
REVISED:	GLK 5/17/22	

COUNTY ROAD 56 SIMULATION PICTURES

BLUE CHIP 6-22HZ

E1/2 NW1/4 SECTION 22, TOWNSHIP 5 NORTH, RANGE 67 WEST, 6TH P.M., GREELEY, COLORADO



LEGEND

- PROPOSED WELL
- PUBLIC ROAD
- PROPOSED ACCESS ROAD
- (1) PHOTO LOCATION
- PROPOSED OIL & GAS LOCATION
- EXISTING BUILDING
- RESIDENTIAL BUILDING UNIT

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DATE SURVEYED:	8/18/21
DATE:	5/6/22
DRAFTER:	GLK
REVISED:	5/17/22

DATA SOURCE:
- AERIAL COURTESY OF NEARMAP.

PREPARED FOR:
Kerr-McGee Oil & Gas Onshore

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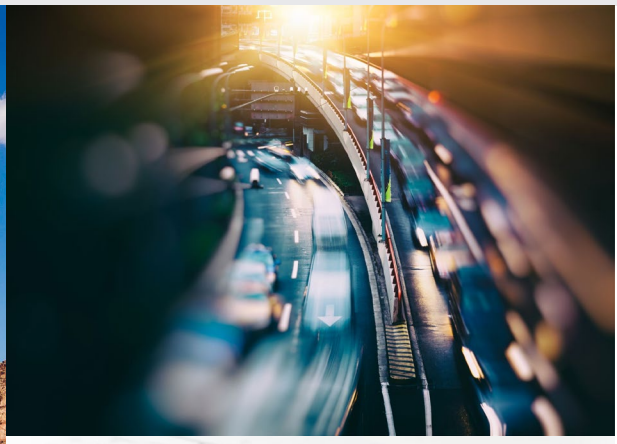
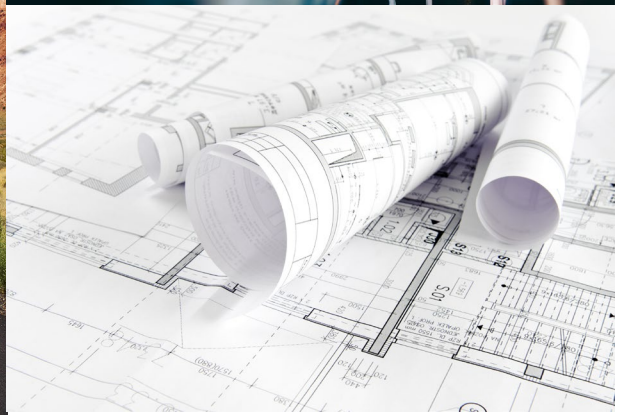
KerrMcGee

Blue Chip Oil and Gas Well Traffic Impact Study





May 24, 2022

TETRA TECH

Blue Chip Traffic Impact Study

May 24, 2022

PRESENTED TO

KerrMcGee

Kerr McGee Oil & Gas Onshore, LP
1099 18th Street
Suite 1800
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PRESENTED BY

TETRA TECH

Tetra Tech
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Prepared by:

Dorothy Chen, E.I.T. Date: 5/24/2022

Reviewed by:

Cody Hightower, E.I.T. Date: 5/24/2022

Authorized by:

Perry Patton, P.E. Principal Engineer Date: 5/24/2022

COLORADO REGISTERED
JOHN PERRY PATTON, IV
33122
5/25/2022
PROFESSIONAL ENGINEER

TETRA TECH

EXECUTIVE SUMMARY

Kerr McGee Oil and Gas Onshore, LP (KMOG), a subsidiary of Oxy USA Inc. (Oxy), is proposing to construct the Blue Chip Oil and Gas Well Facility (Project) in the City of Greeley, CO. Construction is anticipated to commence November 2022. Existing pre-development traffic as well as construction, drilling, well completion, and operational traffic due to the Project were analyzed herein for level of service (LOS) and Colorado Department of Transportation (CDOT) Access Code requirements. Tetra Tech found the impact to existing traffic movements due to Project generated pre-production and production phase traffic to be negligible. Additionally, sight distance at the intersection of County Road 56 and State Highway 257 was found to be adequate. Therefore, no highway capacity or safety improvements are recommended. The only improvements to occur by KMOG due to the Project are turning radius and road width improvements on County Road 56 to allow truck traffic to traverse to and from the Project.

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Appendix C: Sight Distance Photograph Log

Appendix D: Turning Path Analysis

ACRONYMS/ABBREVIATIONS

Acronyms/Abbreviations	Definition
AADT	annual average daily traffic
CDOT	Colorado Department of Transportation
DD	directional distribution
HCM	Highway Capacity Manual
KMOG	Kerr McGee Oil and Gas Onshore, LP
LOS	level of service
SSD	stopping sight distance
HCS	Highway Capacity Software
PCE	passenger car equivalent
OTIS	Online Transportation Information System
vph	vehicles per hour

1.0 INTRODUCTION

1.1 PROJECT OVERVIEW

Kerr McGee Oil and Gas Onshore, LP (KMOG), a subsidiary of Oxy USA Inc. (Oxy) is proposing the construction and operation of the Blue Chip Oil and Gas Well Facility (Project) in the City of Greeley, CO. The Project consists of the construction and operation of 12 horizontal wells. Construction is anticipated to commence in November 2022. Once initiated, the pre-production phases of site construction, drilling, and well completions are anticipated to take approximately 18 months to complete. Once the pre-production phases are finished, the Project will begin the production phase. The volume of traffic associated with the production phase of the Project will be less than that observed during the pre-production phases and will diminish to negligible amounts within the first 6 to 12 months of operation. This Traffic Impact Study (TIS) will be used to evaluate impacts during the development and operational phases of the Project.

1.2 STUDY PURPOSE

KMOG is submitting a Use by Special Review (USR) application to the City of Greeley's Planning Department in support of this Project. During pre-application review meetings, Greeley staff indicated to KMOG that a TIS would be required in support of the USR application. Tetra Tech has prepared this TIS on behalf of KMOG to qualify and quantify impacts of the pre-production and production phases of the Project to the local traffic movements. This TIS seeks to provide the City of Greeley with the information necessary for approval of the Project.

The TIS is based on requirements in the City of Greeley Criteria for Development of Transportation Impact Studies (2019) and the Colorado Department of Transportation (CDOT) Access Code (Code) (2002).

1.3 SITE LOCATION AND STUDY AREA OF INTEREST

The Project is located south of County Road 56, approximately 0.75 miles west of State Highway 257 in the City of Greeley, CO [Section 22, Township 5N, Range 67W] (**Figure 1**). The Project is expected to have a single entrance/exit to the Project facility off County Road 56. The area of interest for this study is limited to the proposed haul route (**Figure 2**). Traffic is expected to enter the site originating from both the north and south on State Highway 257 turning west onto County Road 56 and then turning south into the Project access. After leaving the site, vehicles will turn east onto County Road 56 and then either north or south onto State Highway 257. The proposed haul route has been chosen to facilitate vehicle circulation.

The current surrounding area and land use is predominantly undeveloped as seen in the aerial images. However, a residential development is planned for the property that borders the north side of County Road 56. The Project pre-production phase is planned to be completed prior to the timeframe of residential construction. Only the production phase of the Project, which will generate minor traffic, may coincide with the residential development construction.

Figure 1: Vicinity Map

Figure 2: Proposed Haul Route

1.4 STUDY METHODOLOGY

The existing minor intersection of County Road 56 and State Highway 257 was analyzed for LOS changes due to the traffic generated during the pre-production phase of the Project. The LOS performance measure for an intersection is based on the delay that an average vehicle will experience after approaching the intersection. Unsignalized intersections include driveway accesses, two-way and four-way stop-controlled intersections, and roundabouts. The LOS analysis provides a standardized means of describing transportation facility operation by assigning a letter grade to it. As shown in Table 1, LOS ranges from A to F with LOS A representing the best conditions (free flow) and LOS F representing the worst conditions (most congested). All procedures that were used in these analyses came from the Highway Capacity Manual (HCM) guidelines for determining LOS. The delay must be analyzed for each movement of the intersection independently. If several movements share a lane, the capacities are calculated separately then combined into a shared movement capacity that is used in the delay equation in place of movement capacity. Intersection LOS was analyzed using Highway Capacity Software (HCS) 2022. See Table 1 for intersection LOS definitions.

LOS	Signalized Intersection Delay (sec)	Unsignalized intersection Delay (sec)
A	0-10	0-10
B	10-20	10-15
C	21-35	16-25
D	36-55	26-35
E	56-80	36-50
F	>80	>50

Table 1: LOS Definitions

Impacts and potential remediation measures to improve traffic movement quality and safety at County Road 56 and State Highway 257 were also analyzed by referencing the Code. The Code uses estimated long term peak hour turning movement count thresholds to determine the adequacy of the traffic infrastructure for the proposed traffic condition. These counts were converted to passenger car equivalents (PCE). If the movement count thresholds provided in the Code are exceeded, acceleration and deceleration lane improvements must be considered.

To ensure the proposed truck traffic can safely make the physical turning movements required along the proposed route, a turning path analysis was conducted. KMOG plans to improve County Road 56 from State Highway 257, approximately 0.75 miles, to the proposed Project driveway access to ensure the generated truck traffic can safely travel to and from the Project. The turning path analysis was conducted for the proposed improved conditions of County Road 56.

Sight distance measurements were made at the intersection of County Road 56 and State Highway 257. The traffic speeds along State Highway 257 were then used to calculate the necessary stopping sight distance at County Road 56. Required stopping sight distance and entering sight distance values as shown in Section 4.3

of the Code were also referenced. The required sight distances were then compared to the sight distance currently available at the intersection.

2.0 EXISTING TRAFFIC CONDITIONS

State Highway 257 is a 24 ft wide, two-lane paved road near the Project area/location with 7 feet wide shoulders and no median. The speed limit is 65 mph. County Road 56 is a gravel surfaced road with no lane markings and no shoulders. The width of County Road 56 varies but on average is approximately 16 feet. All measurements were made with Google Earth Pro.

The existing Annual Average Daily Traffic (AADT) is primarily used in transportation planning to measure how busy a road is. Table 2 below summarizes the existing AADT on State Highway 257 for 2020 along with the typical truck percentage. This information was collected from the CDOT Online Transportation Information System (OTIS), for Station ID 105042. Tetra Tech was able to download short duration count data for this station that was last measured in May 2021. The OTIS database also projects future traffic based on historical trends. Table 2 includes the projected AADT and Truck % from OTIS for the year in which it was last measured, through the projected period of Project construction. To be conservative, the 2023 projected trip count is used in this analysis.

Year	Measured 2020	Projected 2021	Projected 2022	Projected 2023
AADT	11,000	11,517	12,034	12,551
Truck %	7.6%	7.6%	7.6%	7.6%

Table 2: Existing Projected Annual Average Daily Traffic for State Highway 257

Sight distance is an important measure to determine the safety of a vehicle entering a roadway. Stopping sight distance (SSD) is the minimum distance a vehicle driver needs to be able to see to have room to stop before colliding with an object in the roadway. Insufficient sight distance can adversely affect the safety or operations of a roadway or intersection. In reference to Chapter 3 of AASHTO *A Policy on Geometric Design of Highways and Streets (2018)*, required SSD is formulated with the following equation:

$$SSD = 1.47Vt + \frac{V^2}{30\left(\left(\frac{a}{32.2}\right) \pm G\right)}$$

The currently required SSD on State Highway 257 with a 65-mph speed limit, reaction time (t) of 2.5 seconds, and deceleration rate (a) of 11.2 ft/s^2 is approximately 644 feet by using the AASHTO formula. The Code also provides required stopping sight distances in Section 4.3. Using the Code for a 65-mph speed limit road, an SSD of 725 feet is required.

Another important measure of sight distance is the entering sight distance. Guidelines for measuring this distance can be found in the Code. This entering sight distance is the sight distance a vehicle entering a roadway needs to safely make the movement. The Code provides a list of required entering sight distance values for varying types of entering vehicles in Section 4.3. According to the Code, an entering sight distance of 650 feet is required for a passenger vehicle and an entering sight distance of 1105 feet is required for multi-unit trucks for a two-lane roadway at 65 mph, such as State Highway 257.

Site distance photographs were taken in the field at the intersection of County Road 56 and State Highway 257 at a distance of 725 feet. Photographs were taken from the view of northbound and southbound State Highway 257 traffic. These photographs would represent the measure necessary to confirm adequate SSD. Photographs were also taken from the point of view of a parked vehicle at County Road 56 looking both north and south along State Highway 257. These photographs would represent the measure necessary to confirm adequate entering sight distance. In both the SSD and entering sight distance cases, field photographs show ample sight distance beyond the requirements of the Code. See Appendix C for a sight distance photograph log.

2.1 EXISTING PEAK HOUR TRAFFIC

The Directional Design Hour Volume (DDHV) for the existing traffic is calculated by the following equation:

$$DDHV = AADT * K * DD,$$

Where K is the proportion of daily traffic occurring during the peak hour and DD is the directional distribution. An industry standard value of 0.1 for K and 0.5 for DD was assumed. In this case, DDHV = 12,251*0.1*0.5 = 628 vehicles per hour per lane during peak hour.

To corroborate our peak hour vehicle estimate, a two-day hourly count from May 2020 published in the CDOT OTIS was referenced. The two-day hourly count shows a maximum count of 607 vehicles/hr/lane on State Highway 257. We can then conservatively assume the existing peak hour traffic to be 628 vehicles/hr/lane. The maximum hourly counts on State Highway 257 generally occurred at 7:00 AM and 5:00 PM. It is assumed there is no existing traffic on County Road 56 due to the undeveloped and rural nature along the roadway.

2.2 EXISTING LEVEL OF SERVICE

Although County Road 56 is assumed to have no traffic in the existing condition, LOS was still analyzed at the intersection assuming one peak hour vehicle for each of the following movements:

- Eastbound left onto State Highway 257
- Northbound left onto County Road 56

This was done to establish a baseline LOS. For a single left turning passenger vehicle during peak hour from County Road 56 onto State Highway 257, the result is LOS D with a control delay of 27.2 seconds. Additionally, the existing LOS for a single left turn passenger vehicle during peak hour from State Highway 257 to County Road 56 is A with control delay of 8.9 seconds. Any southbound right turning movement onto County Road 56

has no theoretical delay since this movement does not have to stop or yield. Appendix A displays the HCS Two-Way Stop-Control LOS Report for the existing condition.

3.0 PROPOSED TRAFFIC CONDITIONS

In the area adjacent to the Project, new residential development is expected to occur. Transportation infrastructure in this area will continue to change along with the growth. New growth in Project area is anticipated to be moderate to large but would likely be influenced by market conditions and developer ability to finance these projects. However, the Project will be in the production phase with minor traffic impacts prior to any major development starting in the area.

Based on KMOG's experience with oil and gas well projects, Tetra Tech and KMOG generated trip estimates for each pre-production stage of the Project. Trip generation estimates were also made for four different production phase horizons: 0-6 Months, 6-12 months, 1-2 years, and 2-25 years. Traffic estimates for the pre-production phases of the Project are shown in Table 3. Further trip generation details breaking out the peak hour trip generation numbers for each movement and highlighting vehicle types for each movement can be found in Appendix B.

Table 3: Trip Generation Data for Each Pre-Production Stage

Pre-Production Stage	Duration (Days)	Avg Vehicles per Day	Avg Number Veh/Day (PCE)	Avg Daily Trips	Total Daily PCE	AM Peak Hour Trips	AM Peak Hour PCE	PM Peak Hour Trips	PM Peak Hour PCE
Construction	30	35	97	71	195	8	20	8	20
Surface Rig Mobilization	2	198	564	395	1,127	26	64	26	64
Drilling Phase	113	35	53	70	106	24	34	24	34
Surface Rig Demobilization	2	185	489	369	978	37	71	37	71
Completion	66	84	129	167	258	45	51	45	51
Production Facility Construction & Equipment Placement	44	14	27	28	55	6	10	6	10
Interim Reclamation	30	53	110	106	219	19	31	19	31

Sixty percent of light vehicle trips were assumed to occur during peak hour, while truck trips were spread evenly throughout the shift length for each stage of pre-production. For example, the site preparation stage is expected to occur during 10-hour shifts, so daily truck trips were spread over 10-hours. The drilling stage is expected to occur over 24-hour shifts, so the daily truck trips during the drilling stage were spread over 24 hours. The result of the time distribution of vehicle trips can be found in Appendix B.

During the production phase of the Project, water truck, operator personnel, and chemical delivery trips make up the Project generated traffic. Water trucks produce the highest trip numbers. The production phase traffic trips are heaviest at the beginning of production and taper off over the first few years of the Project operation. See Tables 4, 5, and 6 for Project production phase trip estimates in PCE over varying time horizons. A maximum value of 5 total peak hour PCE trips occurs during the first six months of production.

Phase of Production	Daily PCE Trips	Peak Hour PCE Trips
0-6 Months	70.53	3
6-12 Months	19.64	~1
1-2 Years	3.04	<1
2-25 Years	<1	0

Table 4: Production phase traffic estimates for water hauling

Phase of Production	Total PCE Trips	Peak Hour PCE Trips
0-6 Months	26	0
6-12 Months	6	0
1 -2 Years	6	0
2-25 Years	92	0

Table 5: Production phase traffic estimates for chemical delivery

Phase of Production	Trips per Day	Peak Hour PCE Trips
0-6 Months	2	2
6-12 Months	1	1
1 Year-25 Year	~1	~1

Table 6: Production phase traffic estimates for operator trips

3.1 PROPOSED CONDITION LEVEL OF SERVICE

Analysis was performed for LOS during the highest peak hour traffic generating period of the pre-production stages. The peak period was chosen based on having the highest peak hour PCE trip generation. The highest peak hour count occurs during the Surface Rig Demobilization stage. Using the highest impact portion of the pre-production phase of the Project is conservative as it will demonstrate the worst possible LOS that local motorists will experience during the pre-production phase of the Project. The Surface Rig Demobilization stage occurs over a two-day period, and the entire pre-production phase occurs in less than one year. The production phase impacts to LOS will be negligible due to a dramatic decrease in trips generated. For the analysis, 50% of the trips were assumed to enter the site from the north and 50% were assumed to enter from the south.

LOS was analyzed for both the AM and PM peak hours. The AM and PM peak hour trip distributions for each movement are shown in Table 7.

	Trip Count/Truck Percentage			
	Eastbound CR56 Left on to SH257	Eastbound CR56 Right on to SH257	Southbound SH257 Right on to CR56	Northbound SH257 Left on to CR56
AM Peak Hour	6 / 75%	6 / 75%	13 / 36%	12 / 36%
PM Peak Hour	13 / 36%	12 / 36%	6 / 75%	6 / 75%

Table 7: Peak hour trip counts per movement used for LOS analysis at the CR56 / SH257 Intersection

The resulting highest impact to LOS is the PM peak hour movement. The LOS for the eastbound leg remains the same as the existing LOS at LOS D. Since there is minimal to no existing traffic along County Road 56, the only eastbound traffic to be affected by the Project will be the Project generated truck and worker traffic. The

northbound left turn movement decreases from the existing condition of LOS A to LOS B with a control delay of 10.7 seconds. The total LOS for the northbound leg remains at LOS A. Like the existing condition LOS analysis, the southbound right turn movement theoretically experiences no delay since this movement does not have to stop or yield. Appendix A shows the HCS Two-Way Stop-Control LOS Report for the proposed condition.

According to the City of Greeley Criteria for Development of Transportation Impact Studies Table 4 (2019), the minimum acceptable LOS for a minor intersection such as this is LOS E for any leg, and LOS F for any particular movement. The intersection of County Road 56 and State Highway 257 meets this criterion for the proposed condition during the most heavily traveled portion of the pre-production phase of the Project.

3.2 AUXILIARY LANE REQUIREMENTS

An auxiliary lane analysis was performed for the intersection of County Road 56 and State Highway 257. The production phase trip estimates in PCE were used for this analysis, which is standard practice due to the temporary nature of the pre-production phase. According to the State of Colorado State Highway Access Category Assignment Schedule, State Highway 257 is categorized as a Regional Highway (R-A). Therefore, Section 3.8 of Code specifies the auxiliary lane requirements:

- A left turn deceleration lane is required if the projected peak hour left turn in is greater than 10 vehicles per hour (vph)
- A right turn deceleration lane is required if the peak projected hour right turn in is greater than 25 vph
- A right turn acceleration lane is required if the project peak hour right out is greater than 50 vph
- A left turn acceleration lane may be required if it would be a benefit to the safety and operation of the roadway.

Trip generation estimates during the production phase in PCE can be found in Tables 4, 5, and 6 in Section 3.0. As discussed in Section 3.0, the most impactful production phase occurs in the first six months at a conservatively estimated five peak-hour PCE trips. This value was measured against each of the auxiliary lane requirement thresholds separately. Measuring the total peak hour trips to each movement separately is conservative as each movement would likely only experience a share of the peak hour trips.

This trip estimation falls below the Code's thresholds for the addition of right turn acceleration and right and left turn deceleration lanes. Considering the acceptable LOS and sight distance at the intersection of County Road 56 and State Highway 257, no left turn acceleration lane is recommended either. Therefore, no auxiliary lanes are recommended.

4.0 TURNING PATH ANALYSIS

A turning path analysis was performed for the proposed vehicle route to and from the Project to ensure adequacy of the infrastructure for truck movements. Improvements to County Road 56 from State Highway 257 to the Project access point as well as improvements to the Project access road at County Road 56 are planned by KMOG. These improvements consist of widening County Road 56 and the Project access road at

County Road 56 to 24 feet and increasing the intersection apron radii to 60 feet. The northbound left turn radius at the Project access to County Road 56 will not be improved. This limits truck traffic to the proposed route shown in Figure 2.

The AASHTO Green Book provides reference data for a range of vehicle types, including combination trucks and trailers with varying kingpin, wheel-base and axle configurations (AASHTO 2018). These data are attributed to what is commonly defined by AASHTO as a design vehicle. Tetra Tech used an AASHTO WB-67 as the design vehicle for the turning path analysis. The WB-67 design vehicle is the most common semi-trailer combination, and is the design vehicle that CDOT commonly uses to design intersections (CDOT 2018). This vehicle is representative of the largest type of combo unit vehicle that will typically be used for the Project. Figures showing the turning path analysis can be found in Appendix D. As depicted in Appendix D, a WB-67 vehicle can make the required turns along the proposed route given the proposed, improved roadway configuration. Appendix D also shows that the design vehicle cannot turn west out of the Project access to County Road 56.

5.0 CONCLUSION

The development of the Project will have no significant impact to existing traffic safety or capacity. Acceptable sight distance currently exists at the intersection of County Road 56 and State Highway 257 to allow turns onto State Highway 257. The heaviest additional traffic volumes due to the Project will be present for approximately 18 months during the pre-production phase, and the peak impacts of the pre-production phase will only occur for a two-day period. The only LOS decrease at the intersection of County Road 56 and State Highway 257 will occur for the eastbound left turn movement but will still be an acceptable LOS according to the City of Greeley Standards (2019). The traffic that will be affected by this decrease in LOS is the Project traffic (i.e., the Project vehicles waiting to turn left onto State Highway 257 northbound).

Project-related traffic will decrease significantly during the production phase. The production phase is estimated to add approximately five peak hour PCE trips during the first six months and will taper afterwards. This additional traffic volume does not increase peak hour PCE turning movement counts such that acceleration and deceleration lanes are warranted according to the Code.

KMOG plans to improve County Road 56 along the proposed traffic route. These improvements will be made to provide an adequate infrastructure configuration for truck traffic trips to and from the Project. A turning path analysis proves that these width and radius improvements are satisfactory.

6.0 REFERENCES

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APPENDIX A: LOS ANALYSIS

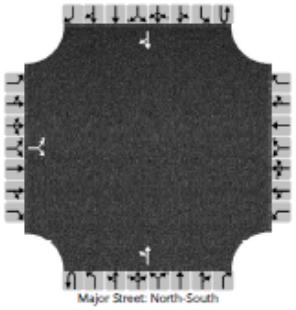
Existing Condition HCS Two-Way Stop-Control Report

HCS Two-Way Stop-Control Report

General Information / Site Information

Analyst	Cody Hightower	Intersection	CO257 and CR56
Agency/Co.	Tetra Tech, Inc.	Jurisdiction	City of Greeley
Date Performed	5/6/2022	East/West Street	CR 56
Analysis Year	2022	North/South Street	CO257
Time Analyzed		Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Oil and Gas well site		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		1		0						1	628				628	0
Percent Heavy Vehicles (%)		0		0						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						2.20						

Delay, Queue Length, and Level of Service

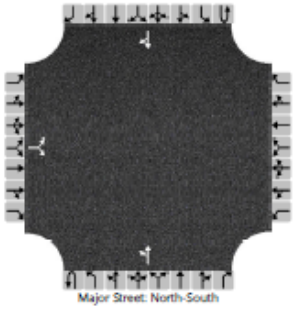
Flow Rate, v (veh/h)			1							1						
Capacity, c (veh/h)			163							920						
v/c Ratio			0.01							0.00						
95% Queue Length, Q_{95} (veh)			0.0							0.0						
Control Delay (s/veh)			27.2							8.9	0.0					
Level of Service (LOS)			D							A	A					
Approach Delay (s/veh)	27.2								0.0							
Approach LOS	D								A							

Peak Pre-Production AM Peak Hour

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Cody Hightower	Intersection	CO257 and CR56
Agency/Co.	Tetra Tech, Inc.	Jurisdiction	City of Greeley
Date Performed	5/6/2022	East/West Street	CR 56
Analysis Year	2022	North/South Street	CO257
Time Analyzed		Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Oil and Gas well site		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		6		6						12	628				628	13
Percent Heavy Vehicles (%)		75		75						36						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		7.15		6.95						4.46						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		4.18		3.98						2.52						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			13							13						
Capacity, c (veh/h)			161							761						
v/c Ratio			0.08							0.02						
95% Queue Length, Q_{95} (veh)			0.3							0.1						
Control Delay (s/veh)			29.3							9.8	0.3					
Level of Service (LOS)			D							A	A					
Approach Delay (s/veh)		29.3								0.5						
Approach LOS		D								A						

Peak Pre-Production PM Peak Hour

HCS Two-Way Stop-Control Report

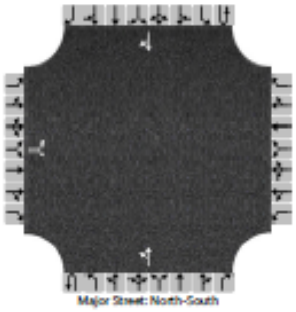
General Information

Analyst	Cody Hightower
Agency/Co.	Tetra Tech, Inc.
Date Performed	5/6/2022
Analysis Year	2022
Time Analyzed	
Intersection Orientation	North-South
Project Description	Oil and Gas well site

Site Information

Intersection	CO257 and CR56
Jurisdiction	City of Greeley
East/West Street	CR 56
North/South Street	CO257
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		12		13						6	628				628	6
Percent Heavy Vehicles (%)		36		36						75						
Proportion Time Blocked																
Percent Grade (%)			0													
Right Turn Channelized																
Median Type | Storage				Undivided												

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.76		6.56						4.85						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.82		3.62						2.88						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)				27						7						
Capacity, c (veh/h)				202						643						
v/c Ratio				0.13						0.01						
95% Queue Length, Q_{95} (veh)				0.5						0.0						
Control Delay (s/veh)				25.6						10.7	0.2					
Level of Service (LOS)				D						B	A					
Approach Delay (s/veh)			25.6							0.3						
Approach LOS			D							A						

APPENDIX B: TRIP GENERATION TABLE

Blue Chip 6-22HZ
22-5-67 Weld County
Estimated Trip Generation Data
Site Preparation through Interim Reclamation

Phase of Development	Estimated Duration (days, max)[1]	Vehicle Type[2]	CDOT SHAC Equivalency Factor (PCE/Veh)[3]	Estimated Number of Veh/Day[4]		Average Daily Trips[5]		AM Peak Hour[6]						PM Peak Hour[6]						Total Trips	
								In		Out		Total		In		Out		Total			
				Veh	PCE	Veh	PCE	Veh	PCE	Veh	PCE	Veh	PCE	Veh	PCE	Veh	PCE	Veh	PCE	Veh	PCE
Site Preparation	30	Light Vehicle	1	3	3	6	6	*2*	*2*	*0*	*0*	**2**	**2**	*0*	*0*	*2*	*2*	**2**	**2**	176	176
		Single Unit	2	3	5	5	10	*0*	*0*	*0*	*0*	**0**	**0**	*0*	*0*	*0*	*0*	**0**	**0**	155	310
		Combo Unit	3	30	89	59	177	*3*	*9*	*3*	*9*	**6**	**18**	*3*	*9*	*3*	*9*	**6**	**18**	1,773	5,318
		Oversize Load	3	0	1	0	1	*0*	*0*	*0*	*0*	**0**	**0**	*0*	*0*	*0*	*0*	**0**	**0**	14	42
		Traffic Summary (Site Preparation):		**35**	**97**	**71**	**195**	*5*	*11*	*3*	*9*	**8**	**20**	*3*	*9*	*5*	*11*	**8**	**20**	**2,118**	**5,846**
Production Facility Construction	44	Light Vehicle	1	6	6	12	12	*3*	*3*	*1*	*1*	**4**	**4**	*1*	*1*	*3*	*3*	**4**	**4**	513	513
		Single Unit	2	3	5	5	11	*0*	*0*	*0*	*0*	**0**	**0**	*0*	*0*	*0*	*0*	**0**	**0**	238	476
		Combo Unit	3	5	14	10	29	*0*	*0*	*0*	*0*	**0**	**0**	*0*	*0*	*0*	*0*	**0**	**0**	419	1,256
		Oversize Load	3	1	2	1	4	*1*	*3*	*1*	*3*	**2**	**6**	*1*	*3*	*1*	*3*	**2**	**6**	55	165
		Traffic Summary (Production Facility Construction):		**14**	**27**	**28**	**55**	*4*	*6*	*2*	*4*	**6**	**10**	*2*	*4*	*4*	*6*	**6**	**10**	**1,225**	**2,410**
Surface Casing Preset	12	Light Vehicle	1	8	8	15	15	*5*	*5*	*1*	*1*	**6**	**6**	*1*	*1*	*5*	*5*	**6**	**6**	182	182
		Single Unit	2	2	4	4	7	*1*	*2*	*1*	*2*	**2**	**4**	*1*	*2*	*1*	*2*	**2**	**4**	42	84
		Combo Unit	3	49	148	98	295	*3*	*9*	*3*	*9*	**6**	**18**	*3*	*9*	*3*	*9*	**6**	**18**	1,181	3,542
		Oversize Load	3	0	0	0	0	*0*	*0*	*0*	*0*	**0**	**0**	*0*	*0*	*0*	*0*	**0**	**0**	0	0
		Traffic Summary (Surface Casing Preset):		**59**	**159**	**117**	**317**	*9*	*16*	*5*	*12*	**14**	**28**	*5*	*12*	*9*	*16*	**14**	**28**	**1,404**	**3,807**
Surface Rig Mobilization	2	Light Vehicle	1	9	9	18	18	*5*	*5*	*1*	*1*	**6**	**6**	*1*	*1*	*5*	*5*	**6**	**6**	36	36
		Single Unit	2	11	22	22	44	*1*	*2*	*1*	*2*	**2**	**4**	*1*	*2*	*1*	*2*	**2**	**4**	44	88
		Combo Unit	3	176	528	352	1,056	*8*	*24*	*8*	*24*	**16**	**48**	*8*	*24*	*8*	*24*	**16**	**48**	704	2,112
		Oversize Load	3	2	5	3	9	*1*	*3*	*1*	*3*	**2**	**6**	*1*	*3*	*1*	*3*	**2**	**6**	6	18
		Traffic Summary (Surface Rig Mobilization):[7]		**198**	**564**	**395**	**1,127**	*15*	*34*	*11*	*30*	**26**	**64**	*11*	*30*	*15*	*34*	**26**	**64**	**790**	**2,254**
Sequential Drilling and Pad Regrade	113	Light Vehicle	1	25	25	50	50	*15*	*15*	*3*	*3*	**18**	**18**	*3*	*3*	*15*	*15*	**18**	**18**	5,621	5,621
		Single Unit	2	2	4	4	8	*1*	*2*	*1*	*2*	**2**	**4**	*1*	*2*	*1*	*2*	**2**	**4**	429	858
		Combo Unit	3	8	23	15	46	*1*	*3*	*1*	*3*	**2**	**6**	*1*	*3*	*1*	*3*	**2**	**6**	1,736	5,208
		Oversize Load	3	0	1	1	3	*1*	*3*	*1*	*3*	**2**	**6**	*1*	*3*	*1*	*3*	**2**	**6**	106	318
		Traffic Summary (Sequential Drilling and Pad Regrade):		**35**	**53**	**70**	**106**	*18*	*23*	*6*	*11*	**24**	**34**	*6*	*11*	*18*	*23*	**24**	**34**	**7,892**	**12,005**
Surface Rig Demobilization	2	Light Vehicle	1	27	27	54	54	*16*	*16*	*3*	*3*	**19**	**19**	*3*	*3*	*16*	*16*	**19**	**19**	108	108
		Single Unit	2	11	21	21	42	*1*	*2*	*1*	*2*	**2**	**4**	*1*	*2*	*1*	*2*	**2**	**4**	42	84
		Combo Unit	3	146	437	291	873	*7*	*21*	*7*	*21*	**14**	**42**	*7*	*21*	*7*	*21*	**14**	**42**	582	1,746
		Oversize Load	3	2	5	3	9	*1*	*3*	*1*	*3*	**2**	**6**	*1*	*3*	*1*	*3*	**2**	**6**	6	18
		Traffic Summary (Surface Rig Demobilization):[7]		**185**	**489**	**369**	**978**	*25*	*42*	*12*	*29*	**37**	**71**	*12*	*29*	*25*	*42*	**37**	**71**	**738**	**1,956**
Well Completions	66	Light Vehicle	1	57	57	114	114	*34*	*34*	*7*	*7*	**41**	**41**	*7*	*7*	*34*	*34*	**41**	**41**	7,524	7,524
		Single Unit	2	8	15	15	30	*1*	*2*	*1*	*2*	**2**	**4**	*1*	*2*	*1*	*2*	**2**	**4**	990	1,980
		Combo Unit	3	19	57	38	114	*1*	*3*	*1*	*3*	**2**	**6**	*1*	*3*	*1*	*3*	**2**	**6**	2,508	7,524
		Oversize Load	3	0	0	0	0	*0*	*0*	*0*	*0*	**0**	**0**	*0*	*0*	*0*	*0*	**0**	**0**	0	0
		Traffic Summary (Well Completions):		**84**	**129**	**167**	**258**	*36*	*39*	*9*	*12*	**45**	**51**	*9*	*12*	*36*	*39*	**45**	**51**	**11,022**	**17,028**
Reclamation	30	Light Vehicle	1	15	15	30	30	*9*	*9*	*2*	*2*	**11**	**11**	*2*	*2*	*9*	*9*	**11**	**11**	902	902
		Single Unit	2	19	37	37	75	*2*	*4*	*2*	*4*	**4**	**8**	*2*	*4*	*2*	*4*	**4**	**8**	1,125	2,249
		Combo Unit	3	19	56	37	112	*2*	*6*	*2*	*6*	**4**	**12**	*2*	*6*	*2*	*6*	**4**	**12**	1,124	3,373
		Oversize Load	3	0	1	1	2	*0*	*0*	*0*	*0*	**0**	**0**	*0*	*0*	*0*	*0*	**0**	**0**	16	48
		Traffic Summary (Reclamation):		**53**	**110**	**106**	**219**	*13*	*19*	*6*	*12*	**19**	**31**	*6*	*12*	*13*	*19*	**19**	**31**	**3,167**	**6,572**
Weighted Averages[8]	Based on total duration of 299 days	Light Vehicle	1	25	25	50	50			*Max AM Peak Hour:*		**45**	**71**			*Max PM Peak Hour:*		**45**	**71**		
		Single Unit	2	5	10	10	20														
		Combo Unit	3	17	50	34	101											**Development Totals:**		***28,356***	**51,879**
		Oversize Load	3	0	1	1	2														
				47	**87**	**95**	**174**														

Abbreviations:

ADT	Average Daily Trips	lbs.	pounds	PCE	Passenger Car Equivalents
CDOT	Colorado Department of Tran	GVW	Gross Vehicle Weight	SHAC	State Highway Access Code
ft	feet	KMG	Kerr McGee Oil & Gas Onshore, LP	Veh	Vehicle

Notes:

1 Estimate of phase durations is based on anticipated development expectations for each phase based on previous schedules provided by Anadarko

2 Arcadis has categorized the trip data into the four unique Vehicle Types based on trip profile data provided by KMG which summarizes traffic based on these categories. Vehicle categories include the following: Light Vehicles (e.g. pickup trucks) have a GVW between 4,500 and 8,500 lbs. and measures < 20 ft long; Single Unit vehicles (e.g. 3-axle bobtail or dump truck) having a GVW between 10,000 and 20,000 lbs. and measuring between 20-40 ft long; Combo Unit vehicles (typically a semi and Trailer) having GVW between 50,000 and 70,000 lbs., measuring between 40 and 60 ft long; Oversize Loads (low boy equip trailers, wide loads) usually having GVW greater than 70,000 lbs., and measuring between 40 and 60 feet long.

3 CDOT SHAC assumes: passenger vehicle < 20ft, single unit truck from 20 to 40 ft, multiple unit truck > 40 ft; 1 Single Unit truck = 2 PCE, and 1 Combo Unit truck = 3 PCE.

4 Estimated number of vehicles per day is based on trip generation breakdown summary provided by KMG for other similarly sized facilities. These data were then scaled/adjusted to approximate trip generation traffic for specific Pad/Facility based on the number of wells that will be drilled.

5 Average Daily Trips number assumes all vehicles make a round trip (e.g., ADT = No. of Vehicles per day x 2) and that the total trips in and out levels/evens out on a daily basis.

6 AM peak hour and PM peak hour trips are estimated based on input from KMG experience with similar facility development projects. Light truck traffic is almost entirely associated with daily crew/worker trips to the site; Approximately 60% of the worker trips associated with shift changes will likely occur during the AM and PM peak hours. The larger vehicle (Single unit, Combo units, Oversize loads), daily truck traffic will occur uniformly over the course of a 12 hour work day for the Site Preparation and Reclamation phases. Larger vehicle traffic (Single unit, Combo units, Oversize loads) during the remaining phases (e.g., casing preset, rig mobe/demobe, sequential drilling, and completions) will be spread uniformly over a 24 hour period.

7 Rig mobilization and demobilization will generally occur while temporary traffic controls are in place

8 Type of vehicle traffic distribution is variable for different phases of development, and the phase duration is highly variable (e.g. couple of days versus several months). Weighted averages have been calculated by factoring the average daily vehicles/trips by the relative duration of each phase; i.e., Weighted Avg = sum of [number of vehicles/trips for a given phase] x [% of total project development time that phase specific distribution of traffic will be generated] for all 8 phases.

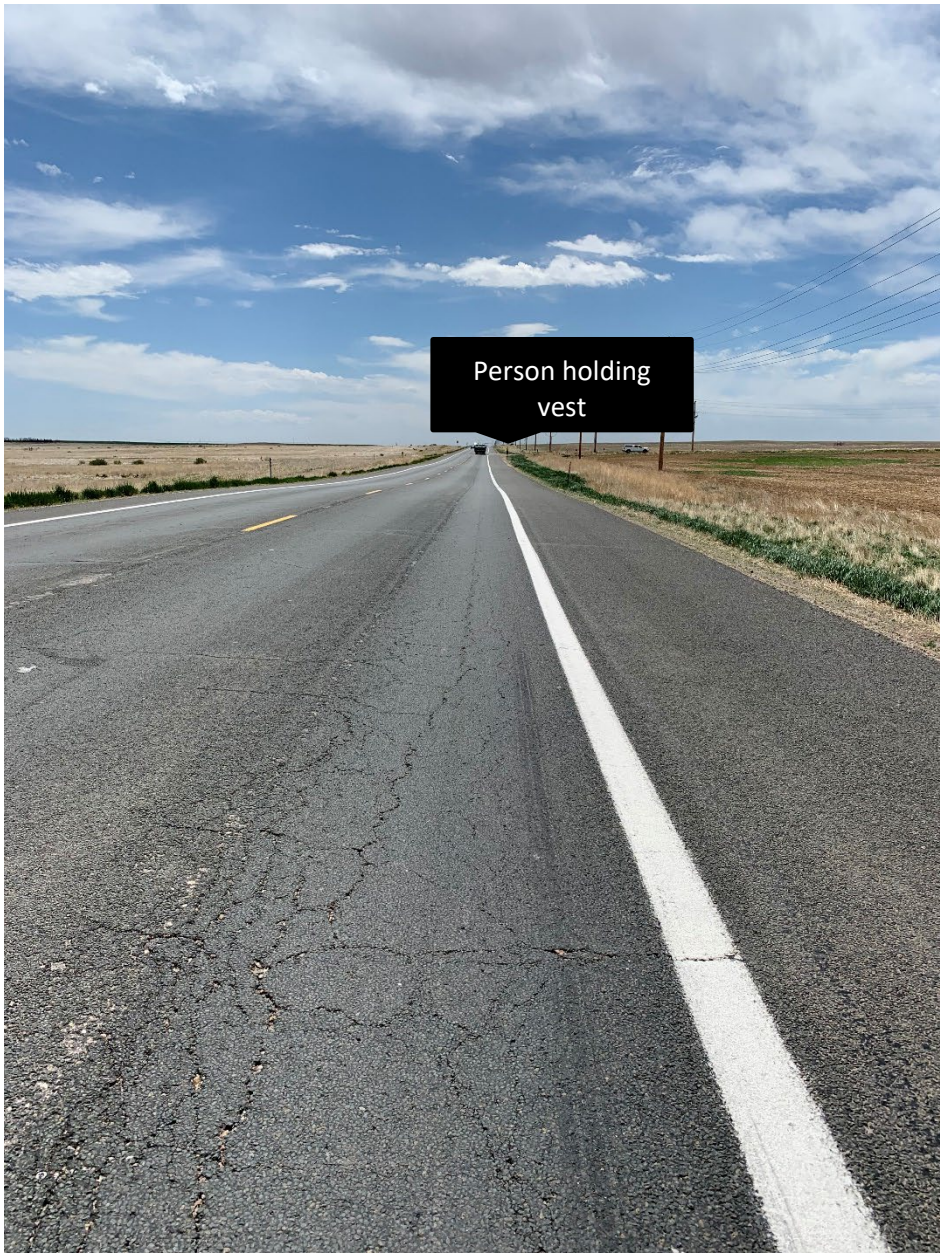
APPENDIX C: SIGHT DISTANCE PHOTOGRAPH LOG

Date:	2022-17-05	Project Name:	OXY-Blue Chip
Field Personnel:	CS & ZS	Project Number:	117-7107002
Photo Taken From:	WCR 56	Photo Taken Of:	Highway 257
Distance:	725’	Photo Direction:	North
Current Setback:	10’	Photo Height:	3.5’
Clipboard Height:	4.25’	Clipboard Location:	SB Lane

Date:	2022-17-05	Project Name:	OXY-Blue Chip
Field Personnel:	CS & ZS	Project Number:	117-7107002
Photo Taken From:	WCR 56	Photo Taken Of:	Highway 257
Distance:	725’	Photo Direction:	North
Current Setback:	10’	Photo Height:	3.5’
Clipboard Height:	4.25’	Clipboard Location:	NB Lane

Date:	2022-17-05	Project Name:	OXY-Blue Chip
Field Personnel:	CS & ZS	Project Number:	117-7107002
Photo Taken From:	Highway 257 NB Lane	Photo Taken Of:	WCR 56
Distance:	725’	Photo Direction:	South
Current Setback:	5’	Photo Height:	3.5’
Vest Height:	4.25’	Vest Location:	WCR 56

Date:	2022-17-05	Project Name:	OXY-Blue Chip
Field Personnel:	CS & ZS	Project Number:	117-7107002
Photo Taken From:	Highway 257 SB Lane	Photo Taken Of:	WCR 56
Distance:	725’	Photo Direction:	South
Current Setback:	5’	Photo Height:	3.5’
Vest Height:	4.25’	Vest Location:	WCR 56



Date:	2022-17-05	Project Name:	OXY-Blue Chip
Field Personnel:	CS & ZS	Project Number:	117-7107002
Photo Taken From:	WCR 56	Photo Taken Of:	Highway 257
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Distance:	725’	Photo Direction:	North
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Date:	2022-17-05	Project Name:	OXY-Blue Chip
Field Personnel:	CS & ZS	Project Number:	117-7107002
Photo Taken From:	Highway 257 SB Lane	Photo Taken Of:	WCR 56
Distance:	725’	Photo Direction:	North
Current Setback:	5’	Photo Height:	3.5’
Clipboard Height:	4.25’	Clipboard Location:	WCR 56

APPENDIX D: TURNING PATH ANALYSIS

0 20' 40' 80'

SCALE: 1" = 40'

TETRA TECH

www.tetratech.com

1560 Broadway, Suite 1400
Denver, CO 80202
(303) 291-6260

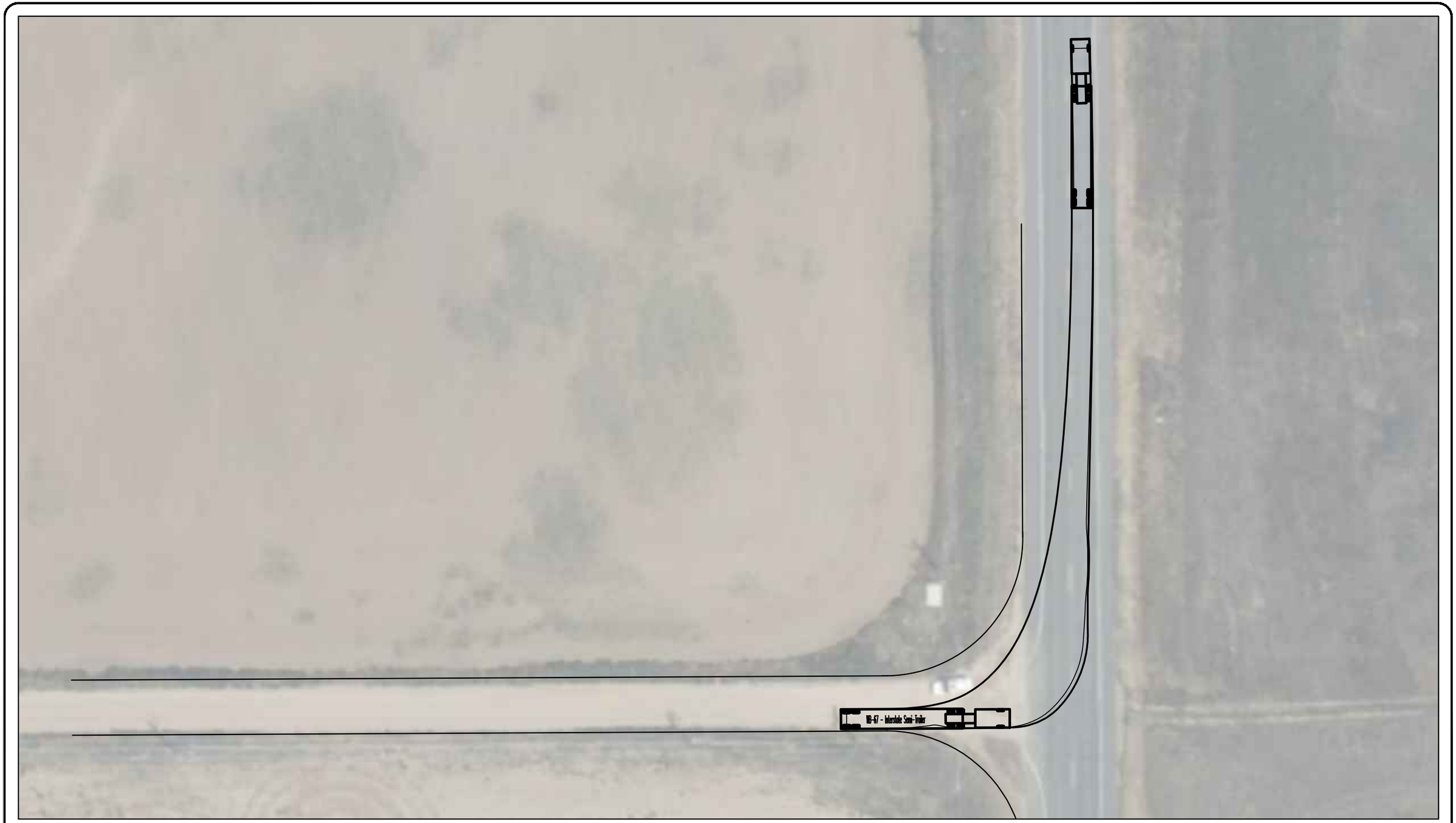
Occidental Petroleum Corporation

Turning Path Analysis

CR 56 and SH 257
Southbound Right

PROJ:	Blue Chip
DATE:	05/20/2022
DESN:	CRH
Supplemental	1

Bar Measures 1 inch



0 20' 40' 80'

SCALE: 1" = 40'

TETRA TECH

www.tetratech.com

1560 Broadway, Suite 1400
Denver, CO 80202
(303) 291-6260

Occidental Petroleum Corporation

Turning Path Analysis

CR 56 and SH 257
Eastbound Left

PROJ:	Blue Chip
DATE:	05/20/2022
DESN:	CRH
Supplemental	2

Bar Measures 1 inch

N

0 20' 40' 80'

SCALE: 1" = 40'

TETRA TECH

www.tetratech.com

1560 Broadway, Suite 1400
Denver, CO 80202
(303) 291-6260

Occidental Petroleum Corporation

Turning Path Analysis

CR 56 and SH 257
Eastbound Left

PROJ:	Blue Chip
DATE:	05/20/2022
DESN:	CRH

Supplemental

3

Bar Measures 1 inch

0 20' 40' 80'

SCALE: 1" = 40'

TETRA TECH

www.tetratech.com

1560 Broadway, Suite 1400
Denver, CO 80202
(303) 291-6260

Occidental Petroleum Corporation

Turning Path Analysis

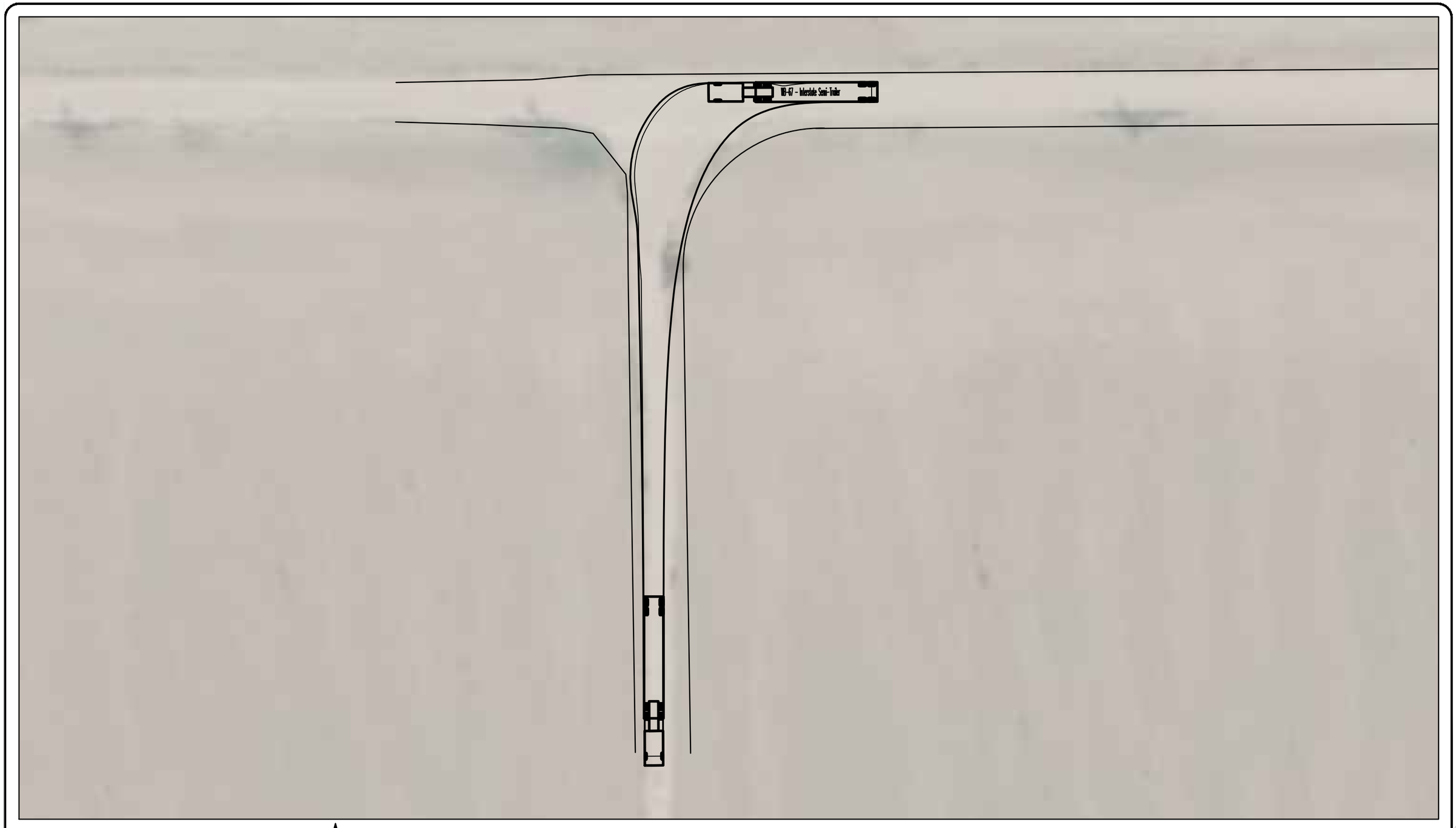
CR 56 and SH 257
Eastbound Left

PROJ:	Blue Chip
DATE:	05/20/2022
DESN:	CRH

Supplemental

4

Bar Measures 1 inch



0 20' 40' 80'

SCALE: 1" = 40'

TETRA TECH

www.tetratech.com

1560 Broadway, Suite 1400
Denver, CO 80202
(303) 291-6260

Occidental Petroleum Corporation

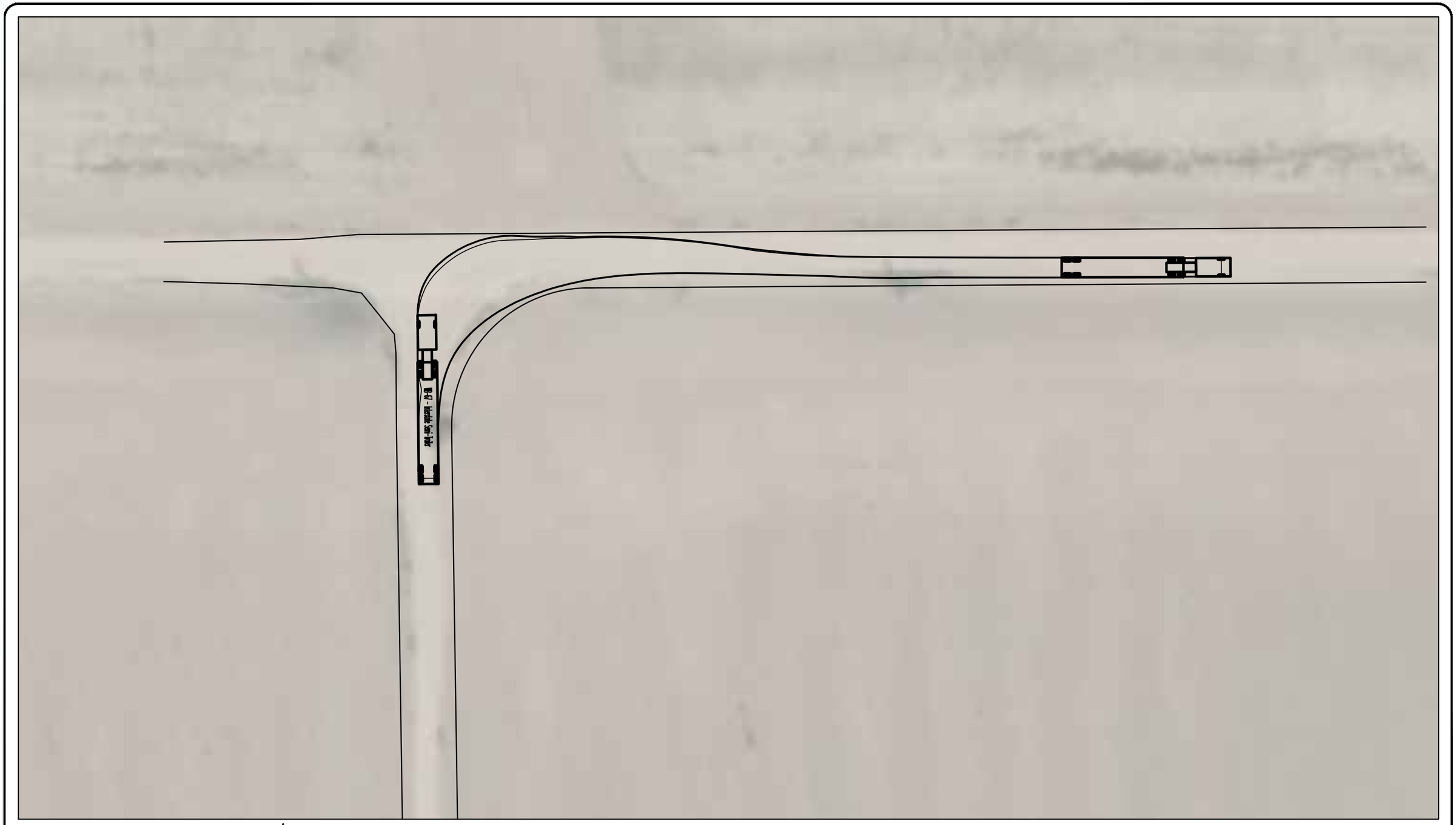
Turning Path Analysis

CR 56 Access
Westbound Left

PROJ:	Blue Chip
DATE:	05/20/2022
DESN:	CRH

Supplemental
5

Bar Measures 1 inch



0 20' 40' 80'

SCALE: 1" = 40'

TETRA TECH

www.tetratech.com

1560 Broadway, Suite 1400
Denver, CO 80202
(303) 291-6260

Occidental Petroleum Corporation

Turning Path Analysis

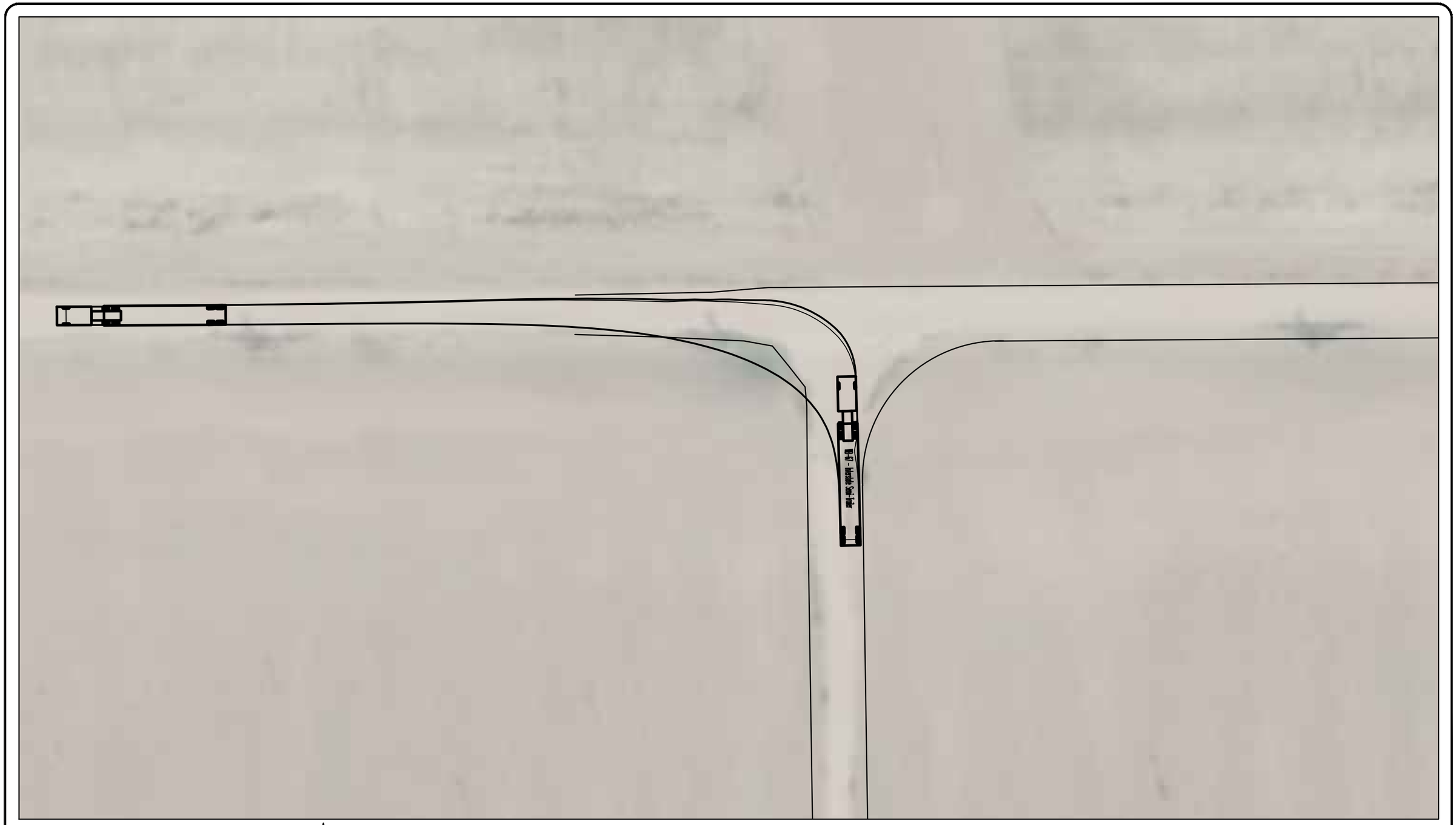
CR 56 Access
Northbound Right

PROJ:	Blue Chip
DATE:	05/20/2022
DESN:	CRH

Supplemental

6

Bar Measures 1 inch



0 20' 40' 80'

SCALE: 1" = 40'

TETRA TECH
www.tetratech.com
1560 Broadway, Suite 1400
Denver, CO 80202
(303) 291-6260

Occidental Petroleum Corporation

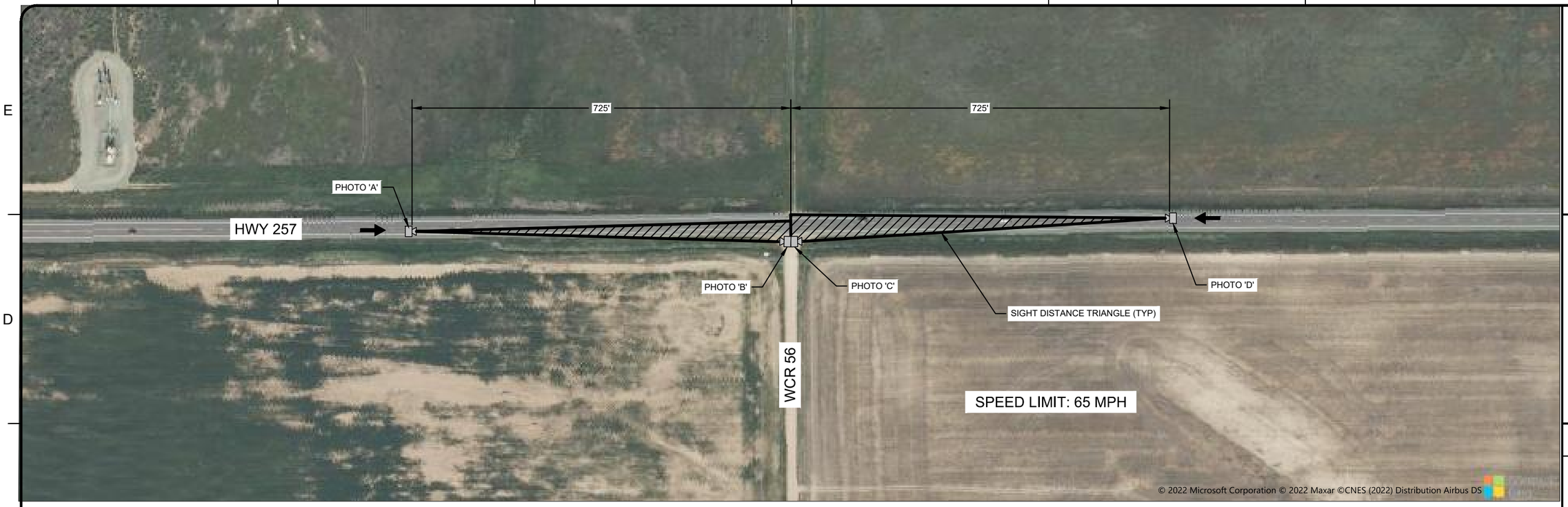
Turning Path Analysis

CR 56 Access
Northbound Left

PROJ:	Blue Chip
DATE:	05/20/2022
DESN:	CRH

Supplemental
7

Bar Measures 1 inch



1 SITE DISTANCE
SCALE: 1" = 200'

0 100' 200'
SCALE: 1" = 200'

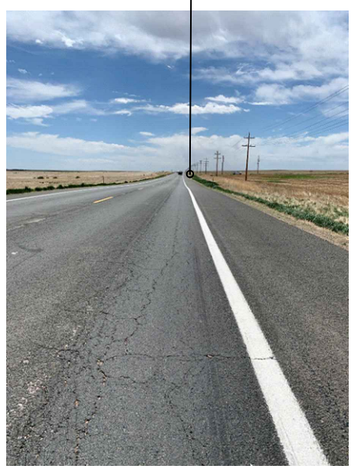


PHOTO TAKEN FROM HWY 257 SB LANE,
5' FROM WHITE STRIPE. CAMERA HEIGHT: 3.5'

A LOOKING SOUTH
FROM HWY 257 SB LANE

PHOTO TAKE FROM WCR 56, 10' FROM EDGE OF
PAVED ROAD. CAMERA HEIGHT: 3.5'.

B LOOKING NORTH
FROM PROPOSED INTERSECTION

PHOTO TAKE FROM WCR 56, 10' FROM EDGE OF
PAVED ROAD. CAMERA HEIGHT:3.5'.

C LOOKING SOUTH
FROM PROPOSED INTERSECTION

PHOTO TAKEN FROM HWY 257 NB LANE AT EDGE OF
ROAD. CAMERA HEIGHT: 3.5'

D LOOKING NORTH
FROM HWY 257 NB LANE

TETRA TECH
www.tetratech.com
3801 AUTOMATION WAY, SUITE 100
FORT COLLINS, COLORADO 80525
TEL: (970) 223-9600

DRAFT
NOT FOR CONSTRUCTION

MARK	DATE	DESCRIPTION	BY

KERR-MCGEE OIL & ONSHORE, LP
HWY 34 ACCEL/DECEL LANE ADDITIONS
WELD COUNTY, COLORADO
ROADWAY IMPROVEMENTS
FOR HWY 257 & WCR 56
SIGHT DISTANCE EVALUATION

PROJ: 117-7107002
DESN:
DRWN:
CHKD:

1

Bar Measures 1 inch, otherwise drawing not to scale

G

SITE SAFETY AND EMERGENCY ACTION PLAN

1099 18th Street, Suite 700
Denver, Colorado 80202

Blue Chip 6-22HZ Wells and Facility

Section 22 – T5N – R67W

Address: TBD

Greeley, COLORADO

Proposed Spud Date: 4th Quarter 2022

TABLE OF CONTENTS

SECTION 1 – APPROVAL SIGNATURES

Kerr-McGee Oil & Gas Onshore LC			
Name	**Signature**	**Title**	**Date**
Bethany Bosworth		Rockies Asset Director	8/10/2022
Greeley Fire Department			
Name	**Signature**	**Title**	**Date**
Brian Kuznik		Fire Chief	

SECTION 2 – SITE ADDRESS AND DIRECTIONS

a) Directions:

From the intersection of Highway 257 and Weld County Road (WCR) 56 travel west approximately 1/2 miles to the lease access road. Turn left and travel south on the lease access road for 1,250 feet, turn left to the east and travel 200 feet to the proposed facility and wells.

b) Ingress and egress information:

All traffic into and out of the oil and gas location will check-in and check-out with security. All ingress and egress routes will be clearly identified and kept clear from parked/staged vehicles at all times.

c) Physical Address and GPS coordinates

- **API#** – Pending COGCC Permit Approval
- **Legal Description** – E1/2 NW1/4 of Section 22, Township 5 North, Range 67 West
- **Address -** * Address Pending *(Greeley will provide physical address for 911 dispatching)*
- **Town, CO, Zip –** Greeley, Colorado
- **Lat/Long:** 40.388364, -104.880304

d) Emergency Evacuation/Muster Assembly Point(s)

For incidents, where remaining in a particular area could pose a hazard to personnel onsite, such as a fire or hazardous material release, evacuation may be required to ensure the safety of onsite personnel. In the event of an emergency, site personnel will initially be evacuated to pre-designated muster assembly points. Muster Assembly Points are identified on The Project Location Access Map on Page 7 of this plan, and noted on the site-specific TRP.

- The Muster Assembly Points will be identified in section 5.b. of this plan, and identified during all site safety briefings for visitors, employees, and contract personnel.
- **Sign-In Sheets:** During drilling and completion activities all employees and approved visitors to the oil and gas location will be required to enter through a manned security checkpoint. Upon checking in, employees and visitors will be provided a detailed safety briefing of current operations, all safety precautions that must be adhered to, and the site emergency evacuation plan. In addition, all personnel who enter the location must sign-out upon their departure. Security or Supervisory personnel are required to account for all persons entering or leaving during active operations and in the event of an incident.
- Once drilling and completion activities are finalized, the site will transition to its production phase and no unauthorized personnel will be allowed on location without first contacting a company representative.

SECTION 3 – LIST OF EMERGENCY CONTACTS

a) Kerr McGee Oil & Gas Onshore LP

Name	Office Phone	Emergency/Cell
Kerr McGee Oil & Gas Onshore LP 1099 18th Ave. Denver CO 80202	720-929-6000	970-515-1500
Kerr McGee Oil & Gas Onshore LP Integrated Operations Center (IOC) 501 N. Division Blvd. Platteville, CO 80651	970-336-3500	970-515-1500
Kerr McGee Oil & Gas Onshore LP EHS on-call Emergency Number	970-515-1500	970-515-1500
EHS–Supervisor & Safety – Lynna Scranton	720-929-6317	303-906-1711
EHS – Environmental – Greg Hamilton	970-515-1698	970-590-6256

b) First Responders (Fire, EMS, HazMat)

Name	Emergency Number	Non-Emergency Number
***All emergency notifications require notification to 911 first**		
Greeley Fire Department	911	970-350-9504
Greeley Police Department	911	970-350-9605
Weld County Sheriff	911	970-356-4015
Colorado State Patrol	911	970-506-4999

c) Local, State, and Federal Contacts

Name	Emergency Number	Non-Emergency Number
Greeley Planning and Zoning Office	none	970-350-9780
Greeley Office of Emergency Management	911	970-350-9598
COGCC	none	303-894-2100
CDPHE	none	877-518-5608
Colorado Parks & Wildlife	none	303-291-7227
National Response Center	800-424-8802	none

d) Medical Facilities

Name	Office Phone
Northern Colorado Medical Center	970-352-4121
Medical Center of the Rockies	970-624-2500
Northern Colorado Medical Facility (Burn Unit)	970-810-4121
UCHealth Greeley Hospital	970-652-2000

e) Contracted Spill Response Organization

Name	24/7 Emergency Number	Non-Emergency Number
EnviroServe	720-450-1316	800-488-0910
EHS-Environmental HAZMAT Services	303-525-3111	720-225-9252

f) Loss of Well Control

Name	24/7 Emergency Number	Non-Emergency Number
Wild Well Control, Inc.	281-353-5481	281-784-4700
Cudd Pressure Control	307-382-6650 and 713-849-2769	800-990-2833

g) Railroad Emergency Response

Name	24/7 Emergency Number
Union Pacific Railroad	888-877-7267
BNSF	800-832-5452
Great Western Railway	800-533-9416 (Office 303-398-4500)

h) Mutual-Aid

All mutual-aid coordination within Weld County will be in accordance with the current Weld County Fire Chiefs Association Mutual-Aid Agreement. In addition, due to the size of Weld County and the large number of Fire Departments that make up the Weld County Fire Chiefs Association's, Mutual-Aid may be a mixture of full-time, combination, and volunteer FD resources responding to an incident at this oil and gas location.

SECTION – 4 SITE SPECIFIC INFORMATION

a) Site Description

The Blue Chip 6-22HZ Pad is a KMOG oil and gas production facility that will have twelve (12) horizontal oil and gas wells along with one 285-barrel crude oil storage tank (this is a condensate tank used for maintenance storage as needed) and four 285-barrel produced water tanks located inside a lined secondary containment structure.

b) Nearby Schools, High Occupancy Buildings, Waterways (measured from the Working Pad Surface)

- Schools - None within 5,280 feet of location
- High Occupancy Buildings - None within 5,280 feet of location
- Waterways – Drainage way: 1,225 feet west

c) Site Safety Requirements and General Safety Information

The minimum personal protective equipment (PPE) to enter any KMOG location includes hard hat, safety glasses, safety toe boots, and fire-resistant clothing (FRC). All contractors and visitors are responsible for providing their employees with the appropriate training on and use of PPE while on KMOG locations. In addition, all contract personnel entering an KMOG location to perform work must understand and abide by KMOG's contractor expectations relating to environmental, health, and safety requirements.

The primary hazards that any person must be aware of while on an KMOG production location include, but are not limited to, the potential for release of hydrocarbon gases and/or liquids from production equipment/tanks, heavy truck and equipment traffic, loud noise, high pressures, and the potential for a flash fire. These hazards can vary depending on the work being performed.

d) Safety Data Sheets (SDS)

- **SDS:** Depending on the operations taking place on location, chemicals stored on-site may vary. In accordance with 49 CFR 1910.1200, Safety Data Sheets (SDS) will be made available for site personnel performing work and for first responders in a centralized location onsite.

e) Equipment Lists – Production Phase

Item Description	Quantity
Horizontal oil and gas wells	12
400 - barrel crude oil storage tank	0
285 - barrel produced water	4
285 - barrel condensate tank (maintenance tank only)	1

f) Chemicals stored on-site (BBLs and Gallons)

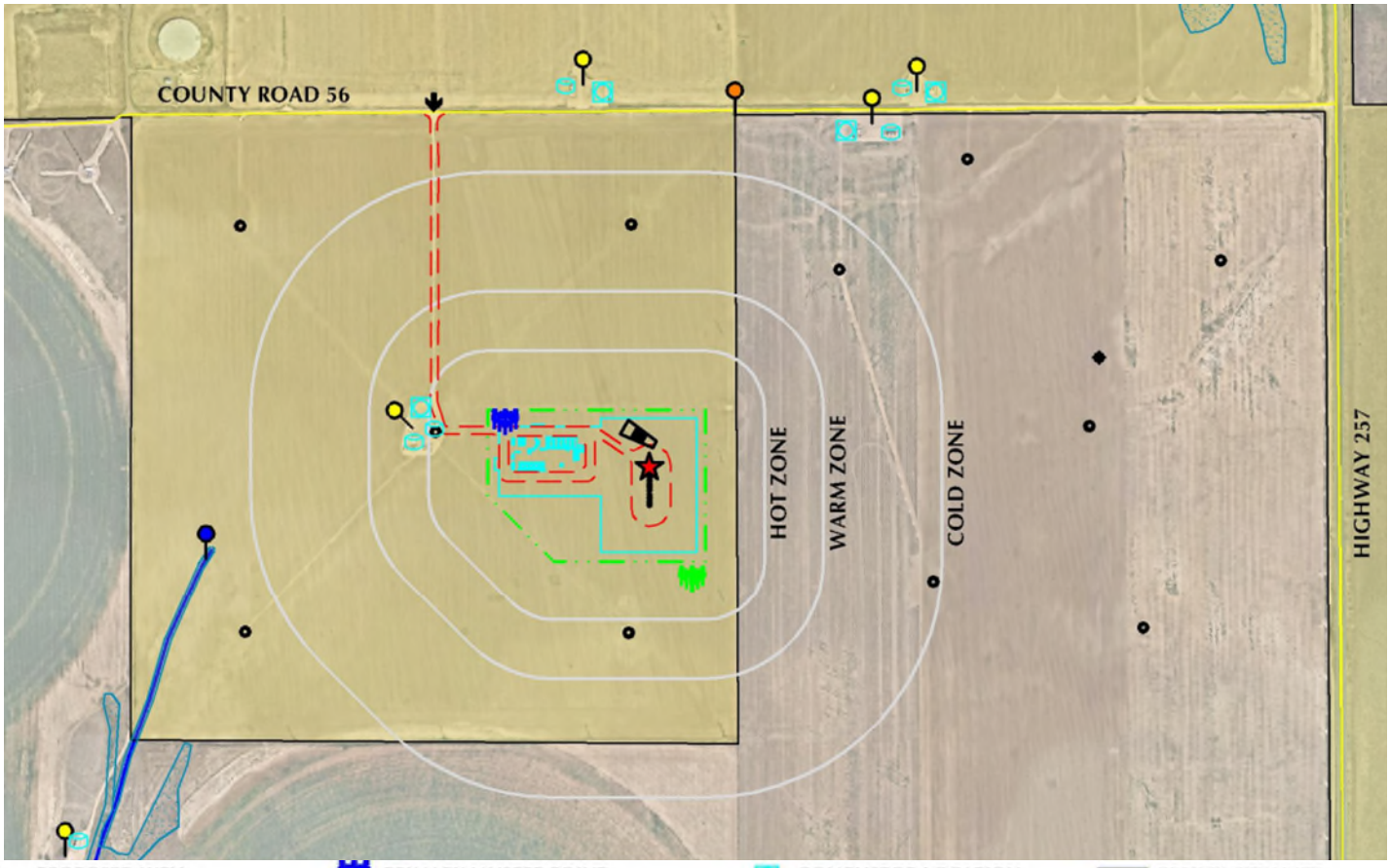
Drilling Phase			
Chemicals (CAPs indicate Product Name vs upper lower case is a generic chemical)	**Package Size (Volume)**	**Quantity**	**Comments**
ADAPTA L	5 gal can	128 cans	
BARAKLEAN	5 gal can	64 cans	
BAROID 41	bulk silo	45 tons	
BAROID 41	100 lb. sacks	400 sacks	
BARO-SEAL CLASSIC	40 lb. sacks	60 sacks	
Calcium Chloride	50 lb. sacks	500-600 sacks	
DRILTREAT	55 gal drum	4 drums	
FORTI-MUL	55 gal drum	16-20 drums	
Diesel	19,000 gal tank	19,000 gals	
Graphite	50 lb. sacks	60 sacks	
Lime	50 lb. sacks	200 sacks	
Odor Armor	275 gal tote	I tote	
RHEMOD L	55 gal drum	4 drums	
Salt-Driller's Rock	50 lb. sacks	49 sacks	
Sawdust Fine	5.5 cubic foot bag	60 bags	
STOPPIT	50 lb. sacks	80 sacks	
WALL-NUT MEDIUM	50 lb. sacks	48 sacks	
Oil Based Mud (OBM)	150-500 BBL Tanks	1,800-2,200 BBLs	11 Tanks - 3 tank sizes - 150, 350 & 500 BBLs
Completions/Hydraulic Fracturing Phase			
Chemicals	**Volume**	**Units/ Quantity**	**Comments**
Hydrochloric Acid	4,000 Gal Transport	1	Used during first stages
HCR Synthetic Acid	4,000 Gal Transport	2	
Sodium Bicarbonate	200-300 lbs	1	Acid neutralizer
Calcium Chloride (Brine)	500 BBL Capacity	1	Winter ops only
Friction Reducer (FR)	4,500 Gal Capacity ISO	1	
Hydrochloric Acid (Biocide Trailer)	4,000 Gal Capacity	1	Biocide treatment trailer
Sodium Chlorite	2,000 Gal Capacity	1	
Sodium Hypochlorite	2,000 Gal Capacity	1	Biocide treatment trailer
Produced Water	500 BBL	4	

Diesel Fuel	16,000 Gal Capacity	1	
DEF	2,200 Gal Capacity	1	
Flowback Phase			
Coil Chemicals	**Volume**	**Units/ Quantity**	**Comments**
Friction Reducer	330 Gal Capacity	1	Mixing plant (chemical trailer)
Biocide	330 Gal Capacity	1	Mixing plant (chemical trailer)
Pipe on pipe lubricant	330 Gal Capacity	1	Mixing plant (chemical trailer)
Foamer	330 Gal Capacity	1	Mixing plant (chemical trailer)
Defoamer	330 Gal Capacity	1	Mixing plant (chemical trailer)
Nano beads	330 Gal Capacity	1	Mixing plant (chemical trailer)
H2S scavenger	330 Gal Capacity	1	Mixing plant (chemical trailer)
Friction reducer	330 Gal Capacity	1	Coil provider (not always on pad)
Pipe on pipe lubricant	330 Gal Capacity	1	Coil provider (not always on pad)
Liquid N2	120 BBL Transport	1	Coil provider (not always on pad)
Oil on pad	20 BBL Max Allowed	N/A	Haul off oil before it reaches 20 BBL
Diesel	500 Gal Capacity	2	Steel Tanks
Biocide	350 Gal Capacity	1	Chemical injection cube (stainless steel tub)
Oxygen scavenger	350 Gal Capacity	1	Chemical injection cube (stainless steel tub)
Rig/Snub Chemicals	**Volume**	**Units/Quantity**	**Comments**
Diesel	500 Gal Capacity	2	
50/50 Methanol	500 Gal Capacity	1	Winter Ops only
Bio Water	60 BBL/well	N/A	Brought out in bobtail truck
Biocide	350 Gal Capacity	1	Chemical injection cube (stainless steel tub)
Oxygen Scavenger	350 Gal Capacity	1	Chemical injection cube (stainless steel tub)
Production Phase Chemicals			
Chemicals	**Volume**	**Units/Quantity**	
Crude oil/Condensate	285 BBL	1	
Produced Water	285 BBL	4	
Corrosion Inhibitor	500 Gal	1	Chemical injection at the wellhead
Methanol	350 Gal	1	Chemical injection at the facility
Corrosion/Bacterial	350 Gal	1	Chemical injection at the facility

SECTION 5 – MAPS AND DRAWINGS

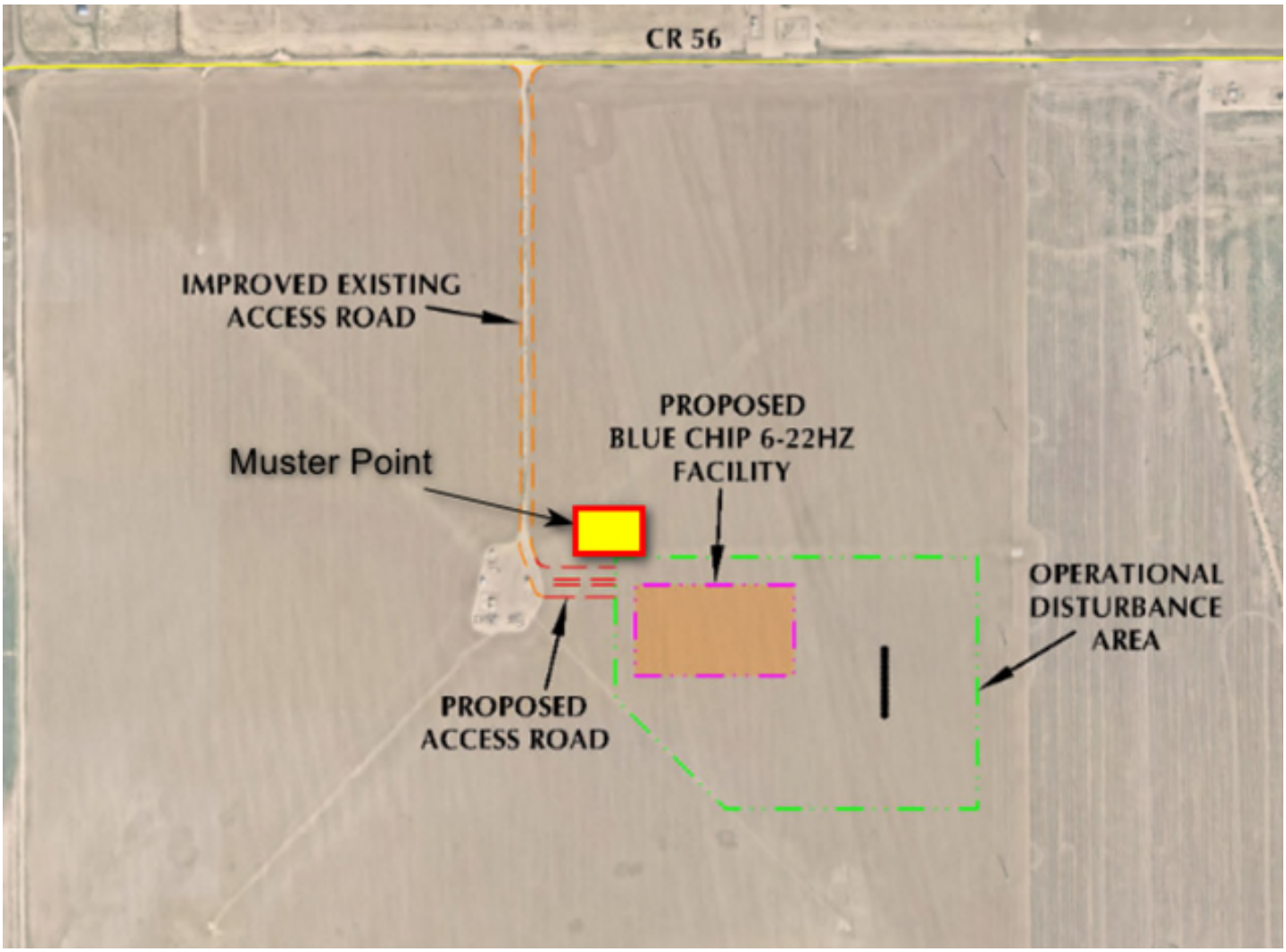
a) Project Area Map

Showing the following distances: 250 feet (Hot Zone), 500 feet (Warm Zone) and 1,000 feet (Cold Zone) from the Disturbance Area (DA).

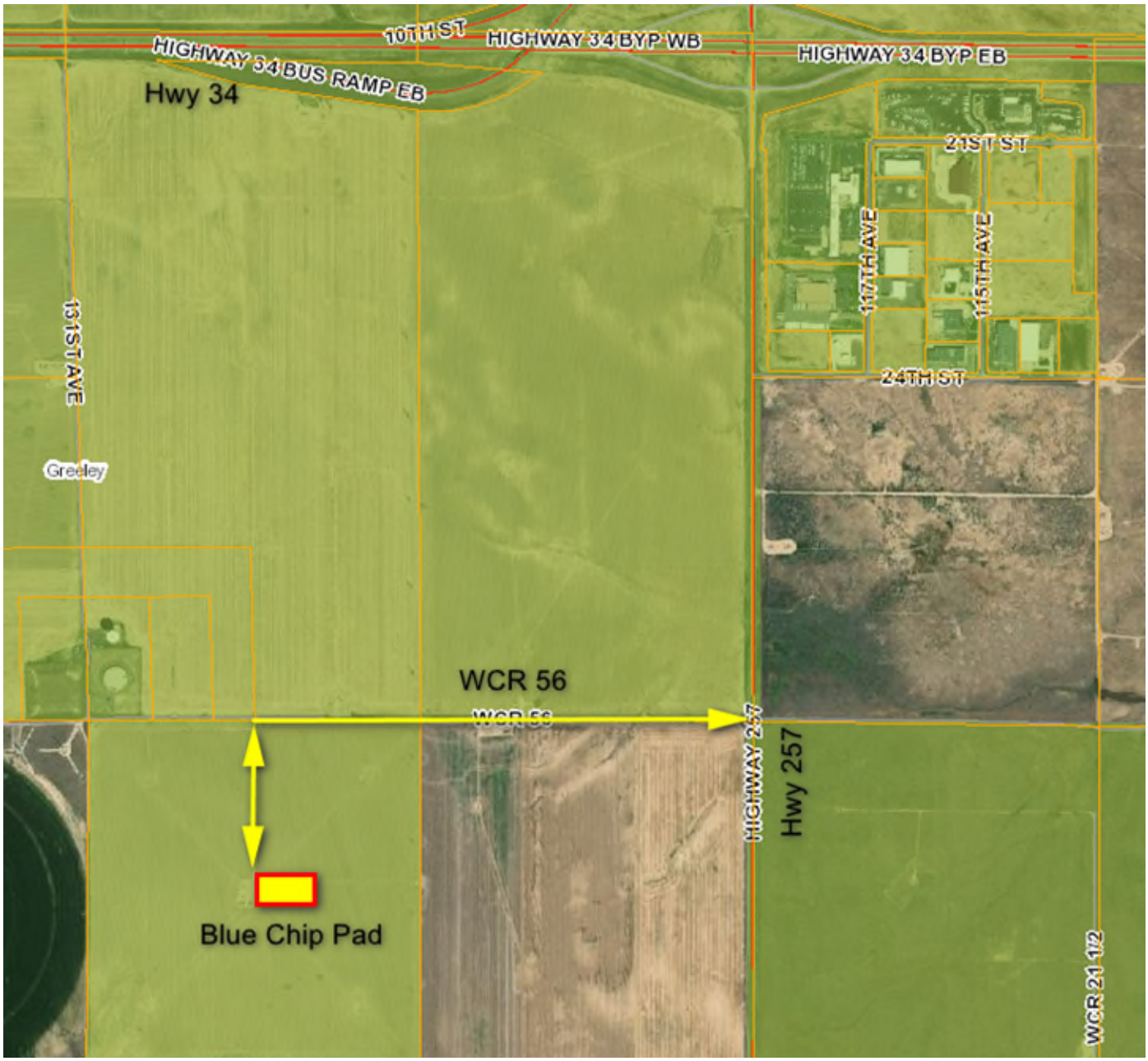


b) Project Location Access Map and Muster Point re do with muster point moved to green line

The Primary muster point will be located at the entrance to the location as shown below. The secondary muster point is subject to change depending on the phase of operations occurring at the location.



c) Haul Route Map



d) 2,500 Foot Buffer Area Map

SECTION 6 – SPILL RESPONSE AND CLEAN-UP

a) Spill Response

There are multiple types of hydrocarbons and or chemicals stored onsite which can be released/spilled during oil and gas production and exploration. The most commonly released are unrefined products such as crude oil and produced water. Refined petroleum products such as diesel, gasoline, produced oils, and motor oil spills are less common, but still equally important to mitigate. If a spill is discovered, it will be mitigated in accordance with Colorado Oil and Gas Conservation Commission (COGCC), Colorado Department of Public Health and Environment (CDPHE), and Weld County LEPC requirements.

Once a release has been discovered, it will be immediately stopped and contained if possible and is safe to do so. When containing a spill; a combination of sorbent rolls, pads, mats, socks, or containment boom may be deployed, or earthen berms will be constructed around the release to keep spilled material contained and from spreading. These materials will be provided by KMOG and the contract company. During a spill, efforts will be made to minimize contact with live vegetation, nearby drainage, rivers, creeks, or streams. If the release is outside of secondary containment or poses a threat to flow off site, or impact environmentally sensitive areas, the spill response contractor should be notified for cleanup assistance, if needed, and for removal and disposal of spilled materials and contaminated areas.

In the event of a large incident requiring outside assistance/cascading resources, KMOG has contracted with a several spill response organizations, listed in Section 3 of this EAP. These organizations possess a working knowledge of oil and gas operations, emergency response and the Incident Command System (ICS). Once notified, personnel can be on location within 6 hours.

b) Spill Reporting

A spill/release will be reported to the COGCC if released meets the COGCC reporting requirements per the 900 series rules. A spill/release will be reported to the CDPHE if released meets the CDPHE reporting requirements.

These regulatory guidelines will be strictly followed by KMOG and any contractors operating under KMOG guidance during all activities at the Blue Chip 6-22HZ Pad at E1/2NW1/4 of Section 22 T5N R67W.

SECTION 7 – REPORTABLE QUANTITIES

a) Reportable Quantities

Mandated by Section 312 of the Emergency Planning and Community Right-To-Know Act (EPCRA) – also known as SARA Title III – the Tier II form captures information about the types, quantities, and locations of hazardous chemicals at a given facility. The form also lists contact information for the facility's designated emergency point-of-contact.

- Any facility that is required to maintain MSDSs (or SDSs) under the Occupational Safety and Health Administration (OSHA) 49 CFR 1910.1200 regulations for hazardous chemicals stored or used in the workplace.
- Facilities with chemicals in quantities that equal or exceed the lists of lists thresholds must report.
- Propane, benzene, propane, and methane are on the lists of lists and are known to be in crude oil. In addition, diesel is on the lists of lists and may be stored on oil and gas sites during construction and development.

b. Reportable Requirements

If your facility will meet the requirements under 40 CFR Part 370, you must submit your Tier II report to the State of Colorado every year before March 1st.

These regulatory requirements will be strictly followed by KMOG and any contractors operating under KMOG during all activities at the Blue Chip 6-22HZ Pad at E1/2NW1/4 of Section 22 T5N R67W.

SECTION 8 – EVACUATION INFORMATION

a. Evacuation Plan Procedures (public)

The procedure to be used in alerting the public in the event of than incident which could pose a threat to life or property will be arranged and coordinated with first responders and Weld County Emergency Management.

In the event of an actual emergency, the following steps will be immediately taken:

1. The KMOG representative will immediately notify first responders (911), to warn the public of a potential chemical exposure.
2. First responders may conduct door to door evacuation notices in addition to reverse 911 and utilizing the Integrated Public Alert and Warning System (IPAWS).
3. KMOG is responsible for employees and contract personnel will monitor essential and non-essential personnel traffic on or near the incident site.
4. General:
    a. The area included within the radius of exposure is the zone with the maximum potential hazard, per the Emergency Response Guide (ERG). When it is determined that conditions exist which create an additional area (beyond the initial zone of maximum potential hazard) vulnerable to possible hazard, public areas in the additional hazardous area will be evacuated.
    b. In the event of an incident, after the public areas have been evacuated and traffic stopped, it is expected that local civil authorities will have arrived and within a few hours will have assumed direction of and control of the public, including all public areas.
    c. KMOG will fully cooperate with these authorities and will exert every effort by careful advice to such authorities to prevent panic or rumors.

KMOG will dispatch appropriate personnel to the disaster site as soon as possible. The company's personnel will cooperate with and provide such information to civil authorities as they might require.

SECTION – 9 TRAINING AND EXERCISES

TRAINING: The National Incident Management System (NIMS) guides all levels of government, nongovernmental organizations, and the private sector to work together to prevent, protect against, mitigate, respond to and recover from incidents.

NIMS provides stakeholders across the whole community with the shared vocabulary, systems, and processes to successfully deliver the capabilities described in the National Preparedness System. NIMS defines operational systems that guide how personnel work together during incidents.

KMOG plays a vital role in the Incident Management System. KMOG has a significant impact on local, regional, and national economic recovery, and is part of the whole community and essential to the function of the Community Lifelines.

To maximize KMOG's impact and willingness to participate in incident operations, KMOG will coordinate and integrate

with first responders into a Unified Command (UC)—including planning, training, and preparedness exercises. This is done independently and within the emergency response community, such as CPRN. In addition, it is also recommended all KMOG employees who will respond to an incident within the incident command structure have training in ICS 100, ICS 200, and ICS 700 at a minimum, for company and agency emergency response interoperability to manage a response.

EXERCISES: Exercises are an important component to test an organization's response readiness, training and familiarity with various emergency response scenarios, participation, and engagement with local and or state agencies, and to develop lessons learned to improve emergency response capabilities. Per COGCC guidance number 16, a proposed schedule and type of exercises are provided below:

SECTION – 10 COORDINATION WITH FIRST RESPONDERS

a) KMOG will communicate site construction, drill spud, completion operations and Production Turn-In-Line dates to the Weld County Office of Emergency Management for coordination/communication with local first responders. These start dates will be provided a minimum of 7 business days prior to commencement or change in oil and gas development operations.

b) In the event of an emergency requiring First Responders, Unified Command will be established between the KMOG On-site Incident Command (OSIC) and First Responders present. Unified Command post will be established based on conditions present at time of incident.

c) KMOG EHS representative and first responders identified in this Emergency Action Plan (EAP) and Tactical Response Plan (TRP) have reviewed both documents and have discussed coordination efforts in the event of an emergency requiring first responder assistance.

d) **Industry Mutual-Aid:** Energy companies operating in Weld County are encouraged to be members of the Colorado Preparedness Response Network (CPRN), to support mutual-aid collaboration between industry and public emergency response organizations to achieve a coordinated and effective response to an all-hazards event. KMOG is a member of CPRN.

SECTION – 11 PLAN REVIEW AND UPDATE PROCEDURES

a) Multi-year plan review and update:
The KMOG Rockies Emergency Response Plan (ERP) is reviewed at a minimum over five years, but usually every year. Reviews include updating contacts, contractors, and procedures. **Post incident plan review and update:** Post incidents that required response personnel, an after-action review (AAR) is completed with all response participants. If during the AAR it is identified that changes or updates are needed to the ERP they are done so as a corrective action within the AAR.

KerrMcGee

BLUE CHIP 6-22HZ
SECTION 22, T5N, R67W
GREELEY, COLORADO

LOCATION ADDRESS:

GPS Coordinates

★ Pad Site:

Lat: 40.388364° Long: -104.880304°

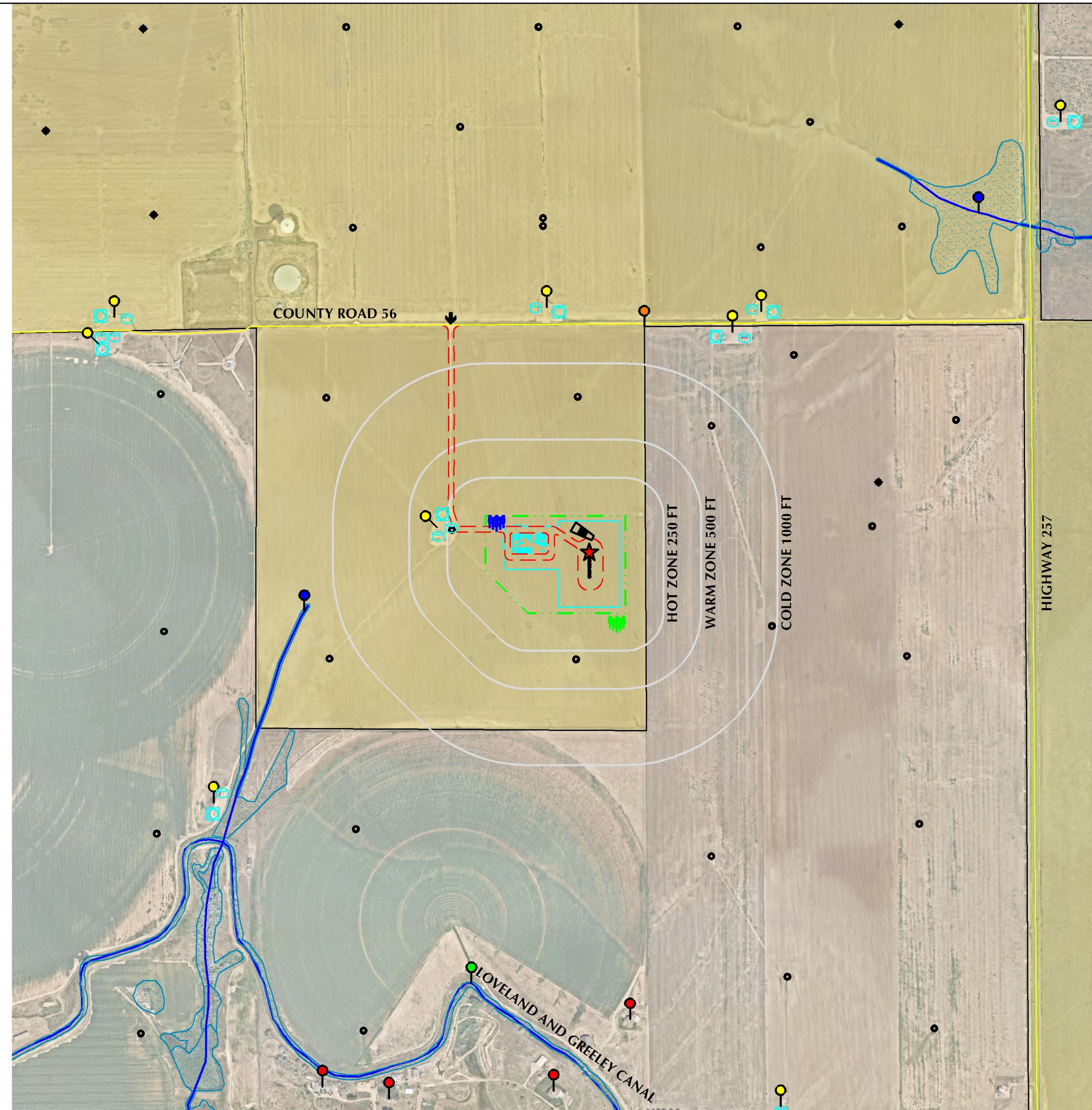
All Emergencies will be reported through 911

NOTIFICATIONS

1. Kerr McGee/Emergency Response Coordinator
   Integrated Operations Center (IOC): 970-515-1500
2. Weld County Public Safety Communications:
   911 and 970-350-9600 (Non-Emergency)
3. Fire Protection Districts:
   Greeley Fire Department:
   911 and 970-350-9504 (Non-Emergency)
4. Weld County OEM:
   970-350-9600

CRITICAL RECEPTORS

- RESIDENTIAL BUILDING UNIT
- PONDS/WATERWAYS/WETLANDS/DRAINAGES
- PRODUCTION FACILITIES
- LOVELAND AND GREELEY CANAL
- GREELEY CITY LIMITS



0 400' 800' 1" = 800'

Notes:

1. This Tactical Response Plan is a reference tool and is intended to provide guidance during an actual event or exercise. Placement of resources may need to be adjusted according to environmental variables. It is the responsibility of emergency response personnel to be trained in response and to be able to make adjustments to the plan as needed.
2. Hot, Warm, and Cold zones are measured from the Proposed Oil & Gas Location.

LEGEND

PROPOSED WELL	PRIMARY MUSTER POINT	COMBUSTOR LOCATION	GREELEY CITY LIMITS
ACTIVE WELL	SECONDARY MUSTER POINT	RIVER/DITCH	
PLUGGED & ABANDONED WELL	PRIMARY INGRESS/EGRESS	LAKE/POND/WATERBODY	
ERG ZONE (800 METERS)	SECONDARY INGRESS/EGRESS	NWI RIVERINE/POND/WETLAND	
PROPOSED OIL & GAS LOCATION	HOT, WARM & COLD BUFFER ZONES	RAILROAD	
WORKING PAD SURFACE	TANK BATTERY	RESIDENTIAL SUBDIVISION	
PROPOSED ACCESS ROAD	WINDSOCK	FIRE HYDRANT / WATER SOURCE	

609 CONSULTING, LLC

LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331

SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

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

DATE SURVEYED:	8/18/21
DATE:	11/4/21
DRAFTER:	GLK
REVISED:	8/4/22

DATA SOURCES:
-AERIAL IMAGERY COURTESY OF NEARMAP US., INC.

SHEET 1

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FIRE DEPARTMENT RESPONSE GUIDELINES

Command
FIRE DEPARTMENT RESPONSE GUIDELINES

COMMAND

- Establish initial command post near the oil & gas location entrance.
- Position should provide a clear view of the entire scene
- Advise responding units and resources to stage near the location entrance.
- Locate operator lease sign on location (located at the entrance /site access)
- If industry personnel are not on location, call the 24-Hour Emergency Contact number located on the sign.
- Establish unified command with operator on-site liaison
- Develop incident action plan with the operator to mitigate incident
- **Strategy - *Always defensive unless a life safety need is identified!***

INCIDENT STABILIZATION

- Implement Hazardous Materials response protocols
- All personnel operating in hazard zones should be in appropriate PPE, to include a personal mobile air monitoring device
- Establish Hot, Warm, Cold Zones, and ERG zones
- Exposure Concerns --- Equipment, nearby structures, neighborhoods, roadways, etc.
- Monitor weather conditions, especially wind direction
- Air monitoring for vulnerable areas and locations around the incident.
- Conduct evacuations of citizens, bystanders, and resources at risk.
- Identify and address any water supply and/or foam requirements necessary to mitigate the incident

SPECIAL CONSIDERATIONS

- If evacuations are needed, coordinate with Weld County OEM before ordering an evacuation to establish evacuation routes, shelters, shelter in-place and to utilize IPAWS (reverse 9-1-1).
- Request mutual aid apparatus and equipment asap to minimize operational delays
- Consider and address any potential impacts to critical receptors identified near the location.
- Consider requesting a HazMat Team if needed to assist with mitigation.
- Consider requiring a fire investigation for any fire and/or explosion.
- Keep the public and stakeholders informed of response activities.
- Notify FAA if air Traffic restrictions are needed (requested through OEM) ***(very large incident)***

INDUSTRY RESPONSE OBJECTIVES

Ensure safety of the public, first responders, employees, and contractors. Minimize impact to the environment and local community. The following response objectives checklist shall be followed:

SAFETY – PROTECT LIFE

- Evaluate and account for all personnel
- Isolate all potential ignition sources
- Establish site control (safe perimeter and evacuation routes)
- Contact emergency services as needed (911, Fire, LEPC)
- Identify hazard(s) of emitted material (obtain SDS)
- Implement air monitoring around impacted area
- Continually assess site hazards/risks

RESPONSE – INCIDENT STABILIZATION

- Notify internal personnel and agencies
- Assign on-site liaison to the incident commander
- Establish a unified command post and field communications
- Establish Hot, Warm, Cold Zones, and ERG zone
- Identify and establish staging areas to support response operations
- Activate emergency shutdown procedures (ESD)
- Activate response action contractors for equipment and manpower as needed (e.g, Well Control, spill/HazMat clean-up, etc.)

ENVIRONMENTAL – PROTECT THE ENVIRONMENT

- Identify, prioritize, and protect environmentally sensitive areas
- Verify if water has been impacted
- Implement waste handling, disposal and decontamination procedures as needed
- Contain and recover spilled materials
- Notify appropriate agencies

SPECIAL CONSIDERATIONS

- Keep the public and stakeholders informed of response activities.

Blue Chip - FACILITY INFORMATION

Production Facility Storage:

- **Oil (BBL) – 0 BBL (oil is piped off location)**
- **Condensate Tanks – 1 Tank, 285 BBL – (Available for oil storage during maintenance as needed)**
- **Produced Water (BBL) – 4 Tanks, (285 BBL each)**
- *1 Barrel (BBL) = 42 Gallons

Specific Facility Hazardous Conditions: (chemicals stored on site)

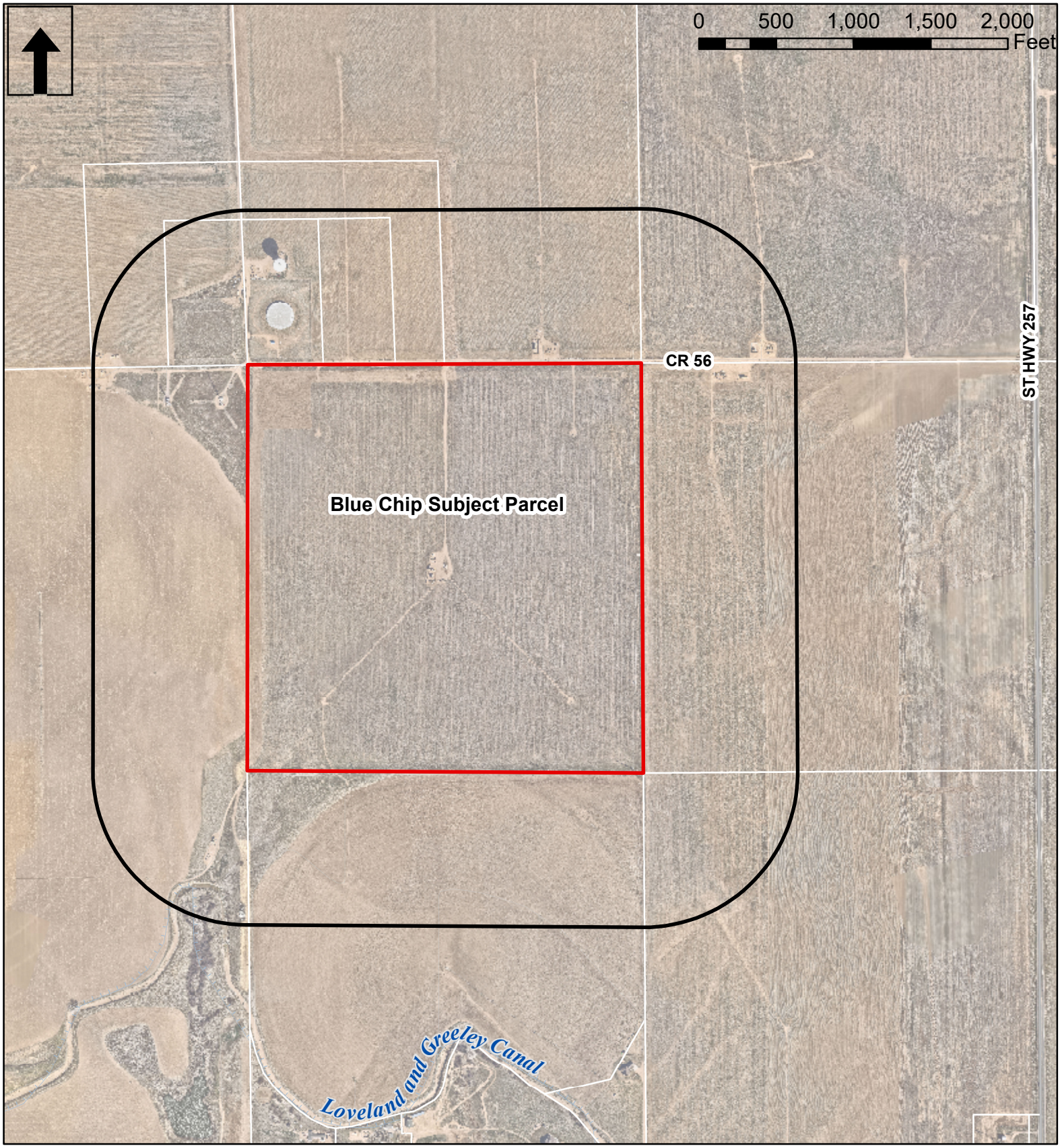
Drilling	Diesel	19,000 Gal (1 Tank)
	Oil Based Mud (OBM)	2,200 BBLs (11 Tanks)
	FORTI-MUL	20–55 Gal Drum
	ADAPTA L	128- 5 Gal cans
	BARAKLEAN	64- 5 Gal cans
Storage Location – on the well pad		
● Additional chemicals are stored on location for drilling, see Emergency Action Plan		
Completions	Calcium Chloride (Brine) (Winter Ops only)	500 BBLs
	Diesel Fuel (Fuel Trailer)	16,000 Gal (Capacity)
	HCR Synthetic Acid	4,000 Gal x 2 Transport
	Friction Reducer (FR)	4,500 Gal (Capacity ISO)
	Produced water	2,000 BBL
	Hydrochloric Acid	8,000 Gal x 1 Transport
	Sodium Chlorite	2,000 Gal (Capacity)
	DEF	2,200 Gal (Capacity)
Storage Location – on the well pad		
● Additional chemicals are stored on location for completions, see Emergency Action Plan		
Flowback	Liquid N2	120 BBL x 1 Transport
	Oil	20 BBLs
	Bio Water (60 BBLs for each well)	420 BBLs
	Diesel	500 Gal x 2 (Steel Tank)
	50/50 Methanol (Winter Ops Only)	500 Gal (Capacity)
	Biocide	350 Gal (Capacity)
	Oxygen Scavenger	350 Gal (Capacity)
	Friction Reducer	330 Gal (Capacity)
	Pipe on Pipe Lubricant	330 Gal (Capacity
	Foamer	330 Gal (Capacity)
	Defoamer	330 Gal (Capacity)
Storage Location – on the well pad		
● Additional chemicals are stored on location for flowback, see Emergency Action Plan		
Production	Crude Oil *	285 BBLs x 1 Tank
	Produced Water	285 BBLs x 4 Tank
	Corrosion Inhibitor chemical at wellhead	500 Gal x 1 tote
	Methanol & Corrosion/Bacteria at facility	350 Gal x 2 totes
Storage Location: on the production facility		
*Crude oil will be removed for the location by pipeline. During maintenance operations crude oil may be stored temporarily in the condensate tank.		

Is Water Supply Available on Location? No

Fire hydrants: None
Water Storage Tanks: None

H:

Blue Chip USR2022-0011 1,000' Noticing Boundary



Blue Chip Pad Parcel Location
Blue Chip 1,000' Buffer
Greeley Parcels

City of Greeley Colorado
COMMUNITY DEVELOPMENT

Planning Commission Agenda Summary

October 25th, 2022

Key Staff Contact: Michael Franke, Planner I, (970) 350-9782

Title:
Public Hearing to consider a Use By Special Review request to allow for up to 28 oil and gas wells to be constructed on one pad with associated production facility equipment, known as the Rainbow 24-9 HZ. The proposed subject site is located north of US Highway 34, approximately ½ mile west of State Highway 257, and east of County Road 17 in the Holding Agriculture zoning district. (Project: USR2022-0009).

Summary:
The City of Greeley is considering a request by the application, Tracy Colling, on behalf of Kerr-McGee Onshore LP (KMOG), for approval of a USR (Use by Special Review) to allow for a new oil and gas development containing up to 28 wells with associated production facility equipment on one pad in the H-A (Holding Agriculture) zoning district. The subject site is located north of US Highway 34, approximately ½ mile west of State Highway 257, and east of County Road 17. The subject site parcel is 237-acres in size with the proposed oil and gas development using 8.3-acres of the subject site for permanent production. The subject site is currently used for other oil and gas wells with production facilities and dry crop farmland. The operation plan for the proposed development consists of a construction & drilling phase, completion phase, production phase, and plugging and abandonment phase. The City of Greeley Development Code states oil and gas development is permitted within all zoning districts upon approval of the USR process due to the highly regulated nature for oil and gas production.

Recommended Action:
Approval:
Based on the application received and the preceding analysis, the Planning Commission finds that the proposed Use by Special Review for an oil and gas operation that consists of 28 oil and gas wellheads and associated production facility equipment on 8.83 acres (permanent) of the 237 acre site, in a H-A (Holding Agriculture) Zone District is consistent with the Development Code criteria of Section 24-206 (Items a through d) and the proposed oil and gas operations will meet the provisions contained in Section 24-1102, Oil and Gas; and therefore, approve the Use by Special Review.

Attachments:
Staff Report
Attachment A – Aerial & Vicinity Map
Attachment B – Existing Zoning Map
Attachment C – Narrative and Operations Plan
Attachment D – Overall Site Plan
Attachment E – Visual Mitigation Plan

Attachment F – Traffic Impact Study
Attachment G – Tactical Response Plan
Attachment H – Noticing Boundary Area

PLANNING COMMISSION SUMMARY

ITEM: Use by Special Review (USR) for Oil and Gas Production Facilities in the H-A (Holding-Agriculture) Zoning District

FILE NUMBER: USR2022-0009

PROJECT: Rainbow 24-9HZ Oil and Gas Use by Special Review

LOCATION: North of US Hwy 34, approximately ½ mile west of State Hwy 257, and east of CR 17

APPLICANT: Tracy Colling, on behalf of Kerr McGee Onshore LP (KMOG).

CASE PLANNER: Michael Franke, Planner I

PLANNING COMMISSION HEARING DATE: October 25th, 2022

PLANNING COMMISSION FUNCTION:
Review the proposal for compliance with Section 24-1102, Oil and Gas Operations, and Section 24-206, Review Criteria/Uses by Special Review, of the City of Greeley Development Code and either approve, approve with conditions, or deny the request.

EXECUTIVE SUMMARY

The City of Greeley is considering a request by Tracy Colling on Behalf of Kerr-McGee Oil and Gas Onshore LP. (KMOG), for approval of a Use by Special Review (USR) to allow up to 28 horizontal oil and gas wellheads and production facility (see production facility equipment below). The proposed project will be on a property located north of US Hwy 34, west of CR 19 (131st Avenue), and east of CR 17 (*Attachment A – Aerial & Vicinity Map and Attachment D – Overall Site Plan*). The subject site is approximately 237 acres in size and is zoned H-A (Holding Agriculture).

A. REQUEST

The applicant is requesting approval of a USR to allow for an oil and gas operation for up to 28 oil and gas wellheads and production facility (see production equipment below) on approximately 8.3 acres (permanent) of the 237-acre site (*Attachment D – Overall Site Plan and Attachment C – Narrative*).

B. STAFF RECOMMENDATION

Approval.

C. LOCATION

Current Zoning:

H-A (Holding Agriculture) (*see Attachment B – Existing Zoning Map*)

Abutting Zoning:

North: R-E (Residential Estate)
South: H-A (Holding Agriculture)
East: H-A (Holding Agriculture) and I-M (Industrial Medium)
West: H-A (Holding Agriculture)

Surrounding Land Uses:

North: Utilities - Solar Field
South: US Highway 34 (CDOT) and Farmland
East: Drop Crop Farmland and Oil and Gas Operation
West: Vacant Land including abandoned Oil and Gas wells

Site Characteristics:

The site is primarily utilized for dry crop farming and oil and gas production. There are two existing oil and gas well on the site. with the status of Shut-in (Wattenberg - #305224 and Edwards - #331536). There are four additional oil and gas wells on the site with the status of Abandoned – PA (Plugged and Abandoned) (Edwards - #331067, Edwards - #331535, Edwards - #331534, and Warner USX N - #306601).

D. BACKGROUND

The subject site was annexed into the City of Greeley and zoned H-A, in 2000, as part of the Gold Hill Annexation #4 (Reception No. 2813623) (File No. A 18:00 and Z 34:00). The subject site has remained undeveloped, other than oil and gas operations, since its annexation. In 2015, the subject site became part of the R&R Warner Subdivision Plat (Reception No. 4144046) (File No. S 16-15). This subdivision created the subject tract for the proposed oil and gas development. CDOT owns the entirety of the right-of-way of US Highway 34 along the south side of the property.

Colorado Oil and Gas Conservation Commission (COGCC) site location permits have been applied for by KMOG.

E. OPERATION PLAN

The operation plan for the proposed development consists of a construction & drilling phase, completion phase, production phase, and a plugging and abandonment phase.

KMOG intends to horizontally drill 28 proposed wells using facilities, equipment, and one wellhead pad on approximately 237 acres of land, with a final permanent footprint of approximately 8.83 acres (*Attachment C – Narrative and Operations Plan*).

Construction and Drilling Phase:

During the drilling phase, the well pads, access roads, and sounds walls are first constructed. This entails striping the vegetation and topsoil and earthwork operations to grade the pad for drilling operations. The drilling pad is designed to prevent run off so that any spills will be contained onsite. The pad is lined with a layer of compacted clay materials to help prevent fluids from migrating vertically to the subgrade. After the location has been prepared, a drilling rig will move onto location to drill the surface intervals of all 28 wells on the pad site and cement the surface pipe to protect ground water. Drilling operations will run 24 hours/day until completed, approximately 28 days. Depending on the size/type of rig utilized to drill the surface interval, production drilling operations could either begin immediately with the same rig or a different rig will be moved onto location to drill the production interval. Production drilling operations could take four to five days per well, under normal circumstances. The actual drilling proceeds at a constant rate unless subsurface 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 then allowed to cure and subsequently the rig is moved off location. At this point the drilling phase is complete. The construction of the production facility may occur concurrent with the drilling and/or completion operations. (*Attachment C – Narrative and Operations Plan*).

Completion Phase:

Completion operations include all operations performed after drilling operations and prior to first production. These completion operations consist of well preparation, fracture stimulation, and preparing the well for production to sales.

The well preparation phase of completion operations is performed to prepare for the fracture stimulation operation. Initially, the necessary wellhead equipment is installed to conduct well preparation operations. Logging is performed to confirm the cement quality behind the well casing meets KMOG and regulatory standards. The wellbore is pressure-tested to confirm the casing can withstand the high pressures associated with a fracture stimulation. Lastly, the remaining necessary wellhead equipment is installed to prepare the well for fracture stimulation. A crew of one to six people are required to perform the above operations. The cumulative duration of the well preparation operations is three to four 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. During stimulation, a crew of 35 to 45 people are required. The cumulative duration of the fracture stimulation operation is three to seven days per well.

Water for use in completion operations will be secured by KMOG through its own "Water on Demand" (WOD) 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 KMOG and the water supplier. KMOG uses non-potable river quality water for completion and does not use any "fresh" municipal treated water for completion operations. The WOD system is a network of over 180 miles of underground pipeline that stretches the length of the 20-mile by 30-mile field to source and transport water to completions crews. This system eliminates more than 2,000 truck trips per day field wide, also reducing associated concerns of traffic, noise, emission, and dust. Detailed daily accounting is maintained for all WOD water supplies and provided to the Colorado Division of Water Resources annually.

At the end 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 two to five weeks with a crew of three to ten people. Once fracture stimulation operations begin there will be varying activity on location until the well is turned over to permanent production operations. (*Attachment C – Narrative and Operations Plan*).

<u>Production Phase:</u>
After the completion fleet has cleared the 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 facility, may consist of maintenance/oil tank(s), water tank(s), separator(s), Lease Automatic Custody Transfer (LACT) units, vapor recovery unit(s) (VRU), emission control device(s) (ECDs), meter(s) house, E-house, chemical tote(s), purge flare(s), communications tower, temporary produced water tanks, temporary ECDs and temporary generator. The temporary equipment could be on site for six to 12 months and then could be removed. The production facility would then be connected to the wells by

pressure tested flowline buried approximately four feet deep. At this point, the gas and oil purchasers are preparing to connect the gas and oil sales meter loop.

The production facility installation is completed by constructing an earthen or metal berm around the production tank(s) and separator. The enclosed area must have sufficient volume to contain the entire contents of the largest tank plus adequate freeboard to contain a 24-hour 25-year precipitation event. The berms would 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 monitoring the wells. 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 must be restored and revegetated 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 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, pumping unit or gas lift may be used. This will extend the well's producing life and maximize reserves. (*Attachment C – Narrative and Operations Plan*).

Plugging / Abandonment Phase:
Plugging and abandonment is the cementing of a well and removal of its associated production facility. This also includes the removal of flowlines after all the wells on the pad are plugged and the remediation and reclamation of the well site.

When this occurs, KMOG, who is the operator, or its successors would have to engage a plugging rig to remove production equipment from the wellbores and plug the productive zones with a combination of bridge and cement plugs in accordance with COGCC statutes.

All debris abandoned gathering line risers, and flowline risers, and surface equipment must be removed, and the location will be graded and re-contoured. Within 90 days after a well is plugged and abandoned, the well site must 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. 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 months on crop land, and six months on non-crop land, or with landowner consent reclamation will occur during optimal revegetation times of the year.

KMOG estimates that we will plug and abandon (P&A) 14 wells and remove 6 facilities, reclaiming approximately 0.75 to 1.5 acres per well. This is contingent upon the approval of permits by the City of Greeley and the COGCC, successful drilling and completion of the proposed wells and bringing them onto production.

APPROVAL CRITERIA

Uses by Special Review: Uses by Special Review possess characteristics which require a public hearing to determine if a proposed use has the potential to adversely affect other land uses, transportation systems, public facilities, or the like in the surrounding neighborhood. The Planning Commission may require conditions of approval necessary to eliminate or mitigate, to an acceptable level, any potentially adverse effects of the proposed use.

Section 24-206.b of the Development Code contains eight criteria that are used to evaluate Uses by Special Review:

1. **All criteria for site plan review in Section 24-207**

Staff Comment: The proposed project satisfies the requirements of Section 24-207 of the Development Code. The applicant has addressed all staff comments and included all required materials for the Use by Special Review criteria. Staff is satisfied with the Use by Special Review submitted for the proposed project. (*Attachment D – Overall Site Plan*).

The proposal complies with this criterion

2. **The application furthers the intent of the proposed zoning district, does not conflict with the intent of any abutting districts, and is otherwise determined to be consistent with the Comprehensive Plan.**

The following Imagine Greeley Comprehensive Plan policies apply to this request:

- **NR-3.6 Resource Extraction**
  To the extent possible, minimize negative impacts from the extraction of sand, gravel, oil and gas, and other natural resources on the environment and surrounding land uses. Encourage the thoughtful reclamation of land that has been mined.

- **NR-3.11 Oil and Gas Operations**
  Encourage the co-location of oil and gas facilities, where possible, to minimize the overall footprint of affected areas and impacts on adjacent land uses and the environment.

- **TM-4.1 Truck Impacts**
  Establish and enforce appropriate truck routes to and through the city, including for hazardous materials. Encourage the co-location of oil and gas facilities in order to minimize impacts of transporting these resources on the community.

  Staff Comment: The Comprehensive Plan encourages the colocation of oil and gas well facilities. KMOG proposes to cluster 28 wells onto one pad site. Both the cluster concept and the horizontal drilling, allow the operator to reach resources desired, while reducing the oil and gas footprint on the surface. The drilling operations would allow the owner or lessee of the mineral estate to recover hydrocarbons prior to surface development. This site, because of horizontal drilling, has the potential to reduce the cumulative number of smaller independent sites and plug and abandon sites throughout the area. The proposal allows for access to below-grade mineral rights in a larger geographic area where surface development has already been completed. Surface development at the subject site has not been proposed at this time.

  This request complies with these Comprehensive Plan Policies. (*Attachment D – Overall Site Plan*).

  The proposal complies with this criterion.

3. Any associated site development or construction complies with requirements of this code, including any conditions or additional requirements identified for the particular use.

Staff Comment: The proposed project complies with all development code requirements for site development and construction standards. Additional requirements, such as visual, noise, air quality,

environmental, etc. mitigation have been provided within the narrative, operation plans, and submitted studies. Various city departments, external agencies, and abutting municipalities have reviewed the project proposal and are satisfied with the proposal as it meets all requirements for site design, site construction, and production of oil and gas goods.

The proposal complies with this criterion.

4. **Compatibility with the area in terms of operating characteristics such as hours of operation, visible and audible impacts, traffic patterns, intensity of use, and other potential impacts on adjacent property. The cumulative impact of a concentration of similar existing uses may be considered as part of the impact of a particular use.**

Staff Comment: The operating characteristics of the proposed project are within normal standards for the site location and abutting properties. The site location is experienced with other oil and gas operations to the same standards as the proposed project (wellheads and production facility on one pad). The surrounding uses of dry crop farmland, oil and gas production, and solar production create similar impacts to the proposed project and are not unusual for this area of the city.

KMOG has conducted several studies and submitted each to the city for review, such as an Emergency Action Plan (EAP and Tactical Response Plan (TRP), Traffic Study, Final Drainage and Erosion Control Reports and Plans, Light Mitigation Plan, Noise Mitigation Plan, and Topsoil Protection Plan. KMOG must continuously monitor conditions of the site to comply with various mitigation standards. Upon review, staff found all submitted mitigation and response plans to be in compliance with City, County, State, and COGCC requirements.

Traffic impacts would be the greatest during the first six to twelve months of the project during the construction and drilling phases. KMOG will utilize the lease access road, 131st Avenue and US Highway 34 for all traffic associated with construction and production of the wells proposed for the Rainbow Pad. 131st Avenue is custom to oil and gas production traffic as well as farming equipment traffic. KMOG has obtained an Access

Permit application from the Colorado Department of Transportation (CDOT). Additionally, KMOG is proposing to construct acceleration and deceleration lanes at US Highway 34 to assist traffic safety. KMOG will continue to work with CDOT on the construction design and permit requirements for the acceleration and deceleration lanes. Large transport vehicles accessing this location will have a limited turning movement to right-in and right-out at State Highway 34. The project does not propose any traffic impacts unusual to the site and abutting properties. (*Attachment F - Traffic Impact Study, and Attachment C – Narrative and Operation Plan*).

The proposal complies with this criterion.

5. **The site is physically suitable for the proposed use, and whether any additional site specific conditions are necessary for the use to be appropriate and meet these criteria.**

Staff Comment: The 237-acre site is currently dry crop farmland with oil and gas wells and production facilities. The site is adjacent to unoccupied parcels to the east, west, and south. The nearest structure to the facility is a utility and equipment shed owned by the City of Greeley and is unoccupied. The shed building is over 2,000 ft away from the proposed project.

All wellheads and on-site production equipment are required to be at least 150 feet from any other wells or associated production equipment. The proposed wells are located at least, if not more than, 150 feet from any occupied building. The COGCC requires setbacks of at least 500 feet from any occupied building and at least 2,000 feet from any school facility or child care center. The proposed project complies with the COGCC regulations. The site is physically suitable for oil and gas operation and the proposed development meets or exceeds the setback requirements required by the city and the COGCC. *(Attachment D – Overall Site Plan)*

The proposal complies with this criterion

6. **Whether a limited time period for the permit is reasonably necessary to either limit the duration of the use, assess the use against changing conditions in the area, or ensure periodic reporting and ongoing enforcement of the permit.**

Staff Comment: It is not necessary to limit the duration of the use. A Limited time period for the permit operation is not proposed, other than the natural timeline proposed for the project. The proposed use may continue if conditions in the area were to change. The estimated schedule for operational phases of the project begins with pad construction in November of 2022, wrapping up with interim, reclamation in December of 2024. After the interim reclamation period, wells and production equipment will continue to operate until deemed economically unviable. At such time, the wells will be plugged and abandoned as appropriate. Once all wells are plugged and abandoned, including flowline abandonment, permanent and final reclamation of the land shall take place. Currently, there are no development plans in this area that would propose changing conditions in the area.

Periodic reporting and ongoing enforcement will be provided by KMOG to agencies such as the COGCC for compliance with mitigation regulations. If necessary, City of Greeley Fire Department shall work with the applicant to address any issues violating municipal requirements for oil and gas operations. KMOG will continuously monitor the project site throughout all stages of the project's lifespan via in-person, on-site, inspection, as well as remote monitoring from their Integrated Operations Center (IOC) located in Platteville. From the IOC, KMOG personnel can turn wells and equipment on and off, look at tank levels, verify pressures and temperatures. KMOG staff shall address any aspects of the project that may fall out of compliance to meet regulatory requirements at the local, state, and federal levels.

The proposal complies with this criterion.

7. **The long-range plans for the surrounding area are not negatively impacted considering the permanence of the proposed use, the permanence of existing uses in the area, and any changes in character occurring in the area.**

Staff Comment: The subject area is proposed as rural, bluff, community separator land according to Greeley's Land Use Guidance Map within the Imagine Greeley Comprehensive Plan. Due to the land designation appointed by the Land Use Guidance Map, there are not any anticipated development plans that would occur in this area to cause changing conditions from current. Projected long range uses of this site area do not include development plans for residential, commercial, or industrial development with densities to negatively impact uses of the area, both current and future. Existing uses in the area are similar and suitable for oil and gas development, including dry crop farmland, vacant land, solar power production, and other existing oil and gas operations. Mitigation measures are proposed to reduce impacts or the cumulative effects associated with continuous oil and gas development within the area.

In general, staff has seen an increase in oil and gas activity on the western and northern sides of town as operators look to identify locations that support multiple wells, meet COGCC setback and spacing requirements, and provide accessibility to resources located underdeveloped portions of town. As these sites would operate for several years, staff has encouraged operators to locate away from tracts with potential for residential development and provide some improvements based on the nexus of rough proportionality for each site.

The proposal complies with this criterion.

8. The recommendations of professional staff or other technical reviews associated with the application.

Staff Comment: The following departments, agencies, and municipalities have reviewed the proposed project submittal:

- City of Greeley: Planning, Engineering Development Review, Stormwater, MS4, Fire, Water & Sewer, and Traffic.
- Agencies: Colorado Department of Transportation (CDOT) and Colorado Department of Parks and Wildlife (CPW).
- Municipalities: Weld County Planning and Zoning and Town of Windsor.

No formal comment letters were received by CDOT, Weld County, or the Town of Windsor regarding the project. The review bodies listed above have all accepted

and approved the proposed project as planned due to compliance with required standards of local, state, and federal policies for oil and gas development and production. KMOG has submitted the proposed project to the COGCC for review and hearing approval.

The proposal complies with this criterion

Oil and Gas Operations

Applications for Uses by Special Review for oil and gas operations are subject to the provisions of Section 24-1102, Oil and Gas. Sections 24-1102.c through Section 24-1102.h address well and production facility setbacks, disposal of production waste, seismic operations, signage, access roads, environmental requirements, recordation of flow lines, reclamation of the site, abandonment and plugging of wells, well operations in high density areas, compliance with COGCC, review criteria, and inspection requirements.

Staff Comment: A review of information submitted by the applicant indicates compliance with Sections 24-1102.c through 24-1102.h. These design and operational requirements are reflected in the site plan, landscape plan and standards attached for potential approval (*Attachment D – Overall Site Plan, Attachment E – Visual Mitigation Plan, and Attachment C – Narrative and Operations Plan*).

This proposal complies with this criterion.

F. PHYSICAL SITE CHARACTERISTICS

1. HAZARDS

There are six existing oil and gas wells on the subject parcel (Warner 42-09D, Edwards 33-9, Edwards 34-9, Edwards 43-9, Edwards 44-9, and Warner USX N 09-23). Four of the six wells are currently plugged and abandoned. The other two remaining wells are shut in. Staff is unaware of any additional hazardous conditions or events that have occurred on the site to date.

2. WILDLIFE

The subject site is not within the City's Ecological Significance Areas. For this reason, the applicant was not required to submit an Environmental Report of the site. Nonetheless, the Colorado Department of Parks and Wildlife (CPW) was assigned a review for the project. CPW provided comments to the City. CPW noted the proposed project is adjacent to an Arroyo habitat zone. Within a typical Arroyo zone, it is not uncommon to find habitat for nesting habitat for raptors and other native birds in the spring and early summer, as well as forage and cover for native mammals, food and shade for reptiles and amphibians. CPW determined there are no historic nests mapped within the proposed pipeline, not every nest has been mapped within the state, and there may be unaccounted nests that have gone

unnoticed or undocumented over time. Therefore, since the proposed project site is not within an Arroyo habitat zone, but adjacent, CPW recommends that if initial site disturbance is slated to occur between February 1 and July 15, that the operator perform raptor surveys. If active raptor nests are observed, then CPW recommends following the appropriate buffers and timing stipulations found in this CPW's recommended Buffer Zones and Seasonal Restrictions. If development takes place within CPW's recommended Buffer Zones and/or during seasonal restrictions, the developer may need to reach out to the U.S. Fish and Wildlife service to request information on Incidental Take Permits of eggs, juveniles, and/or adult raptors/sensitive species.

The Development Code indicates that if there are black-tailed prairie dogs inhabiting portions of the site, they must be properly removed as indicated in Section 24-1102 (e) (2) and destruction of prairie dog towns may do not occur during the nesting season (May 15 – September 15) due to the potential presence of the burrowing owl. If burrowing owls are actively nesting on the site or brood-rearing is present, a plan shall be developed by the applicant and approved by the City and/or the Colorado Division of Wildlife. It must be implemented before development occurs.

3. FLOODPLAIN

The subject site is not located in the floodplain or floodway according to Federal Emergency Management Administration (FEMA) flood data.

4. DRAINAGE AND EROSION

A drainage report was submitted by the applicant and reviewed by the Engineering Development Review Division, which changes in natural drainage patterns are not anticipated. The well site will be monitored during the drilling and completion phases for any stormwater erosion or sedimentation concerns. Necessary measures will be taken to correct any problems, immediately in most cases. 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, if applicable. KMOG will continue to monitor the site until all applicable regulatory requirements for revegetation have been met. KMOG 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 drained 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.

5. TRANSPORTATION

KMOG will utilize the lease access road, 131st Avenue and US Highway 34 for all traffic associated with construction and production of the wells proposed for the Rainbow Pad.

The access road will be constructed at a minimum of 24 to 30 foot wide (based on location on the site, see Site Plans for details), with a minimum 13.5 feet of overhead clearance. All access roads will be constructed of Class 5 road base over 6 inches of 95% compacted subgrade and aggregate base course. The access roads will be properly graded for adequate drainage and maintained to prevent dust and mud; culverts shall be utilized where necessary. KMOG will control mud tracking on to US Highway 34 by installing tracking control devises including a cattle guard, and 100 feet of crushed gravel both are proven to minimize tracking on to the highway. KMOG has submitted an Access Permit application to Colorado Department of Transportation (CDOT). Additionally, KMOG is proposing to construct acceleration and deceleration lanes at US Highway 34 to assist traffic safety. KMOG will continue to work with CDOT on the construction design and permit requirements for the acceleration and deceleration lanes. Large transport vehicles accessing this location will have a limited turning movement to right-in and right-out at State Highway 34. A transportation study/memo has been prepared by a traffic consultant and is included with this USR submittal as a separate exhibit.

G. SERVICES

1. WATER

The City of Greeley would not supply water to this area. Water for use in completion operations will be secured by KMOG through its own "Water on Demand" (WOD) system, or from a water supplier in the immediate area of the drill site. KMOG uses non-potable river quality water for completion and does not use any "fresh" municipal treated water for completion operations. The Water on Demand (WOD) system has been designed functionally to allow for delivery of water from multiple sources. KMOG will choose the best source combination for the job based on the water contract terms, the WOD water system capacity, and the forecasted geographic area of water demand (hydraulic fracturing activity). KMOG maintains contractual agreements with multiple companies that have different water sources. Detailed daily accounting is maintained for all WOD water supplies and provided to the Colorado Division of Water Resources annually.

2. SANITATION

The City of Greeley does not provide sewer service to the area. However, as an unmanned facility, sewer service should not be needed. KMOG proposes to provide and maintain portable sanitary facilities that comply with COGCC standards on location during the drilling and completion phases of the operation. A KMOG employee or contractor would visit the site daily to ensure responsible sanitation and disposal of any debris.

3. EMERGENCY SERVICES

The property would be served by the City of Greeley's Police and Fire Departments as it serves the residences along US Highway 34 corridor, west of State Highway 257. The nearest fire station to the site is Greeley Fire Department Station No. 6, approximately 2.5

miles. Additionally, an Emergency Response and Fire Protection Plan (ERFPP), also called Tactical Response Plan, was reviewed by the Greeley Fire Department and complies with City standards (*see Attachment G – Tactical Response Plan*).

As the emergency response agency, that would be called to mitigate an incident, the Greeley Fire Department has implemented strategies to mitigate the risks associated with potential incidents related to oil and gas facilities, just as they do with the vast array of other risks in the community. These strategies consists of identifying the hazards associated with oil and gas drilling/operations, developing a mitigation strategy, updating the strategy as the risks change, implementing the plan when necessary (response), and then reviewing and making corrections as necessary after an incident.

Some highlights of this strategy include the Greeley Fire Department being actively involved in the review and permitting of oil and gas operations; training and equipping members of their department to be prepared to fight flammable liquids fires; command staff attending courses on handling oil and gas well emergencies; incorporating oil and gas well response into the required training program for all firefighters; reviewing local incidents outside the Departments response area and sharing critique information with all personnel. The Fire Department uses a fire suppression foam trailer to improve flammable liquid fire mitigation response time.

4. PARKS/OPEN SPACES

The City of Greeley's *Parks, Trails, and Open Lands Master Plan* (PTOL) does not identify the area having any future parks or trails along US Highway 34, CR 17 (131st Avenue), or within the property. No open space or parks is required with this development, however, sufficient open space (not usable) would be present during the production phase.

5. SCHOOLS

This project would have no impact on area schools. No schools are proposed or located within the site.

H. NEIGHBORHOOD IMPACTS

1. VISUAL

KMOG is required to meet all applicable visual impact requirements set forth by COGCC regulations during operations. The pad has been strategically located as far north on the parcel as possible to minimize visibility from adjacent public road, US Highway 34.

The permanent facilities would be required to be painted in uniform, noncontrasting, nonreflective color tones in accordance Greeley Development Code, Sec. 24-1102 Oil and Gas and the COGCC regulations and in a manner to harmoniously blend with the surrounding environment.

KMOG has carefully positioned and graded the oil and gas pad to sit at approximately five feet of cut on the south side of the pad (toward US Highway 34) and placed the required topsoil stockpile on the south and east sides, averaging eight feet tall, to provided additional screening to the south and east. Additional screening would be provided with a solid fence, as detailed in the USR exhibit. This fence is strategically positioned around the pad between the berms to provide additional visual mitigation. No landscaping is proposed due to the remoteness of the site location and visual mitigation efforts stated above. (*Attachment E – Visual Mitigation Plan*).

2. NOISE

KMOG is required to meet all applicable noise requirements set forth by the City of Greeley and the COGCC Rules. Exhaust from all engines, motors and related equipment, shall be vented in a direction away from occupied buildings where practical. Due to the remote location of this proposed pad and lack of nearby residence or businesses, KMOG does not plan to incorporate sound walls for noise mitigation. KMOG utilizes many other noise mitigation techniques as standard practice including a modified drilling rig with noise reduction features and a quiet completions fleet engineered with pump enclosers to reduce noise. In addition, KMOG is submitting as a separate Noise Mitigation Plan that details compliance with regulatory requirements. Noise levels and mitigation measures are primarily regulated by the Colorado Oil and Gas Conservation Commission (COGCC).

Mitigation of potential impacts, such as noise, would be handled in accordance with COGCC regulations, along with applicable Municipal Code standards. Staff finds the project plans as proposed provide adequate noise mitigation in relation to the surrounding land uses and oil and gas development.

I. PUBLIC NOTICE AND COMMENT

A neighborhood meeting took place on September 15th, 2022 at 5:00 PM. The meeting was held virtually due to the remoteness of the proposed project site, existing land uses, and minimal impacts to the surrounding area. The virtual platform provides greater accessibility for public participation through flexibility of participation. No members of the community attended the meeting. No phone calls, emails, or letters were received by the City of Greeley or KMOG expressing concerns regarding the project.

Letters, per Development Code requirements, regarding the public hearing for the proposed Use by Special Review were mailed on September 28th, 2022 to property owners within 1,000 feet of the site. A sign was posted on the site on October 5th, 2022. To date, October 18th, 2022, no comments have been received (*see Attachment K – Noticing Boundary Area*).

J. MINERIAL ESTATE OWNER NOTIFICATION

Mineral notice is required for a public hearing. The applicant is the sole owner of the minerals for the subject site; therefore, a thirty (30) days' notice was not required.

K. PLANNING COMMISSION RECOMMENDED MOTION

Approval:

Based on the application received and the preceding analysis, the Planning Commission finds that the proposed Use by Special Review for an oil and gas operation that consists of 28 oil and gas wellheads and associated production facility equipment on 8.83 acres (permanent) of the 237 acre site, in a H-A (Holding Agriculture) Zone District is consistent with the Development Code criteria of Section 24-206 (Items 1 through 8) and the proposed oil and gas operations will meet the provisions contained in Sect1on 24-1102, Oil and Gas; and therefore, approve the Use by Special Review.

Denial:

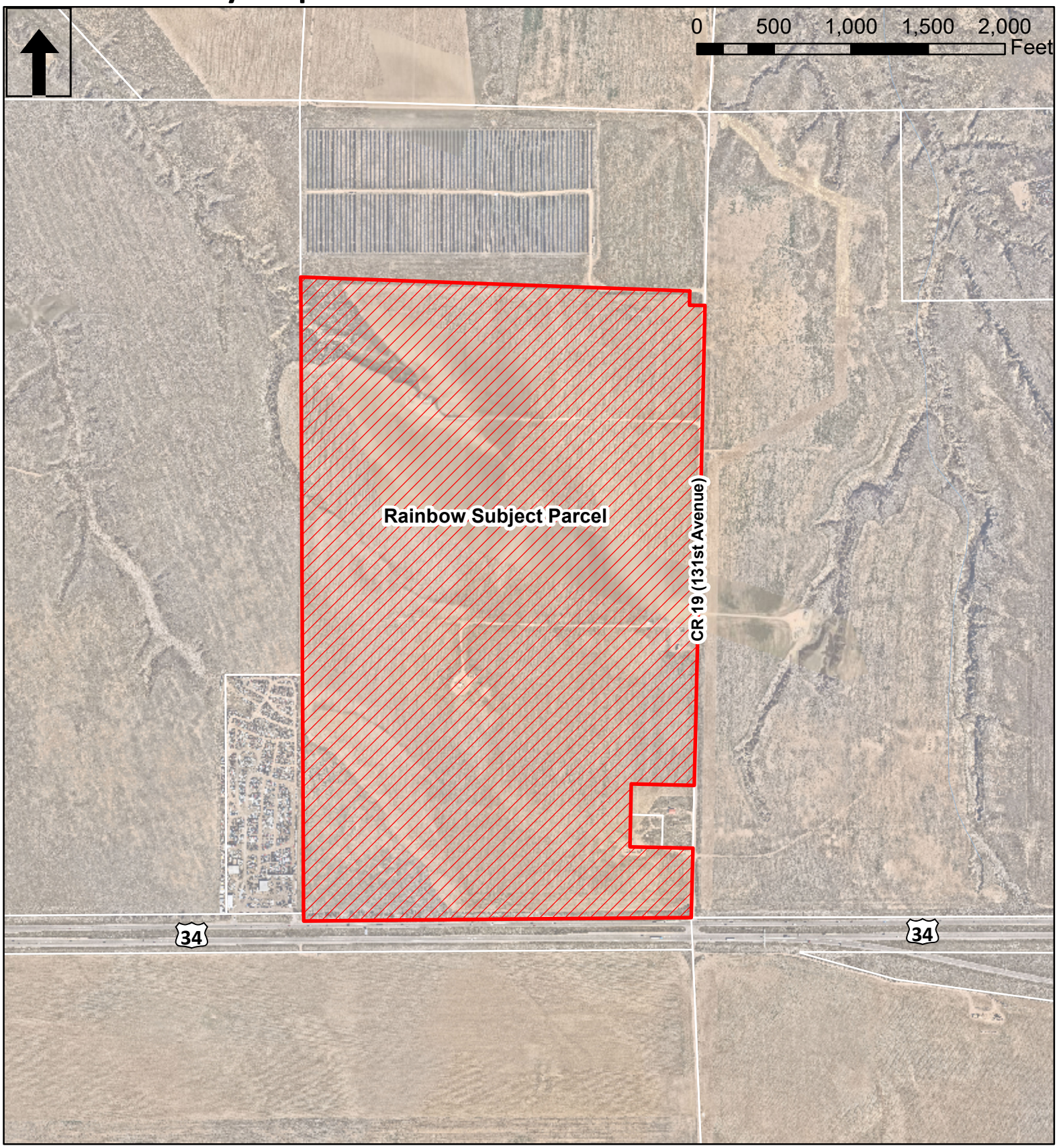
Based on the application received and the preceding analysis, the Planning Commission finds that the proposed Use by Special Review for an oil and gas operation that consists of 28 oil and gas wellheads and associated production facility equipment on 8.83 acres (permanent) of the 237 acre site, in a H-A (Holding Agriculture) Zone District is not consistent with the Development Code criteria of Section 24-206 (Items 1 through 8) and the proposed oil and gas operations will not meet the provisions contained in Section 24-1102, Oil and Gas; and therefore, deny the Use by Special Review.

ATTACHMENTS

Attachment A – Aerial & Vicinity Map
Attachment B – Existing Zoning Map
Attachment C – Narrative and Operations Plan
Attachment D – Overall Site Plan
Attachment E – Visual Mitigation Plan
Attachment F – Traffic Impact Study
Attachment G – Tactical Response Plan
Attachment H – Noticing Boundary Area

A:
Aerial & Vicinity Map

Kerr-McGee Onshore LP (KMOG) Oil & Gas Proposal
Located north of US HWY 34, east of CR 17, and 1/2 mile west of ST HWY 257

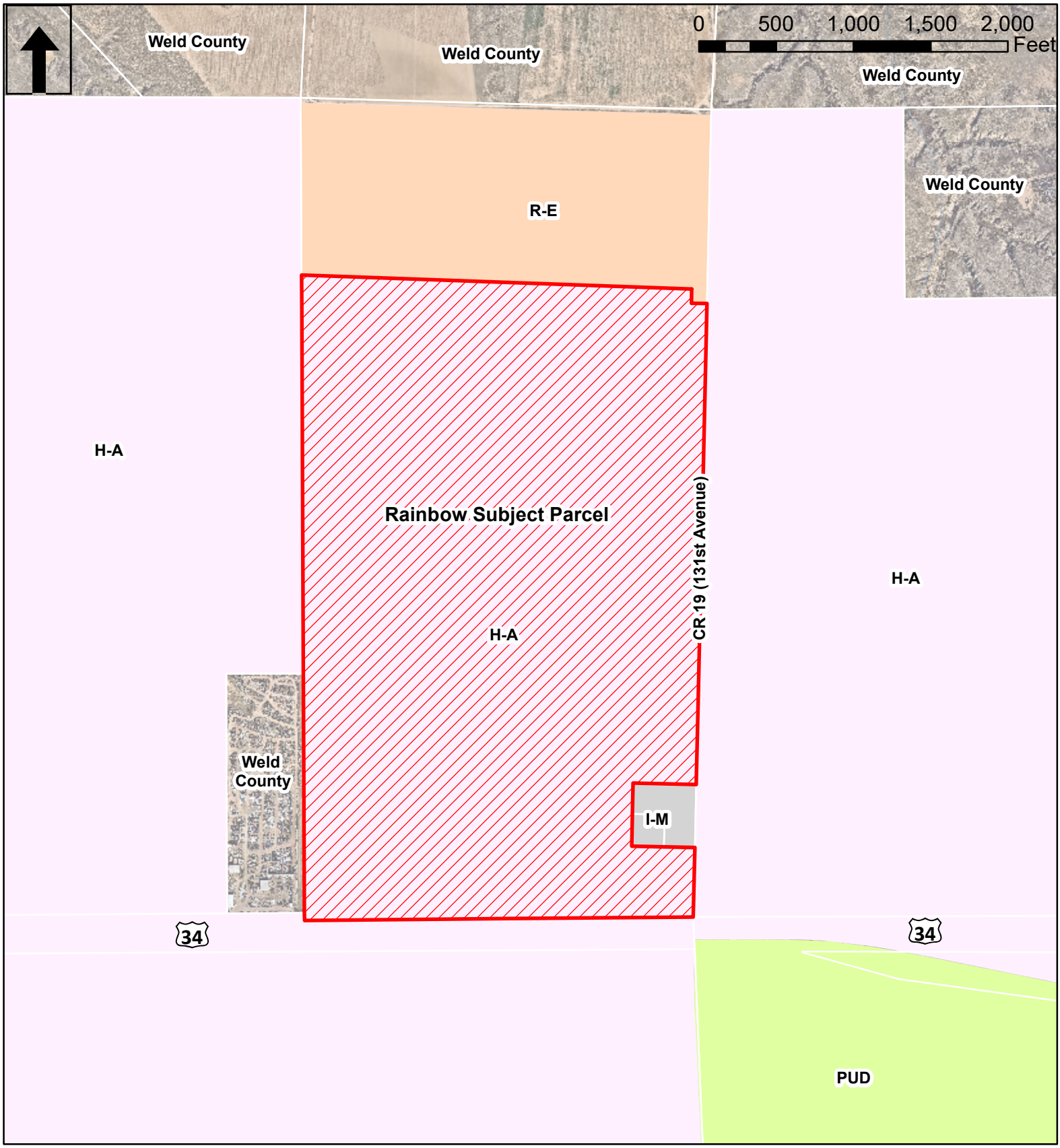


Rainbow Pad Parcel Location
Greeley Parcels

City of Greeley Colorado
COMMUNITY DEVELOPMENT

B:
Existing Zoning Map

Kerr-McGee Onshore LP (KMOG) Oil & Gas Proposal
Located north of US HWY 34, east of CR 17, and 1/2 mile west of ST HWY 257



- Rainbow Pad Parcel Location
- Conservation District**
- Commercial Low Intensity
- Commercial High Intensity
- Holding Agriculture
- Industrial Low Intensity
- Industrial Medium Intensity
- Industrial High Intensity
- Planned Unit Development
- Residential Estate
- Residential Low Density
- Residential Medium Densit
- Residential High Density
- Residential Mobile Home
- Greeley Parcels

City of Greeley Colorado
COMMUNITY DEVELOPMENT

C

Use by Special Review Application
City of Greeley

Proposed Oil & Gas Wells

Rainbow 24-9HZ
Well Pad and Production Facility
(28 Wells on 1 Pad)

Township 5 North, Range 67 West, 6th P.M.
E/2 Section 9
Greeley, Colorado

APPLICANT:

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

Submitted: May 25, 2022
Revised: July 8, 2022
Revised: August 12, 2022
Revised: Sept 20,2022

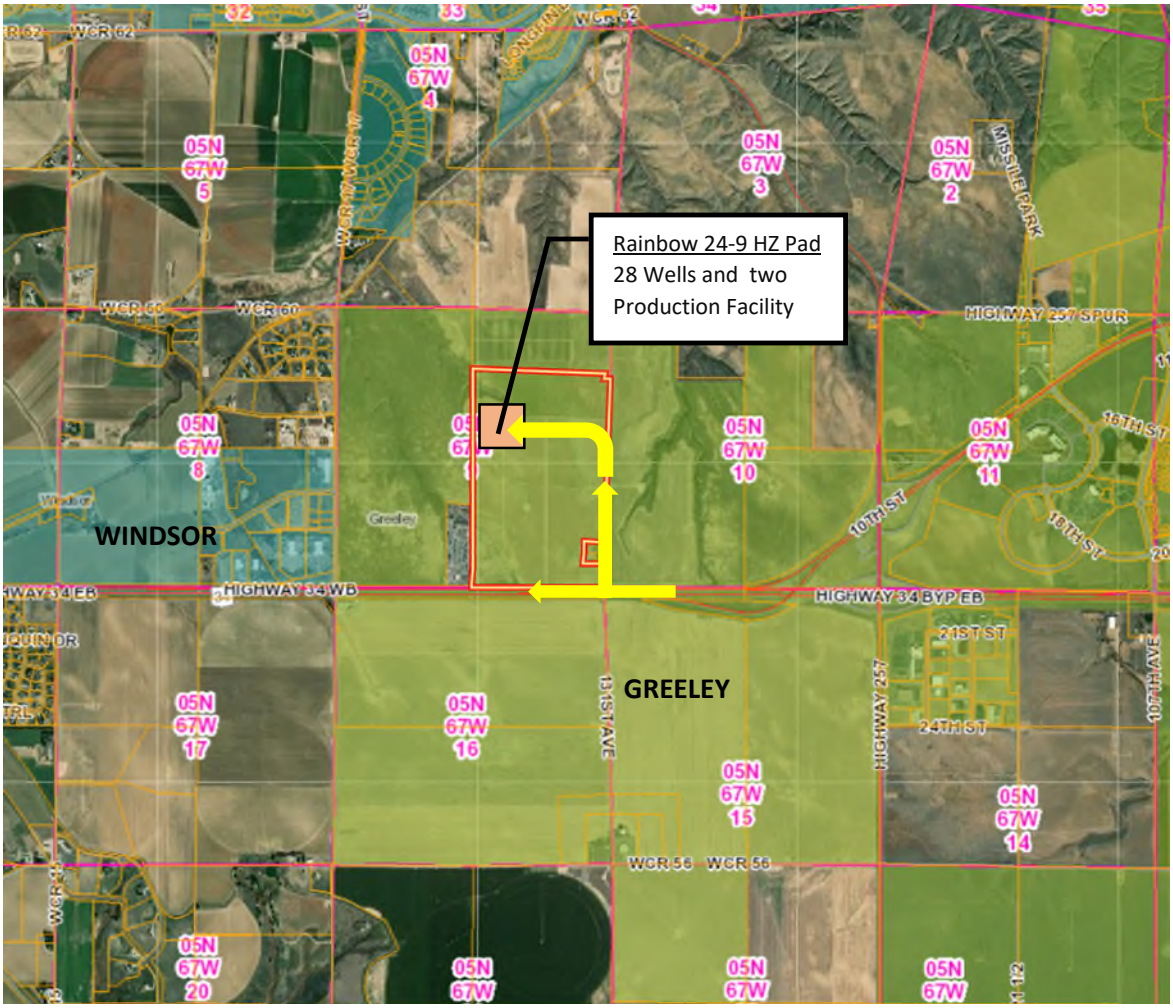
1. Narrative

1.1 DESCRIPTION OF INTENDED USE

Kerr-McGee Oil & Gas Onshore LP (KMOG), a subsidiary of OXY USA Inc., intends to horizontally drill twenty-eight (28) oil and gas wells from one well pad location, on property owned by KMOG. The proposed wells will be known as the Rainbow 24-9HZ Pad (Rainbow Pad), the well names are listed in Section 1.2. The desired outcome of this application is to permit the wells to all formations. The purpose of these wells is to produce hydrocarbons from underlying formations known to have commercial potential from the production of the hydrocarbons.

A pre-application meeting with the City of Greeley was held on September 17, 2021, and preliminary siting for the project was reviewed and given preliminary approval to move forward with the development application - Use by Special Review (USR). Members of the Colorado Oil and Gas Conservation Commission (COGCC) staff also attended the meeting (virtually) at the invitation of the City of Greeley.

The wells and production facility are proposed to be located in the east half of Section 9, Township 5 North, Range 67 West 6th P.M. See the aerial vicinity map below showing an arrow for the site access from State Highway 34.



1.2 SITE IMPROVEMENTS

KMOG shall construct one temporary operations area (Oil & Gas Location) of approximately 26.26 acres for the drilling, completions and production facility. After drilling and completion activities are finished, the site will be reclaimed to approximately 8.3 acres, (approximately 4.7 acres for the wells and 3.6 acres for the production facility). This is the permanent disturbance area until such time as KMOG evaluates the well production and determines the wells are no longer economically feasible, at which time the wells will then be plugged and abandoned (P&A) and the area reclaimed. Final reclamation commences once the last well on the site is P&A.

These are the names of the 28 wells proposed for the Rainbow 24-9HZ pad:

Rainbow 9-1HZ	Rainbow 9-8HZ	Rainbow 9-15HZ	Rainbow 9-22HZ
Rainbow 9-2HZ	Rainbow 9-9HZ	Rainbow 9-16HZ	Rainbow 9-23HZ
Rainbow 9-3HZ	Rainbow 9-10HZ	Rainbow 9-17HZ	Rainbow 9-24HZ
Rainbow 9-4HZ	Rainbow 9-11HZ	Rainbow 9-18HZ	Rainbow 9-25HZ
Rainbow 9-5HZ	Rainbow 9-12HZ	Rainbow 9-19HZ	Rainbow 9-26HZ
Rainbow 9-6HZ	Rainbow 9-13HZ	Rainbow 9-20HZ	Rainbow 9-27HZ
Rainbow 9-7HZ	Rainbow 9-14HZ	Rainbow 9-21HZ	Rainbow 9-28HZ

After the wells have been drilled to total depths, completed (hydraulicly fractured) as wells capable of production, KMOG will perform interim reclamation of drilling and completions areas no longer required for production purposes. If any of the wells are not capable of production, that specific well (or wells) will be P&A as a dry hole and the same reclamation of the site will apply. Flowlines will be installed to connect the wells to the production facility. These wells will then have a wellhead assembly installed on site. Pumping units may be installed should pressure within the wells necessitate their use.

1.3 CHARACTERISTICS OF DRILLING AND COMPLETION OPERATIONS

KMOG management will utilize authorized employees and professional contractors to conduct the drilling and completion operations on site. Drilling will be continuous, 24 hours a day seven days a week, for this period. Completion operations will be performed on each well following the drilling phase. The production facility will be installed, and the wells put on-line. KMOG anticipates mobilization and pad construction to begin the fourth quarter 2022 contingent upon approval from the City of Greeley and the COGCC.

Estimated schedule for operational phases are as follows:

- Pad Construction November 2022
- Surface Drilling Operations January 2023
- Horizontal Drilling February 2023
- Hydraulic Fracturing November 2023
- Production Facility Construction July 2023
- Interim Reclamation December 2024

These dates are estimates subject to permitting approvals, drilling schedule, and rig availability.

1.4 CHARACTERISTICS OF MAINTENANCE

Once the wells are brought on to production 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 KMOG Area Manager. In addition, all new well sites are remotely monitored 24 hours a day, seven days a week by representatives in KMOG's Integrated Operations Center (IOC), located in Platteville, Colorado. From the IOC, KMOG personnel can turn wells and equipment on and off, look at tank levels, verify pressures and temperatures.

1.5 COORDINATION WITH THE COGCC RULES

KMOG will comply with the City of Greeley USR permit requirements (Section 24-1102. d.) as well as the COGCC rules relative to oil and gas development.

- Waste: KMOG will comply with City of Greeley regulations and applicable COGCC rules for waste handling and management, including the following:
  a) KMOG uses a closed loop or "pitless" system for drilling and fluid management and does not construct a reserve pit.
  b) 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.
  c) 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.
  d) Human waste will be properly handled by portable sanitary facilities located on site. KMOG will contract a sanitary service company to provide and maintain the self-contained sanitary facilities throughout the oil and gas operation.
  e) Produced water will be hauled away and properly dispose of in accordance with COGCC regulations.
- Abandonment and Plugging (P&A): KMOG will comply with COGCC rules for P&A of wells. In addition, per the City of Greeley requirements, KMOG agrees to notify the Greeley Fire Department at least two hours prior to P&A operations and the removal of production equipment once the final well on location is P&A. Additional details pertaining to the P&A process are described in the Operating Plans section of this document.
- Seismic Operations: KMOG does not have plans for seismic operations related to this application. If this changes KMOG will work with the city regarding the specific requirements as defined in the Greeley Development Code.
- Signs: Well tank and production facility (battery) will be signed in accordance with the COGCC rules. KMOG will maintain these signs in good condition for the life of the wells and produciton facility. The signs will comply with City of Greeley Chapter 9 sign regulations and the International Fire Code, except where variation of the code is required by the COGCC.
- Reclamation: KMOG will comply with the COGCC requirements relative to reclamation. Additional information about final reclamation is detailed in the Operating Plans section of this document.

1.6 ENVIRONMENTAL MITIGATION

- Noise: KMOG will meet all applicable noise requirements set forth by the City of Greeley and the COGCC Rules. Exhaust from all engines, motors and related equipment, shall be vented in a direction away from occupied buildings where practical. Due to the remote location of this proposed pad and lack of nearby residence or businesses, KMOG does not plan to incorporate sound walls for noise mitigation. KMOG utilizes many other noise mitigation techniques as standard practice including a modified drilling rig with noise reduction features and a quiet completions fleet engineered with pump enclosers to reduce noise. In addition, KMOG is submitting as a separate Noise Mitigation Plan that details compliance with regulatory requirements.
- Vibration: KMOG will meet all applicable vibration requirements set forth by COGCC regulations during operations. There is not any unusual vibration anticipated from the proposed operation.
- Visibility: KMOG will meet all applicable visual impact requirements set forth by COGCC regulations during operations. The pad has been strategically located as far north on the parcel as possible to minimize visibility from adjacent public road, State Highway 34.

  The permanent facilities will be painted in uniform, noncontrasting, nonreflective color tones in accordance Greeley Development Code, Sec. 24-1102 Oil and Gas and the COGCC regulations and in a manner to harmoniously blend with the surrounding environment.

  KMOG has carefully positioned and graded the oil and gas pad to sit at approximately five feet of cut on the south side of the pad (toward State Highway 34) and placed the required topsoil stockpile on the south and east sides, averaging eight feet tall, to provided additional screening to the south and east. Additional screening will be provided with a solid fence, as detailed in the USR exhibit. This fence is strategically positioned around the pad between the berms to provide additional visual mitigation. A Visual Mitigation Plan – photographic simulation is included in the Exhibits section of this document.
- Safety: Authorized representatives and/or KMOG personnel shall be on-site during drilling and completion operations. The completed oil and gas location will be surrounded with a fence and gate with a lock for safety. KMOG personnel will monitor the well site regularly upon completion of the well. Additionally, new well sites are remotely monitored 24 hours a day seven days a week by representatives in KMOG's IOC in Platteville, Colorado. A copy of an Emergency Action Plan (EAP) and Tactical Response Plan (TRP) is included with this application, in the Exhibits section of this document.
- Wildlife/Environmental: KMOG contracted with an environmental consultant to perform a complete biological assessment of the location in October of 2021. This assessment was to identify sensitive resources that could be affected by the construction and subsequent operations of the proposed oil and gas development. This assessments studied the potential adverse impacts to sensitive natural resources, including vegetative communities, surface waters, and wildlife. The finding determined potential adverse impacts to the ecosystem are anticipated to be minimal and include disturbance to existing agricultural operations within and surrounding the location and potential nesting habitat for the western burrowing owl. Construction at the location will not impact surface waters, federally threatened or endangered species, or Colorado Department of Wildlife (CPW) High Priority Habitats. A Wildlife Protection Plan is included in Section 5.3 of this USR Narrative for reference.

1.7 RELATIVE PLANS

- Air and Water Quality: KMOG will meet all applicable air and water quality requirements set forth by COGCC regulations during operations. KMOG 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, KMOG will install emissions control devices as warranted to obtain required reductions of ozone precursors.

  The COGCC sets forth specific requirements for casing depth to protect ground water sources.

- Odor: KMOG will meet all applicable odor requirements set forth by COGCC regulations during operations. There are no noxious, prolonged or unusually high amounts of odor expected from the proposed operation. KMOG will implement the following to mitigate odor:

  a) Storage of excess drilling fluid (e.g., fluid not being used in the active mud system) in closed, upright tanks.
  b) Drill cuttings will be run through a centrifugal dryer to minimize odor during temporary time on location and during transport to disposal.
  c) Odor neutralizer will be used in the active mud system for management of odors within 24 hours of receipt of a stakeholder grievance.
  d) Drill cuttings will not remain in storage at the oil and gas location for more than a 24-hours period. Disposal will occur before the end of the 24-hour period.

- Dust: A tracking pad will be placed at the access road entrance to mitigate mud and dust on State Highway 34. Water will be placed on dirt access roads to mitigate dust as needed. Where feasible, additional dust suppression products may be used to further abate dust.

- Lighting: KMOG 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.

  During drilling and completions, KMOG will have temporary, mobile light towers around the pad pointing towards the equipment. The towers will be directed downward, inward and shielded to avoid glare on public roads and building units. All lights located on the production rig will be pointed down and inward, except for the red aviation warning lights which are required for safety purposes.

  KMOG may use lighting that is necessary for public and occupational safety and as required by the Federal Aviation Administration.

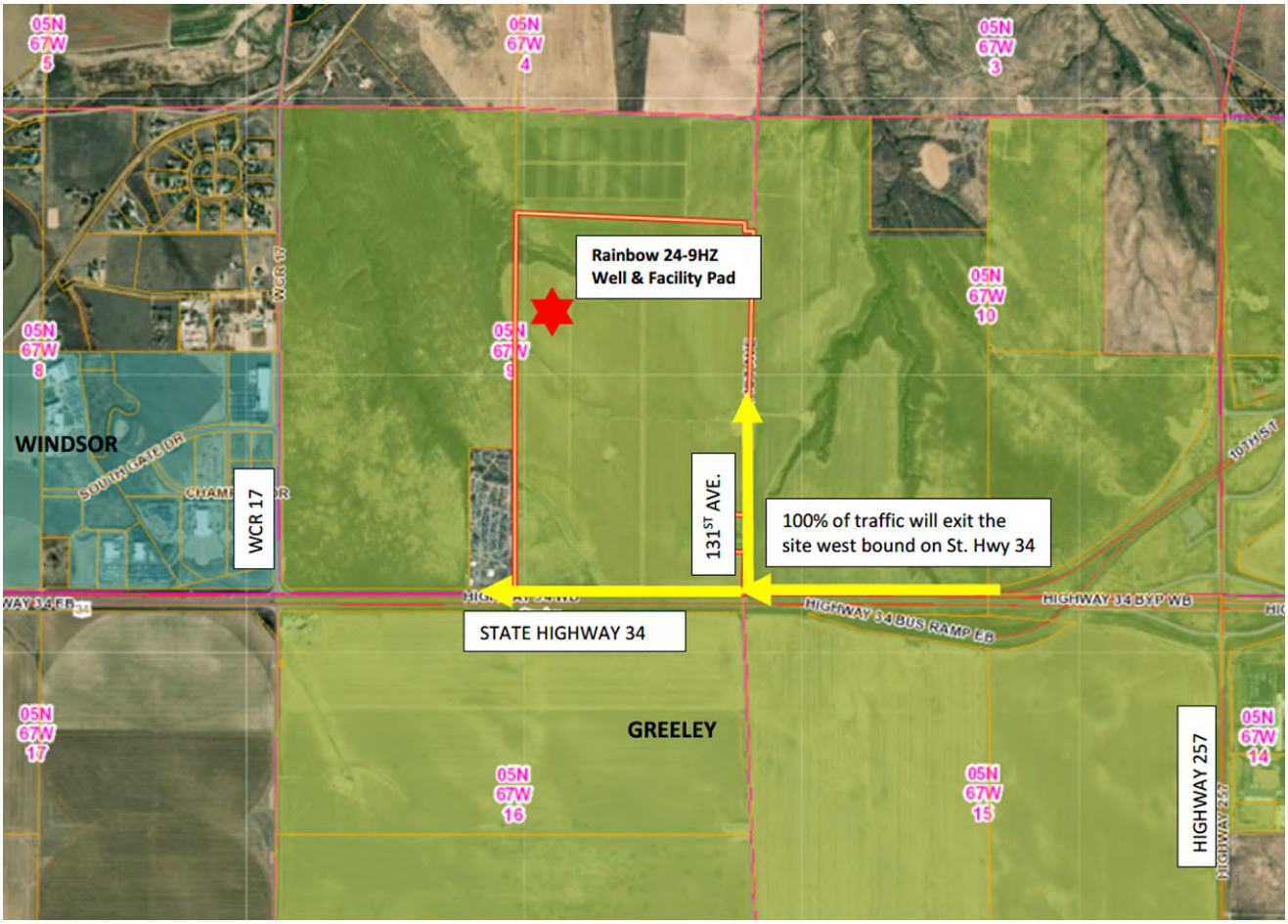
  The only permanent lights on location will be at the facility located on the Lease Automatic Custody Transfer (LACT) buildings. These lights include the safety strobe light and the entry light. The strobe lights on the buildings are emergency indicators that will activate if there is an upset at the LACT. The strobe light will be downward facing and will have a shroud over it.

  The entry light on the building is for personnel visiting the facility at night. This permanent light is mounted on the LACT building next to the entry door. This light is faced downward and shielded to the best extent for light mitigation.

- Access Road and Haul Route: KMOG will utilize the lease access road, 131st Avenue and US Highway 34 for all traffic associated with construction and production of the wells proposed for the Rainbow Pad.

  The access road will be constructed at a minimum of 24 to 30 foot wide (based on location on the site, see Site Plans for details), with a minimum 13.5 feet of overhead clearance. All access roads will be constructed of Class 5 road base over 6 inches of 95% compacted subgrade and aggregate base course. The access roads will be properly graded for adequate drainage and maintained to prevent dust and mud; culverts shall be utilized where necessary. KMOG will control mud tracking on to US Highway 34 by installing tracking control devises including a cattle guard, and 100 feet of crushed gravel both are proven to minimize tracking on to the highway.

  KMOG has submitted an Access Permit application to Colorado Department of Transportation (CDOT). Additionally, KMOG is proposing to construct acceleration and deceleration lanes at US Highway 34 to assist traffic safety. KMOG will continue to work with CDOT on the construction design and permit requirements for the acceleration and deceleration lanes. Large transport vehicles accessing this location will have a limited turning movement to right-in and right-out at State Highway 34. A transportation study/memo has been prepared by a traffic consultant and is included with this USR submittal as a separate exhibit.



- Pipelines: KMOG utilizes a comprehensive below ground pipeline system to transport produced oil and natural gas to processing facilities, resulting in a smaller tank production facility with fewer tanks.

KMOG does not store oil on-site. This reduces the facility size and creates a compact development areas. Oil and natural gas pipelines will be installed and operational once the wells are brought online. KMOG contracts with a third-party midstream company for this pipeline takeaway. The pipeline infrastructure mitigates truck traffic in the area, thereby significantly reducing impacts to roads, noise, and emissions.

- Required Permits: the following permits are required for this application:
    - COGCC Oil and Gas Development Plan (OGDP) – Approved permits will be provided to the City of Greeley upon receipt from the COGCC
    - Use by Special Review - Greeley
    - Access Permit - CDOT
    - Building Permit - Greeley
    - Sign permit - Greeley

2. Operator Information

2.1 OPERATOR IDENTIFICATION

Kerr-McGee Oil & Gas Onshore LP
1099 18th Street
Denver, Colorado 80202
Tel:(720) 929-6000
Fax: (720) 929-7297

Kerr-McGee Oil & Gas Onshore LP (KMOG), 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 KMOG meet the requirements as set forth in the rules and regulations as adopted by the COGCC.

2.2 SURFACE OWNER

Kerr McGee Oil & Gas Onshore LP
PO Box 173779
Denver, Colorado 80217

The surface owner is the applicant therefore, a surface use agreement is not applicable.

3. Operating Plans

3.1 CONSTRUCTION & DRILLING PHASE

The initial pad construction and drilling operations are expected to take about six to nine months (under normal circumstances). The subject land is first surveyed, and well locations are staked in accordance with COGCC regulations. The drilling pad is designed to prevent run off so that any spills will 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 begin to prepare the location, including leveling the surface where the drilling rig will be located. After the location has been prepared, a drilling rig will move onto location to drill the surface intervals of the wells and cement the surface pipe to protect ground water. This process will take approximately one day per well under normal circumstances, subsequently a 28 well pad will take 28 days to complete initial surface drilling operations including cementing 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 to drill the production interval. Production drilling operations will take four to five days per well, under normal circumstances. The actual drilling proceeds at a constant rate unless subsurface 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 subsequently the rig is moved off location. At this point the drilling phase is complete.

3.2 DRAINAGE AND EROSION CONTROL PLAN

Changes in natural drainage patterns are not anticipated. The well site will be monitored during the drilling and completion phases for any stormwater erosion or sedimentation concerns. Necessary measures will be taken to correct any problems, immediately in most cases. 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, if applicable. KMOG will continue to monitor the site until all applicable regulatory requirements for revegetation have been met.

KMOG 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 drained 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.

3.3 WATER SOURCES FOR ACTIVITIES

Water for use in completion operations will be secured by KMOG through its own “Water on Demand” (WOD) 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 KMOG and the water supplier. KMOG uses non-potable river quality water for completion and does not use any

"fresh" municipal treated water for completion operations. The WOD system is a network of over 180 miles of underground pipeline that stretches the length of the 20-mile by 30-mile field to source and transport water to completions crews. This system eliminates more than 2,000 truck trips per day field wide, also reducing associated concerns of traffic, noise, emission, and dust.

The Water on Demand (WOD) system has been designed functionally to allow for delivery of water from multiple sources. KMOG will choose the best source combination for the job based on the water contract terms, the WOD water system capacity, and the forecasted geographic area of water demand (hydraulic fracturing activity). KMOG maintains contractual agreements with multiple companies that have different water sources. This flexibility allows for efficient water transportation and minimizing traffic, dust, noise impacts which, ultimately, protect the health, safety, welfare of the community, and the environment. Detailed daily accounting is maintained for all WOD water supplies and provided to the Colorado Division of Water Resources annually.

3.4 COMPLETIONS PHASE

Upon the conclusion of production drilling operations, and as dictated by operational schedules, the well pad is then prepped for completions operations. The construction of the production facility may occur concurrent with the drilling and/or completion operations. Completion operations include all operations performed after drilling operations and prior to first production. These completion operations consist of well preparation, fracture stimulation, and preparing the well for production to sales.

The well preparation phase of completion operations is performed to prepare for the fracture stimulation operation. Initially, the necessary wellhead equipment is installed to conduct well preparation operations. KMOG wells are designed, built, operated, and maintained to the highest standards. Logging is performed to confirm the cement quality behind the well casing meets KMOG and regulatory standards. The wellbore is pressure-tested to confirm the casing can withstand the high pressures associated with a fracture stimulation. Lastly, the remaining necessary wellhead equipment is installed to prepare the well for fracture stimulation. A crew of one to six people are required to perform the above operations. The cumulative duration of the well preparation operations is three to four 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 three to seven days per well.

At the end 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 two to five weeks with a crew of three to ten people.

The completion process is a 24 hour a day, seven-days a week 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.

3.5 PRODUCTION PHASE

The production phase may overlap the completion phase. After the completion fleet has cleared the 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 facility, may consist of maintenance/oil tank(s), water tank(s), separator(s), Lease Automatic Custody Transfer (LACT) units, vapor recovery unit(s) (VRU), emission control device(s) (ECDs), meter(s) house, E-house, chemical tote(s), purge flare(s), communications tower, temporary produced water tanks, temporary ECDs and temporary generator. The temporary equipment will be on site for six to 12 months and then will be removed. In addition, pumping units may be installed. The production facility will be connected to the wells by pressure tested flowline buried approximately four feet deep. At this point, the gas and oil purchasers are preparing to connect the gas and oil sales meter loop.

The production facility installation is completed by constructing an earthen or metal berm around the production tank(s) and separator. The enclosed area will have sufficient volume to contain the entire contents of the largest tank plus adequate freeboard to contain 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 monitoring the wells. 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 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, pumping unit or gas lift may be used. This will extend the well's producing life and maximize reserves.

3.6 WEED CONTROL

All locations, including wells and surface production facility, 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.

3.7 PLUGGING AND ABANDONMENT PHASE (P&A)

Plugging and abandonment is the cementing of a well and removal of its associated production facility. This also includes the removal of flowlines after all the wells on the pad are plugged 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 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 months on crop land, and six 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:

- Reclamation of crop land has been performed and over two growing seasons has indicated no significant un-restored subsidence.
- Reclamation on non-crop land, has been performed and stabilized in such a way as to minimize erosion to the extent practicable, or a uniform vegetative cover has been established with total percent plant cover of at least eighty percent (80%) of similar adjacent reference area levels, excluding noxious weeds and overstory or tree canopy cover.
- Disturbances resulting from flow line installations shall be adequately reclaimed when the disturbed area is reasonably capable of supporting the pre-disturbance land use.
- 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

KMOG estimates that we will plug and abandon (P&A) 14 wells and remove 6 facilities, reclaiming approximately 0.75 to 1.5 acres per well. This is contingent upon the approval of permits by the City of Greeley and the COGCC, successful drilling and completion of the proposed wells and bringing them onto production.

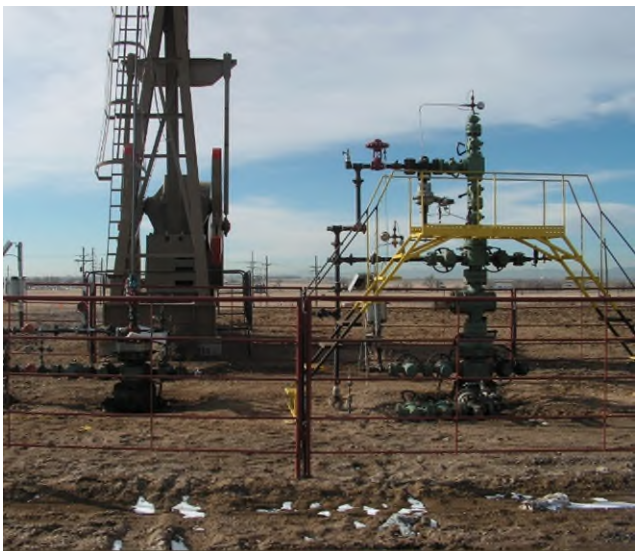
4. Equipment Illustrations

4.1 TYPICAL DRILLING RIG

Temporary, used during the drilling phase.

4.2 TYPICAL WELLHEADS

Permanent equipment for the life of the well.



4.3 TYPICAL SEPARATORS

Permanent equipment, part of the production facility.

Production Separators / Inlet Bulk and Test Separator - takes oil, natural gas and water coming from wells and separates them. These separators are approximately 12 to 20 -feet tall to top of exhaust stack / gas dryer pipe.

Second Stage Bulk Separators - this is the second stage of separation that takes oil and natural gas coming from wells and separates out oil from natural gas. These are approximately 20 feet 8 inches -tall to top of Pressure Safety Valve (PSV) outlet.

4.4 TYPICAL MAINTENANCE – CONDENSATE/OIL AND WATER TANKS

Permanent equipment, part of production facility. These tanks store water produced from the separators, which is later trucked out for off-site disposal. The Maintenance Tank is used for oil storage when separators require maintenance. Both tanks are approximately ten-feet tall (top of tank), 16 feet 6 inches tall to top of vent pipes.

4.5 LACT UNIT - (LEASE AUTOMATED CUSTODY TRANSFER)

Permanent Equipment part of the production facility. LACT contains pumps that run oil through Coriolis meter which read final numbers that go into sales line. Approximately 9 feet 2 inches tall.

4.6 TYPICAL GAS METER BUILDING

Records gas that flows through the site and into gathering system. Also houses the custody transfer gas meter. Approximately 7 feet 8 inches tall.

4.7 TYPICAL ELECTRICAL HOUSE

Houses the electrical circuits, approximately 9 feet 3 inches tall

4.8 TYPICAL WELL MANIFOLD AKA E-HOUSE

The wellhead manifold is where all the flowlines from the wells are brought into the produciton facility, approximately 7 feet 8 inches tall

4.9 TYPICAL GAS LIFT COMPRESSOR

This artificial lift is used to assist the production of the wells as they have less natural pressure help, approximately 15 feet tall.

4.10 VOC COMBUSTOR / EMISSION CONTROL DEVICE (ECD)

Volatile Organic Compound (VOC) Combustor also know as Emission Control Device (ECD) burns off emissions from produced water tanks, approximately 15 feet tall.

4.11 FUEL GAS (FG) SCRUBBER

The fuel gas scrubber dries produced gas to use for the burners on the ECD, VOC and separator burner systems, approximately 14 feet 2 inches tall.

4.12 TYPICAL AIR COMPRESSOR

Air compressor supplies air to the pneumatic valves on location, approximately 9 feet 4 inches tall.

4.13 TYPICAL CHEMICAL TOTE

Chemical totes store and pump corrosions and scale inhibitor products to preserve the integrity of the production equipment, approximately 7 feet 4 inches tall.

4.14 TYPICAL COMMUNICATIONS TOWER

Communication tower is used to remotely monitor the production facility from the Integrated Operation Center (IOC). Approximately 34 feet tall.

4.15 TYPICAL TEMPORARY EQUIPMENT

Tanks (Produced Water Storage)

Tanks store water produced from separator during initial production. Later tanks are trucked out for disposal. Color varies depending on contractor and availability. Temporary tanks are on location for 6-12 months, approximately 10 feet 4 inches tall.

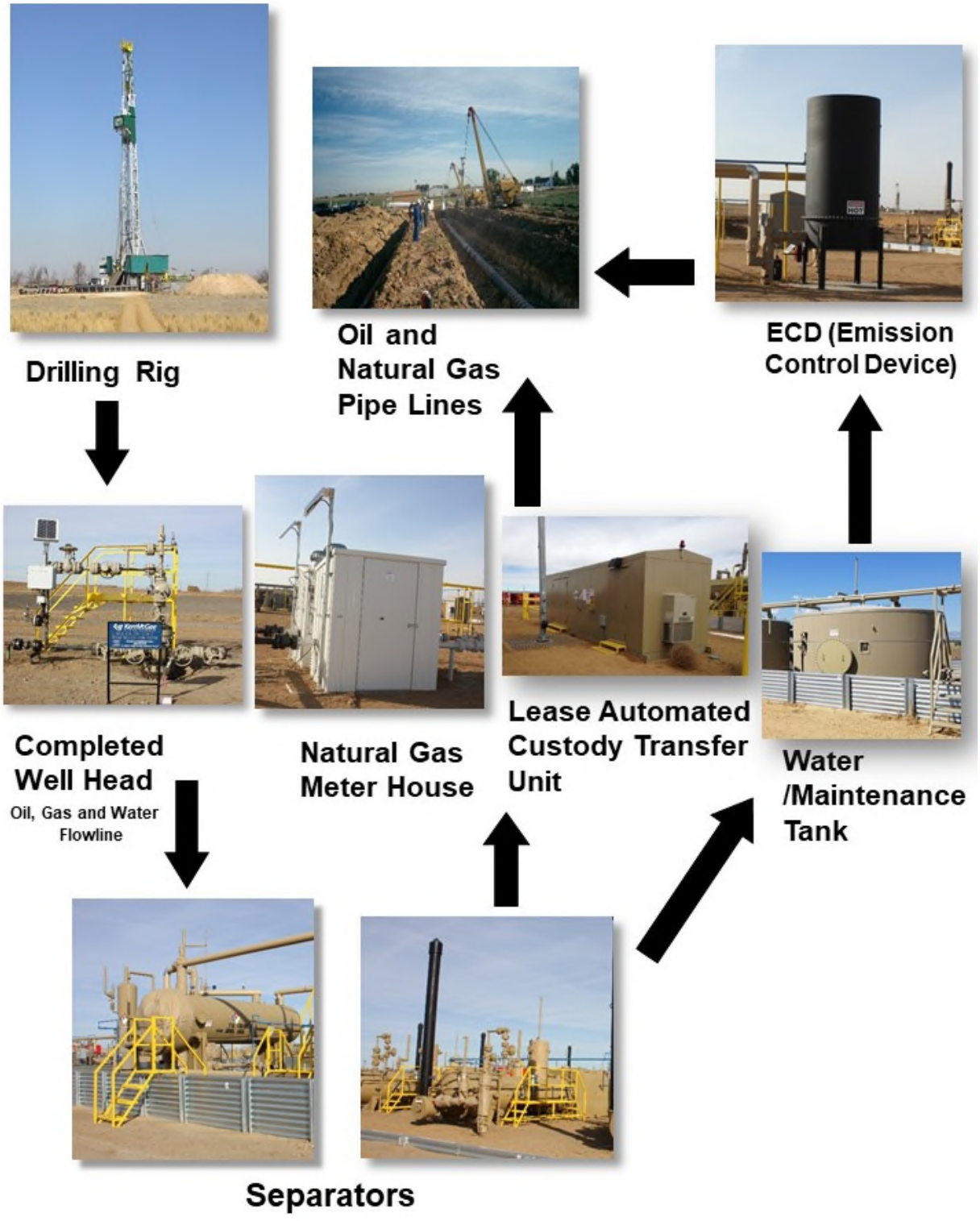
Temporary ECDs

Emission Control Device (ECD) burns off emissions from produced temporary water tanks. Approximately 24 feet 7 inches tall.

Temporary Generator – Used to operate equipment at the facility until such time as power can be brought onto the location, approximately 5 feet tall

Temporary Purge Flare – Used at the time of facility commissioning to capture gas when purging the facility of oxygen, approximately 24 feet tall

4.16 TYPICAL FLOW DIAGRAM



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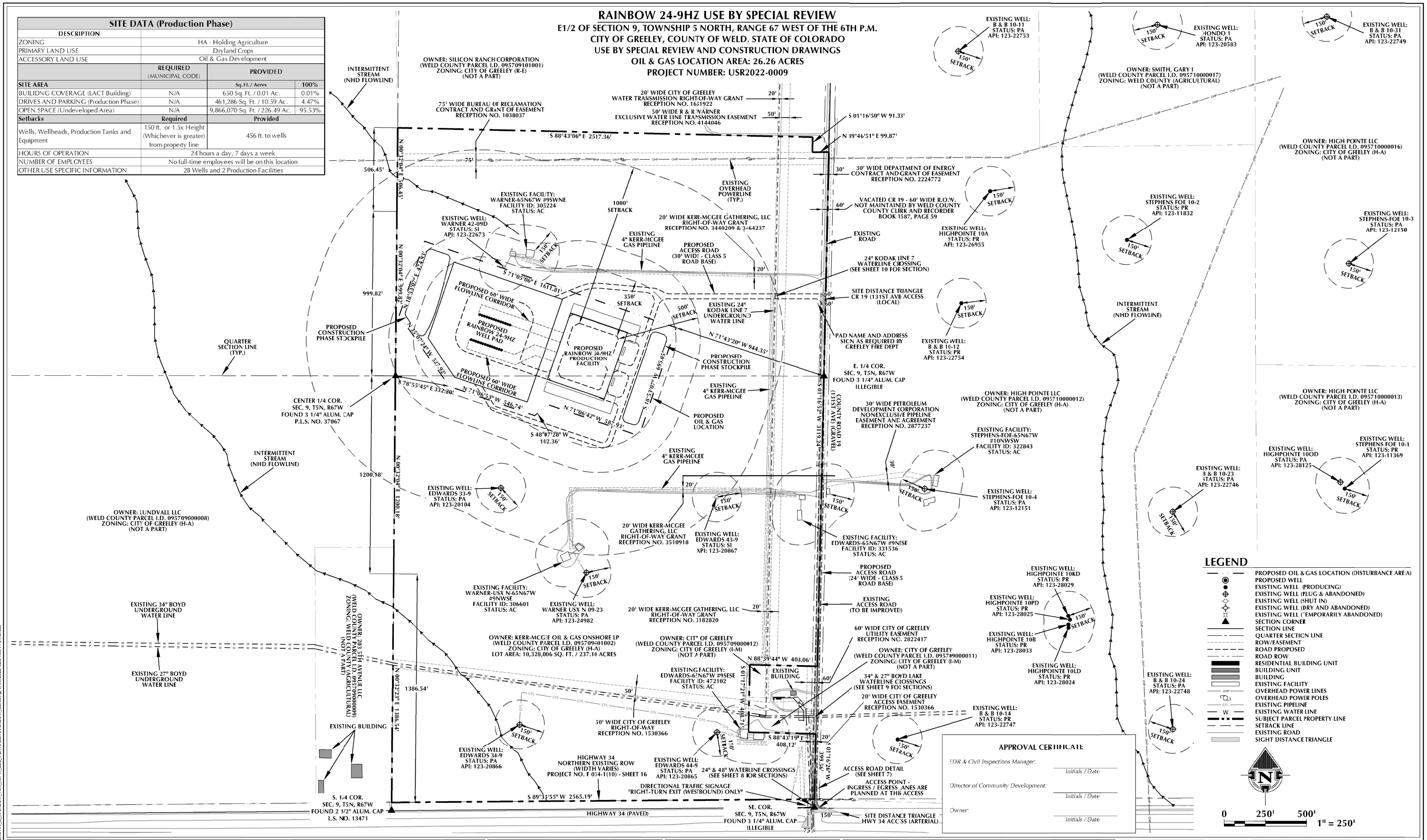
SITE DATA (Production Phase)			
DESCRIPTION			
ZONING	HA - Holding Agriculture		
PRIMARY LAND USE	Dryland Crops		
ACCESSORY LAND USE	Oil & Gas Development		
	REQUIRED (MUNICIPAL CODE)	PROVIDED	
SITE AREA		Sq. Ft. / Acres	100%
BUILDING COVERAGE (LACT Building)	N/A	650 Sq. Ft. / 0.01 Ac.	0.01%
DRIVES AND PARKING (Production Phase)	N/A	461,286 Sq. Ft. / 10.59 Ac.	4.47%
OPEN SPACE (Undeveloped Area)	N/A	9,866,070 Sq. Ft. / 226.49 Ac.	95.53%
Setbacks	Required	Provided	
Wells, Wellheads, Production Tanks and Equipment	150 ft. or 1.5x Height (Whichever is greater) from property line	456 ft. to wells	
HOURS OF OPERATION	24 hours a day, 7 days a week		
NUMBER OF EMPLOYEES	No full-time employees will be on this location		
OTHER USE SPECIFIC INFORMATION	28 Wells and 2 Production Facilities		

RAINBOW 24-9HZ USE BY SPECIAL REVIEW

E1/2 OF SECTION 9, TOWNSHIP 5 NORTH, RANGE 67 WEST OF THE 6TH P.M.
CITY OF GREELEY, COUNTY OF WELD, STATE OF COLORADO
USE BY SPECIAL REVIEW AND CONSTRUCTION DRAWINGS
OIL & GAS LOCATION AREA: 26.26 ACRES
PROJECT NUMBER: USR2022-0009



APPROVAL CERTIFICATE	
IDR & Civil Inspections Manager:	Initials / Date
Director of Community Development:	Initials / Date
Owner:	Initials / Date

GENERAL NOTES:

- PUBLICLY AVAILABLE DATA SOURCES HAVE NOT BEEN INDEPENDENTLY VERIFIED BY 609 CONSULTING, LLC.
- ALL UTILITY LOCATIONS SHOWN ON THE SITE DEVELOPMENT PLAN ARE PROPOSED. ALL FINAL UTILITY LOCATIONS WILL BE DEPICTED ON THE FINAL APPROVED CONSTRUCTION PLANS. ANY ADDITIONAL EASEMENTS GRANTED AFTER FINAL CONSTRUCTION PLAN APPROVAL SHALL REQUIRE THE APPLICANT TO SUBMIT UPDATED CIVIL CONSTRUCTION PLAN SHEETS DEPICTING REVISED EASEMENT LOCATION(S).
- ORIGINAL DOCUMENT SIZE: 24" x 36"

LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331

SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

609 CONSULTING, LLC

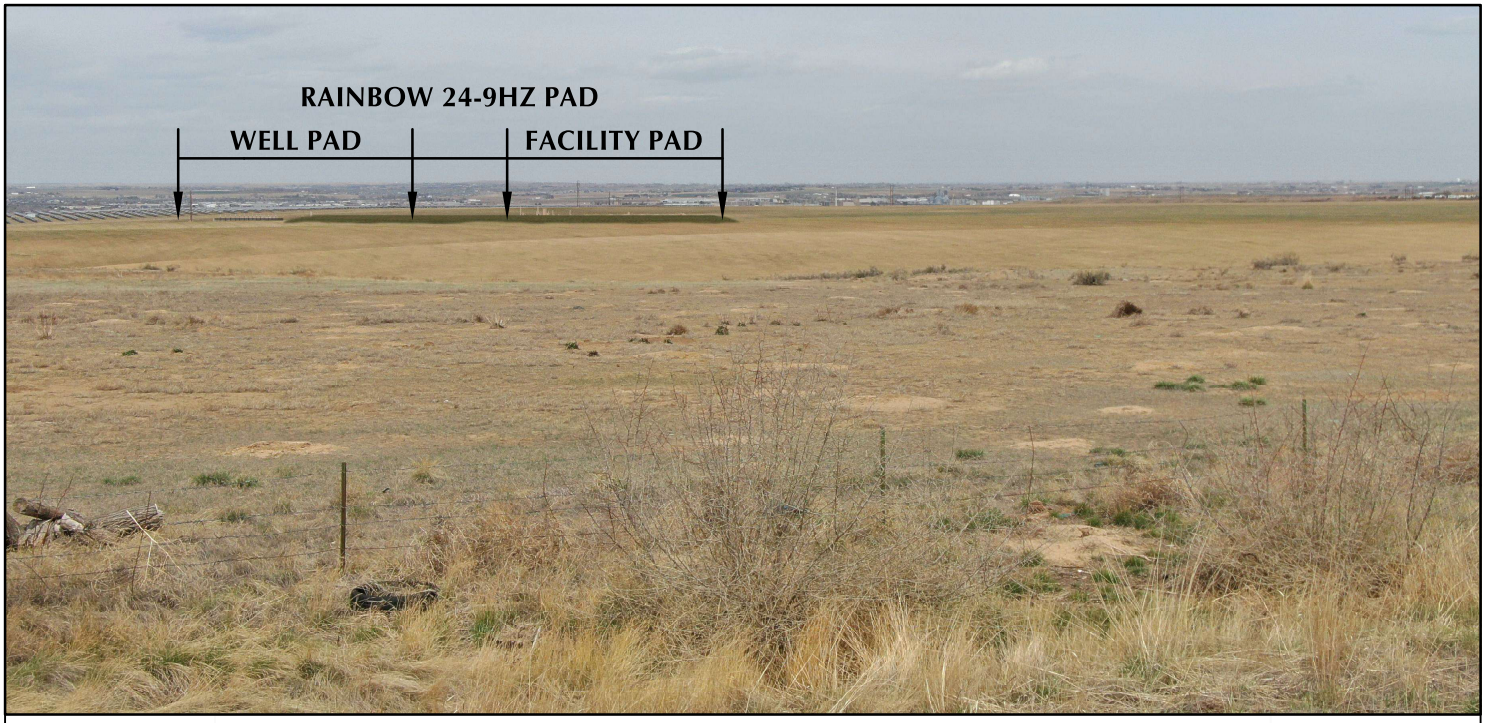
Kerr-McGee Oil & Gas Onshore LP
1099 18th Street
Denver, Colorado 80202

DRAWING REVISIONS		
REV.	DATE	DESCRIPTION
0	5/16/22	FORMAL APPLICATION
1	7/8/22	REVISION #1
2	8/11/22	REVISION #2
3	9/19/22	REVISION #3

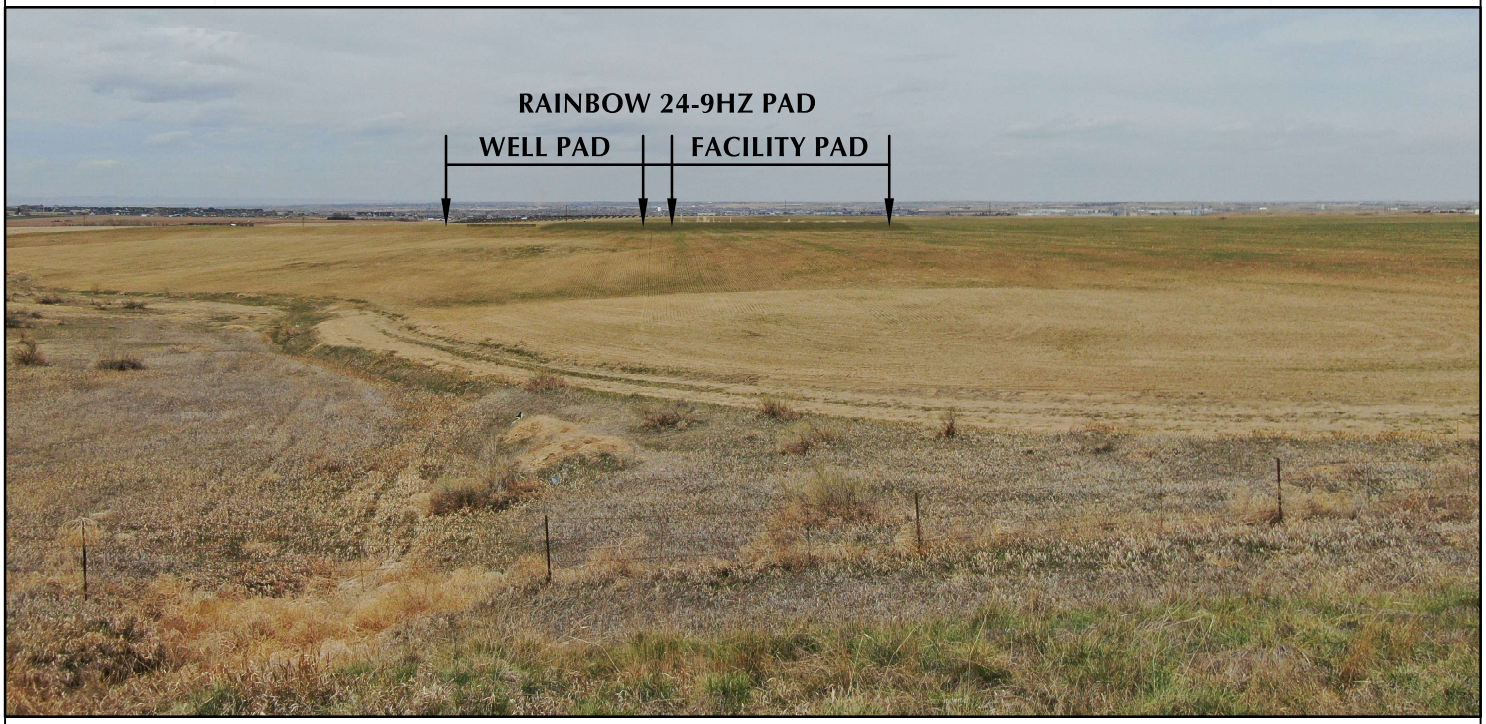
RAINBOW 24-9HZ
SITE PLAN

DATE:	9/19/22	SHEET:	2 OF 16
SURVEY DATE:	2/21/22	DRAFTED BY:	CDJ

5.2 PHOTO SIMULATIONS – VISUAL MITIGATION



HIGHWAY 34 SIMULATION PICTURES - LOCATION 1



HIGHWAY 34 SIMULATION PICTURES - LOCATION 2

PAD - RAINBOW 24-9HZ

HIGHWAY 34 SIMULATION PICTURES
RAINBOW 9-1HZ, RAINBOW 9-2HZ, RAINBOW 9-3HZ, RAINBOW 9-4HZ, RAINBOW 9-5HZ, RAINBOW 9-6HZ, RAINBOW 9-7HZ, RAINBOW 9-8HZ, RAINBOW 9-9HZ, RAINBOW 9-10HZ, RAINBOW 9-11HZ, RAINBOW 9-12HZ, RAINBOW 9-13HZ, RAINBOW 9-14HZ, RAINBOW 9-15HZ, RAINBOW 9-16HZ, RAINBOW 9-17HZ, RAINBOW 9-18HZ, RAINBOW 9-19HZ, RAINBOW 9-20HZ, RAINBOW 9-21HZ, RAINBOW 9-22HZ, RAINBOW 9-23HZ, RAINBOW 9-24HZ, RAINBOW 9-25HZ, RAINBOW 9-26HZ, RAINBOW 9-27HZ & RAINBOW 9-28HZ
LOCATED IN SECTION 9, T5N, R67W, 6TH P.M.
GREELEY, COLORADO

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Phone 970-776-4331

SCALE: NTS	DATE: 5/6/22	SHEET NO: 1
REVISED:	GLK 5/24/22	

HIGHWAY 34 SIMULATION PICTURES - LOCATION 3

PAD - RAINBOW 24-9HZ

HIGHWAY 34 SIMULATION PICTURES
RAINBOW 9-1HZ, RAINBOW 9-2HZ, RAINBOW 9-3HZ, RAINBOW 9-4HZ, RAINBOW 9-5HZ, RAINBOW 9-6HZ, RAINBOW 9-7HZ, RAINBOW 9-8HZ, RAINBOW 9-9HZ, RAINBOW 9-10HZ, RAINBOW 9-11HZ, RAINBOW 9-12HZ, RAINBOW 9-13HZ, RAINBOW 9-14HZ, RAINBOW 9-15HZ, RAINBOW 9-16HZ, RAINBOW 9-17HZ, RAINBOW 9-18HZ, RAINBOW 9-19HZ, RAINBOW 9-20HZ, RAINBOW 9-21HZ, RAINBOW 9-22HZ, RAINBOW 9-23HZ, RAINBOW 9-24HZ, RAINBOW 9-25HZ, RAINBOW 9-26HZ, RAINBOW 9-27HZ & RAINBOW 9-28HZ
LOCATED IN SECTION 9, T5N, R67W, 6TH P.M.
GREELEY, COLORADO

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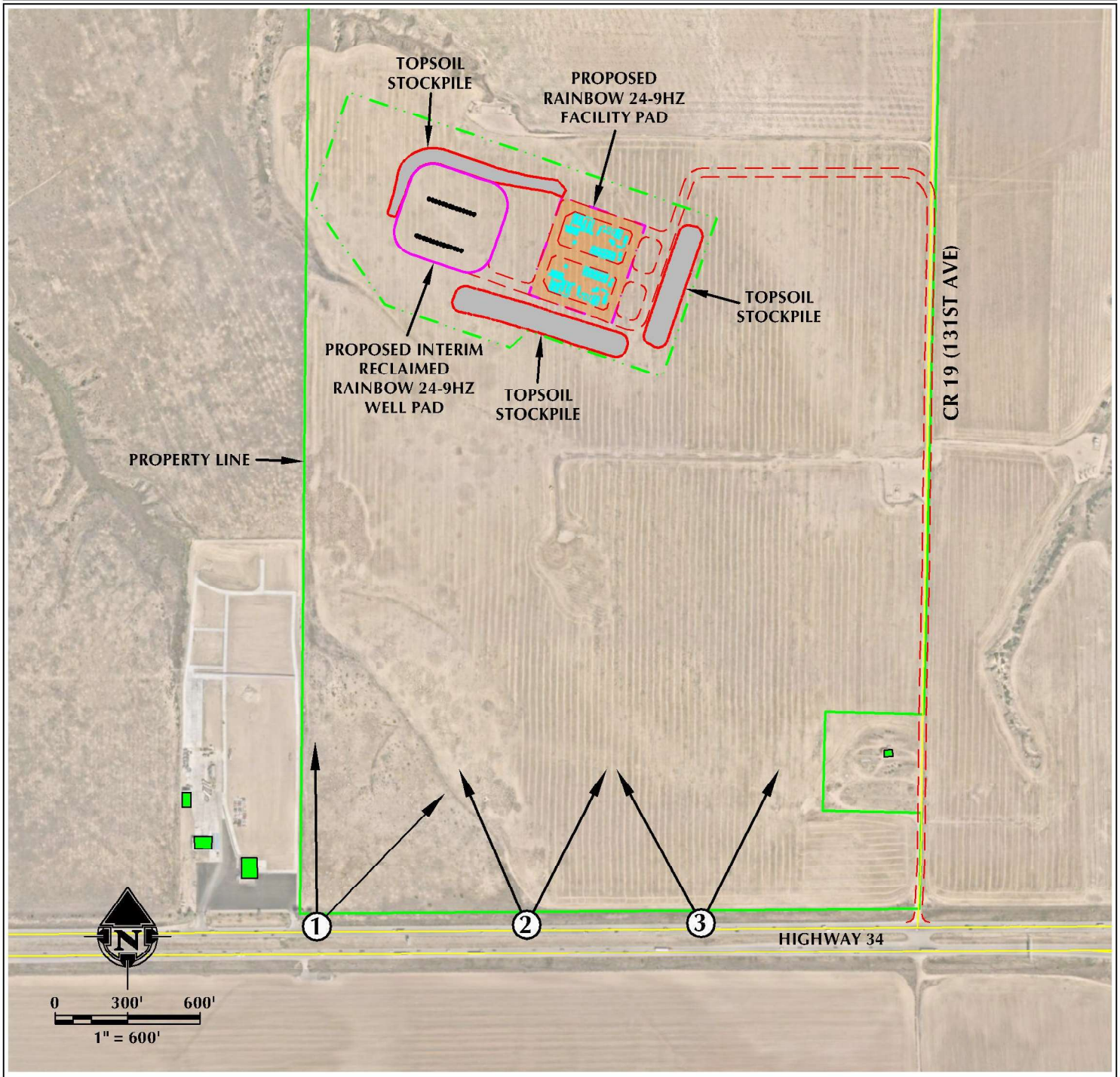
SCALE: NTS	DATE: 5/6/22	SHEET NO: 2
REVISED:	GLK 5/24/22	

HIGHWAY 34 SIMULATION PICTURES

RAINBOW 24-9HZ

E1/2 SECTION 9, TOWNSHIP 5 NORTH, RANGE 67 WEST, 6TH P.M., GREELEY, COLORADO



LEGEND

- PROPOSED WELL
- PUBLIC ROAD
- PROPOSED ACCESS ROAD
- (1) PHOTO LOCATION
- PROPOSED OIL & GAS LOCATION
- EXISTING BUILDING
- RESIDENTIAL BUILDING UNIT

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DATE SURVEYED:	2/21/22
DATE:	5/6/22
DRAFTER:	HJL
REVISED:	5/24/22

DATA SOURCE:
- AERIAL COURTESY OF NEARMAP.

PREPARED FOR:
Kerr-McGee Oil & Gas Onshore

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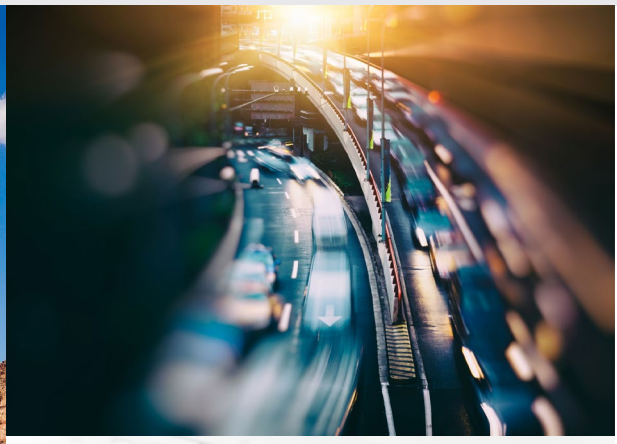
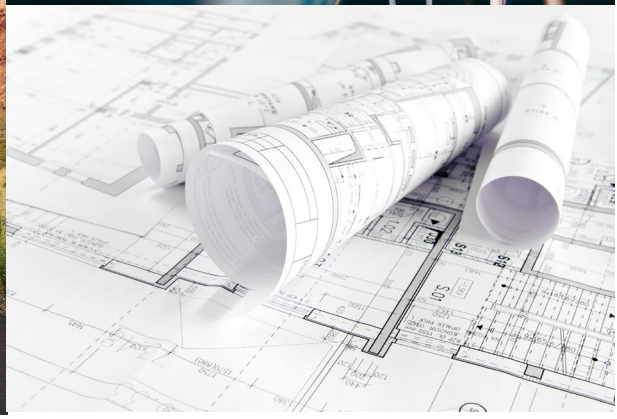
KerrMcGee

Rainbow Oil and Gas Well Traffic Impact Study





May 24, 2022

TETRA TECH

Rainbow Traffic Impact Study

May 24, 2022

PRESENTED TO

KerrMcGee

Kerr McGee Oil & Gas Onshore, LP
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Cody Hightower — Date
E.I.T.

Authorized by:

J. Perry Patton — 5/24/2022
Perry Patton, P.E. — Date
Principal Engineer

EXECUTIVE SUMMARY

Kerr McGee Oil and Gas Onshore, LP (KMOG), a subsidiary of Oxy USA Inc. (Oxy) is proposing to construct the Rainbow Oil and Gas Well Facility (Project) in the City of Greeley, CO. Construction is anticipated to commence November 2022. Existing pre-development traffic as well as construction, drilling, well completion, and operational traffic due to the Project were analyzed herein for level of service (LOS) and Colorado Department of Transportation (CDOT) Access Code requirements. Tetra Tech found the impact to existing traffic movements due to Project generated pre-production and production phase traffic to be negligible. Additionally, sight distance at the intersection of 131st Avenue and US 34 was found to be adequate. Therefore, no highway capacity or safety improvements should be required. However, KMOG will install right turn acceleration and deceleration lanes on US 34 at 131st to provide the safest, most efficient transportation infrastructure feasible for Project generated traffic. Other improvements to occur by KMOG due to the Project are turning radius and road width improvements on 131st Avenue to allow truck traffic to traverse to and from the Project.

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Appendix C: Sight Distance Photograph Log

Appendix D: Turning Path Analysis

ACRONYMS/ABBREVIATIONS

Acronyms/Abbreviations	Definition
AADT	annual average daily traffic
CDOT	Colorado Department of Transportation
DD	directional distribution
HCM	Highway Capacity Manual
KMOG	Kerr McGee Oil and Gas Onshore, LP
LOS	level of service
SSD	stopping sight distance
HCS	Highway Capacity Software
PCE	passenger car equivalent
OTIS	Online Transportation Information System
vph	vehicles per hour

1.0 INTRODUCTION

1.1 PROJECT OVERVIEW

Kerr McGee Oil and Gas Onshore, LP (KMOG), a subsidiary of Oxy USA Inc. (Oxy) is proposing the construction and operation of the Rainbow Oil and Gas Well Facility (Project) in the City of Greeley, CO. The Project consists of the construction and operation of 28 horizontal wells. Construction is anticipated to commence in November 2022. Once initiated, the pre-production phases of site construction, drilling, and well completions are anticipated to take approximately 22 months to complete. Once the pre-production phases are finished, the Project will begin the production phase. The amount of traffic associated with the production phase of the Project will be less than that observed during the pre-production phases and will diminish to negligible amounts within the first 6 to 12 months of operation. This Traffic Impact Study (TIS) will be used to evaluate impacts during the development and operational phases of the Project.

1.2 STUDY PURPOSE

KMOG is submitting a Use by Special Review (USR) application to the City of Greeley's Planning Department in support of this Project. During pre-application review meetings, Greeley staff indicated to KMOG that a traffic impact study would be required in support of the USR application. Tetra Tech has prepared this traffic impact study on behalf of KMOG to qualify and quantify impacts of the pre-production and production phases of the Project to the local traffic movements. This study seeks to provide the City of Greeley, CO with the information necessary for approval of the Project.

The study is based on requirements in the City of Greeley Criteria for Development of Transportation Impact Studies (2019) and the Colorado Department of Transportation (CDOT) Access Code (Code) (2002).

1.3 SITE LOCATION AND STUDY AREA OF INTEREST

The Project is located west of 131st Avenue just north of US 34 in the City of Greeley, CO [Section 9, Township 5N, Range 67W] (**Figure 1**). The Project is expected to have a single entrance/exit to the Project facility off 131st Avenue. The area of interest for this study is limited to the proposed haul route at the intersection of US 34 and 131st Avenue to the Project site (**Figure 2**). Traffic is expected to enter the site originating from the east on US 34 turning north onto 131st Avenue and then turning west onto the Project access driveway. After leaving the site, vehicles will turn south onto 131st Avenue and then west onto US 34. The proposed haul route has been chosen to facilitate the ease and safety of vehicle circulation. The current surrounding area and land use is predominantly undeveloped as seen in the aerial images.

Figure 1: Vicinity Map

Figure 2: Proposed Haul Route

1.4 STUDY METHODOLOGY

The minor intersection of 131st Avenue and US 34 was analyzed for LOS changes due to the traffic generated during the pre-production phase of the Project. The LOS performance measure for an intersection is based on the delay that an average vehicle will experience after approaching the intersection. Unsignalized intersections include driveway accesses, two-way and four-way stop-controlled intersections, and roundabouts. The LOS analysis provides a standardized means of describing transportation facility operation by assigning a letter grade to it. As shown in Table 1, LOS ranges from A to F with LOS A representing the best conditions (free flow) and LOS F representing the worst conditions (most congested). All procedures that were used in these analyses came from the Highway Capacity Manual (HCM) guidelines for determining LOS. The delay must be analyzed for each movement of the intersection independently. If several movements share a lane, the capacities are calculated separately then combined into a shared movement capacity that is used in the delay equation in place of movement capacity. Intersection LOS was analyzed using Highway Capacity Software (HCS) 2022. See Table 1 for intersection LOS definitions.

LOS	Signalized Intersection Delay (sec)	Unsignalized intersection Delay (sec)
A	0-10	0-10
B	10-20	10-15
C	21-35	16-25
D	36-55	26-35
E	56-80	36-50
F	>80	>50

Table 1: LOS Definitions

Impacts and potential remediation measures to improve traffic movement quality and safety at 131st Avenue and US 34 were also analyzed by referencing the Code. The Code uses estimated long term peak hour turning movement count thresholds to determine the adequacy of the traffic infrastructure for the proposed traffic condition. These counts were converted to passenger car equivalents (PCE). If the movement count thresholds provided in the Code are exceeded, acceleration and deceleration lane improvements must be considered.

To ensure the proposed truck traffic can safely make the physical turning movements required along the proposed route, a turning path analysis was conducted. KMOG plans to improve 131st Avenue from US 34 to the proposed Project driveway access to ensure the generated truck traffic can safely travel to and from the Project. The turning path analysis was conducted for the proposed improved conditions of 131st Avenue.

Sight distance measurements were made at the intersection of 131st Avenue and US 34. The traffic speeds along US 34 were then used to calculate the necessary stopping sight distance at 131st Avenue. Required stopping sight distance and entering sight distance values as shown in Section 4.3 of the Code were also

referenced. The required sight distances were then compared to the sight distance currently available at the intersection.

2.0 EXISTING TRAFFIC CONDITIONS

US 34 is a four-lane paved road with 12-foot lane widths near the Project area/location. US 34 has approximately 10 feet wide outside shoulders, 4 feet wide inside shoulders, and a 47-foot wide grass median. The speed limit is 65 mph. 131st Avenue is a gravel surfaced road with no lane markings and no shoulders. The width of 131st Avenue varies but on average is approximately 16 feet. All measurements were made with Google Earth Pro.

The existing Annual Average Daily Traffic (AADT) is primarily used in transportation planning to measure how busy a road is. Table 2 below summarizes the existing AADT on US 34 for 2021 along with the typical truck percentage. This information was collected from the CDOT Online Transportation Information System (OTIS), for Station ID 000245. Tetra Tech was able to download short duration count data for this station that was last measured in May 2021. The OTIS database also projects future traffic based on historical trends. Table 2 includes the projected AADT and Truck % from OTIS for the year in which it was last measured, through the projected period of Project construction. To be conservative, the 2024 projected trip count is used in this analysis.

	Measured 2021	Projected 2022	Projected 2023	Projected 2024
AADT	43,000	45,193	46,290	47,386
Truck %	3.2%	3.2%	3.2%	3.2%

Table 2: Existing Projected Annual Average Daily Traffic for US 34

Sight distance is an important measure to determine the safety of a vehicle entering a roadway. Stopping sight distance (SSD) is the minimum distance a vehicle driver needs to be able to see to have room to stop before colliding with an object in the roadway. Insufficient sight distance can adversely affect the safety or operations of a roadway or intersection. In reference to Chapter 3 of AASHTO A Policy on Geometric Design of Highways and Streets (2018), required SSD is formulated with the following equation:

$$SSD = 1.47Vt + \frac{V^2}{30\left(\left(\frac{a}{32.2}\right) \pm G\right)}$$

The currently required SSD on US 34 with a 65-mph speed limit, reaction time (t) of 2.5 seconds, and deceleration rate (a) of 11.2 ft/s^2 is approximately 644 feet by using the AASHTO formula. The Code also provides required stopping sight distances in Section 4.3. Using the Code for a 65-mph speed limit road, an SSD of 725 feet is required.

Another important measure of sight distance is the entering sight distance. Guidelines for measuring this distance can be found in the Code. This entering sight distance is the sight distance a vehicle entering a roadway needs to safely make the movement. The Code provides a list of required entering sight distance values for varying types of entering vehicles in Section 4.3. According to the Code, an entering sight distance of 780 feet is required for a passenger vehicle and an entering sight distance of 1300 feet is required for multi-unit trucks for a four-lane roadway at 65 mph, such as US 34.

Site distance photographs were taken in the field at the intersection of 131st Avenue and US 34 at a distance of 725 feet. Photographs were taken from the view of westbound US 34 traffic. These photographs would represent the measure necessary to confirm adequate SSD. Photographs were also taken from the point of view of a parked vehicle at 131st Avenue looking east along US 34. These photographs would represent the measure necessary to confirm adequate entering sight distance. In both the SSD and entering sight distance cases, field photographs show ample sight distance beyond the requirements of the Code. See Appendix C for a sight distance photograph log.

2.1 EXISTING PEAK HOUR TRAFFIC

The Directional Design Hour Volume (DDHV) for the existing traffic is calculated by the following equation:

$$DDHV = AADT * K * DD,$$

Where K is the proportion of daily traffic occurring during the peak hour and DD is the directional distribution. An industry standard value of 0.1 for K and 0.5 for DD was assumed. In this case, DDHV = 47,386*0.1*0.5 = 2,369 vehicles per hour per direction during peak hour.

To corroborate our peak hour vehicle estimate, a two-day hourly count from May 2020 published in the CDOT OTIS was referenced. The two-day hourly count shows a maximum count of 2,124 vehicles/hr/direction on US 34. We can then conservatively assume the existing peak hour traffic to be 2,369 vehicles/hr/direction. The maximum hourly counts on US 34 generally occurred at 7:00 AM and 5:00 PM. It is assumed there is little to no existing traffic on 131st Avenue due to the undeveloped and rural nature along the roadway.

2.2 EXISTING LEVEL OF SERVICE

Although 131st Avenue is assumed to have no traffic in the existing condition, LOS was still analyzed at the intersection assuming one peak hour vehicle for each of the following movements:

- Southbound right onto US 34
- Westbound right onto 131st Avenue

This was done to establish a baseline LOS. For a single right turning passenger vehicle during peak hour from 131st Avenue onto US 34, the result is LOS D with a control delay of 28.0 seconds. Any westbound right turning movement onto 131st Avenue has no theoretical delay since this movement does not have to stop or yield. Appendix A displays the HCS Two-Way Stop-Control LOS Report for the existing condition.

3.0 PROPOSED TRAFFIC CONDITIONS

Based on KMOG's experience with oil and gas well projects, Tetra Tech and KMOG generated trip estimates for each pre-production stage of the Project. Trip generation estimates were also made for four different production phase horizons: 0-6 Months, 6-12 months, 1-2 years, and 2-25 years. Traffic estimates for the pre-production phases of the Project are shown in Table 3. Further trip generation details breaking out the peak hour trip generation numbers for each movement and highlighting vehicle types for each movement can be found in Appendix B.

Pre-Production Stage	Duration (Days)	Avg Truck Trips per Day	Avg Number Veh/Day (PCE)	Avg Daily Trips	Total Daily PCE	AM Peak Hour Trips	AM Peak Hour PCE	PM Peak Hour Trips	PM Peak Hour PCE
Construction Phase	30	58	164	115	328	12	32	12	32
Surface Rig Mobilization	2	198	564	395	1,127	26	64	26	64
Drilling Phase	185	34	54	71	108	24	34	24	34
Surface Rig Demobilization	2	185	489	369	978	37	71	37	71
Completions Phase	126	84	129	167	258	45	51	45	51
Production Facility Construction & Equipment Placement Phase	44	22	43	43	85	11	19	11	19
Interim Reclamation	30	72	166	143	333	23	43	23	43

Table 3: Trip generation data for each pre-production stage

Sixty percent of light vehicle trips were assumed to occur during peak hour, while truck trips were spread evenly throughout the shift length for each phase of pre-production. For example, the site preparation stage is expected to occur during 10-hour shifts, so daily truck trips were spread over 10-hours. The drilling stage is expected to occur over 24-hour shifts, so the daily truck trips during the drilling stage were spread over 24 hours. The result of the time distribution of vehicle trips can be found in Appendix B.

During the production phase of the Project, water truck, operator personnel, and chemical delivery trips make up the Project generated traffic. Water trucks produce the highest trip numbers. The production phase traffic trips are heaviest at the beginning of production and taper off over the first few years of the Project operation. See Tables 4, 5, and 6 for Project production phase trip estimates in PCE over varying time horizons. A maximum value of 9 total peak hour PCE trips occurs during the first six months of production.

Phase of Production	Daily PCE Trips	Peak Hour PCE Trips
0-6 Months	157.88	~7
6-12 Months	46.89	~2
1-2 Years	9.94	<1
2-25 Years	<1	0

Table 4: Production phase traffic estimates for water hauling

Phase of Production	Total PCE Trips	Peak Hour PCE Trips
0-6 Months	26	0
6-12 Months	6	0
1 -2 Years	6	0
2-25 Years	92	0

Table 5: Production phase traffic estimates for chemical delivery

Phase of Production	Trips per Day	Peak Hour PCE Trips
0-6 Months	2	2
6-12 Months	1	1
1 Year-25 Year	~1	~1

Table 6: Production phase traffic estimates for operator trips

3.1 PROPOSED CONDITION LEVEL OF SERVICE

Analysis was performed for LOS during the highest peak hour traffic generating period of the pre-production stages. The peak period was chosen based on having the highest peak hour PCE trip generation. The highest peak hour count occurs during the Surface Rig Demobilization stage. Using the highest impact portion of the pre-production phase of the Project is conservative as it will demonstrate the worst possible LOS that local motorists will experience during the pre-production phase of the Project. The Surface Rig Demobilization stage occurs over a two-day period, and the entire pre-production phase occurs in less than a year and a half. The production phase impacts to LOS will be negligible due to a dramatic decrease in trips generated.

LOS was analyzed for both the AM and PM peak hours. The AM and PM peak hour trip distributions for each movement are shown in Table 7.

	Trip Count/Truck Percentage	
	Southbound 131st Avenue Right on to US 34	Westbound US 34 Right on to 131st Avenue
AM Peak Hour	12 / 75%	25 / 36%
PM Peak Hour	25 / 36%	12 / 75%

Table 7: Peak hour trip counts per movement used for LOS analysis at the 131st Ave / US 34 Intersection

The resulting highest impact to LOS is the AM peak hour movement, which reduces the LOS for the southbound right movement from LOS D to LOS F with a control delay of 57.6 seconds. Since there is minimal to no existing traffic along 131st Avenue, the only southbound right traffic to be affected by the Project will be the Project generated truck and worker traffic. This LOS analysis also does not consider any reduction in required headway gaps due to a proposed southbound right turn acceleration lane to make the southbound right turn movement. A reduction in required headway gap would improve the proposed LOS. Like the existing condition LOS analysis, the westbound right turn movement theoretically experiences no delay since this movement does not have to stop or yield. Appendix A shows the HCS Two-Way Stop-Control LOS Report for the proposed condition.

According to the City of Greeley Criteria for Development of Transportation Impact Studies Table 4 (2019), the minimum acceptable LOS for a minor intersection such as this is LOS E for any leg, and LOS F for any particular movement. The intersection of 131st Avenue and US 34 would not meet this criterion without an

intersection improvement. However, this change to the LOS would be temporary during the Project pre-production phase. Also, due to the lack of existing traffic on 131st Avenue, only Project related worker and truck traffic would experience the failing LOS.

3.2 AUXILIARY LANE REQUIREMENTS

An auxiliary lane analysis was performed for the intersection of 131st Avenue and US 34. The production phase trip estimates in PCE were used for this analysis, which is standard practice due to the temporary nature of the pre-production phase. According to the State of Colorado State Highway Access Category Assignment Schedule, US 34 is categorized as an Expressway (E-X). Therefore, Section 3.7 of Code specifies the auxiliary lane requirements:

- A left turn deceleration lane is required if the projected peak hour left turn in is greater than 10 vehicles per hour (vph)
- A right turn deceleration lane is required if the peak projected hour right turn in is greater than 10 vph
- A right turn acceleration lane is required if the project peak hour right out is greater than 10 vph
- A left turn acceleration lane may be required if it would be a benefit to the safety and operation of the roadway.

KMOG intends to route their Project traffic entirely through the new auxiliary turn lanes that will be constructed on westbound US 34, and will avoid turning movements from, or onto, the eastbound US 34 lanes. Therefore, no left turn acceleration lanes will be required.

Trip generation estimates during the production phase in PCE can be found in Tables 4, 5, and 6 in Section 3.0. As discussed in Section 3.0, the most impactful production phase occurs in the first six months at a conservatively estimated nine peak-hour PCE trips. This value was measured against each of the auxiliary lane requirement thresholds separately. Measuring the total peak hour trips to each movement separately is conservative as each movement would likely only experience a share of the peak hour trips.

This trip estimation falls below the Code's thresholds for the addition of right turn acceleration and deceleration lanes. However, KMOG is proposing to install right turn acceleration and deceleration lanes on US 34 at 131st Avenue per their own safety initiative. These proposed auxiliary lanes would also improve the LOS for the Project generated pre-production phase traffic.

4.0 TURNING PATH ANALYSIS

A turning path analysis was performed for the proposed vehicle route to and from the Project to ensure adequacy of the infrastructure for truck movements. Improvements to 131st Avenue from US 34 to the Project access point as well as improvements to the Project access road at 131st Avenue are planned by KMOG. These improvements consist of widening 131st Avenue and the Project access road at 131st Avenue to 24 feet and increasing the intersection apron radii to 60 feet.

The AASHTO Green Book provides reference data for a range of vehicle types, including combination trucks and trailers with varying kingpin, wheel-base and axle configurations (AASHTO 2018). These data are

attributed to what is commonly defined by AASHTO as a design vehicle. Tetra Tech used an AASHTO WB-67 as the design vehicle for the turning path analysis. The WB-67 design vehicle is the most common semi-trailer combination, and is the design vehicle that CDOT commonly uses to design intersections (CDOT 2018). This vehicle is representative of the largest type of combo unit vehicle that will typically be used for the Project. Figures showing the turning path analysis can be found in Appendix D. As depicted in Appendix D, a WB-67 vehicle can make the required turns along the proposed route given the proposed, improved roadway configuration.

5.0 CONCLUSION

The development of the Project will have no significant impact to existing traffic safety or capacity. Acceptable sight distance currently exists at the intersection of 131st Avenue and US 34 to allow turns onto US 34. The heaviest additional traffic volumes due to the Project will be present for approximately 22 months during the pre-production phase, and the peak impacts of the pre-production phase will only occur for a two-day period. The only LOS decrease at the intersection of 131st Avenue and US 34 will occur for the southbound right turn movement but will still be an acceptable LOS according to the City of Greeley Standards (2019).

Project related traffic will decrease significantly during the production phase. The production phase is estimated to add approximately nine peak hour PCE trips during the first six months and will taper afterwards. This additional traffic volume does not increase peak hour PCE turning movement counts such that acceleration and deceleration lanes are warranted according to the Code.

KMOG plans to improve 131st Avenue along the proposed traffic route. These improvements will be made to provide an adequate infrastructure configuration for truck traffic trips to and from the Project. A turning path analysis proves that these width and radius improvements are satisfactory.

6.0 REFERENCES

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APPENDIX A: LOS ANALYSIS

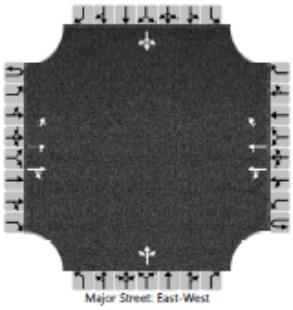
Existing Condition HCS Two-Way Stop-Control Report

HCS Two-Way Stop-Control Report

General Information / Site Information

Analyst	Cody Hightower	Intersection	US 34 and 131st Avenue
Agency/Co.	Tetra Tech	Jurisdiction	City of Greeley
Date Performed	4/19/2022	East/West Street	US 34
Analysis Year	2022	North/South Street	131st Avenue
Time Analyzed		Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Oil and gas well site.		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	0	2	1		0	1	0		0	1	0
Configuration		L	T	TR		LT	T	R			LTR				LTR	
Volume (veh/h)	0	0	2369	0		0	2369	1		0	0	0		0	0	1
Percent Heavy Vehicles (%)	3	3				3				0	0	0		0	0	0
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized						No										
Median Type | Storage		Left + Thru								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.50	6.50	6.90		7.50	6.50	6.90
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.50	4.00	3.30		3.50	4.00	3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				0					0				1	
Capacity, c (veh/h)		165				165					0				157	
v/c Ratio		0.00				0.00									0.01	
95% Queue Length, Q_{95} (veh)		0.0				0.0									0.0	
Control Delay (s/veh)		26.9				26.8	0.0								28.0	
Level of Service (LOS)		D				D	A								D	
Approach Delay (s/veh)		0.0				0.0								28.0		
Approach LOS		A				A								D		

Peak Pre-Production AM Peak Hour

HCS Two-Way Stop-Control Report

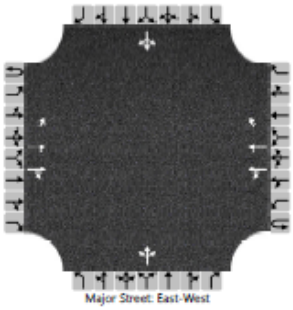
General Information

Analyst	Cody Hightower
Agency/Co.	Tetra Tech
Date Performed	4/19/2022
Analysis Year	2022
Time Analyzed	
Intersection Orientation	East-West
Project Description	Oil and gas well site.

Site Information

Intersection	US 34 and 131st Avenue
Jurisdiction	City of Greeley
East/West Street	US 34
North/South Street	131st Avenue
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	0	2	1		0	1	0		0	1	0
Configuration		L	T	TR		LT	T	R			LTR				LTR	
Volume (veh/h)	0	0	2369	0		0	2369	25		0	0	0		0	0	12
Percent Heavy Vehicles (%)	3	3				3				0	0	0		0	0	75
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized						No										
Median Type | Storage		Left + Thru								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.50	6.50	6.90		7.50	6.50	8.40
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.50	4.00	3.30		3.50	4.00	4.05

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				0					0				13	
Capacity, c (veh/h)		161				165					0				81	
v/c Ratio		0.00				0.00									0.16	
95% Queue Length, Q_{95} (veh)		0.0				0.0									0.5	
Control Delay (s/veh)		27.4				26.8	0.0								57.6	
Level of Service (LOS)		D				D	A								F	
Approach Delay (s/veh)		0.0				0.0								57.6		
Approach LOS		A				A								F		

Peak Pre-Production PM Peak Hour

HCS Two-Way Stop-Control Report

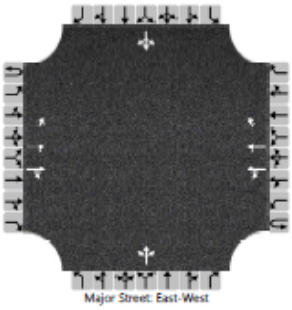
General Information

Analyst	Cody Hightower
Agency/Co.	Tetra Tech
Date Performed	4/19/2022
Analysis Year	2022
Time Analyzed	
Intersection Orientation	East-West
Project Description	Oil and gas well site.

Site Information

Intersection	US 34 and 131st Avenue
Jurisdiction	City of Greeley
East/West Street	US 34
North/South Street	131st Avenue
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	0	2	1		0	1	0		0	1	0
Configuration		L	T	TR		LT	T	R			LTR				LTR	
Volume (veh/h)	0	0	2369	0		0	2369	12		0	0	0		0	0	25
Percent Heavy Vehicles (%)	0	0				0				0	0	0		0	0	36
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized						No										
Median Type | Storage			Left + Thru							1						

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.10				4.10				7.50	6.50	6.90		7.50	6.50	7.62
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.20				2.20				3.50	4.00	3.30		3.50	4.00	3.66

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				0					0				27	
Capacity, c (veh/h)		171				173					0				114	
v/c Ratio		0.00				0.00									0.24	
95% Queue Length, Q_{95} (veh)		0.0				0.0									0.9	
Control Delay (s/veh)		26.1				25.8	0.0								46.0	
Level of Service (LOS)		D				D	A								E	
Approach Delay (s/veh)		0.0				0.0								46.0		
Approach LOS		A				A								E		

APPENDIX B: TRIP GENERATION TABLE

Rainbow 24-9HZ
9-5-67 Greeley, Weld County
Estimated Trip Generation Data
Site Preparation through Interim Reclamation

Phase of Development	Estimated Duration (days, max)[1]	Vehicle Type[2]	CDOT SHAC Equivalency Factor (PCE/Veh)[3]	Estimated Number of Veh/Day[4]		Average Daily Trips[5]		AM Peak Hour[6]						PM Peak Hour[6]						Total Trips	
								In		Out		Total		In		Out		Total			
				Veh	PCE	Veh	PCE	Veh	PCE	Veh	PCE	Veh	PCE	Veh	PCE	Veh	PCE	Veh	PCE	Veh	PCE
Site Preparation	30	Light Vehicle	1	3	3	6	6	*2*	*2*	*0*	*0*	**2**	**2**	*0*	*0*	*2*	*2*	**2**	**2**	176	176
		Single Unit	2	3	5	5	10	*0*	*0*	*0*	*0*	**0**	**0**	*0*	*0*	*0*	*0*	**0**	**0**	155	310
		Combo Unit	3	52	155	104	311	*5*	*15*	*5*	*15*	**10**	**30**	*5*	*15*	*5*	*15*	**10**	**30**	3,109	9,327
		Oversize Load	3	0	1	0	1	*0*	*0*	*0*	*0*	**0**	**0**	*0*	*0*	*0*	*0*	**0**	**0**	14	42
		Traffic Summary (Site Preparation):		**58**	**164**	**115**	**328**	*7*	*17*	*5*	*15*	**12**	**32**	*5*	*15*	*7*	*17*	**12**	**32**	**3,454**	**9,855**
Production Facility Construction	44	Light Vehicle	1	9	9	19	19	*6*	*6*	*1*	*1*	**7**	**7**	*1*	*1*	*6*	*6*	**7**	**7**	833	833
		Single Unit	2	4	7	7	14	*0*	*0*	*0*	*0*	**0**	**0**	*0*	*0*	*0*	*0*	**0**	**0**	318	636
		Combo Unit	3	8	23	16	47	*1*	*3*	*1*	*3*	**2**	**6**	*1*	*3*	*1*	*3*	**2**	**6**	688	2,063
		Oversize Load	3	1	2	2	5	*1*	*3*	*1*	*3*	**2**	**6**	*1*	*3*	*1*	*3*	**2**	**6**	71	213
		Traffic Summary (Production Facility Construction):		**22**	**43**	**43**	**85**	*8*	*12*	*3*	*7*	**11**	**19**	*3*	*7*	*8*	*12*	**11**	**19**	**1,910**	**3,745**
Surface Casing Preset	28	Light Vehicle	1	8	8	15	15	*5*	*5*	*1*	*1*	**6**	**6**	*1*	*1*	*5*	*5*	**6**	**6**	424	424
		Single Unit	2	2	4	4	7	*1*	*2*	*1*	*2*	**2**	**4**	*1*	*2*	*1*	*2*	**2**	**4**	98	196
		Combo Unit	3	49	148	98	295	*3*	*9*	*3*	*9*	**6**	**18**	*3*	*9*	*3*	*9*	**6**	**18**	2,755	8,264
		Oversize Load	3	0	0	0	0	*0*	*0*	*0*	*0*	**0**	**0**	*0*	*0*	*0*	*0*	**0**	**0**	0	0
		Traffic Summary (Surface Casing Preset):		**59**	**159**	**117**	**317**	*9*	*16*	*5*	*12*	**14**	**28**	*5*	*12*	*9*	*16*	**14**	**28**	**3,276**	**8,883**
Surface Rig Mobilization	2	Light Vehicle	1	9	9	18	18	*5*	*5*	*1*	*1*	**6**	**6**	*1*	*1*	*5*	*5*	**6**	**6**	36	36
		Single Unit	2	11	22	22	44	*1*	*2*	*1*	*2*	**2**	**4**	*1*	*2*	*1*	*2*	**2**	**4**	44	88
		Combo Unit	3	176	528	352	1,056	*8*	*24*	*8*	*24*	**16**	**48**	*8*	*24*	*8*	*24*	**16**	**48**	704	2,112
		Oversize Load	3	2	5	3	9	*1*	*3*	*1*	*3*	**2**	**6**	*1*	*3*	*1*	*3*	**2**	**6**	6	18
		Traffic Summary (Surface Rig Mobilization):[7]		**198**	**564**	**395**	**1,127**	*15*	*34*	*11*	*30*	**26**	**64**	*11*	*30*	*15*	*34*	**26**	**64**	**790**	**2,254**
Sequential Drilling and Pad Regrade	185	Light Vehicle	1	25	25	50	50	*15*	*15*	*3*	*3*	**18**	**18**	*3*	*3*	*15*	*15*	**18**	**18**	9,293	9,293
		Single Unit	2	2	4	4	8	*1*	*2*	*1*	*2*	**2**	**4**	*1*	*2*	*1*	*2*	**2**	**4**	717	1,434
		Combo Unit	3	8	23	16	47	*1*	*3*	*1*	*3*	**2**	**6**	*1*	*3*	*1*	*3*	**2**	**6**	2,888	8,664
		Oversize Load	3	0	1	1	3	*1*	*3*	*1*	*3*	**2**	**6**	*1*	*3*	*1*	*3*	**2**	**6**	178	534
		Traffic Summary (Sequential Drilling and Pad Regrade):		**35**	**54**	**71**	**108**	*18*	*23*	*6*	*11*	**24**	**34**	*6*	*11*	*18*	*23*	**24**	**34**	**13,076**	**19,925**
Surface Rig Demobilization	2	Light Vehicle	1	27	27	54	54	*16*	*16*	*3*	*3*	**19**	**19**	*3*	*3*	*16*	*16*	**19**	**19**	108	108
		Single Unit	2	11	21	21	42	*1*	*2*	*1*	*2*	**2**	**4**	*1*	*2*	*1*	*2*	**2**	**4**	42	84
		Combo Unit	3	146	437	291	873	*7*	*21*	*7*	*21*	**14**	**42**	*7*	*21*	*7*	*21*	**14**	**42**	582	1,746
		Oversize Load	3	2	5	3	9	*1*	*3*	*1*	*3*	**2**	**6**	*1*	*3*	*1*	*3*	**2**	**6**	6	18
		Traffic Summary (Surface Rig Demobilization):[7]		**185**	**489**	**369**	**978**	*25*	*42*	*12*	*29*	**37**	**71**	*12*	*29*	*25*	*42*	**37**	**71**	**738**	**1,956**
Well Completions	126	Light Vehicle	1	57	57	114	114	*34*	*34*	*7*	*7*	**41**	**41**	*7*	*7*	*34*	*34*	**41**	**41**	14,364	14,364
		Single Unit	2	8	15	15	30	*1*	*2*	*1*	*2*	**2**	**4**	*1*	*2*	*1*	*2*	**2**	**4**	1,890	3,780
		Combo Unit	3	19	57	38	114	*1*	*3*	*1*	*3*	**2**	**6**	*1*	*3*	*1*	*3*	**2**	**6**	4,788	14,364
		Oversize Load	3	0	0	0	0	*0*	*0*	*0*	*0*	**0**	**0**	*0*	*0*	*0*	*0*	**0**	**0**	0	0
		Traffic Summary (Well Completions):		**84**	**129**	**167**	**258**	*36*	*39*	*9*	*12*	**45**	**51**	*9*	*12*	*36*	*39*	**45**	**51**	**21,042**	**32,508**
Reclamation	30	Light Vehicle	1	15	15	30	30	*9*	*9*	*2*	*2*	**11**	**11**	*2*	*2*	*9*	*9*	**11**	**11**	902	902
		Single Unit	2	19	37	37	75	*2*	*4*	*2*	*4*	**4**	**8**	*2*	*4*	*2*	*4*	**4**	**8**	1,125	2,249
		Combo Unit	3	38	113	75	226	*4*	*12*	*4*	*12*	**8**	**24**	*4*	*12*	*4*	*12*	**8**	**24**	2,260	6,780
		Oversize Load	3	0	1	1	2	*0*	*0*	*0*	*0*	**0**	**0**	*0*	*0*	*0*	*0*	**0**	**0**	16	48
		Traffic Summary (Reclamation):		**72**	**166**	**143**	**333**	*15*	*25*	*8*	*18*	**23**	**43**	*8*	*18*	*15*	*25*	**23**	**43**	**4,303**	**9,980**
											Max AM Peak Hour:	**45**	**71**				*Max PM Peak Hour:*	**45**	**71**		
																				Development Totals:	*48,589* **89,105**

Abbreviations:

ADT	Average Daily Trips	lbs.	pounds	PCE	Passenger Car Equivalents
CDOT	Colorado Department of Trans	GVW	Gross Vehicle Weight	SHAC	State Highway Access Code
ft	feet	KMG	Kerr McGee Oil & Gas Onshore, LP	Veh	Vehicle

Notes:

1 Estimate of phase durations is based on anticipated development expectations for each phase based on previous schedules provided by Anadarko

2 Arcadis has categorized the trip data into the four unique Vehicle Types based on trip profile data provided by KMG which summarizes traffic based on these categories. Vehicle categories include the following: Light Vehicles (e.g. pickup trucks) have a GVW between 4,500 and 8,500 lbs. and measures < 20 ft long; Single Unit vehicles (e.g. 3-axle bobtail or dump truck) having a GVW between 10,000 and 20,000 lbs. and measuring between 20-40 ft long; Combo Unit vehicles (typically a semi and Trailer) having GVW between 50,000 and 70,000 lbs., measuring between 40 and 60 ft long; Oversize Loads (low boy equip trailers, wide loads) usually having GVW greater than 70,000 lbs., and measuring between 40 and 60 feet long.

3 CDOT SHAC assumes: passenger vehicle < 20ft, single unit truck from 20 to 40 ft, multiple unit truck > 40 ft; 1 Single Unit truck = 2 PCE, and 1 Combo Unit truck = 3 PCE.

4 Estimated number of vehicles per day is based on trip generation breakdown summary provided by KMG for other similarly sized facilities. These data were then scaled/adjusted to approximate trip generation traffic for specific Pad/Facility based on the number of wells that will be drilled.

5 Average Daily Trips number assumes all vehicles make a round trip (e.g., ADT = No. of Vehicles per day x 2) and that the total trips in and out levels/evens out on a daily basis.

6 AM peak hour and PM peak hour trips are estimated based on input from KMG experience with similar facility development projects. Light truck traffic is almost entirely associated with daily crew/worker trips to the site; Approximately 60% of the worker trips associated with shift changes will likely occur during the AM and PM peak hours. The larger vehicle (Single unit, Combo units, Oversize loads), daily truck traffic will occur uniformly over the course of a 12 hour work day for the Site Preparation and Reclamation phases. Larger vehicle traffic (Single unit, Combo units, Oversize loads) during the remaining phases (e.g., casing preset, rig mobe/demobe, sequential drilling, and completions) will be spread uniformly over a 24 hour period.

7 Rig mobilization and demobilization will generally occur while temporary traffic controls are in place

APPENDIX C: SIGHT DISTANCE PHOTOGRAPH LOG

Date:	2022-17-05	Project Name:	OXY-Rainbow
Field Personnel:	CS & ZS	Project Number:	117-7107002
Photo Taken From:	131st Ave.	Photo Taken Of:	Highway 34
Distance:	725’	Photo Direction:	East
Current Setback:	10’	Photo Height:	3.5’
Vest Height:	4.25’	Vest Location:	WB Lane

Date:	2022-17-05	Project Name:	OXY-Blue Chip
Field Personnel:	CS & ZS	Project Number:	117-7107002
Photo Taken From:	Highway 34 WB Lane	Photo Taken Of:	131st Ave.
Distance:	725’	Photo Direction:	West
Current Setback:	5’	Photo Height:	3.5’
Clipboard Height:	4.25’	Clipboard Location:	131st Ave.

Date:	2022-17-05	Project Name:	OXY-Rainbow
Field Personnel:	CS & ZS	Project Number:	117-7107002
Photo Taken From:	131st Ave.	Photo Taken Of:	Highway 34
Distance:	725’	Photo Direction:	West
Current Setback:	10’	Photo Height:	3.5’
Clipboard Height:	4.25’	Clipboard Location:	EB Turn Lane

Date:	2022-17-05	Project Name:	OXY-Blue Chip
Field Personnel:	CS & ZS	Project Number:	117-7107002
Photo Taken From:	Highway 34 EB Turning Lane	Photo Taken Of:	131st Ave.
Distance:	725’	Photo Direction:	East
Current Setback:	5’	Photo Height:	3.5’
Vest Height:	4.25’	Vest Location:	131st Ave.

APPENDIX D: TURNING PATH ANALYSIS

0 20' 40' 80'

SCALE: 1" = 40'

TETRA TECH

www.tetratech.com

1560 Broadway, Suite 1400
Denver, CO 80202
(303) 291-6260

Occidental Petroleum Corporation

Turning Path Analysis

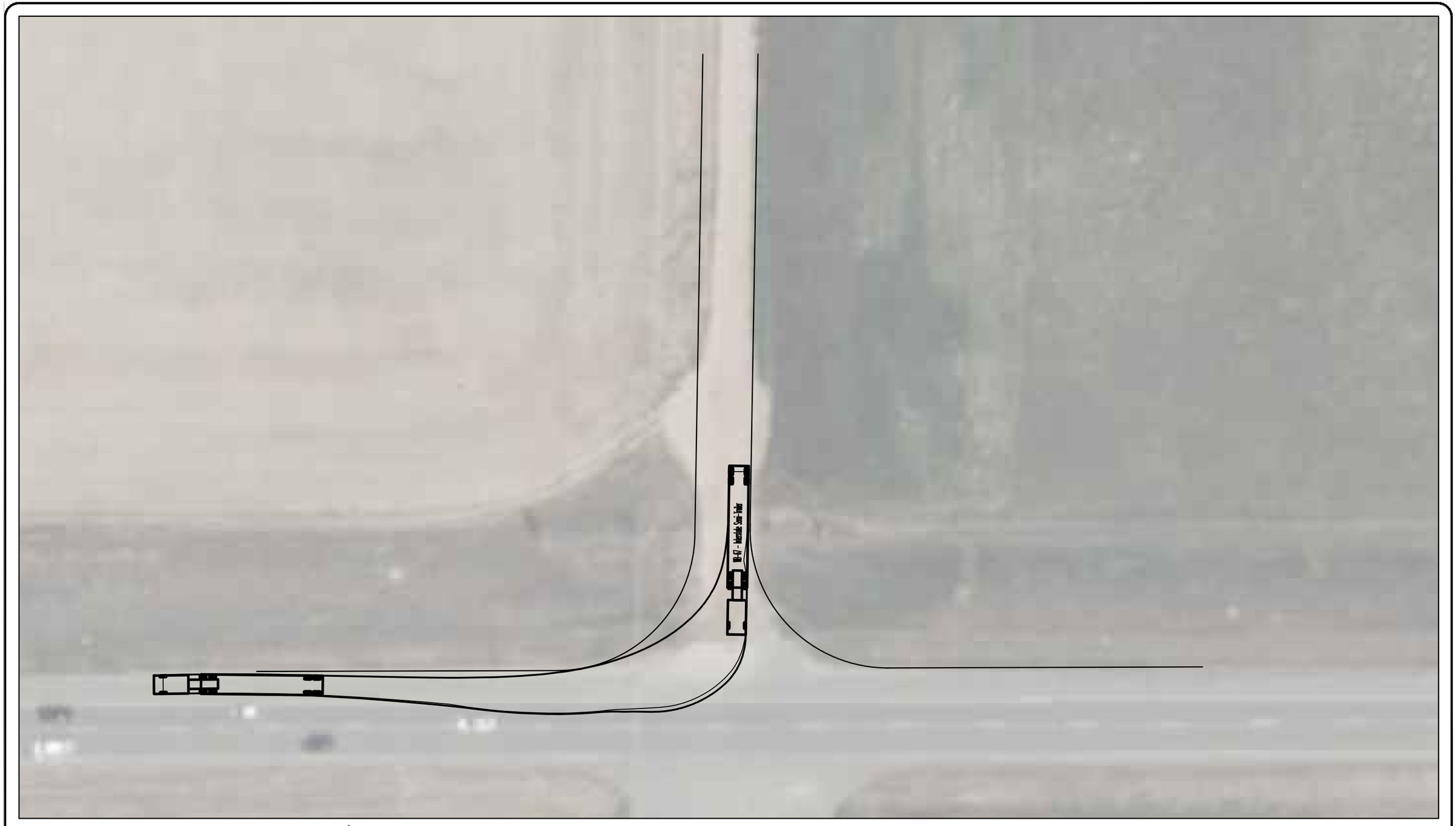
US 34 and 131st Avenue
Westbound Right

PROJ:	Rainbow
DATE:	05/20/2022
DESN:	CRH

Supplemental

1

Bar Measures 1 inch



0 20' 40' 80'

SCALE: 1" = 40'

TETRA TECH

www.tetratech.com

1560 Broadway, Suite 1400
Denver, CO 80202
(303) 291-6260

Occidental Petroleum Corporation

Turning Path Analysis

US 34 and 131st Avenue
Southbound Right

PROJ:	Rainbow
DATE:	05/20/2022
DESN:	CRH

Supplemental
2

Bar Measures 1 inch

0 20' 40' 80'

SCALE: 1" = 40'

TETRA TECH

www.tetratech.com

1560 Broadway, Suite 1400
Denver, CO 80202
(303) 291-6260

Occidental Petroleum Corporation

Turning Path Analysis

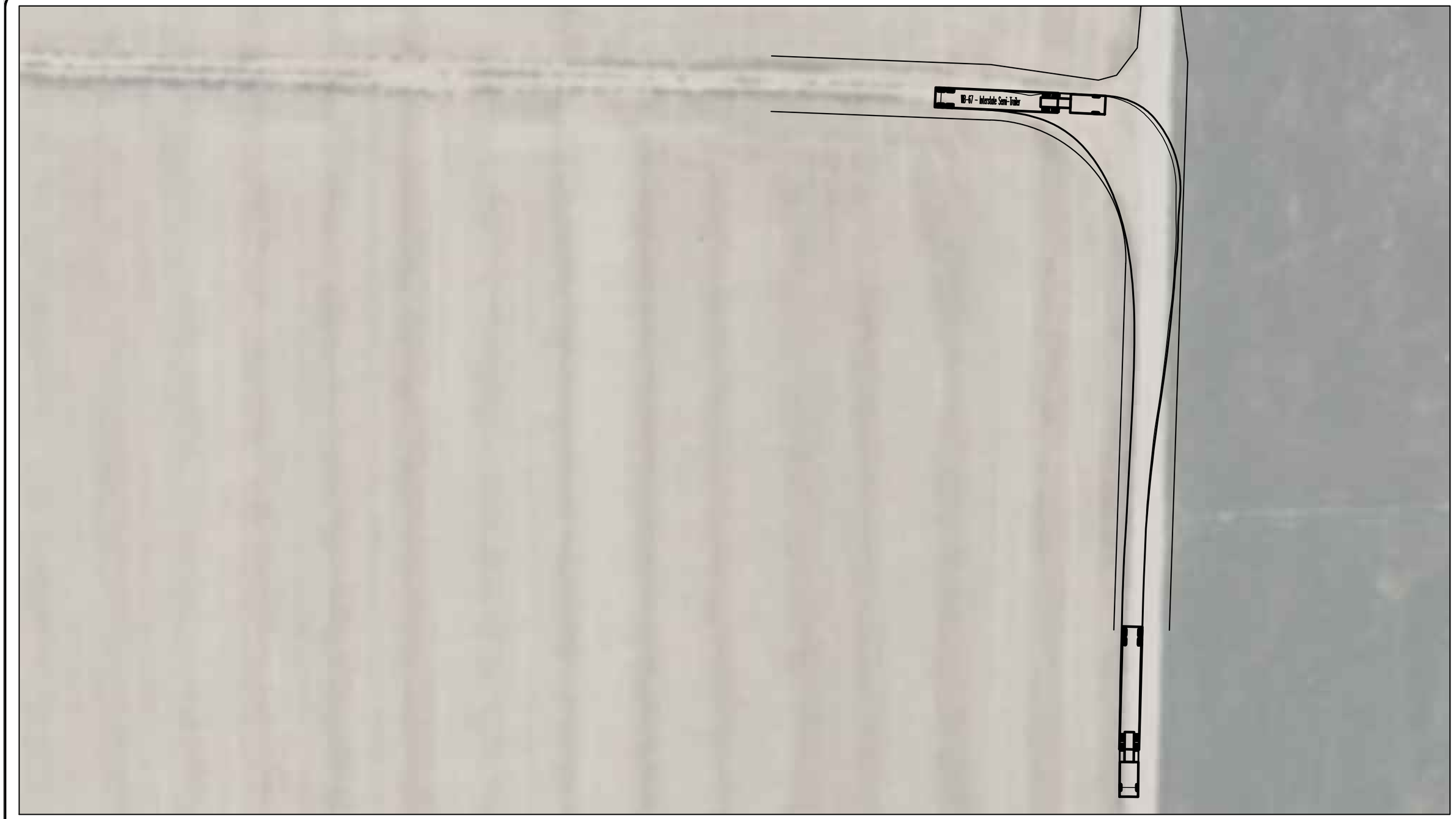
131st Avenue Access
Northbound Left

PROJ:	Rainbow
DATE:	05/20/2022
DESN:	CRH

Supplemental

3

Bar Measures 1 inch



0 20' 40' 80'

SCALE: 1" = 40'

TETRA TECH

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1560 Broadway, Suite 1400
Denver, CO 80202
(303) 291-6260

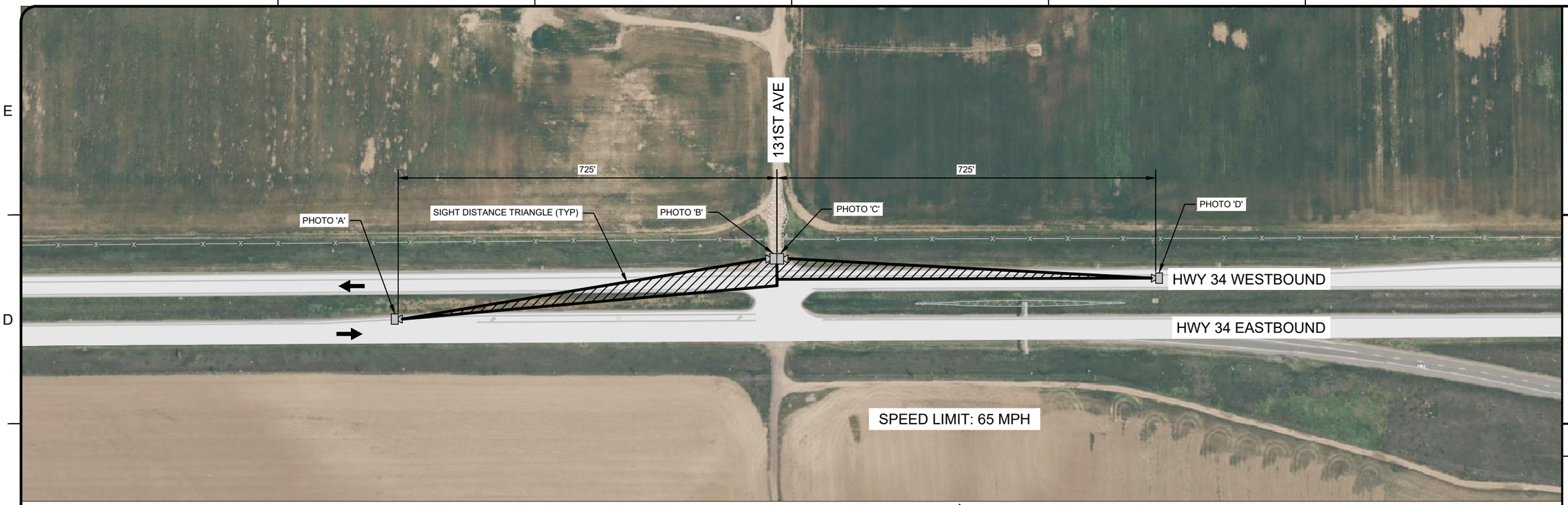
Occidental Petroleum Corporation

Turning Path Analysis

131st Avenue Access
Eastbound Right

PROJ:	Rainbow
DATE:	05/20/2022
DESN:	CRH
Supplemental	4

Bar Measures 1 inch



1 – SITE DISTANCE
SCALE: 1" = 200'

N

0 100' 200'
SCALE: 1" = 200'

PERSON IN PHOTO IS STANDING 725' AWAY FROM CAMERA.

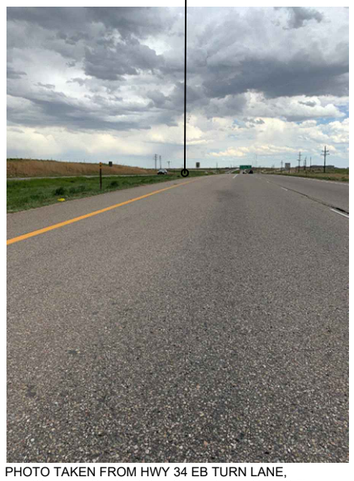


PHOTO TAKEN FROM HWY 34 EB TURN LANE, 5' FROM YELLOW STRIPE. CAMERA HEIGHT: 3.5'

A – LOOKING EAST
FROM HWY 34 EB TURN LANE

PERSON IN PHOTO IS STANDING 725' AWAY FROM CAMERA.

PHOTO TAKE FROM 131ST AVE, 10' FROM EDGE OF PAVED ROAD CAMERA HEIGHT: 3.5'.

B – LOOKING WEST
FROM PROPOSED INTERSECTION

PERSON IN PHOTO IS STANDING 725' AWAY FROM CAMERA.

PHOTO TAKE FROM 131ST AVE, 10' FROM EDGE OF PAVED ROAD. CAMERA HEIGHT:3.5'.

C – LOOKING EAST
FROM PROPOSED INTERSECTION

PERSON IN PHOTO IS STANDING 725' AWAY FROM CAMERA.

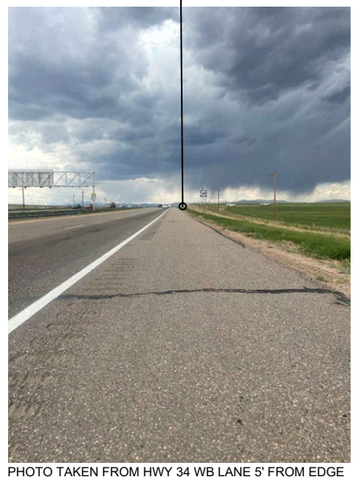


PHOTO TAKEN FROM HWY 34 WB LANE 5' FROM EDGE OF ROAD. CAMERA HEIGHT: 3.5'

B – LOOKING WEST
FROM HWY 34 WB LANE

Bar Measures 1 inch, otherwise drawing not to scale

TETRA TECH
www.tetratech.com
3801 AUTOMATION WAY, SUITE 100
FORT COLLINS, COLORADO 80525
TEL: (970) 223-9600

DRAFT
NOT FOR CONSTRUCTION

MARK	DATE	DESCRIPTION	BY

KERR-MCGEE OIL & ONSHORE, LP

HWY 34 ACCEL/DECEL LANE ADDITIONS
WELD COUNTY, COLORADO

ROADWAY IMPROVEMENTS
FOR HWY 34 & 131ST AVE.
SIGHT DISTANCE EVALUATION

PROJ: 117-7107002
DESN:
DRWN:
CHKD:

1

G

SITE SAFETY AND EMERGENCY ACTION PLAN

1099 18th Street, Suite 700
Denver, Colorado 80202

Rainbow 24-9HZ Wells and Facility

Section 9 – T5N – R67W

Address: TBD

GREELEY, COLORADO

Proposed Spud Date: 4th Quarter 2022

TABLE OF CONTENTS

SECTION 1 – APPROVAL SIGNATURES

Kerr-McGee Oil & Gas Onshore LC			
Name	**Signature**	**Title**	**Date**
Bethany Bosworth		Rockies Asset Director	8/3/2022
Greeley Fire Department			
Name	**Signature**	**Title**	**Date**
Brian Kuznik		Fire Chief	

SECTION 2 – SITE ADDRESS AND DIRECTIONS

a) Directions:

From the intersection of Highway 34 and Weld County Road (WCR) 19 (aka 131st Ave.) travel north approximately 0.6 miles to the location access road. Turn left and travel east on the access road approximately 1,000 feet to the proposed facility and wells.

b) Ingress and egress information:

All traffic into and out of the oil and gas location will check-in and check-out with security. All ingress and egress routes will be clearly identified and kept clear from parked/staged vehicles at all times.

c) Physical Address and GPS coordinates

- **API#** – Pending COGCC Permit Approval
- **Legal Description** – E1/2 of Section 9, Township 5 North, Range 67 West
- **Address -** * Address Pending *(Greeley will provide physical address for 911 dispatching)*
- **Town, CO, Zip –** Greeley, Colorado
- **Lat/Long:** 40.415144, -104.895999

d) Emergency Evacuation/Muster Assembly Point(s)

For incidents, where remaining in a particular area could pose a hazard to personnel onsite, such as a fire or hazardous material release, evacuation may be required to ensure the safety of onsite personnel. In the event of an emergency, site personnel will initially be evacuated to pre-designated muster assembly points. Muster Assembly Points are identified on The Project Location Access Map on Page 7 of this plan, and noted on the site-specific TRP.

- The Muster Assembly Points will be identified in section 5.b. of this plan, and identified during all site safety briefings for visitors, employees, and contract personnel.
- **Sign-In Sheets:** During drilling and completion activities all employees and approved visitors to the oil and gas location will be required to enter through a manned security checkpoint. Upon checking in, employees and visitors will be provided a detailed safety briefing of current operations, all safety precautions that must be adhered to, and the site emergency evacuation plan. In addition, all personnel who enter the location must sign-out upon their departure. Security or Supervisory personnel are required to account for all persons entering or leaving during active operations and in the event of an incident.
- Once drilling and completion activities are finalized, the site will transition to its production phase and no unauthorized personnel will be allowed on location without first contacting a company representative.

SECTION 3 – LIST OF EMERGENCY CONTACTS

a) Kerr McGee Oil & Gas Onshore LP

Name	Office Phone	Emergency/Cell
Kerr McGee Oil & Gas Onshore LP 1099 18th Ave. Denver CO 80202	720-929-6000	970-515-1500
Kerr McGee Oil & Gas Onshore LP Integrated Operations Center (IOC) 501 N. Division Blvd. Platteville, CO 80651	970-336-3500	970-515-1500
Kerr McGee Oil & Gas Onshore LP EHS on-call Emergency Number	970-515-1500	970-515-1500
EHS–Supervisor & Safety – Lynna Scranton	720-929-6317	303-906-1711
EHS – Environmental – Greg Hamilton	970-515-1698	970-590-6256

b) First Responders (Fire, EMS, HazMat)

Name	Emergency Number	Non-Emergency Number
***All emergency notifications require notification to 911 first**		
Greeley Fire Department	911	970-350-9504
Greeley Police Department	911	970-350-9600
Weld County Sheriff	911	970-356-4015
Colorado State Patrol	911	970-506-4999

c) Local, State, and Federal Contacts

Name	Emergency Number	Non-Emergency Number
Greeley Planning and Zoning Office	none	970-350-9780
Greeley Office of Emergency Management	911	970-350-9598
COGCC	none	303-894-2100
CDPHE	none	877-518-5608
Colorado Parks & Wildlife	none	303-291-7227
National Response Center	800-424-8802	none

d) Medical Facilities

Name	Office Phone
Northern Colorado Medical Center	970-352-4121
Medical Center of the Rockies	970-624-2500
Northern Colorado Medical Facility (Burn Unit)	970-810-4121
UCHealth Greeley Hospital	970-652-2000

e) Contracted Spill Response Organization

Name	24/7 Emergency Number	Non-Emergency Number
EnviroServe	720-450-1316	800-488-0910
EHS-Environmental HAZMAT Services	303-525-3111	720-225-9252

f) Loss of Well Control

Name	24/7 Emergency Number	Non-Emergency Number
Wild Well Control, Inc.	281-353-5481	281-784-4700
Cudd Pressure Control	307-382-6650 and 713-849-2769	800-990-2833

g) Railroad Emergency Response

Name	24/7 Emergency Number
Union Pacific Railroad	888-877-7267
BNSF	800-832-5452
Great Western Railway	800-533-9416 (Office 303-398-4500)

h) Mutual-Aid

All mutual-aid coordination within Weld County will be in accordance with the current Weld County Fire Chiefs Association Mutual-Aid Agreement. In addition, due to the size of Weld County and the large number of Fire Departments that make up the Weld County Fire Chiefs Association's, Mutual-Aid may be a mixture of full-time, combination, and volunteer FD resources responding to an incident at this oil and gas location.

SECTION – 4 SITE SPECIFIC INFORMATION

a) Site Description

The Rainbow 24-9HZ Pad is a KMOG oil and gas production facility that will have twenty-eight (28) horizontal oil and gas wells along with two 285-barrel crude oil storage tanks (these are condensate tanks used for maintenance storage as needed) and eight 285-barrel produced water tanks located inside a lined secondary containment structure.

b) Nearby Schools, High Occupancy Buildings, Waterways (measured from the Disturbance Area)

- Schools - None within 5,280 feet of location
- High Occupancy Buildings - None within 5,280 feet of location
- Waterways – Irrigation Ditch: 0 feet from well pad

c) Site Safety Requirements and General Safety Information

The minimum personal protective equipment (PPE) to enter any KMOG location includes hard hat, safety glasses, safety toe boots, four gas monitor, and fire-resistant clothing (FRC). All contractors and visitors are responsible for providing their employees with the appropriate training on and use of PPE while on KMOG locations. In addition, all contract personnel entering an KMOG location to perform work must understand and abide by KMOG's contractor expectations relating to environmental, health, and safety requirements.

The primary hazards that any person must be aware of while on an KMOG production location include, but are not limited to, the potential for release of hydrocarbon gases and/or liquids from production equipment/tanks, heavy truck and equipment traffic, loud noise, high pressures, and the potential for a flash fire. These hazards can vary depending on the work being performed.

d) Safety Data Sheets (SDS)

- **SDS:** Depending on the operations taking place on location, chemicals stored on-site may vary. In accordance with 49 CFR 1910.1200, Safety Data Sheets (SDS) will be made available for site personnel performing work and for first responders in a centralized location onsite.

e) Equipment Lists – Production Phase

Item Description	Quantity
Horizontal oil and gas wells	28
400 - barrel crude oil storage tank	0
285 - barrel produced water	8
285 - barrel condensate tank (maintenance tank only)	2

f) Chemicals stored on-site (BBLs and Gallons)

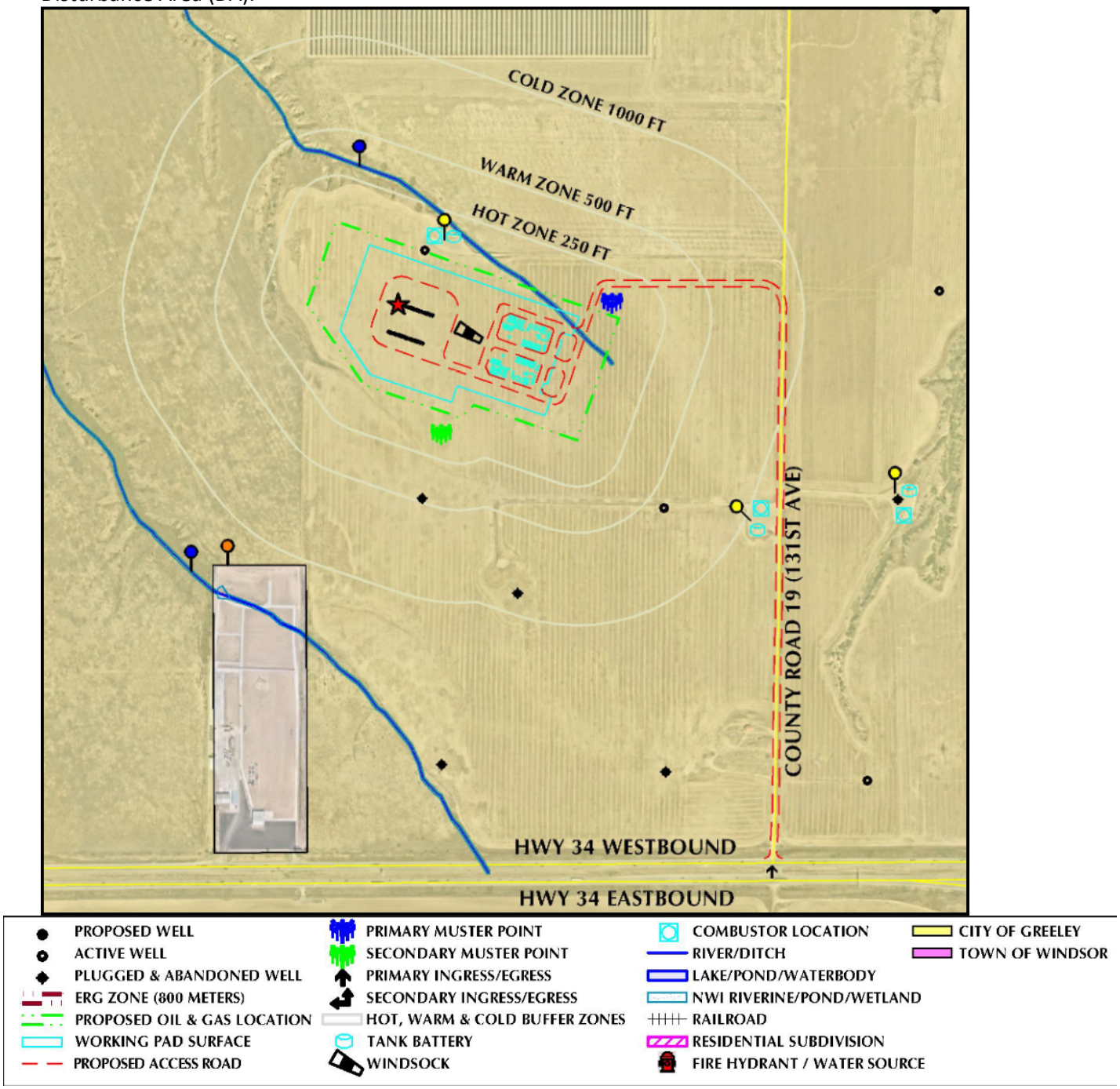
Drilling Phase			
Chemicals (CAPs indicate Product Name vs upper lower case is a generic chemical)	**Package Size (Volume)**	**Quantity**	**Comments**
ADAPTA L	5 gal can	128 cans	
BARAKLEAN	5 gal can	64 cans	
BAROID 41	bulk silo	45 tons	
BAROID 41	100 lb. sacks	400 sacks	
BARO-SEAL CLASSIC	40 lb. sacks	60 sacks	
Calcium Chloride	50 lb. sacks	500-600 sacks	
DRILTREAT	55 gal drum	4 drums	
FORTI-MUL	55 gal drum	16-20 drums	
Diesel	19,000 gal tank	19,000 gals	
Graphite	50 lb. sacks	60 sacks	
Lime	50 lb. sacks	200 sacks	
Odor Armor	275 gal tote	I tote	
RHEMOD L	55 gal drum	4 drums	
Salt-Driller's Rock	50 lb. sacks	49 sacks	
Sawdust Fine	5.5 cubic foot bag	60 bags	
STOPPIT	50 lb. sacks	80 sacks	
WALL-NUT MEDIUM	50 lb. sacks	48 sacks	
Oil Based Mud (OBM)	150-500 BBL Tanks	1,800-2,200 BBLs	11 Tanks - 3 tank sizes - 150, 350 & 500 BBLs
Completions/Hydraulic Fracturing Phase			
Chemicals	**Volume**	**Units/ Quantity**	**Comments**
Hydrochloric Acid	4,000 Gal Transport	1	Used during first stages
HCR Synthetic Acid	4,000 Gal Transport	2	
Sodium Bicarbonate	200-300 lbs	1	Acid neutralizer
Calcium Chloride (Brine)	500 BBL Capacity	1	Winter ops only
Friction Reducer (FR)	4,500 Gal Capacity ISO	1	
Hydrochloric Acid (Biocide Trailer)	4,000 Gal Capacity	1	Biocide treatment trailer
Sodium Chlorite	2,000 Gal Capacity	1	
Sodium Hypochlorite	2,000 Gal Capacity	1	Biocide treatment trailer
Produced Water	500 BBL	4	

Diesel Fuel	16,000 Gal Capacity	1	
DEF	2,200 Gal Capacity	1	
Flowback Phase			
Coil Chemicals	**Volume**	**Units/ Quantity**	**Comments**
Friction Reducer	330 Gal Capacity	1	Mixing plant (chemical trailer)
Biocide	330 Gal Capacity	1	Mixing plant (chemical trailer)
Pipe on pipe lubricant	330 Gal Capacity	1	Mixing plant (chemical trailer)
Foamer	330 Gal Capacity	1	Mixing plant (chemical trailer)
Defoamer	330 Gal Capacity	1	Mixing plant (chemical trailer)
Nano beads	330 Gal Capacity	1	Mixing plant (chemical trailer)
H2S scavenger	330 Gal Capacity	1	Mixing plant (chemical trailer)
Friction reducer	330 Gal Capacity	1	Coil provider (not always on pad)
Pipe on pipe lubricant	330 Gal Capacity	1	Coil provider (not always on pad)
Liquid N2	120 BBL Transport	1	Coil provider (not always on pad)
Oil on pad	20 BBL Max Allowed	N/A	Haul off oil before it reaches 20 BBL
Diesel	500 Gal Capacity	2	Steel Tanks
Biocide	350 Gal Capacity	1	Chemical injection cube (stainless steel tub)
Oxygen scavenger	350 Gal Capacity	1	Chemical injection cube (stainless steel tub)
Rig/Snub Chemicals	**Volume**	**Units/Quantity**	**Comments**
Diesel	500 Gal Capacity	2	
50/50 Methanol	500 Gal Capacity	1	Winter Ops only
Bio Water	60 BBL/well	N/A	Brought out in bobtail truck
Biocide	350 Gal Capacity	1	Chemical injection cube (stainless steel tub)
Oxygen Scavenger	350 Gal Capacity	1	Chemical injection cube (stainless steel tub)
Production Phase Chemicals			
Chemicals	**Volume**	**Units/Quantity**	**Comments**
Crude oil/Condensate	285 BBL	2	
Produced Water	285 BBL	8	
Corrosion Inhibitor	500 GAL	2	Chemical injection at the wellhead
Methanol	350 GAL	2	Chemical injection at the facility
Corrosion/Bacterial	350 GAL	2	Chemical injection at the facility

SECTION 5 – MAPS AND DRAWINGS

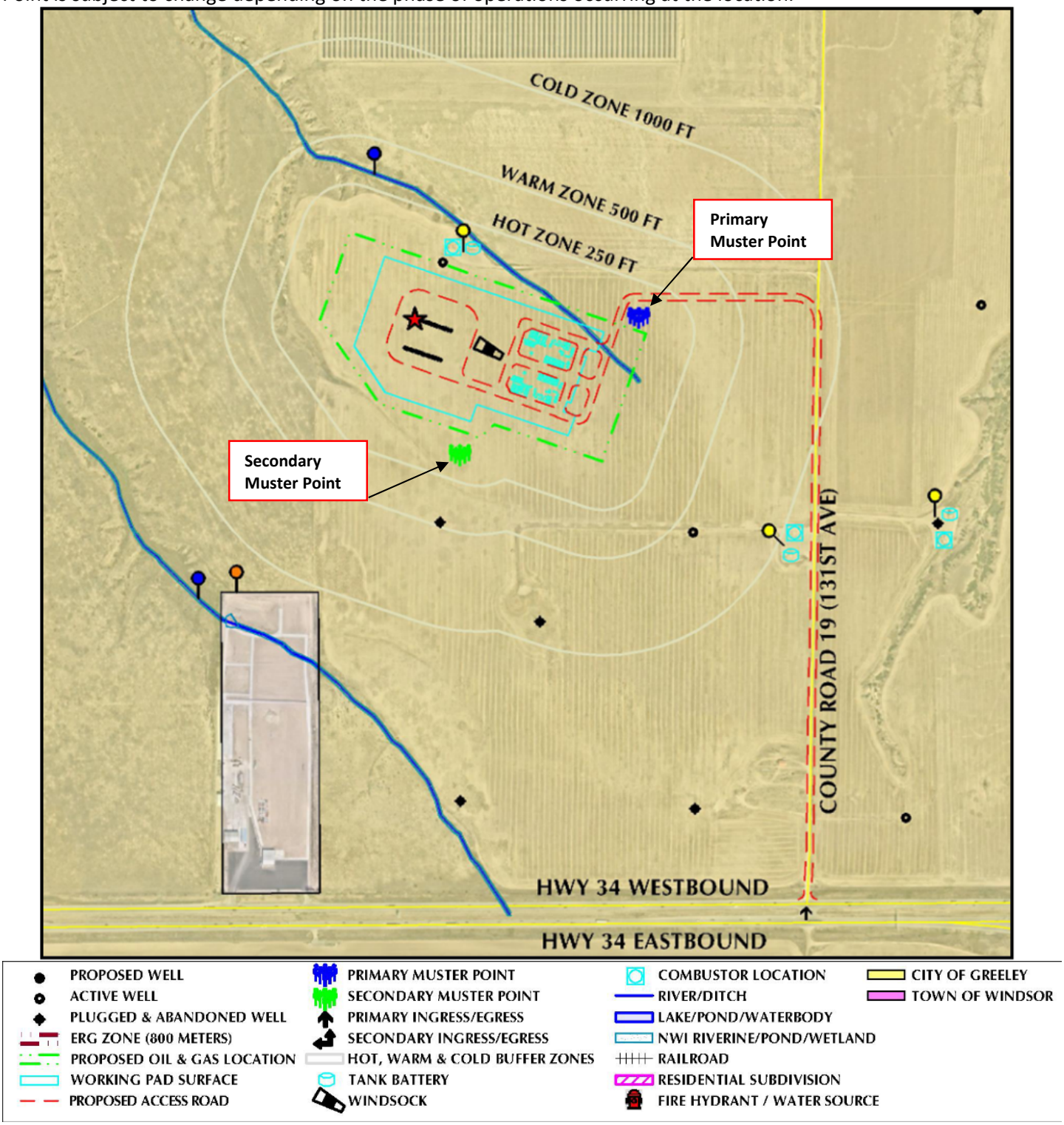
a) Project Area Map

Showing the following distances: 250 feet (Hot Zone), 500 feet (Warm Zone) and 1,000 feet (Cold Zone) from the Disturbance Area (DA).

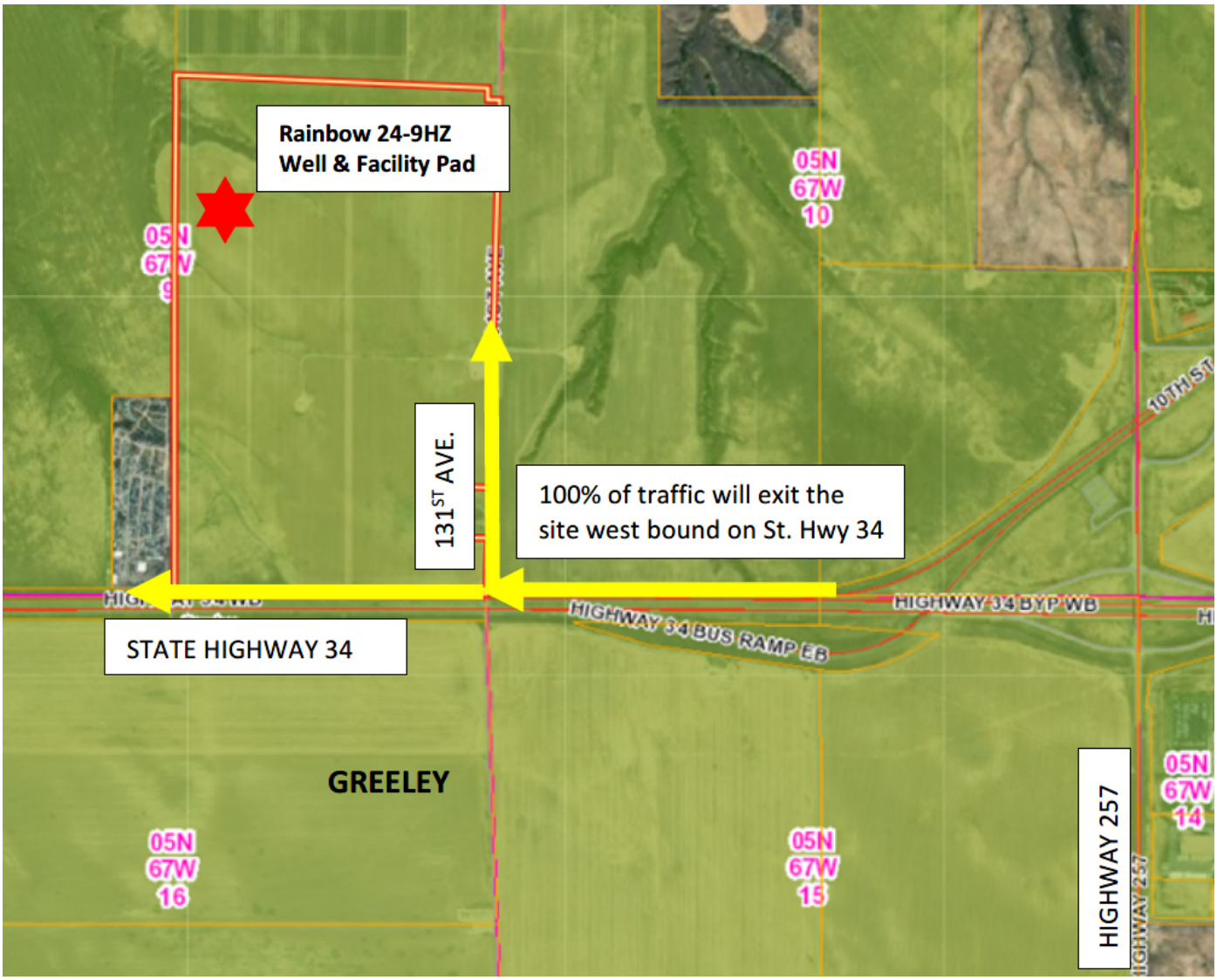


b) Project Location Access Map and Muster Point

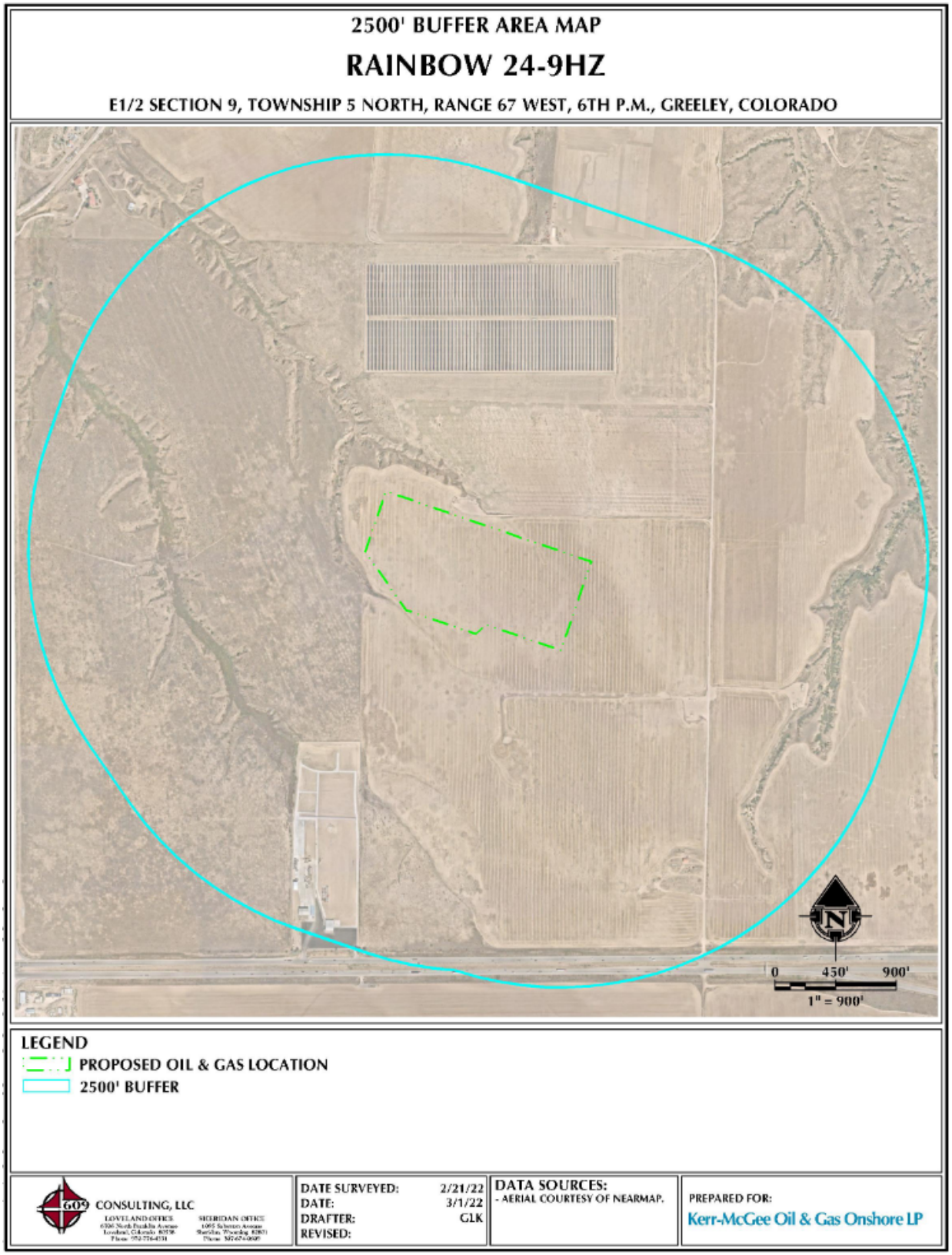
The Primary Muster Point will be located at the entrance to the location as shown below. The Secondary Muster Point is subject to change depending on the phase of operations occurring at the location.



c) Haul Route Map



d) 2,500 Foot Buffer Area Map



SECTION 6 – SPILL RESPONSE AND CLEAN-UP

a) Spill Response

There are multiple types of hydrocarbons and or chemicals stored onsite which can be released/spilled during oil and gas production and exploration. The most commonly released are unrefined products such as crude oil and produced water. Refined petroleum products such as diesel, gasoline, produced oils, and motor oil spills are less common, but still equally important to mitigate. If a spill is discovered, it will be mitigated in accordance with Colorado Oil and Gas Conservation Commission (COGCC), Colorado Department of Public Health and Environment (CDPHE).

Once a release has been discovered, it will be immediately stopped and contained if possible and is safe to do so. When containing a spill; a combination of sorbent rolls, pads, mats, socks, or containment boom may be deployed, or earthen berms will be constructed around the release to keep spilled material contained and from spreading. These materials will be provided by KMOG and the contract company. During a spill, efforts will be made to minimize contact with live vegetation, nearby drainage, rivers, creeks, or streams. If the release is outside of secondary containment or poses a threat to flow off site, or impact environmentally sensitive areas, the spill response contractor should be notified for cleanup assistance, if needed, and for removal and disposal of spilled materials and contaminated areas.

In the event of a large incident requiring outside assistance/cascading resources, KMOG has contracted with a several spill response organizations, listed in Section 3 of this EAP. These organizations possess a working knowledge of oil and gas operations, emergency response and the Incident Command System (ICS). Once notified, personnel can be on location within 6 hours.

b) Spill Reporting

A spill/release will be reported to the COGCC if released meets the COGCC reporting requirements per the 900 series rules. A spill/release will be reported to the CDPHE if released meets the CDPHE reporting requirements.

These regulatory guidelines will be strictly followed by KMOG and any contractors operating under KMOG guidance during all activities at the Rainbow 24-9HZ Pad at E1/2 Sec 9 T5N R67W.

SECTION 7 – REPORTABLE QUANTITIES

a) Reportable Quantities

Mandated by Section 312 of the Emergency Planning and Community Right-To-Know Act (EPCRA) – also known as SARA Title III – the Tier II form captures information about the types, quantities, and locations of hazardous chemicals at a given facility. The form also lists contact information for the facility's designated emergency point-of-contact.

- Any facility that is required to maintain MSDSs (or SDSs) under the Occupational Safety and Health Administration (OSHA) 49 CFR 1910.1200 regulations for hazardous chemicals stored or used in the workplace.
- Facilities with chemicals in quantities that equal or exceed the lists of lists thresholds must report.
- Propane, benzene, propane, and methane are on the lists of lists and are known to be in crude oil. In addition, diesel is on the lists of lists and may be stored on oil and gas sites during construction and development.

b) Reportable Requirements

If your facility will meet the requirements under 40 CFR Part 370, you must submit your Tier II report to the State of Colorado every year before March 1st.

These regulatory requirements will be strictly followed by KMOG and any contractors operating under KMOG during all activities at the Rainbow 24-9HZ Pad at E1/2 Sec 9 T5N R67W.

SECTION 8 – EVACUATION INFORMATION

a) Evacuation Plan Procedures (public)

The procedure to be used in alerting the public in the event of than incident which could pose a threat to life or property will be arranged and coordinated with first responders and Weld County Emergency Management.

In the event of an actual emergency, the following steps will be immediately taken:

1. The KMOG representative will immediately notify first responders (911), to warn the public of a potential chemical exposure.
2. First responders may conduct door to door evacuation notices in addition to reverse 911 and utilizing the Integrated Public Alert and Warning System (IPAWS).
3. KMOG is responsible for employees and contract personnel will monitor essential and non-essential personnel traffic on or near the incident site.
4. General:
    a. The area included within the radius of exposure is the zone with the maximum potential hazard, per the Emergency Response Guide (ERG). When it is determined that conditions exist which create an additional area (beyond the initial zone of maximum potential hazard) vulnerable to possible hazard, public areas in the additional hazardous area will be evacuated.
    b. In the event of an incident, after the public areas have been evacuated and traffic stopped, it is expected that local civil authorities will have arrived and within a few hours will have assumed direction of and control of the public, including all public areas.
    c. KMOG will fully cooperate with these authorities and will exert every effort by careful advice to such authorities to prevent panic or rumors.

KMOG will dispatch appropriate personnel to the disaster site as soon as possible. The company's personnel will cooperate with and provide such information to civil authorities as they might require.

SECTION – 9 TRAINING AND EXERCISES

TRAINING: The National Incident Management System (NIMS) guides all levels of government, nongovernmental organizations, and the private sector to work together to prevent, protect against, mitigate, respond to and recover from incidents.

NIMS provides stakeholders across the whole community with the shared vocabulary, systems, and processes to successfully deliver the capabilities described in the National Preparedness System. NIMS defines operational systems that guide how personnel work together during incidents.

KMOG plays a vital role in the Incident Management System. KMOG has a significant impact on local, regional, and national economic recovery, and is part of the whole community and essential to the function of the Community Lifelines.

To maximize KMOG's impact and willingness to participate in incident operations, KMOG will coordinate and integrate

with first responders into a Unified Command (UC)—including planning, training, and preparedness exercises. This is done independently and within the emergency response community, such as CPRN. In addition, it is also recommended all KMOG employees who will respond to an incident within the incident command structure have training in ICS 100, ICS 200, and ICS 700 at a minimum, for company and agency emergency response interoperability to manage a response.

EXERCISES: Exercises are an important component to test an organization's response readiness, training and familiarity with various emergency response scenarios, participation, and engagement with local and or state agencies, and to develop lessons learned to improve emergency response capabilities. Per COGCC guidance number 16, a proposed schedule and type of exercises are provided below:

SECTION – 10 COORDINATION WITH FIRST RESPONDERS

a) KMOG will communicate site construction, drill spud, completion operations and Production Turn-In-Line dates to the Weld County Office of Emergency Management for coordination/communication with local first responders. These start dates will be provided a minimum of 7 business days prior to commencement or change in oil and gas development operations.

b) In the event of an emergency requiring First Responders, Unified Command will be established between the KMOG On-site Incident Command (OSIC) and First Responders present. Unified Command post will be established based on conditions present at time of incident.

c) KMOG EHS representative and first responders identified in this Emergency Action Plan (EAP) and Tactical Response Plan (TRP) have reviewed both documents and have discussed coordination efforts in the event of an emergency requiring first responder assistance.

d) **Industry Mutual-Aid:** Energy companies operating in Weld County are encouraged to be members of the Colorado Preparedness Response Network (CPRN), to support mutual-aid collaboration between industry and public emergency response organizations to achieve a coordinated and effective response to an all-hazards event. KMOG is a member of CPRN.

SECTION – 11 PLAN REVIEW AND UPDATE PROCEDURES

a) Multi-year plan review and update:
The KMOG Rockies Emergency Response Plan (ERP) is reviewed at a minimum over five years, but usually every year. Reviews include updating contacts, contractors, and procedures. **Post incident plan review and update:** Post incidents that required response personnel, an after-action review (AAR) is completed with all response participants. If during the AAR it is identified that changes or updates are needed to the ERP they are done so as a corrective action within the AAR.

KerrMcGee

RAINBOW 24-9HZ
SECTION 9, T5N, R67W
GREELEY, COLORADO

LOCATION ADDRESS:

GPS Coordinates

★ Pad Site:

Lat: 40.415144°   Long: -104.895999°

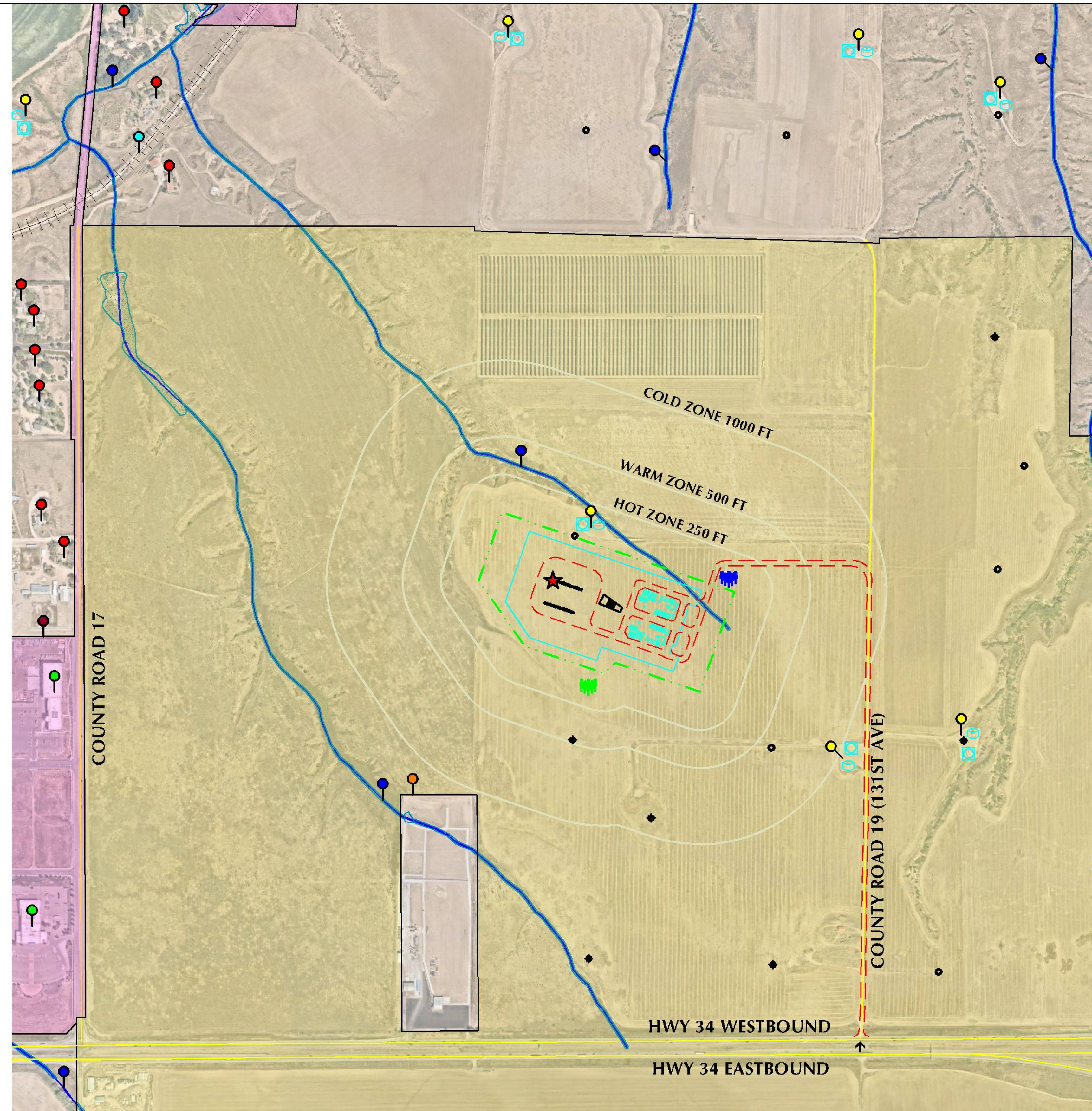
All Emergencies will be reported through 911

NOTIFICATIONS

1. Kerr McGee/Emergency Response Coordinator
   Integrated Operations Center (IOC): 970-515-1500
2. Weld County Public Safety Communications:
   911 and 970-350-9600 (Non-Emergency)
3. Fire Protection Districts:
   Greeley Fire Department:
   911 and 970-350-9504 (Non-Emergency)
4. Weld County OEM:
   970-350-9600

CRITICAL RECEPTORS

- RESIDENTIAL BUILDING UNIT
- NON-RESIDENTIAL BUILDING UNIT
- PONDS/WATERWAYS/WETLANDS/DRAINAGES
- PRODUCTION FACILITIES
- CITY OF GREELEY
- TOWN OF WINDSOR
- GREAT WESTERN RAILROAD



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0 400' 800' 1" = 800'

Notes:

1. This Tactical Response Plan is a reference tool and is intended to provide guidance during an actual event or exercise. Placement of resources may need to be adjusted according to environmental variables. It is the responsibility of emergency response personnel to be trained in response and to be able to make adjustments to the plan as needed.
2. Hot, Warm, and Cold zones are measured from the Proposed Oil & Gas Location.

LEGEND

PROPOSED WELL	PRIMARY MUSTER POINT	COMBUSTOR LOCATION	CITY OF GREELEY
ACTIVE WELL	SECONDARY MUSTER POINT	RIVER/DITCH	TOWN OF WINDSOR
PLUGGED & ABANDONED WELL	PRIMARY INGRESS/EGRESS	LAKE/POND/WATERBODY	
ERG ZONE (800 METERS)	SECONDARY INGRESS/EGRESS	NWI RIVERINE/POND/WETLAND	
PROPOSED OIL & GAS LOCATION	HOT, WARM & COLD BUFFER ZONES	RAILROAD	
WORKING PAD SURFACE	TANK BATTERY	RESIDENTIAL SUBDIVISION	
PROPOSED ACCESS ROAD	WINDSOCK	FIRE HYDRANT / WATER SOURCE	

609 CONSULTING, LLC

LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331

SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

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

DATE SURVEYED:	2/21/22
DATE:	3/1/22
DRAFTER:	GLK
REVISED:	8/4/22

DATA SOURCES:
-AERIAL IMAGERY COURTESY OF NEARMAP US., INC.

K:\ANADARKO\2018\2018_160_BROOKIE_BROWN_&_RAINBOW_T5N_R67W_SEC_9\DWG\RAINBOW_28_WELL_OPTION_FINAL.DWG, 8/4/2022 1:59:01 PM, steven

FIRE DEPARTMENT RESPONSE GUIDELINES

Command
FIRE DEPARTMENT RESPONSE GUIDELINES

COMMAND

- Establish initial command post near the oil & gas location entrance.
- Position should provide a clear view of the entire scene
- Advise responding units and resources to stage near the location entrance.
- Locate operator lease sign on location (located at the entrance /site access)
- If industry personnel are not on location, call the 24-Hour Emergency Contact number located on the sign.
- Establish unified command with operator on-site liaison
- Develop incident action plan with the operator to mitigate incident
- **Strategy - *Always defensive unless a life safety need is identified!***

INCIDENT STABILIZATION

- Implement Hazardous Materials response protocols
- All personnel operating in hazard zones should be in appropriate PPE, to include a personal mobile air monitoring device
- Establish Hot, Warm, Cold Zones, and ERG zones
- Exposure Concerns --- Equipment, nearby structures, neighborhoods, roadways, etc.
- Monitor weather conditions, especially wind direction
- Air monitoring for vulnerable areas and locations around the incident.
- Conduct evacuations of citizens, bystanders, and resources at risk.
- Identify and address any water supply and/or foam requirements necessary to mitigate the incident

SPECIAL CONSIDERATIONS

- If evacuations are needed, coordinate with Weld County OEM before ordering an evacuation to establish evacuation routes, shelters, shelter in-place and to utilize IPAWS (reverse 9-1-1).
- Request mutual aid apparatus and equipment asap to minimize operational delays
- Consider and address any potential impacts to critical receptors identified near the location.
- Consider requesting a HazMat Team if needed to assist with mitigation.
- Consider requiring a fire investigation for any fire and/or explosion.
- Keep the public and stakeholders informed of response activities.
- Notify FAA if air Traffic restrictions are needed (requested through OEM) ***(very large incident)***

INDUSTRY RESPONSE OBJECTIVES

Ensure safety of the public, first responders, employees, and contractors. Minimize impact to the environment and local community. The following response objectives checklist shall be followed:

SAFETY – PROTECT LIFE

- Evaluate and account for all personnel
- Isolate all potential ignition sources
- Establish site control (safe perimeter and evacuation routes)
- Contact emergency services as needed (911, Fire, LEPC)
- Identify hazard(s) of emitted material (obtain SDS)
- Implement air monitoring around impacted area
- Continually assess site hazards/risks

RESPONSE – INCIDENT STABILIZATION

- Notify internal personnel and agencies
- Assign on-site liaison to the incident commander
- Establish a unified command post and field communications
- Establish Hot, Warm, Cold Zones, and ERG zone
- Identify and establish staging areas to support response operations
- Activate emergency shutdown procedures (ESD)
- Activate response action contractors for equipment and manpower as needed (e.g, Well Control, spill/HazMat clean-up, etc.)

ENVIRONMENTAL – PROTECT THE ENVIRONMENT

- Identify, prioritize, and protect environmentally sensitive areas
- Verify if water has been impacted
- Implement waste handling, disposal and decontamination procedures as needed
- Contain and recover spilled materials
- Notify appropriate agencies

SPECIAL CONSIDERATIONS

- Keep the public and stakeholders informed of response activities.

FACILITY INFORMATION

Production Facility Storage:

- **Oil (BBL) – 00 BBL (oil is piped off location)**
- **Condensate Tanks – 2 Tanks, 285 BBL – (Available for oil storage during maintenance as needed)**
- **Produced Water (BBL) – 8 Tanks, (285 BBL each)**
- *1 Barrel (BBL) = 42 Gallons

Specific Facility Hazardous Conditions: (chemicals stored on site)

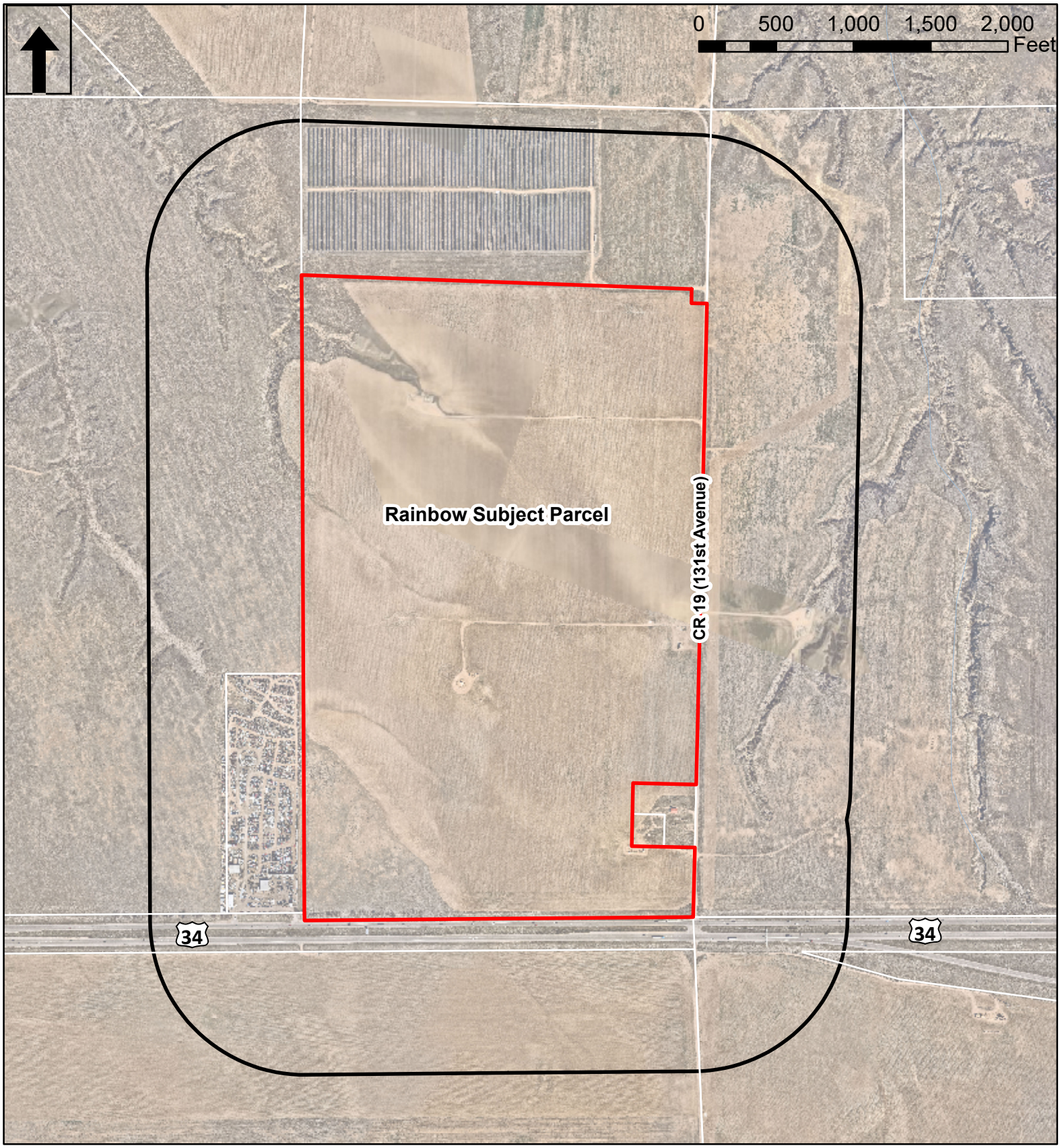
Drilling	Diesel	19,000 Gal (1 Tank)
	Oil Based Mud (OBM)	2,200 BBLs (11 Tanks)
	FORTI-MUL	20 – 55 Gal Drum
	ADAPTA L	128 – 5 Gal Cans
	BARAKLEAN	64 – 5 Gal Cans
Storage Location – on the well pad		
● Additional chemicals are stored on location for drilling, see Emergency Action Plan		
Completions	Calcium Chloride (Brine) (Winter Ops only)	500 BBLs
	Diesel Fuel (Fuel Trailer)	16,000 Gal (Capacity)
	HCR Synthetic Acid	4,000 Gal x 2 Transport
	Friction Reducer (FR)	4,500 Gal (Capacity ISO)
	Produced Water	2,000 BBL
	Hydrochloric Acid	8,000 Gal x 1 Transport
	Sodium Chlorite	2,000 Gal (Capacity)
	DEF	2,200 Gal (Capacity)
Storage Location – on the well pad		
● Additional chemicals are stored on location for completions see Emergency Action Plan		
Flowback	Liquid N2	120 BBL x 1 Transport
	Oil	20 BBLs
	Bio Water (60 BBLs for each well)	1,680 BBLs
	Diesel	500 Gal x 2 (Steel Tank)
	50/50 Methanol (Winter Ops Only)	500 Gal (Capacity)
	Biocide	350 Gal (Capacity)
	Oxygen Scavenger	350 Gal (Capacity)
	Friction Reducer	330 Gal (Capacity)
	Pipe on Pipe Lubricant	330 Gal (Capacity
	Foamer	330 Gal (Capacity)
	Defoamer	330 Gal (Capacity)
Storage Location – on the well pad		
● Additional chemicals are stored on location for flowback, see Emergency Action Plan		
Production	Crude Oil *	285 BBLs x 2 Tank
	Produced Water	285 BBLs x 8 Tank
	Corrosion Inhibitor Chemical at Wellhead	500 Gal x 2 Totes
	Methanol & Corrosion/Bacterial at Facility	350 Gal x 4 Totes
Storage Location: on the production facility		
*Crude oil will be removed for the locaiton by pipeline. During maintenance operations crude oil may be stored temporarily in the condensate tank.		

Is Water Supply Available on Location? No

Fire hydrants: None
Water Storage Tanks: None

H: Rainbow USR2022-0009
1,000' Noticing Boundary

Kerr-McGee Onshore LP (KMOG) Oil & Gas Proposal
Located north of US HWY 34, east of CR 17, and 1/2 mile west of ST HWY 257



- Rainbow Pad Parcel Location
- Rainbow 1,000' Buffer
- Greeley Parcels

City of Greeley Colorado
COMMUNITY DEVELOPMENT

Monthly Construction Report

September 2022

Community Development

BUILDING INSPECTION

This report is two-sided to conserve our natural resources.

CONSTRUCTION ACTIVITY SUMMARY
September 2022

TOTAL PERMIT ACTIVITY

	No. of Permits	Valuation
New Residential, Commercial, Addition & Remodel, Footing and Foundations and Misc.:	312	$24,208,881

RESIDENTIAL

	No. of Permits/Buildings	No. Units	Valuation
Single Family Dwelling:	10	10	$ 3,543,299
Multi-Family (Buildings)	4/2	27	$ 4,900,160
Remodel and Addition Work:	31	n/a	$ 798,704

COMMERCIAL

	No. of Permits	Valuation
New Commercial Projects:	1	$ 7,200,000

Commercial projects valued over $100,000 are summarized.

- ***Construction of a New Hotel, at 7005 9th Street, by Genesis Construction Management, LLC, for a Total Valuation of $7,200,000.***

Building Inspection Division
Construction Activity Comparative Analysis

		Sept 2022	Sept 2021	YTD 2022	YTD 2021
New Single Family Dwelling Units*	**# of Permits** **# of Units** **Valuation**	10 10 3,543,299	13 13 4,124,295	322 322 99,257,053	113 113 36,478,816
Single Family Footing & Foundation Only	**# of Permits** **Valuation**	0	4 100,740	13 353,027	19 475,887
New Multi-Family Dwellings Units*	**# of Permits** **# of Buildings** **# of Units** **Valuation**	4 2 27 4,900,160	52 20 88 14,339,082	85 61 1,263 185,691,827	238 87 598 101,085,298
Multi-Family Footing & Foundation Only	**# of Permits** **Valuation**	0	12 517,420	15 5,233,515	52 1,284,172
Residential Additions and Remodels	**# of Permits** **Valuation**	31 798,704	40 1,117,968	283 7,349,122	299 6,866,803
New Commercial Projects	**# of Permits** **Valuation**	1 7,200,000	3 20,669,321	55 93,413,117	21 141,240,728
Commercial Footing & Foundation Only	**# of Permits** **Valuation**	1 121,748	0	2 276,136	0
Commercial Additions and Remodels	**# of Permits** **Valuation**	10 3,110,814	15 3,065,888	120 75,057,179	96 12,749,212
Miscellaneous Permits	**# of Permits** **Valuation**	254 4,530,156	225 3,031,597	2,002 27,886,900	1,999 24,882,488
Mobile Home Permits	**# of Permits** **Valuation**	1 4,000	0	45 322,500	3 18,500
TOTALS	**# of Permits** **Valuation**	312 24,208,881	364 46,966,311	2,942 494,840,376	2,840 325,081,904

***Number of units and number of permits will differ due to some multiple unit dwellings being issued under one permit.**

Permit Number	ISSUED	JOBVALUE	SITE_ADDR	PERMITTYPE	PERMITSUBTYPE	DESCRIPTION	CONTRACTOR_NAME	SITE_LOT_NO	SITE_BLOCK	SITE_SUBDIVISION	MODELNUMBER	BLDG_SQFT	BALANCE_DUE
2209-0001	09/06/2022	7,517	2409 APPLE AVE	MECHANICAL	AIR CONDITIONING	Remove existing AC and replace with new like AC	ALLEN PLUMBING & HEATING	1	6	PARKVIEW SOUTH		0	0
2209-0120	09/09/2022	10,000	1674 37TH AVENUE PL	PLUMBING	WATER HEATER BOILER	Installing 199K BTU Tankless water heater		48	NONE	PINE RIDGE ESTATES PUD		0	0
2209-0312	09/19/2022	450	2280 1ST AVE 17	MECHANICAL	GAS TEST	Gas leak found near stove	AFFORDABLE HEATING & A/C	17	NONE	COUNTRYSIDE MOBILE HOME PARK		0	0
2209-0463	09/21/2022	4,929	6116 8TH ST A	MECHANICAL	AIR CONDITIONING	Replacing ac	FORT COLLINS HEATING & AIR	A	NONE	SOUTHERN RIDGE CONDO AT PUMPKIN RIDGE		0	0
BCN2205-0560	09/26/2022	7,200,000	7005 9TH ST	COMMERCIAL NEW	HOTEL MOTEL	4 story, 122 room hotel, frame construction, no food service	GENESIS CONSTRUCTION MANAGEMENT LLC			H-P GREELEY 4TH RPLT		48600	0
BCN2207-0368	09/15/2022	121,748	10306 20TH ST BLDG H CLUBHOUSE	COMMERCIAL NEW	FOOTING AND FOUNDATION ONLY	Footing and Foundation Only for Future Apart Cmplx Clubhouse	Morgan Kidder			PROMONTORY IMAGINE SCHOOL 2ND FG 1ST RPLT TRACT B		4933	0
BCN2209-0048	09/06/2022	3,986,016	5601 29TH ST BLDG 15	COMMERCIAL NEW	APARTMENT	Build a New 3-Story 24 Unit Apartment Building	ANCON II CONSTRUCTORS, INC			MOUNTAIN VIEW AT WEST T-BONE RANCH 4TH RPLT		28664	0
BCX2110-0081	09/05/2022	369,995	2650 11TH AVE	COMMERCIAL EXISTING	TENANT FINISH	Interior tenant Finish of exisiting building	SOUTHWESTERN SERVICES	1	NONE	SUBURBAN SUB		12131.00	0.00
BCX2203-0258	09/01/2022	1,126,300	6767 29TH ST	COMMERCIAL EXISTING	REMODEL	Remodel consists of 3 separate areas within same facility	TKM GROUP LLC	1	NONE	VILLAGE AT ST MICHAELS FG #2		2975.00	0.00
BCX2205-0433	09/01/2022	489,510	6767 29TH ST	COMMERCIAL EXISTING	REMODEL	Two phase project, replacement of imaging equipment.	TKM GROUP LLC	1	NONE	VILLAGE AT ST MICHAELS FG #2		607.00	0.00
BCX2206-0258	09/21/2022	450,000	3501 12TH ST	COMMERCIAL EXISTING	REMODEL	Interior Fit Out	CATAMOUNT CONSTRUCTORS	B	1	BITTERSWEET NORTH SUB		0.00	0.00
BCX2207-0231	09/15/2022	225,000	419 18TH ST	COMMERCIAL EXISTING	REMODEL	Nutrien AG Solutions Warehouse Improvements	TCC CORPORATION	9	NONE	GREELEY CITY		340.00	0.00
BCX2207-0378	09/08/2022	400,000	1540 8TH AVE	COMMERCIAL EXISTING	TENANT FINISH	New Restaurant In The Downtown Maddie Apartment Building	C & C CONTRACTORS LLC	25	165	BLOCK 165 SOUTH MADISON		2146.00	0.00
BCX2208-0584	09/14/2022	5,009	6400 20TH ST	COMMERCIAL EXISTING	ACCESSORY STRUCTURES	14x16 shed built by church members	Brett Hastings	NONE	ALL	GRACE BAPTIST CHURCH		224.00	0.00
BCX2209-0199	09/28/2022	25,000	508 8TH AVE	COMMERCIAL EXISTING	ACCESSORY STRUCTURES	Malt Silo	G.A.R. CONSTRUCTION	9	23	GREELEY CITY		0.00	0.00
BCX2209-0291	09/16/2022	0	1750 6TH AVE	COMMERCIAL EXISTING	FIRE OR FLOOD RESTORATION	Balcony Water Damage Repair						0.00	0.00
BCX2209-0547	09/28/2022	20,000	2400 16TH ST	COMMERCIAL EXISTING	TELECOMMUNICATION	Adding new customer to existing Cell tower with 3 antennas	A TO Z FIELD SERVICES	1	1	COTTONWOOD SQUARE		35.00	0.00
BRN2206-0113	09/14/2022	232,366	1226 105TH AVENUE CT	RESIDENTIAL NEW	SINGLE FAMILY DWELLING	New SFD Cvrd Prch Incl AC Unfinish Bsmt Incl Lwn Sprklr	BARTRAN	6	7	PROMONTORY RESIDENTIAL 3RD FG	1	1,470.00	0.00
BRN2207-0118	09/21/2022	334,875	333 N 66TH AVE	RESIDENTIAL NEW	SINGLE FAMILY DWELLING	New SFD Cvrd Prch Incl AC No Bsmt Incl Lwn Sprklr Crwl Spc	DR HORTON	3	5	NORTHRIDGE ESTATES 1ST REPLAT	X424	2,124.00	0.00
BRN2208-0100	09/19/2022	914,144	4125 24TH STREET RD BLDG 1 UNIT 1	RESIDENTIAL NEW	3-PLEX	1 Unit of New 3-Plex Twnhme Bldg Incl AC No Bsmt No Lwn Spr	VECTOR CONSTRUCTION	1		CENTERPLACE NORTH SUB	N/A	6277	0
BRN2208-0135	09/09/2022	438,038	412 66TH AVE	RESIDENTIAL NEW	SINGLE FAMILY DWELLING	New SF Residence with 2 Car Garage, Fin Bsmt, and A/C	HARTFORD CONSTRUCTION LLC	151	1	CITY CENTER WEST RESIDENTIAL 2ND FG	Plan 6 Twain	2,570.00	0.00
BRN2208-0136	09/14/2022	303,752	408 66TH AVE	RESIDENTIAL NEW	SINGLE FAMILY DWELLING	New SFD Cvrd Prch Incl AC 965 sf Finish Bsmt Incl Lwn Sprklr	HARTFORD CONSTRUCTION LLC	150	1	CITY CENTER WEST RESIDENTIAL 2ND FG	Plan 2 Christie	1,575.00	0.00
BRN2208-0158	09/19/2022	0	4125 24TH STREET RD BLDG 1 UNIT 2	RESIDENTIAL NEW	3-PLEX	1 Unit of New 2-Story Twnhme Bldg Incl AC No Bsmt No Lwn Spr	VECTOR CONSTRUCTION	2		CENTERPLACE NORTH SUB	N/A	6277	0
BRN2208-0159	09/19/2022	0	4125 24TH STREET RD BLDG 1 UNIT 3	RESIDENTIAL NEW	3-PLEX	1 Unit of New 2-Story Twnhme Bldg Incl AC No Bsmt No Lwn Spr	VECTOR CONSTRUCTION	3		CENTERPLACE NORTH SUB	N/A	6277	0
BRN2208-0385	09/28/2022	280,625	121 63RD AVE	RESIDENTIAL NEW	SINGLE FAMILY DWELLING	New SFD Incl AC Unfinish Bsmt Incl Freplce No Lwn Sprklr	SAGE HOMES LLC	50	6	NORTHRIDGE ESTATES 1ST REPLAT	Stillwater	1,597.00	0.00
BRN2208-0389	09/07/2022	531,000	15730 66 CR	RESIDENTIAL NEW	SINGLE FAMILY DWELLING	New SFD Cvrd Prch Incl AC Unfinish Bsmt No Lwn Sprklr	PAGEL CONTRACTING INC	1		LEFFLER MINOR		2,220.00	0.00
BRN2208-0392	09/07/2022	307,000	6309 2ND ST	RESIDENTIAL NEW	SINGLE FAMILY DWELLING	New SFD Incl AC Unfinish Bsmt Incl Freplce No Lwn Sprklr	SAGE HOMES LLC	55	6	NORTHRIDGE ESTATES 1ST REPLAT	Stillwater	1,597.00	0.00
BRN2208-0441	09/28/2022	379,365	127 63RD AVE	RESIDENTIAL NEW	SINGLE FAMILY DWELLING	New SFD Cvrd Prch Incl AC Unfinish Bsmt Freplce No Lwn Sprkl	SAGE HOMES LLC	51	6	NORTHRIDGE ESTATES 1ST REPLAT	Roaring Fork	2,257.00	0.00
BRN2208-0484	09/02/2022	4,000	2280 1ST AVE SPC 15	RESIDENTIAL NEW	MOBILE HOME	Place new MFG home in existing mfg community on existing spa	CLAYTON HOMES	NONE	NONE	COUNTRYSIDE MOBILE HOME PARK	Aimee	1485	0
BRN2208-0524	09/07/2022	312,000	6416 2ND ST	RESIDENTIAL NEW	SINGLE FAMILY DWELLING	New SFD Cvrd Prch Incl AC Unfinish Bsmt Freplce No Lwn Sprkl	SAGE HOMES LLC	10	4	NORTHRIDGE ESTATES 1ST REPLAT	Stillwater	1,597.00	0.00
BRN2209-0244	09/29/2022	424,278	404 66TH AVE	RESIDENTIAL NEW	SINGLE FAMILY DWELLING	New SFD Cvrd Prch Incl AC 512 sf Finish Bsmt Incl Lwn Sprklr	HARTFORD CONSTRUCTION LLC	149	1	CITY CENTER WEST RESIDENTIAL 2ND FG	Plan 5 Rowling	2,451.00	0.00
BRX2203-0267	09/29/2022	16,669	4319 22ND ST	RESIDENTIAL EXISTING	BASEMENT FINISH	master bedroom bathroom in the basement	clifford smith	24	3	VIRGINIA HILLS RPLT L18-24 B3		1/0/1900	1/0/1900
BRX2204-0540	09/20/2022	58,200	502 41ST AVE	RESIDENTIAL EXISTING	BASEMENT FINISH	Framing, painting,Bathroom remodels,Egress windows	BURK WORKS CONSTRUCTION, LLC	28	8	WESTMOOR ACRES 1ST FG		1/0/1900	1/0/1900
BRX2205-0350	09/30/2022	45,000	3530 WAGON TRAIL PL	RESIDENTIAL EXISTING	ACCESSORY STRUCTURES	New detached garage	SHAMROCK BUILDINGS LLC	6	4	RANGEVIEW ESTATES		1/0/1900	1/0/1900
BRX2205-0621	09/19/2022	7,000	2549 14TH AVENUE CT	RESIDENTIAL EXISTING	REMODEL	two egress windows	DENVER EGRESS WINDOW	15	15	FARRS 3RD ADD		1/0/1900	1/0/1900
BRX2206-0161	09/14/2022	183,416	2430 71ST AVE	RESIDENTIAL EXISTING	ACCESSORY STRUCTURES	1980 S.F. building to cover an outside basketball court	D & S STEEL BUILDINGS CO	2	NONE	WEST RIDGE AREA ANNEX		1/0/1900	1/0/1900
BRX2208-0007	09/19/2022	30,780	1917 104TH AVENUE CT	RESIDENTIAL EXISTING	BASEMENT FINISH	1200 sq ft basement finish	Scott Thornton			PROMONTORY IMAGINE SCHOOL 3RD FG		1/0/1900	1/0/1900
BRX2208-0034	09/02/2022	52,000	1708 69TH AVE	RESIDENTIAL EXISTING	BASEMENT FINISH	Finish 927 sq.ft. to include one bedroom one 3/4 bath	HARDER BUILDING & DEVELOPMENT	3	6	CEDARWOODS SUB		1/0/1900	1/0/1900
BRX2208-0039	09/06/2022	12,000	5627 16TH STREET RD	RESIDENTIAL EXISTING	BASEMENT FINISH	Partially Complete basement	Virginia MClin	35	4	COUNTRY CLUB WEST 4TH FG		1/0/1900	1/0/1900
BRX2208-0220	09/02/2022	50,000	6528 18TH ST	RESIDENTIAL EXISTING	BASEMENT FINISH	Finish approximately 90% of basement	CHOICE BUILDERS	7	2	WESTRIDGE VILLAGE RPLT A		1/0/1900	1/0/1900
BRX2208-0368	09/09/2022	26,832	2628 65TH AVE	RESIDENTIAL EXISTING	DETACHED GARAGE	30 X 40 Storage Shed	VALHALLA POST FRAME	5	NONE	KEN WIL ACRES 1ST FG		4/14/1903	1/0/1900
BRX2208-0461	09/08/2022	10,375	525 30TH AVE	RESIDENTIAL EXISTING	DECK	Replace wood decking and railing with composite & iron	HERITAGE FENCE & DECKING	13	14	BROADVIEW ACRES 6TH ADD		1/0/1900	1/0/1900
BRX2208-0471	09/14/2022	22,056	210 N 43RD AVE	RESIDENTIAL EXISTING	ADDITION	Sunroom 12.25'W X 10'D addition on new deck, non-conditioned	GREAT DAY IMPROVEMENTS LLC	2	2	LARSON SUB 4TH FG		1/0/1900	1/0/1900
BRX2208-0526	09/19/2022	24,611	4835 7TH ST	RESIDENTIAL EXISTING	SIDING SOFFIT FASCIA	R&R 23 SQ SIDING	POWER HOME REMODELING GROUP	21	8	WESTMOOR WEST		1/0/1900	1/0/1900
BRX2208-0559	09/07/2022	4,400	1925 28TH AVE 24	RESIDENTIAL EXISTING	DECK	Remove existing deck and replace with new	Overhead Fence and Deck Services	4	NONE	COTTONWOOD CREEK CONDO		1/0/1900	1/0/1900
BRX2208-0561	09/07/2022	8,053	1801 PINECREST LN	RESIDENTIAL EXISTING	PATIO DECK COVER AWNING	Replace ex. Cover w/ new engineered cover w/ 12 x 36 piers	UNI DESIGN	6	1	WELLERS SUB OF BLOCK 600 GLENMERE PARK		1/0/1900	1/0/1900
BRX2208-0581	09/01/2022	10,003	1408 88TH AVE CT	RESIDENTIAL EXISTING	BASEMENT FINISH	Framing and Drywall installation	Emmanuel Santiago			TRAILS AT SHEEP DRAW		1/0/1900	1/0/1900
BRX2208-0624	09/19/2022	10,000	2248 76TH AVENUE CT	RESIDENTIAL EXISTING	BASEMENT FINISH	partial finish of basement including bathroom and wall.	Greg Staley	9	11	HOMESTEAD HEIGHTS 4TH FG		1/0/1900	1/0/1900
BRX2208-0678	09/23/2022	3,000	1357 43RD AVE 16	RESIDENTIAL EXISTING	REMODEL	removing walls and electrical expanding useable space		16	NONE	FAIRWAY 4 FG#1		1/0/1900	1/0/1900
BRX2208-0686	09/07/2022	2,998	435 N 35TH AVE 336	RESIDENTIAL EXISTING	PATIO DECK COVER AWNING	expand the deck	geremias mendoza	1	1	STONEYBROOK SUB FG#1		1/0/1900	1/0/1900
BRX2209-0004	09/14/2022	4,724	220 N 43RD AVENUE CT	RESIDENTIAL EXISTING	SIDING SOFFIT FASCIA	Hail Damage, replacing of like vinyl siding. No brick will b	CNW SIDING & WINDOW CO.	7	1	EAGLEVIEW SUB AT PHEASANT RUN		1/0/1900	1/0/1900
BRX2209-0024	09/12/2022	45,000	1108 76TH AVE	RESIDENTIAL EXISTING	ACCESSORY STRUCTURES	30x40 garage with a 12ft porch	EAGLE CARPORTS INC.	18	NONE	KNAUS SUB 1ST FG		1/0/1900	1/0/1900
BRX2209-0039	09/09/2022	33,345	1710 21ST AVE	RESIDENTIAL EXISTING	BASEMENT FINISH	Basement Finish	Michelle Bieri	10	3	MONTVIEW HEIGHTS SUB		1/0/1900	1/0/1900
BRX2209-0042	09/09/2022	25,000	605 N 81ST AVE	RESIDENTIAL EXISTING	BASEMENT FINISH	Basement finish with living room, bedroom, and ba	LEGACY HOMES	BE2	4	RIVER RUN AT POUDRE RIVER RANCH 1ST FG 1ST RPLT		1/0/1900	1/0/1900
BRX2209-0043	09/10/2022	33,242	3201 68TH AVENUE CT	RESIDENTIAL EXISTING	BASEMENT FINISH	Basement Finish 1296 sq ft	NOCO GENERAL CONTRACTING	16	7	ST MICHAELS SUB		1/0/1900	1/0/1900
BRX2209-0046	09/16/2022	2,000	1605 11TH AVE	RESIDENTIAL EXISTING	ACCESSORY STRUCTURES	Exterior Stairs	B.H.I	7	4	CRANFORD		1/0/1900	1/0/1900
BRX2209-0049	09/09/2022	0	1401 63RD AVENUE CT	RESIDENTIAL EXISTING	REMODEL	Replaced an exterior window with a french door	JJ FENCING AND DECKS	5	7	FOX RUN SUB 3RD FG		1/0/1900	1/0/1900
BRX2209-0071	09/19/2022	4,000	2464 25TH AVE	RESIDENTIAL EXISTING	REMODEL	Install one new egress window in the basement	CM SHEPARD CONSTRUCTION INC	19	5	BRENTWOOD PARK		1/0/1900	1/0/1900
BRX2209-0072	09/19/2022	11,000	2226 25TH ST	RESIDENTIAL EXISTING	REMODEL	Install 3 egress windows in the basement	CM SHEPARD CONSTRUCTION INC	21	6	HILLSIDE 1ST ADD		1/0/1900	1/0/1900
BRX2209-0075	09/20/2022	5,000	7717 23RD STREET RD	RESIDENTIAL EXISTING	PATIO DECK COVER AWNING	Patio Cover framing	Humberto Ornelas	10	6	OWL RIDGE 4TH FG		1/0/1900	1/0/1900
BRX2209-0090	09/13/2022	28,000	1328 86TH AVE	RESIDENTIAL EXISTING	BASEMENT FINISH	Add Room to Bsmt and Convert Tandem Garage into Living Spc	DS&P LLC			TRAILS AT SHEEP DRAW		1/0/1900	1/0/1900
BRX2209-0226	09/23/2022	30,000	2306 73RD AVE	RESIDENTIAL EXISTING	BASEMENT FINISH	basement finish	Kimberly Shultz	9	4	HOMESTEAD HEIGHTS SUB FG#3		1/0/1900	1/0/1900
ELEC2209-0023	09/02/2022	10,000	415 59TH AVE 415	ELECTRICAL	SERVICE	Relocate and replace 100amp meter and panel	INTERMOUNTAIN ELECTRIC INC			WESTMOOR ACRES 1ST FG OTLT D		0	0
ELEC2209-0089	09/07/2022	3,000	440 DOUBLE TREE DR	ELECTRICAL	SERVICE	Install new meter and disconnect	BEE'S ELECTRIC INC					0	0
ELEC2209-0094	09/08/2022	20,000	2227 23RD AVE	ELECTRICAL	SERVICE	Install 2" Conduit from 23rd Ave thru the Grass for Fiber	ECKSTINE ELECTRIC CO					0	0
ELEC2209-0103	09/08/2022	500	4003 30TH STREET RD	ELECTRICAL	SERVICE	Electric to storage shed	Remodelit LLC	14	6	GATEWAY LAKES		0	0
ELEC2209-0107	09/08/2022	18,000	4207 29TH ST	ELECTRICAL	SERVICE	Installation of ma 24kW Generac generator, 200amp SER ATS	COLLINS CONTROL AND ELECTRIC	18	1	GATEWAY ESTATES FG#1		0	0
ELEC2209-0153	09/12/2022	1,500	7110 CANBERRA STREET DR	ELECTRICAL	SERVICE	Labor & materials for patio deck cover electrical	Matt Haberman	5	1	CANBERRA COMMONS		0	0
ELEC2209-0196	09/13/2022	2,500	4201 22ND ST	ELECTRICAL	SERVICE	Upgrade main electrical panel, 125 amp, Underground service	COPPER CONNECTION	14	3	VIRGINIA HILLS		0	0
ELEC2209-0198	09/13/2022	1,500	2236 45TH AVE	ELECTRICAL	SERVICE	Main Panel Upgrade; (All other parts of design are complete)	Permitting Department	6	4	FOXHILL SUB		0	0
ELEC2209-0300	09/16/2022	7,000	3396 E C ST	ELECTRICAL	SERVICE	New Electrical Service for City's Bulk Water Station	ECKSTINE ELECTRIC CO	NONE	NONE	WELD CO MUNICIPAL AIRPORT		0	0
ELEC2209-0306	09/18/2022	2,500	2618 22ND AVE	ELECTRICAL	SERVICE	Upgrade main electrical panel, 125amp, Overhead service		29	5	HILLSIDE 1ST ADD		0	0
ELEC2209-0348	09/19/2022	1,900	2034 WEDGEWOOD DR	ELECTRICAL	SERVICE	adding a motor for an fence to open		23	6	WEDGWOOD PUD		0	0
ELEC2209-0401	09/19/2022	2,000	1919 8TH AVE	ELECTRICAL	SERVICE	replacing service on detached garages	EVERYTHING ELECTRIC LLC	9	1	NORMAL SCHOOL ADD		0	0
ELEC2209-0453	09/20/2022	3,200	918 5TH AVE	ELECTRICAL	SERVICE	Install new 100 AMP panel with ac hook up	ALLEN PLUMBING & HEATING	17	129	BACONS SUB		0	0
ELEC2209-0516	09/21/2022	15,191	1816 74TH AVE	ELECTRICAL	SERVICE	Installation of 22kW generator, 200amp, automatic switch	WAGNER ELECTRIC COMPANY	4	3	MOUNTAIN VISTA FG#1		0	0
ELEC2209-0529	09/22/2022	2,500	2616 23RD AVE	ELECTRICAL	SERVICE	Rebuild ssrvice	LOOS ELECTRIC INC	31	6	HILLSIDE 1ST ADD		0	0
ELEC2209-0533	09/22/2022	2,500	1725 29TH AVE	ELECTRICAL	SERVICE	Upgrade main electrical panel, 100amp, Underground service	COPPER CONNECTION	11	4	ROLLING HILLS 2ND ADD		0	0
ELEC2209-0546	09/22/2022	1,000	3111 19TH ST	ELECTRICAL	SERVICE	EV Charger Installation,NEMA 14-50 Outlet	KING ELECTRIC LLC	10	1	ROLLING HILLS 3RD ADD		0	0
ELEC2209-0604	09/27/2022	2,000	1821 14TH ST	ELECTRICAL	SERVICE	Replace existing100amp service w/ new100amp overhead service	SIERRA VISTA ELECTRIC LLC	9	2	MAPLEWOOD 1ST ADD		0	0
ELEC2209-0667	09/29/2022	22,000	1009 13TH AVE	ELECTRICAL	SERVICE	panel change out	RVGC Construction	1	72	GREELEY CITY		0	0
ELEC2209-0669	09/30/2022	2,500	1132 33RD AVE	ELECTRICAL	SERVICE	relocate meter	Amp'd Up	16	3	WESTWOOD 1ST ADD		0	0
ELEC2209-0673	09/30/2022	0	2201 23RD AVE	ELECTRICAL	SERVICE	Furnish and install lighting, wiring and conduit	PINNACLE ELECTRIC & CONSTRUCTION CO					0	0
FLAT2207-0050	09/14/2022	7,250	4953 6TH STREET RD	FLATWORK		Pour 13x35 concrete pad, remove and reset existing steps	WOOD STREET BUILDERS	22	6	WESTMOOR WEST		0	0
FLAT2208-0519	09/06/2022	3,000	2533 9TH ST	FLATWORK		Concrete Driveway Installation to Replace Gravel Driveway	Aguirre Concrete	1	NONE	GRIEB SUB		0	0
FLAT2209-0280	09/30/2022	3,000	1229 104TH AVE	FLATWORK		Flatwork				PROMONTORY RESIDENTIAL 2ND FG		0	0
FLAT2209-0583	09/28/2022	2,200	4956 13TH ST	FLATWORK		sdiewalk from patio to city sidewalk	Frank Torrez	12	7	COUNTRY CLUB WEST SUB		0	0
FLAT2209-0602	09/27/2022	1	505 46TH AVE	FLATWORK		Remove and replace driveway, front patio, and rear patio	Guzman Concrete	4	2	WESTMOOR ACRES 1ST FG OTLT D		0	0
FLAT2209-0623	09/28/2022	2,400	1501 6TH AVE	FLATWORK		New sidewalk and replacing existing		8	166	THAYERS PLAT N2/3 BLOCK 166		0	0
FLOOD2209-0288	09/30/2022	60,000	E 8TH ST	FLOODPLAIN	FLOODPLAIN USE	Install of diversion structure and raw water pipeline	Four C Sons, Inc					0	0
LNL2209-0005	09/14/2022	1,000	4003 30TH STREET RD	LANDSCAPING AND LAWN	LANDSCAPE IRRIGATION TAP	residential sprinkler system	AFFORDABLE SPRINKLING AND LANDSCAPE	14	6	GATEWAY LAKES		0	0
LNL2209-0044	09/05/2022	200	2323 45TH AVE	RESIDENTIAL LAWN SPRINKLERS		over seeding lawn because of large dead areas		13	4	FOXHILL SUB		0	0
MECH2209-0017	09/02/2022	2,900	352 50TH AVE	MECHANICAL	FURNACE AND AIR CONDITIONING	Replacing existing furnace and condenser	GREELEY FURNACE CO LLC	21	5	WEBER WEST 8TH RPLT		0	0
MECH2209-0018	09/02/2022	4,050	1615 103RD AVENUE CT	MECHANICAL	AIR CONDITIONING	Remove existing and install 13 seer 3 ton ac and condenser				PROMONTORY IMAGINE SCHOOL 3RD FG		0	0
MECH2209-0019	09/02/2022	3,000	383 50TH AVE	MECHANICAL	FURNACE AND AIR CONDITIONING	Replacing existing furnace and condenser	GREELEY FURNACE CO LLC	26	5	WEBER WEST 8TH RPLT		0	0
MECH2209-0021	09/02/2022	13,130	2213 68TH AVE	MECHANICAL	FURNACE AND AIR CONDITIONING	removed existing furn/ac and replaced with new like furn/ac	ALLEN PLUMBING & HEATING	13	11	DRAKES CROSSING		0	0
MECH2209-0022	09/02/2022	7,659	1812 LAKESIDE DR	MECHANICAL	AIR CONDITIONING	Remove existing AC and replace with new like AC	ALLEN PLUMBING & HEATING	4	NONE	SUMMIT CONDO		0	0
MECH2209-0025	09/02/2022	13,674	2906 12TH STREET RD	MECHANICAL	FURNACE AND AIR CONDITIONING	removed existing furn/ac and replaced with new like furn/ac	ALLEN PLUMBING & HEATING	6	11	WILSHIRE 4TH ADD		0	0
MECH2209-0028	09/02/2022	7,700	1905 66TH AVE	MECHANICAL	AIR CONDITIONING	Remove existing AC and replace with new like AC	ALLEN PLUMBING & HEATING	20	NONE	WESTRIDGE VILLAGE II RPLT A		0	0
MECH2209-0031	09/02/2022	15,462	3733 6TH ST	MECHANICAL	FURNACE AND AIR CONDITIONING	removed existing furn/ac and replaced with new like furn/ac	ALLEN PLUMBING & HEATING	5	3	WESTMOOR 1ST FG		0	0
MECH2209-0047	09/06/2022	25,000	4021 15TH STREET LN	MECHANICAL	FURNACE AND AIR CONDITIONING	Remove and install 80K BTU 97% furnace, 4 Ton AC and 50 Gal	Terrance Goodroad	4	NONE	STONEY BROOK		0	0
MECH2209-0050	09/06/2022	14,030	1922 84TH AVE	MECHANICAL	FURNACE AND AIR CONDITIONING	removed existing furn/ac and replaced with new like furn/ac	ALLEN PLUMBING & HEATING	3	1	MOUNTAIN SHADOWS SUB 1ST FG		0	0
MECH2209-0054	09/06/2022	13,737	1955 45TH AVE	MECHANICAL	FURNACE AND AIR CONDITIONING	removed existing furn/ac and replaced with new like furn/ac	ALLEN PLUMBING & HEATING	22	NONE	COLLEGE GREEN COMMONS PUD		0	0
MECH2209-0055	09/06/2022	16,702	1704 88TH AVE	MECHANICAL	FURNACE AND AIR CONDITIONING	removed existing furn/ac and replaced with new like furn/ac	ALLEN PLUMBING & HEATING	8	8	MOUNTAIN SHADOWS SUB 2ND FG		0	0
MECH2209-0056	09/06/2022	14,067	1621 68TH AVE	MECHANICAL	FURNACE AND AIR CONDITIONING	removed existing furn/ac and replaced with new like furn/ac	ALLEN PLUMBING & HEATING	8	3	CEDARWOODS SUB		0	0
MECH2209-0057	09/06/2022	12,783	2029 31ST STREET RD	MECHANICAL	FURNACE AND AIR CONDITIONING	removed existing furn/ac and replaced with new like furn/ac	ALLEN PLUMBING & HEATING	9	6	SOUTHMOOR VILLAGE 2ND FG		0	0
MECH2209-0058	09/06/2022	12,217	4107 4TH STREET RD	MECHANICAL	FURNACE AND AIR CONDITIONING	removed existing furn/ac and replaced with new like furn/ac	ALLEN PLUMBING & HEATING	23	8	WESTMOOR ACRES 1ST FG 1ST RPLT		0	0
MECH2209-0060	09/06/2022	7,125	2515 50TH AVE	MECHANICAL	FURNACE	Replaced Furnace	AIRTECH HVAC SERVICES (AIR SOLUTION	26	5	HIGHLAND HILLS SUB 1ST ADD		0	0
MECH2209-0063	09/06/2022	5,700	2615 MEADOW BROOK LN	MECHANICAL	AIR CONDITIONING	Remove existing AC and replace with new like AC		10	6	BELAIR PARK 6TH ADD		0	0
MECH2209-0065	09/06/2022	3,000	1603 104TH AVENUE CT	MECHANICAL	AIR CONDITIONING	1603 104th Ave Ct	Journey Homes, LLC			PROMONTORY IMAGINE SCHOOL 3RD FG		0	0
MECH2209-0066	09/06/2022	6,480	2334 25TH STREET RD	MECHANICAL	AIR CONDITIONING	60,000 BTU Furnace Install	AFFORDABLE HEATING & A/C	9	4	BRENTWOOD PARK		0	0
MECH2209-0081	09/07/2022	9,000	1034 30TH AVE	MECHANICAL	AIR CONDITIONING	Remove and install 2.5 Ton Ac		7	3	WILSHIRE 2ND ADD		0	0
MECH2209-0087	09/07/2022	7,000	407 36TH AVE	MECHANICAL	AIR CONDITIONING	REPLACE A/C WITH A 28 SEER 3 TON A/C	SWAN HEATING & A/C OF DENVER	1	13	EDWARDS HOMES 7TH ADD		0	0
MECH2209-0092	09/08/2022	1,600	2839 40TH AVE	MECHANICAL	AIR CONDITIONING	Replacing existing condenser	GREELEY FURNACE CO LLC	10	2	GATEWAY LAKES		0	0
MECH2209-0108	09/08/2022	18,000	4207 29TH ST	MECHANICAL	GAS TEST	Installation of a 24kW Generac generator, 200amp SER ATS	COLLINS CONTROL AND ELECTRIC	18	1	GATEWAY ESTATES FG#1		0	0
MECH2209-0111	09/08/2022	23,709	4019 28TH STREET RD	MECHANICAL	FURNACE AND AIR CONDITIONING	removed existing furn/ac and replaced with new like furn/ac	ALLEN PLUMBING & HEATING	3	4	GATEWAY LAKES		0	0
MECH2209-0113	09/08/2022	13,779	1614 26TH AVENUE CT	MECHANICAL	FURNACE AND AIR CONDITIONING	removed existing furn/ac and replaced with new like furn/ac	ALLEN PLUMBING & HEATING	3	16	ROLLING HILLS		0	0
MECH2209-0119	09/09/2022	25,000	1674 37TH AVENUE PL	MECHANICAL	FURNACE AND AIR CONDITIONING	Remove and install 2- 98% Furnaces and 2- AC Units		48	NONE	PINE RIDGE ESTATES PUD		0	0
MECH2209-0123	09/09/2022	11,005	5775 29TH ST 510	MECHANICAL	FURNACE AND AIR CONDITIONING	16 seer 2 ton ac and 60,000 BTU furnace replacement	AFFORDABLE HEATING & A/C	508	NONE	WEST FORK VILLAGE CONDO 4TH SUPP PHASE 5		0	0
MECH2209-0124	09/09/2022	2,300	6600 20TH ST 51	MECHANICAL	AIR CONDITIONING	Replacing existing condenser	GREELEY FURNACE CO LLC	39	19	COVINGTON KNOLLS		0	0
MECH2209-0129	09/09/2022	5,175	5621 27TH ST	MECHANICAL	AIR CONDITIONING	Install a 13 Seer 4 ton A/C	JMP HEAT dba LION HOME SERVICE	8	9	HIGHLAND PARK WEST		0	0
MECH2209-0135	09/12/2022	2,200	1200 43RD AVE 16	MECHANICAL	FURNACE AND AIR CONDITIONING	Replacing existing furnace and condenser	GREELEY FURNACE CO LLC	16	NONE	VENTANA VILLAS		0	0
MECH2209-0143	09/12/2022	2,950	2036 1ST AVE 175	MECHANICAL	FURNACE	replace furnace with new 95% AFUE furnace 50,000 btu/h	Energy Resource Center	6	1	WERKHEISER 1ST ANNEX		0	0
MECH2209-0158	09/12/2022	7,884	5135 11TH STREET RD	MECHANICAL	FURNACE AND AIR CONDITIONING	Remove existing and replace. Elect to install GFCI and break	IMS HEATING & AIR INC	49	NONE	VILLA SERENA		0	0
MECH2209-0203	09/13/2022	20,524	3091 49TH AVE	MECHANICAL	FURNACE AND AIR CONDITIONING	Replaced Furnace and AC	AIRTECH HVAC SERVICES (AIR SOLUTION	22	6	T BONE RANCH SUB 1ST FG		0	0
MECH2209-0225	09/14/2022	10,337	3369 3RD STREET RD	MECHANICAL	FURNACE AND AIR CONDITIONING	Furnace and Air Conditioner	IMS HEATING & AIR INC	1	3	NORTHVIEW SUB FG#1		0	0
MECH2209-0238	09/14/2022	6,811	5601 18TH ST 24	MECHANICAL	AIR CONDITIONING	Install a 3 ton 16 Seer	JMP HEAT dba LION HOME SERVICE	25	NONE	HILAND KNOLLS PUD 2ND RPLT		0	0
MECH2209-0249	09/14/2022	3,000	1611 103RD AVENUE CT	MECHANICAL	AIR CONDITIONING	1611 103rd Ave Ct	Journey Homes, LLC			PROMONTORY IMAGINE SCHOOL 3RD FG		0	0
MECH2209-0279	09/15/2022	4,780	3207 69TH AVE	MECHANICAL	AIR CONDITIONING	replace existing AC	GARY HOOLEY HEATING & AIR	10	6	ST MICHAELS SUB		0	0
MECH2209-0292	09/16/2022	10,700	5437 7TH STREET RD	MECHANICAL	AIR CONDITIONING	remove existing ac and replace with new like ac	ALLEN PLUMBING & HEATING	14	3	WEST POINT 3RD FG 1ST RPLT		0	0
MECH2209-0295	09/16/2022	3,918	4648 23RD ST	MECHANICAL	FURNACE AND AIR CONDITIONING	Replacing existing furnace and condenser	GREELEY FURNACE CO LLC	4	2	DEVON AT FOXHILL PUD		0	0
MECH2209-0296	09/16/2022	9,129	2423 B ST	MECHANICAL	FURNACE AND AIR CONDITIONING	Install air conditioner, condenser, and furnace.	IMS HEATING & AIR INC	8	1	ROYBEC SUB		0	0
MECH2209-0297	09/16/2022	2,130	203 48TH AVENUE CT	MECHANICAL	AIR CONDITIONING	Replacement with a 13 SEER, 2.5 ton AC unit.	Home Water Solutions	10	3	WEBER WEST SUB		0	0
MECH2209-0298	09/16/2022	4,074	516 26TH AVENUE CT	MECHANICAL	FURNACE AND AIR CONDITIONING	Replacement with an 80%, NG, 100K BTU furnace and a 13 SEER,	Home Water Solutions, LLC	18	3	BROADVIEW ACRES 2ND ADD		0	0
MECH2209-0299	09/16/2022	1,642	8211 20TH ST	MECHANICAL	AIR CONDITIONING	Replacement with a 13 SEER, 5 ton, AC unit.	Home Water Solutions, LLC	5C	NONE	MOUNTAIN VISTA OFFICE PARK MINOR SUB 1ST RPLT L5B		0	0
MECH2209-0307	09/19/2022	1,672	6223 6TH ST	MECHANICAL	FURNACE	NSTALL FUNACE	A-1 HEATING AND AIR CONDITIONING	1	19	PUMPKIN RIDGE SUB		0	0
MECH2209-0351	09/19/2022	11,547	5775 29TH ST 503	MECHANICAL	FURNACE AND AIR CONDITIONING	remove existing furn/ac and replace with new like furn/ac	ALLEN PLUMBING & HEATING	501	NONE	WEST FORK VILLAGE CONDO 4TH SUPP PHASE 5		0	0
MECH2209-0398	09/19/2022	9,404	2727 19TH ST	MECHANICAL	FURNACE AND AIR CONDITIONING	Replace A/C & Furnace	AIR X-TREME	2	1	ROLLING HILLS 2ND ADD		0	0
MECH2209-0399	09/19/2022	16,794	6813 16TH STREET RD	MECHANICAL	AIR CONDITIONING	Replacement 3 ton AC unit and 80,000 BTU Furnace	AFFORDABLE HEATING & A/C	26	1	CEDARWOODS SUB		0	0
MECH2209-0424	09/20/2022	10,000	131 13TH AVE	MECHANICAL	AIR CONDITIONING	Installimg 1 Ton single head Mini Split System		8	1	BILLINGS & SYLVESTER		0	0
MECH2209-0486	09/21/2022	8,639	210 N 43RD AVE	MECHANICAL	FURNACE AND AIR CONDITIONING	Install a 16 Seer 3 ton A/C and a 100k BTU 80% ng Furnace	JMP HEAT dba LION HOME SERVICE	2	2	LARSON SUB 4TH FG		0	0
MECH2209-0488	09/21/2022	5,338	435 N 35TH AVE 142	MECHANICAL	AIR CONDITIONING	Replaced AC	AIRTECH HVAC SERVICES (AIR SOLUTION	1	1	STONEYBROOK SUB FG#1		0	0
MECH2209-0501	09/21/2022	15,465	7704 11TH STREET DR	MECHANICAL	FURNACE AND AIR CONDITIONING	Replaced Furnace and AC	AIRTECH HVAC SERVICES (AIR SOLUTION	23	2	BOOMERANG RANCH 1ST FG		0	0
MECH2209-0519	09/21/2022	5,000	4310 20TH STREET RD	MECHANICAL	AIR CONDITIONING	3 Ton Split Air Conditioning Replacement	MOUNTAIN STATES HEAT & AIR INC	9	6	VIRGINIA HILLS		0	0
MECH2209-0525	09/22/2022	5,980	457 25TH AVENUE CT	MECHANICAL	AIR CONDITIONING	16 seer 2 ton ac unit	AFFORDABLE HEATING & A/C	1	2	BROADVIEW ACRES 1ST ADD		0	0
MECH2209-0530	09/22/2022	4,527	1702 68TH AVE	MECHANICAL	FURNACE	Install a 80k BTU 80% ng Furnace	JMP HEAT dba LION HOME SERVICE	1	7	CEDARWOODS SUB		0	0
MECH2209-0558	09/23/2022	3,000	1621 104TH AVENUE CT	MECHANICAL	AIR CONDITIONING	1621 104th Ave Ct	Journey Homes, LLC			PROMONTORY IMAGINE SCHOOL 3RD FG		0	0
MECH2209-0560	09/23/2022	3,200	608 54TH AVE	MECHANICAL	FURNACE AND AIR CONDITIONING	Replacing existing furnace and condenser	GREELEY FURNACE CO LLC	1	2	WEST POINT SUB 6TH FG		0	0
MECH2209-0561	09/23/2022	14,755	1520 64TH AVENUE CT	MECHANICAL	FURNACE AND AIR CONDITIONING	80,000 BTU furnace, 3 ton AC unit	AFFORDABLE HEATING & A/C	4	13	FOX RUN SUB 3RD FG		0	0
MECH2209-0562	09/23/2022	2,900	6705 22ND ST	MECHANICAL	FURNACE AND AIR CONDITIONING	Replacing existing furnace and condenser	GREELEY FURNACE CO LLC	3	10	DRAKES CROSSING		0	0
MECH2209-0568	09/23/2022	2,900	6713 21ST ST	MECHANICAL	FURNACE AND AIR CONDITIONING	Replacing existing furnace and condenser	GREELEY FURNACE CO LLC	2	4	DRAKES CROSSING		0	0
MECH2209-0575	09/23/2022	14,183	3930 19TH STREET LN	MECHANICAL	FURNACE AND AIR CONDITIONING	INSTALL 2 FURNACES AND 2 AC UNITS	A-1 HEATING AND AIR CONDITIONING	14	NONE	PINE RIDGE ESTATES PUD		0	0
MECH2209-0576	09/23/2022	2,725	2157 46TH AVENUE CT E	MECHANICAL	FURNACE	replace furnace with new 95% AFUE furnace 60000 btu/h	Energy Resource Center	2E	4	DEVON AT FOXHILL PUD		0	0
MECH2209-0584	09/26/2022	8,307	4907 2ND STREET RD	MECHANICAL	AIR CONDITIONING	remove existing ac and replace with new like ac	ALLEN PLUMBING & HEATING	2	NONE	WEBER WEST 4TH RPLT		0	0
MECH2209-0600	09/27/2022	3,855	1710 36TH AVENUE CT	MECHANICAL	FURNACE AND AIR CONDITIONING	INSTALL FURNACE AND AC UNIT	A-1 HEATING AND AIR CONDITIONING	9	5	HIGHLAND ACRES RPLT		0	0
MECH2209-0624	09/28/2022	4,171	5808 17TH ST	MECHANICAL	FURNACE	Furnish and install garage heater	ALLEN PLUMBING & HEATING	3	6	HILAND KNOLLS SUB		0	0
MECH2209-0627	09/28/2022	10,576	8116 SURREY ST	MECHANICAL	AIR CONDITIONING	Remove existing AC and replace with new like AC	ALLEN PLUMBING & HEATING	74	NONE	POUDRE RIVER RANCH 3RD FG 1ST RPLT		0	0
MECH2209-0631	09/28/2022	13,778	2512 26TH STREET RD	MECHANICAL	FURNACE AND AIR CONDITIONING	removed existing furn/ac and replaced with new like furn/ac	ALLEN PLUMBING & HEATING	9	3	SOUTHRIDGE SUB		0	0
MECH2209-0632	09/28/2022	8,179	5822 16TH STREET LN	MECHANICAL	AIR CONDITIONING	Remove existing AC and replace with new like AC	ALLEN PLUMBING & HEATING	17	5	COUNTRY CLUB WEST 4TH FG		0	0
MECH2209-0633	09/28/2022	12,318	6923 23RD ST	MECHANICAL	FURNACE AND AIR CONDITIONING	removed existing furn/ac and replaced with new like furn/ac	ALLEN PLUMBING & HEATING	1	11	DRAKES CROSSING		0	0

MECH2209-0652	09/29/2022	3,500	2724 22ND STREET LN	MECHANICAL	FURNACE AND AIR CONDITIONING	Replace old Furnace and ac with new one	Forrest Mechanical, LLC	7	1	CASCADE PARK SOUTH 2ND FG		0	0
MECH2209-0654	09/29/2022	9,987	1826 16TH AVE	MECHANICAL	FURNACE AND AIR CONDITIONING	like for like furnace and AC replacement	TRA MAR MECHANICAL AKA WESTERN COMFORT	1	NONE	GLENMERE PARK RESUB L208 B2		0	0
MECH2209-0656	09/29/2022	4,225	1362 56TH AVE	MECHANICAL	FURNACE	REPLACE 98% EFFICIENT 90K BTUE	SWAN HEATING & A/C OF DENVER	4	3	COUNTRY CLUB WEST 4TH FG		0	0
MECH2209-0657	09/29/2022	35,000	1777 28TH AVE	MECHANICAL	FURNACE AND AIR CONDITIONING	Remove and install 80K BTU 98% Furnace and 3 Ton AC		31	3	ROLLING HILLS 2ND ADD		0	0
MECH2209-0671	09/30/2022	31,000	1120 75TH AVE	MECHANICAL	FURNACE AND AIR CONDITIONING	Remove and install 80K BTU 97% Furnace and 3 Ton AC	One Hour Heating and Air	6	5	KNAUS SUB 3RD FG		0	0
MECH2209-0672	09/30/2022	1,200	3643 29TH ST	MECHANICAL	GAS TEST	Gas Pressure test for Atmos	TRA MAR MECHANICAL AKA WESTERN COMFORT	2	NONE	HOMESTEAD MINOR SUB 1ST RPLT		0	0
MECH2209-0676	09/30/2022	500	2334 7TH ST	MECHANICAL	GAS TEST	Pressure Test	AIR X-TREME	8	5	HOUSTON HEIGHTS 3RD ADD		0	0
MECH2209-0677	09/30/2022	12,571	222 22ND ST	MECHANICAL	FURNACE AND AIR CONDITIONING	Replaced Furnace and AC	AIRTECH HVAC SERVICES (AIR SOLUTION	3	2	GREELEY INDUSTRIAL PARK		0	0
PLB2209-0012	09/01/2022	300	1715 11TH AVE	PLUMBING	GAS TEST	Gas Shut off by Atmos	FISHER MECHANICAL CONTRACTORS INC	5	5	CRANFORDS SUB		0	0
PLB2209-0016	09/02/2022	3,523	4308 30TH STREET PL	PLUMBING	WATER HEATER BOILER	Remove existing wh and replace with new like wh	ALLEN PLUMBING & HEATING	4	11	GATEWAY ESTATES 3RD FG		0	0
PLB2209-0026	09/02/2022	25	2122 9TH AVE	PLUMBING	GAS TEST	Pressure Test		11	1	ARLINGTON PARK		0	0
PLB2209-0033	09/02/2022	1,600	5601 18TH ST 24	PLUMBING	GAS PIPING	Relocate gas line approx. 8ft in kitchen	ALLEN PLUMBING & HEATING	25	NONE	HILAND KNOLLS PUD 2ND RPLT		0	0
PLB2209-0045	09/05/2022	600	3551 29TH ST 1-8	PLUMBING	GAS TEST	gas leak pressure test rquired	WALKER PLUMBING LLC	1	NONE	HOMESTEAD MINOR SUB 1ST RPLT		0	0
PLB2209-0068	09/06/2022	1,710	10102 13TH ST	PLUMBING	WATER HEATER BOILER	40 GAL gas 36K BTU water heater replacement like for like	COLORADO DELTA MECHANICAL INC	12	18	PROMONTORY RESIDENTIAL 1ST FG		0	0
PLB2209-0076	09/07/2022	5,665	1357 43RD AVE 64	PLUMBING	WATER HEATER BOILER	INSTALL WATER SOFTNER SYSTEM	PLUMBLINE SERVICES	64	NONE	FAIRWAY 4 FG#3		0	0
PLB2209-0078	09/07/2022	200	1020 8TH ST	PLUMBING	GAS PIPING	RECONECT THE FURNACE TO GAS LINE		10	55	GREELEY CITY		0	0
PLB2209-0080	09/07/2022	1	2036 1ST AVE 204	PLUMBING	GAS PIPING	Gas pressure test	TOP NOTCH PLUMBING	6	1	WERKHEISER 1ST ANNEX		0	0
PLB2209-0091	09/07/2022	800	4519 6TH ST	PLUMBING	WATER SEWER REPAIR	Install sewer clean outs	Gold Star Excavation	25	12	WESTMOOR ACRES 1ST FG		0	0
PLB2209-0117	09/08/2022	1,750	1903 7TH AVE	PLUMBING	WATER HEATER BOILER	remove and replace 50gal water heater electric	MANNY'S QUALITY PLUMBING	3	10	ERICKSON SUB		0	0
PLB2209-0131	09/09/2022	180	1519 14TH ST	PLUMBING	GAS TEST	Gas test from meter	JAMES PLUMBING	15	4	MOUNTAIN VIEW SUB		0	0
PLB2209-0133	09/12/2022	1,500	1405 61ST AVE	PLUMBING	WATER HEATER BOILER	Install a 40 gallon gas hot water heater	wayne volack	16	2	FOX RUN SUB 3RD FG		0	0
PLB2209-0147	09/12/2022	300	1707 26TH AVENUE CT	PLUMBING	GAS TEST	gas leak	WALKER PLUMBING LLC	10	17	ROLLING HILLS 1ST ADD		0	0
PLB2209-0204	09/13/2022	2,250	2036 1ST AVE 175	PLUMBING	WATER HEATER BOILER	Supply and install tankless water heater	AQUA PLUMBING AND HEATING	6	1	WERKHEISER 1ST ANNEX		0	0
PLB2209-0242	09/14/2022	1,461	5151 29TH ST 1402	PLUMBING	WATER HEATER BOILER	Install a 50 gal ng WH	JMP HEAT dba LION HOME SERVICE	1403	NONE	PINNACLE AT T BONE RANCH PHASEVII BLDG14		0	0
PLB2209-0243	09/14/2022	9,750	2310 44TH AVE	PLUMBING	WATER SEWER REPAIR	8' SPOT REPAIR IN FRONT YARD AND INSTALL CLEANOUTS		4	1	VIRGINIA HILLS 1ST RPLT		0	0
PLB2209-0246	09/14/2022	500	1523 6TH AVE	PLUMBING	GAS TEST	Replacement of Furnace gas shut off valve.	CHESS PLUMBING & HEATING LLC	5	166	THAYERS PLAT N2/3 BLOCK 166		0	0
PLB2209-0264	09/15/2022	5,800	1726 30TH AVENUE CT	PLUMBING	WATER SEWER REPAIR	10' SEWER REPAI RIN THE FRON TYARD AND INSTALL CLEAN OUTS	TRENCH RIGHT LLC	8	8	WOODBRIAR 2ND FG 1ST RPLT		0	0
PLB2209-0281	09/15/2022	350	2280 1ST AVE 143	PLUMBING	GAS TEST	Gas test inspection	TOP NOTCH PLUMBING	143	NONE	COUNTRYSIDE MOBILE HOME PARK		0	0
PLB2209-0283	09/15/2022	1,500	2802 22ND ST	PLUMBING	WATER SEWER SERVICE LINE	Outside spot repair within property installing cleanouts	Elite Rooter	NONE	NONE	CASCADE PARK SOUTH		0	0
PLB2209-0294	09/16/2022	1,500	3102 17TH AVE 58	PLUMBING	WATER HEATER BOILER	Install a 30 gallon gas hot water heater	wayne volack	NONE	NONE	NORGREN 1ST ANNEX		0	0
PLB2209-0404	09/20/2022	400	3031 1ST AVE	PLUMBING	WATER SEWER REPAIR	Repair sewer line	TOP NOTCH PLUMBING	C	NONE	GREELEY COMMERCE CENTER		0	0
PLB2209-0459	09/20/2022	1,940	1925 24TH AVENUE CT	PLUMBING	WATER HEATER BOILER	50 GAL gas 40K BTU water heater replacement like for like	COLORADO DELTA MECHANICAL INC	4	5	ROLLING HILLS		0	0
PLB2209-0504	09/21/2022	2,000	1302 29TH ST	PLUMBING	WATER HEATER BOILER	water heater replacement	TOP NOTCH PLUMBING	10	1	RIDGE RUN SUB		0	0
PLB2209-0551	09/22/2022	1,615	1944 26TH AVENUE CT	PLUMBING	WATER HEATER BOILER	Install a 50 gal ng WH	JMP HEAT dba LION HOME SERVICE	12	3	COTTONWOOD VILLAGE		0	0
PLB2209-0552	09/22/2022	16,000	920 8TH AVE	PLUMBING	WATER SEWER REPAIR	10'X5' ALLEY CUT FOR SEWER REPAIR	TRENCH RIGHT LLC	NONE	63	GREELEY CITY		0	0
PLB2209-0556	09/23/2022	4,500	2203 N 47TH AVE	PLUMBING	GAS PIPING	Install new gas line for 3 seperate homes						0	0
PLB2209-0564	09/23/2022	300	1821 2ND ST unit 4	PLUMBING	GAS TEST	Gas Pressure Test	WULF PLUMBING					0	0
PLB2209-0614	09/27/2022	3,751	5634 24TH ST	PLUMBING	WATER SEWER REPAIR	Spot repair and two way cleanouts on sewer in yard	JMP HEAT dba LION HOME SERVICE	37	1	HIGHLAND HILLS SUB 2ND ADD		0	0
PLB2209-0625	09/28/2022	8,500	2906 5TH ST	PLUMBING	WATER SEWER REPAIR	10' SEWER REPAIR IN FRONT YARD AND INSTALL CLEANOUTS	TRENCH RIGHT LLC	10	9	BROADVIEW ACRES 5TH ADD		0	0
PLB2209-0626	09/28/2022	1,182	2906 5TH ST	PLUMBING	WATER HEATER BOILER	Install a 50 gal ng Water Heater	JMP HEAT dba LION HOME SERVICE	10	9	BROADVIEW ACRES 5TH ADD		0	0
PLB2209-0682	09/30/2022	1,520	4213 30TH STREET RD	PLUMBING	WATER HEATER BOILER	Install a 50gal ng WH	JMP HEAT dba LION HOME SERVICE	9	6	GATEWAY ESTATES 3RD FG		0	0
ROOF2209-0006	09/01/2022	6,800	1465 44TH AVENUE PL	ROOFING		Re- Roof, tear down to deck, replace with laminate comp shin	SUMMIT ROOFING SOLUTIONS LLC	32	NONE	COUNTRY CLUB ESTATES PUD TRACT B		0	0
ROOF2209-0053	09/06/2022	2,600	2608 14TH AVENUE CT	ROOFING		Remove & replace with new all roofing material and flashings	FAITHFUL ROOFING LLC	3	21	FARRS 5TH ADD		0	0
ROOF2209-0074	09/07/2022	156,200	3616 10TH ST	ROOFING		Commercial Roofing - Recover EPDM Installation	FRONT RANGE ROOFING SYSTEMS	3	NONE	BITTERSWEET NORTH 1ST RPLT		0	0
ROOF2209-0088	09/07/2022	7,600	1434 11TH ST	ROOFING		Replace Hail damaged shingles	RTC ROOFING & EXTERIORS					0	0
ROOF2209-0095	09/08/2022	8,505	3033 42ND AVE	ROOFING		Reroof using OC Duration Storm asphalt shingle	INDEPENDENT ROOFING	12	14	GATEWAY ESTATES 3RD FG		0	0
ROOF2209-0099	09/08/2022	9,925	1220 38TH AVE	ROOFING		Roof Replacement T.O. 1 Layer to Deck and Install	Bob Behrends Roofing	1	2	BITTERSWEET NORTH SUB		0	0
ROOF2209-0101	09/08/2022	7,290	2036 1ST AVE 178	ROOFING		Tear off 13 squares of old roofing material and replace	DRENNEN CUSTOM CONTRACTING	6	1	WERKHEISER 1ST ANNEX		0	0
ROOF2209-0105	09/08/2022	6,000	2333 5TH AVE	ROOFING		Tear off 12 squares of old roofing material and replace	DRENNEN CUSTOM CONTRACTING	9	1	VOLK ADD		0	0
ROOF2209-0118	09/09/2022	7,400	2125 62ND AVENUE CT	ROOFING		Roof Replacement	SLAUGHTER ROOFING	27	NONE	ALLISON FARM 2ND FG		0	0
ROOF2209-0134	09/12/2022	10,000	225 DUNDEE AVE 16	ROOFING		Reroof	ALL IN ROOFING LLC	16	NONE	KOALA KOURT 1ST MINOR SUB 1ST AM PUD BOUNDARIES TECH CENTER BOOMERANG RUN STREE		0	0
ROOF2209-0247	09/14/2022	6,099	2518 14TH STREET RD	ROOFING		Reroof	Bob Behrends Roofing	59	8	WESTVIEW 3RD ADD		0	0
ROOF2209-0267	09/15/2022	9,279	1509 3RD AVE	ROOFING		Re-roof house, 3/12 pitch	1ST COLORADO ROOFING	2	169	HALL & MORGER ADD		0	0
ROOF2209-0271	09/15/2022	7,462	2601 13TH ST	ROOFING		replace architectural shingles	JM EXTERIORS INC	3	3	WESTVIEW 3RD ADD		0	0
ROOF2209-0284	09/15/2022	10,665	2536 15TH ST	ROOFING		Remove and replace damaged asphalt shingles	Glen Gardner	4	9	WESTVIEW 3RD ADD		0	0
ROOF2209-0285	09/15/2022	10,665	2536 15TH ST	ROOFING		Remove and replace damaged asphalt shingles	DENVER ROOF PROS LLC	4	9	WESTVIEW 3RD ADD		0	0
ROOF2209-0310	09/19/2022	10,000	1019 9TH ST	ROOFING		Re roof 1019		NONE	55	GREELEY CITY		0	0
ROOF2209-0311	09/19/2022	8,000	4535 PIONEER LN 8	ROOFING		Replacing an existing shingle roofing on a residential condo	Ramon Ivan Soltero	8	NONE	COLLEGE GREEN 1ST FG 2ND AM PLT		0	0
ROOF2209-0314	09/19/2022	4,440	7510 POUDRE RIVER RD	ROOFING		Re-roofing project in Greeley	Troy Bergman	1	4	POUDRE RIVER RANCH 2ND FG		0	0
ROOF2209-0569	09/23/2022	7,000	225 DUNDEE AVE 19	ROOFING		Roof Replacement	SLAUGHTER ROOFING	19	NONE	KOALA KOURT 1ST MINOR SUB 1ST AM PUD BOUNDARIES TECH CENTER BOOMERANG RUN STREE		0	0
ROOF2209-0574	09/23/2022	11,877	2321 33RD AVE	ROOFING		Remove and replace with Malarkey Vista AR roof system	PRIDE ROOFING AND CONSTRUCTION LLC	25	1	WEST LAKE PARK 2ND FG		0	0
ROOF2209-0587	09/26/2022	506,093	5890 13TH ST	ROOFING		Commercial Roofing - Recover EPDM Installation	FRONT RANGE ROOFING SYSTEMS	1	1	MOSIER HILL 2ND FG RPLT		0	0
ROOF2209-0590	09/26/2022	3,500	1107 30TH STREET RD	ROOFING		replace roof		NONE	NONE	LANDMARK SUB		0	0
ROOF2209-0593	09/26/2022	6,800	1945 RESERVOIR RD	ROOFING		Roof Replacement	SLAUGHTER ROOFING	6	8	HEINZE GLENMERE CREST		0	0
ROOF2209-0597	09/26/2022	7,706	1610 11TH ST	ROOFING		Reroof remove existing wood shakes and 1 layer of shingles	ADVANCED ROOFING TECHNOLOGIES	NONE	1	MAPLEWOOD		0	0
ROOF2209-0598	09/26/2022	10,575	2202 27TH ST	ROOFING		Remove 1 Layer shingles. Install new class A shingles	GO ROOF TUNE UP INC	9	7	HILLSIDE 1ST ADD		0	0
ROOF2209-0606	09/27/2022	8,400	4537 PIONEER LN 9	ROOFING		Re-Roof - Tear off down to deck - install felt vents	SUMMIT ROOFING SOLUTIONS LLC	9	NONE	COLLEGE GREEN 1ST FG 2ND AM PLT		0	0
ROOF2209-0617	09/27/2022	9,341	435 N 35TH AVE 113	ROOFING		Tear off and install new felt, accessories and OC shingles	MARTINEZ ROOFING INC LLC	1	1	STONEYBROOK SUB FG#1		0	0
ROOF2209-0629	09/28/2022	4,706	1415 30TH AVE	ROOFING		Re-roof house, 4/12 pitch, Tamko Warranty	1ST COLORADO ROOFING	3	7	SHERWOOD PARK 2ND ADD		0	0
ROOF2209-0674	09/30/2022	30,000	2144 30TH ST	ROOFING		Tear off Mod Bit and install new Mod Bit roof	Wade Johnson	NONE	NONE	SOUTHMOOR VILLAGE 2ND FG		0	0
ROOF2209-0679	09/30/2022	5,000	3102 17TH AVE 51	ROOFING		Remove and replace asphalt shingles	BONE DRY ROOFING - WEST	NONE	NONE	NORGREN 1ST ANNEX		0	0
SIGN2204-0210	09/15/2022	100	1020 28TH AVE 109A	SIGN	TEMPORARY	We Remoldled		NONE	PT	GREELEY PLAZA		0	0
SIGN2208-0087	09/06/2022	14,367	4681 20TH ST	SIGN	MINOR AND FACE REPLACEMENT	Illuminated Wall Sign • East & West	Action Signs and Banners LLC	10	NONE	COLLEGE GREEN OFFICE PARK 1ST MINOR SUB		0	0
SIGN2208-0179	09/08/2022	30,250	4601 20TH ST	SIGN	MAJOR AND ELECTRICAL	FLUSH ILLUMIONATED SIGNS	TRI-CITY SIGN COMPANY	2	NONE	COLLEGE GREEN 5TH FG RPLT TRACT D		0	0
SIGN2208-0370	09/09/2022	4,348	1527 2ND AVE	SIGN	MINOR AND FACE REPLACEMENT	Replacing existing face with new on pre-existing pole sign	Bright Sign Solutions	14	170	SANBORNS SUB OF BLOCK 170		0	0
SIGN2208-0530	09/19/2022	16,459	1859 2ND AVE	SIGN	MAJOR AND ELECTRICAL	Install D/F pylon/pole sign for Becker Safety & Supply	SCHLOSSER SIGNS, INC.	1	NONE	OSBORN INDUSTRIAL PARK MINOR 1ST RPLT		0	0
SIGN2208-0596	09/14/2022	28,800	435 N 35TH AVE	SIGN	MINOR AND FACE REPLACEMENT	(10 Monument sign w/faux brick base	CUSTOM LIGHTED SIGNS	1	1	STONEYBROOK SUB FG#1		0	0
SIGN2209-0146	09/14/2022	400	2305 27TH ST	SIGN	MINOR AND FACE REPLACEMENT	Hair Salon Sign						0	0
SPV2206-0300	09/15/2022	33,864	2642 17TH AVE	PHOTOVOLTAIC		Roof Mounted Solar 8.14kW 22 REC		8	2	HILLSIDE ADD		0	0
SPV2206-0301	09/28/2022	30,190	1638 27TH ST	PHOTOVOLTAIC		Roof Mounted Solar 7.03 19 REC		1	1	HILLSIDE ADD		0	0
SPV2206-0409	09/07/2022	21,709	10310 19TH ST	PHOTOVOLTAIC		Installation of roof-mounted solar system. 4.18kW	ION DEVELOPER LLC			PROMONTORY IMAGINE SCHOOL 3RD FG		0	0
SPV2207-0005	09/26/2022	25,750	2620 14TH AVENUE CT	PHOTOVOLTAIC		PV SOLAR INSTALL	SUNRUN INSTALLATION SERVICES INC	6	21	FARRS 5TH ADD		0	0
SPV2207-0075	09/23/2022	48,503	2923 13TH ST	PHOTOVOLTAIC		Roof Mounted Solar 11.84kW 32 REC with MPU	GENERATION SOLAR	3	1	SHERWOOD PARK 1ST ADD		0	0
SPV2207-0358	09/06/2022	48,568	7910 SKYVIEW ST	PHOTOVOLTAIC		Roof mounted 14kW PV system	PHOTON BROTHERS	8	1	POUDRE RIVER RANCH 3RD FG		0	0
SPV2207-0371	09/16/2022	27,200	4112 8TH ST	PHOTOVOLTAIC		Installation of roof-mounted solar system. 5.32 kW	ION DEVELOPER LLC	7	2	WESTMOOR ACRES 1ST FG		0	0
SPV2207-0389	09/06/2022	10,982	3011 45TH AVE	PHOTOVOLTAIC		Install 2.4 kW solar PV system.	SUNTALK SOLAR	15	9	GATEWAY ESTATES 3RD FG		0	0
SPV2208-0052	09/05/2022	47,868	605 E 23RD STREET RD	PHOTOVOLTAIC		Roof Mounted Solar Project	GENERATION SOLAR	31	3	PARKVIEW		0	0
SPV2208-0120	09/09/2022	67,589	8422 18TH STREET RD	PHOTOVOLTAIC		Roof Mounted Solar Project with 13.20KW	GENERATION SOLAR	22	5	MOUNTAIN SHADOWS SUB 1ST FG		0	0
SPV2208-0128	09/09/2022	34,952	425 DEVILLE DR	PHOTOVOLTAIC		Roof Mounted Solar Project with 6.16 KW	GENERATION SOLAR	65	NONE	POUDRE RIVER RANCH 3RD FG 2ND RPLT		0	0
SPV2208-0130	09/20/2022	32,815	3106 54TH AVE	PHOTOVOLTAIC		Roof Mounted Solar Project with 6.29KW	GENERATION SOLAR	20	1	WEST T BONE RANCH SUB 1ST FG		0	0
SPV2208-0140	09/14/2022	23,558	1717 15TH ST	PHOTOVOLTAIC		NEW PHOTOVOLTAIC SYSTEM 6.00 KW DC	Palmetto Solar LLC	5	7	MAPLEWOOD 1ST ADD		0	0
SPV2208-0143	09/27/2022	19,500	8707 17TH STREET RD	PHOTOVOLTAIC		ROOF MOUNT, FLUSH MOUNT, GRID-TIED: 5.4kW Solar PV	SUNRUN INSTALLATION SERVICES INC	4	1	MOUNTAIN SHADOWS SUB 2ND FG		0	0
SPV2208-0203	09/07/2022	52,458	7202 21ST STREET RD	PHOTOVOLTAIC		Roof Mounted Solar Project with 9.99KW	GENERATION SOLAR	13	4	HOMESTEAD HEIGHTS SUB FG#2		0	0
SPV2208-0253	09/05/2022	34,483	2429 BALSAM AVE	PHOTOVOLTAIC		Roof Mounted Solar Project with 6.57KW	GENERATION SOLAR	12	2	PARKVIEW SOUTH		0	0
SPV2208-0393	09/01/2022	39,493	4355 24TH STREET RD 1002	PHOTOVOLTAIC		Installation of roof-mounted solar system: 8.74 kW	ION DEVELOPER LLC			CENTERPLACE NORTH 4TH FG		0	0
SPV2208-0525	09/23/2022	20,323	1308 13TH AVE	PHOTOVOLTAIC		Installation of a 5.6kw roof mount solar pv system	VENTARA LLC	2	1	CRANFORDS 2ND ADD		0	0
SPV2208-0538	09/20/2022	33,774	10314 19TH ST	PHOTOVOLTAIC		Installation of roof-mounted solar system. 6.84 kW	ION DEVELOPER LLC			PROMONTORY IMAGINE SCHOOL 3RD FG		0	0
SPV2208-0545	09/01/2022	42,348	4855 C ST	PHOTOVOLTAIC		8.51 kWDC, Rooftop, Flush , PV Solar System, Grid Tied	Klick Solar LLC	24	17	WEBER WEST 5TH RPLT		0	0
SPV2208-0546	09/01/2022	24,864	312 N 49TH AVE	PHOTOVOLTAIC		5.18 kWDC, Rooftop, Flush Mount, PV Solar System, Grid Tied	Klick Solar LLC	4	21	WEBER WEST 5TH RPLT		0	0
SPV2208-0547	09/01/2022	39,921	2445 ALPINE AVE	PHOTOVOLTAIC		PV Solar Installation; 6.400 kW system with 16 panels, MPU.	Fluent Solar LLC	9	7	PARKVIEW SOUTH		0	0
SPV2208-0564	09/02/2022	30,636	2319 24TH STREET RD	PHOTOVOLTAIC		6.66 kWDC, Rooftop, Flush Mount, PV Solar System, Grid Tied	Klick Solar LLC	16	1	BRENTWOOD PARK		0	0
SPV2208-0570	09/15/2022	26,554	5600 24TH ST	PHOTOVOLTAIC		Residential Roof Mounted Solar PV		35	1	HIGHLAND HILLS SUB 2ND ADD		0	0
SPV2208-0571	09/01/2022	29,077	1444 24TH AVE	PHOTOVOLTAIC		Ford PV System 4.4 kw	BRS Field Ops, LLC	13	1	WESTVIEW 1ST FG		0	0
SPV2208-0572	09/27/2022	28,497	733 67TH AVE	PHOTOVOLTAIC		Residential Roof Mounted Solar PV	LGCY INSTALLATION SERVICES LLC			CITY CENTER WEST RESIDENTIAL 2ND FG		0	0
SPV2208-0578	09/27/2022	39,718	6539 19TH ST	PHOTOVOLTAIC		Residential Roof Mounted Solar PV	LGCY INSTALLATION SERVICES LLC	6	5	WESTRIDGE VILLAGE RPLT A		0	0
SPV2208-0585	09/14/2022	46,257	2422 27TH AVENUE CT	PHOTOVOLTAIC		Installation of solar panels on existing residential roof.	ION DEVELOPER LLC	9	2	CASCADE PARK SOUTH		0	0
SPV2208-0586	09/14/2022	27,466	2160 44TH AVE	PHOTOVOLTAIC		Installation of solar panels on existing residential roof.	ION DEVELOPER LLC	6	3	VIRGINIA HILLS		0	0
SPV2208-0587	09/01/2022	41,241	2631 64TH AVE	PHOTOVOLTAIC		Installation of solar panels on existing residential roof.	ION DEVELOPER LLC	8	NONE	WEST RIDGE AREA ANNEX		0	0
SPV2208-0588	09/01/2022	14,128	4355 24TH STREET RD 2402	PHOTOVOLTAIC		Installation of solar panels on existing residential roof.	ION DEVELOPER LLC			CENTERPLACE NORTH 4TH FG 1ST RPLT		0	0
SPV2208-0589	09/01/2022	31,588	2732 23RD ST	PHOTOVOLTAIC		Installation of solar panels on existing residential roof.	ION DEVELOPER LLC	3	5	CASCADE PARK SOUTH		0	0
SPV2208-0590	09/09/2022	22,716	1408 39TH AVE	PHOTOVOLTAIC		Installation of solar panels on existing residential roof.	ION DEVELOPER LLC	3	8	BITTERSWEET SUB		0	0
SPV2208-0591	09/02/2022	26,320	7700 TALON PKWY	PHOTOVOLTAIC		Install a 5.920 kW grid tied, roof flush mount PV system	FREEDOM FOREVER COLORADO LLC	6	2	OWL RIDGE 4TH FG		0	0
SPV2208-0593	09/27/2022	28,994	6534 18TH STREET RD	PHOTOVOLTAIC		Residential Roof Mounted Solar PV	LGCY INSTALLATION SERVICES LLC	5	4	WESTRIDGE VILLAGE RPLT A		0	0
SPV2208-0597	09/27/2022	52,519	1621 68TH AVE	PHOTOVOLTAIC		Residential Roof Mounted Solar PV	LGCY INSTALLATION SERVICES LLC	8	3	CEDARWOODS SUB		0	0
SPV2208-0606	09/20/2022	15,984	203 48TH AVENUE CT	PHOTOVOLTAIC		3.33 kWDC, Rooftop, Flush Mount, PV Solar System, Grid Tied	Klick Solar LLC	10	3	WEBER WEST SUB		0	0
SPV2208-0607	09/05/2022	26,932	1851 25TH AVE	PHOTOVOLTAIC		Install a 7.200 kW grid tied, roof flush mount PV system	FREEDOM FOREVER COLORADO LLC	8	11	ROLLING HILLS		0	0
SPV2208-0609	09/05/2022	33,767	2942 14TH ST	PHOTOVOLTAIC		Install a 7.200 kW grid tied, roof flush mount PV system	FREEDOM FOREVER COLORADO LLC	21	6	SHERWOOD PARK 2ND ADD		0	0
SPV2208-0623	09/02/2022	16,744	2313 ASPEN AVE	PHOTOVOLTAIC		Installation of a 5.200 kW DC roof mounted solar system.	TITAN SOLAR POWER CO INC	14	4	PARKVIEW		0	0
SPV2208-0650	09/14/2022	23,088	204 48TH AVENUE CT	PHOTOVOLTAIC		4.81 kWDC, Rooftop, Flush Mount, PV Solar System, Grid Tied	Klick Solar LLC	1	4	WEBER WEST SUB		0	0
SPV2208-0656	09/08/2022	38,873	1717 14TH STREET RD	PHOTOVOLTAIC		7.770 kW Rooftop Solar PV	1SOLAR	5	6	MAPLEWOOD 1ST ADD		0	0
SPV2208-0661	09/09/2022	28,031	2429 29TH AVE	PHOTOVOLTAIC		Roof mounted PV system	SKYLINE SOLAR	12	9	CASCADE PARK SOUTH		0	0
SPV2208-0662	09/09/2022	37,000	4312 31ST ST	PHOTOVOLTAIC		7.400 kW rooftop solar pv	1SOLAR	9	3	GATEWAY ESTATES 3RD FG		0	0
SPV2208-0674	09/14/2022	22,378	1413 29TH AVENUE CT	PHOTOVOLTAIC		5.81 kWDC, Rooftop, Flush Mount, PV Solar System, Grid Tied	Klick Solar LLC	3	6	SHERWOOD PARK 1ST ADD		0	0
SPV2208-0699	09/12/2022	44,983	856 E 21ST ST	PHOTOVOLTAIC		Install a 9.250 kW grid tied, roof flush mount PV system	FREEDOM FOREVER COLORADO LLC	1	6	BALSAM VILLAGE 2ND FG		0	0
SPV2209-0003	09/09/2022	38,740	2726 25TH ST	PHOTOVOLTAIC		Walker PV System 7.6 kw	BLUE RAVEN SOLAR	1	8	CASCADE PARK SOUTH		0	0
SPV2209-0007	09/14/2022	60,474	2040 BALSAM AVE	PHOTOVOLTAIC		Roof Mounted Solar; 11.2 KW; 28 Modules, 1 Inverter	Powur PBC	15	2	BALSAM VILLAGE		0	0
SPV2209-0009	09/09/2022	42,602	5113 9TH ST	PHOTOVOLTAIC		Installation of a 8.40 kW DC solar system & a Panel Upgrade.	TITAN SOLAR POWER CO INC	19	2	WEST POINT 2ND FG		0	0
SPV2209-0015	09/14/2022	39,921	2059 50TH AVENUE CT	PHOTOVOLTAIC		PV Solar Installation; 6.400 kW system with 16 panels.	Fluent Solar LLC	10	12	HIGHLAND HILLS SUB		0	0
SPV2209-0027	09/14/2022	40,501	4616 23RD ST 18	PHOTOVOLTAIC		Install a 8.510 kW grid tied, roof flush mount PV system	FREEDOM FOREVER COLORADO LLC	18	1	DEVON AT FOXHILL PUD		0	0
SPV2209-0041	09/13/2022	21,604	1306 28TH STREET RD	PHOTOVOLTAIC		Orozco PV Solar Array 4.4kW	BLUE RAVEN SOLAR	7	2	RIDGE RUN SUB		0	0
SPV2209-0082	09/14/2022	19,486	105 49TH AVENUE PL	PHOTOVOLTAIC		Installation of solar panels onto existing residential roof.	ION DEVELOPER LLC	30	12	WEBER WEST SUB		0	0
SPV2209-0084	09/19/2022	22,583	1730 27TH ST	PHOTOVOLTAIC		Installation of solar panels onto existing residential roof.	ION DEVELOPER LLC	7	7	HILLSIDE ADD		0	0
SPV2209-0093	09/19/2022	40,562	10209 19TH ST	PHOTOVOLTAIC		Roof mounted PV system	Skyline Solar			PROMONTORY IMAGINE SCHOOL 3RD FG		0	0
SPV2209-0106	09/19/2022	24,864	2047 36TH AVE	PHOTOVOLTAIC		Install a 4.440 kW grid tied, roof flush mount PV system	FREEDOM FOREVER COLORADO LLC	1	3	MEADOWS PUD		0	0
SPV2209-0126	09/19/2022	27,565	213 N 48TH AVE	PHOTOVOLTAIC		Clark PV System 5.6 KW	BRS Field Ops, LLC	16	22	WEBER WEST 5TH RPLT		0	0
SPV2209-0127	09/19/2022	58,081	2740 25TH STREET RD	PHOTOVOLTAIC		Rosales PV System 10.4 KW	BRS Field Ops, LLC	4	2	CASCADE HEIGHTS		0	0
SPV2209-0128	09/16/2022	31,489	2021 80TH AVENUE CT	PHOTOVOLTAIC		Madrid PV System 6.4 KW	BRS Field Ops, LLC	8	3	OWL RIDGE MINOR SUB BLK 3		0	0
SPV2209-0178	09/23/2022	23,250	4983 30TH ST	PHOTOVOLTAIC		Flush Mount, Roof Mount, Grid-Tied 6.2 kW PV Solar	SUNRUN INSTALLATION SERVICES INC	2	7	T BONE RANCH SUB 1ST FG		0	0
SPV2209-0200	09/26/2022	62,600	1870 95TH AVE	PHOTOVOLTAIC		PV ground mount solar installation. 12.8 KW system, 32 panel	Fluent Solar LLC					0	0
SPV2209-0201	09/21/2022	49,628	3013 54TH AVE	PHOTOVOLTAIC		Installation of a 11.88kW dc system	LGCY INSTALLATION SERVICES LLC	4	2	WEST T BONE RANCH SUB 1ST FG		0	0
SPV2209-0221	09/21/2022	32,708	2714 19TH STREET RD	PHOTOVOLTAIC		6.8kW PV Solar Panel Installation on Roof - 17 panels	BRS Field Ops, LLC	26	9	ROLLING HILLS 3RD ADD RPLT		0	0
SPV2209-0224	09/23/2022	42,794	1416 102ND AVE	PHOTOVOLTAIC		Installation of a 7.40KW dc flush roof-mounted PV system.	Freedom Solar	15	23	PROMONTORY RESIDENTIAL 1ST FG		0	0
SPV2209-0248	09/27/2022	27,250	1325 63RD AVE	PHOTOVOLTAIC		Flush Mount, Roof Mount, Grid-Tied 7.3 kW PV Solar	SUNRUN INSTALLATION SERVICES INC	5	10	FOX RUN SUB 3RD FG		0	0
SPV2209-0268	09/26/2022	30,556	2109 44TH AVE	PHOTOVOLTAIC		Install a 5.920 kW grid tied, roof flush mount PV system	FREEDOM FOREVER COLORADO LLC	29	9	VIRGINIA HILLS		0	0
SPV2209-0269	09/26/2022	26,402	10218 19TH STREET RD	PHOTOVOLTAIC		Installation of roof-mounted solar system. 5.32 kW	ION DEVELOPER LLC			PROMONTORY IMAGINE SCHOOL 3RD FG		0	0
SPV2209-0305	09/26/2022	31,400	556 E 28TH STREET RD	PHOTOVOLTAIC		Install a 5.920 kW grid tied, roof flush mount PV system	FREEDOM FOREVER COLORADO LLC	9	4	RIVERVIEW FARM SUB		0	0
SPV2209-0309	09/27/2022	37,604	2606 APPLE AVE	PHOTOVOLTAIC		6.8 KW PV roof solar installation with 17 panels	Fluent Solar LLC	33	NONE	PARKVIEW SOUTH 2ND FG		0	0
SPV2209-0317	09/27/2022	22,225	5611 16TH STREET RD	PHOTOVOLTAIC		Installation of a 4.4kW dc system	LGCY INSTALLATION SERVICES LLC	31	4	COUNTRY CLUB WEST 4TH FG		0	0
SPV2209-0403	09/27/2022	40,547	2109 50TH AVE	PHOTOVOLTAIC		Rooftop Photovoltaic installation on residential home.	LGCY INSTALLATION SERVICES LLC	5	9	HIGHLAND HILLS SUB		0	0
SPV2209-0427	09/30/2022	61,050	4129 15TH STREET LN	PHOTOVOLTAIC		12.21 kWDC, Rooftop, flush Mount, PV Solar System, Grid tied	Klick Solar LLC	12	NONE	STONEY BROOK		0	0
SPV2209-0527	09/30/2022	33,457	504 12TH ST	PHOTOVOLTAIC		PV Installation - 504 12th Street, Greeley, Colorado 80631	Fluent Solar LLC	2	100	GREELEY CITY		0	0
SPV2209-0553	09/29/2022	42,884	4505 14TH ST	PHOTOVOLTAIC		Dickson PV SOLAR ARRAY 11.6 KW	BRS Field Ops	21	1	CAMBRIDGE GLEN SUB		0	0
		24,208,881											