PLANNING & DEVELOPMENT MEMORANDUM #49-2023

DATE: Sept. 25, 2023

TO: Honorable Mayor Meredith Leighty and City Council Members

THROUGH:

Heather Geyer, City Manager Jason Loveland, Interim Deputy City Manager 2

Brook Svoboda, Director of Planning & Development FROM:

Eric Ensey, Senior Planner

CR-115 - Kerr-McGee/Lizzy Pad Oil & Gas Permit Application SUBJECT:

PURPOSE

To consider CR-115, a resolution approving an Oil and Gas Permit application submitted by Kerr McGee Oil & Gas Onshore LP for the Lizzy Pad Oil and Gas Well Pad Site location in Section 36 in Weld County.

BACKGROUND

Kerr McGee Oil & Gas Onshore LP has applied for an Oil & Gas Permit in accordance with Section 11-3-6 of the City's Unified Development Ordinance (UDO). They are requesting approval of this permit to allow for the drilling of an oil and gas well site that would be 7.2 acres in area when completed. The site is located on the northeast guadrant of Section 36 in Weld County.

City Council held a public hearing on the application at the Aug. 28, 2023, meeting and tabled the item to allow the applicant to address three items:

- 1. Information about possible severance tax
- 2. Long-term monitoring post-capping of the wells
- 3. General environmental monitoring impacts

Attachment 1 to this memorandum is the applicant's supplemental information provided in response to the request for additional information made by Council.

The Planning Commission voted unanimously to recommend approval of the proposed Lizzy Pad Oil & Gas Permit, subject to four conditions, which are presented below under the Staff Recommendation.

NEXT STEPS

Because City Council closed the public hearing on Aug. 28, for Council to accept the additional information requested from the applicant and add it to the record, the public hearing will need to be re-opened. Any testimony received can only be on the additional information requested. Staff re-noticed this meeting in accordance with the notification requirements for a public hearing outlined in the UDO, including posting of a sign on the property, mailed notice to all property owners within a 1,000-foot radius of the property, and publication in the Northglenn-Thornton Sentinel.

Should City Council approve the request, the applicant would have additional State permitting to obtain before they can construct the well. The applicant must receive approval of the necessary Oil & Gas Development Plan from the Colorado Energy & Carbon Management Commission. This hearing is currently scheduled for Sep. 27, 2023. Should the State's approval significantly alter

CR-115 – Kerr-McGee/Lizzy Pad Oil & Gas Permit Application Sept. 25, 2023 Page 2 of 2

the Oil & Gas Permit being considered with this application, staff is recommending that this modified information be presented to City Council for further consideration. The applicant would need to obtain the necessary permits and approvals from the Public Works Department, North Metro Fire Rescue and SAFEbuilt, which provides building division services for Northglenn.

BUDGET/TIME IMPLICATIONS

There are no budget or time impacts to the City.

STAFF RECOMMENDATION

The additional information provided by the applicant does not change staff's analysis of the proposed Oil & Gas Permit. Staff recommends approval of CR-115, which includes the following conditions of approval as recommended by the Planning Commission:

- 1. All permitting required by the State of Colorado shall be obtained by the applicant prior to the start of operations.
- 2. If any of the State's review modifies the information contained in this Oil and Gas Permit, the permit would need to be updated. Any substantial modifications that might alter the intent of this permit would be required to be accepted by City Council.
- 3. Civil, grading, right-of-way, and building construction drawings shall be submitted for review and approved prior to commencing construction. Civil drawings shall include specifications for the private access drive in compliance with the requirements of Section 11-3-6(I) of the Northglenn Municipal Code.
- 4. A final as-built survey shall be submitted once the facility is constructed to verify the facility complies with the 1,000-foot setback from the property line of the City's Wastewater Treatment Plant.

The Aug. 28, 2023, staff memorandum has a detailed analysis of the application, including staff's findings as they relate to this Oil & Gas Permit. Staff's recommendation for approval are based on review of the application in accordance with the Oil and Gas Operations regulations in the UDO and specifically the review and approval criteria outlined in Section 11-3-6(e)(1)(I)(i).

STAFF REFERENCE

If Council Members have any questions, please contact Brook Svoboda, Director of Planning & Development, at bsvoboda@northglenn.org or 303.450.8937.

ATTACHMENT

1. Applicant's Supplemental Information and Presentation

CR-115 – Kerr-McGee/Lizzy Pad Oil and Gas Permit Application



CITY OF NORTHGLENN CITY COUNCIL HEARING

LIZZY OIL & GAS PERMIT (OGP) - CONTINUANCE HEARING

SEPTEMBER 25, 2023

LIZZY - ADDITIONAL INFORMATION

KMOG would like to provide the following topics for review and discussions in response to questions identified during the City Council hearing on August 28, 2023.

- Retiring of wells, Plugging and Abandoning (P&A) approval description and process
- Groundwater Wells Short and long term monitoring
- Air Monitoring Description and process
- Hazardous Material Management Plan Description and process
- Risk Management Plan (RMP) Description and process
- Site Safety and Emergency Response Plan (ERP) Description and process
- <u>Financial Benefits</u> Taxes explained

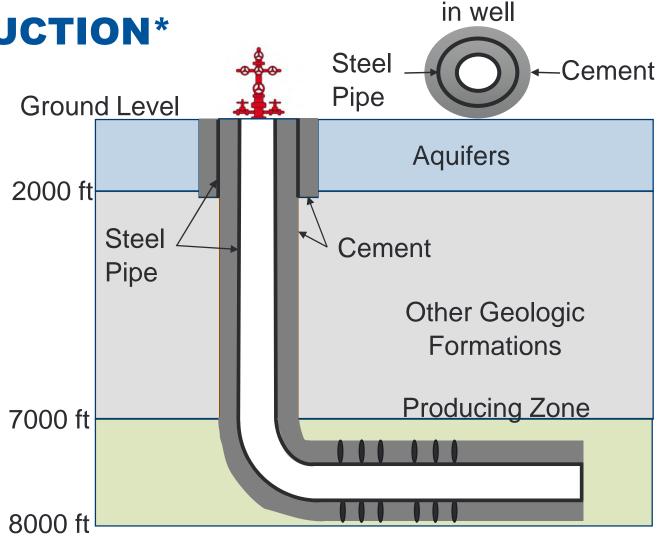


PLUG & ABANDONMENT PROCESS

BASIC WELLBORE CONSTRUCTION*

 Oil wells are designed to safely transfer oil & gas from a specific formation to surface without contaminating other formations and/or aquifers. This is done via:

- Mechanical Barriers (steel pipe)
- Cement Barriers (primary cement job)
- Verifying integrity of steel pipe and cement job in accordance with local and state regulations



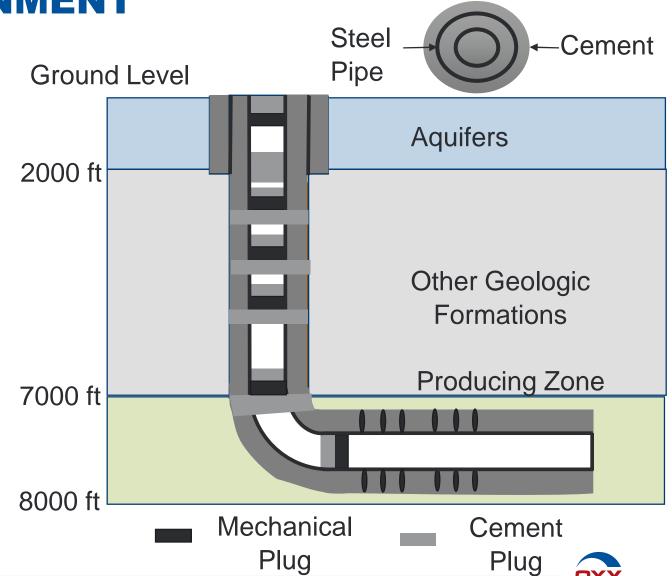
Looking down



PLUG & ABANDONMENT PROCESS

TYPICAL PLUG & ABANDONMENT*

- The plug and abandonment (P&A) process ensures that the well can no longer be a path for oil & gas via the following techniques:
 - Evaluating the well and original cement
 - Setting Mechanical Plugs
 - Placing Cement Plugs
 - Verifying plugs are tested and at correct depths in accordance with local and state regulations



Looking down

in well

RESEARCH & PRE-APPROVALS *



Well Servicing Engineer reviews well, creates procedure, and submits necessary Form 6 to the ECMC

ECMC reviews submittals, applies "conditions of approval", and sends back approved P&A plan

Procedure is updated and approved through Oxy internal review process



SCHEDULING & COMPLETING RIG WORK *



Internal regulatory, environmental, and land teams ensure all stipulations are met and notifications are made, ECMC Form 42 approved



P&A operations commence with a workover rig



Completed
P&A operations report
(Form 6 subsequent) and
daily work summaries are
sent to the ECMC



PLUG & ABANDONMENT PROCESS

FINAL APPROVALS *



ECMC provides final approval that all necessary work was completed



Cut & Cap Operations (cement verified at surface)



Conduct soil vapor testing to confirm no stray gas present in the soil



RECLAMATION OF THE WELL SITE *



Well Head



Final location reclamation



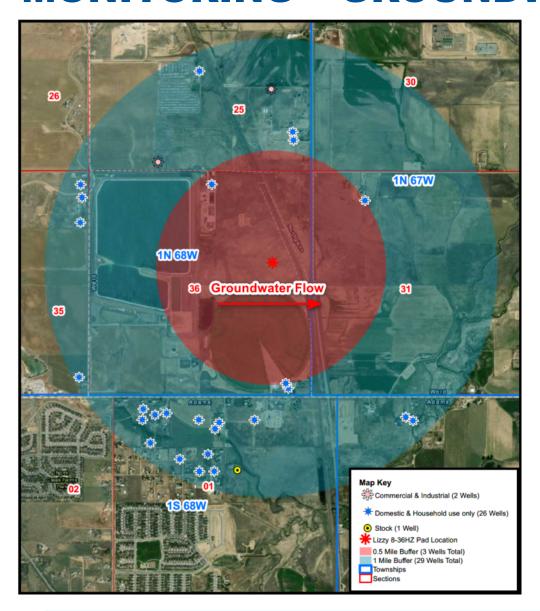
MONITORING – GROUNDWATER WELLS *

Northglenn Water Quality Mitigation Plan

- Water well sampling in accordance with the Northglenn BMP Document which establishes requirements more stringent than the ECMC Rule 615 Groundwater Baseline Sampling and Monitoring requirements.
- Requires attempting to sample all water wells within 0.5 miles of pad. Expanding out up to 1 mile until samples are collected from at least 1 upgradient and 2 downgradient water wells. Rule
 only requires up to 4 water well samples within 0.5 mi of pad.
- Initial samples to be collected within 12 months prior to drilling. Subsequent samples will be collected every five years for the life of the oil and gas wells.
- Final samples will be collected 6 -12 months after the final well on the pad has been P&A.
- Requires analysis of the following parameters in addition to those required by ECMC Rule 615:
 Dissolved Organic Carbon, hydrogen sulfide, arsenic, chromium, copper, lead, mercury, uranium and radium
- All sampling is voluntary for the water well owner and will require their consent.



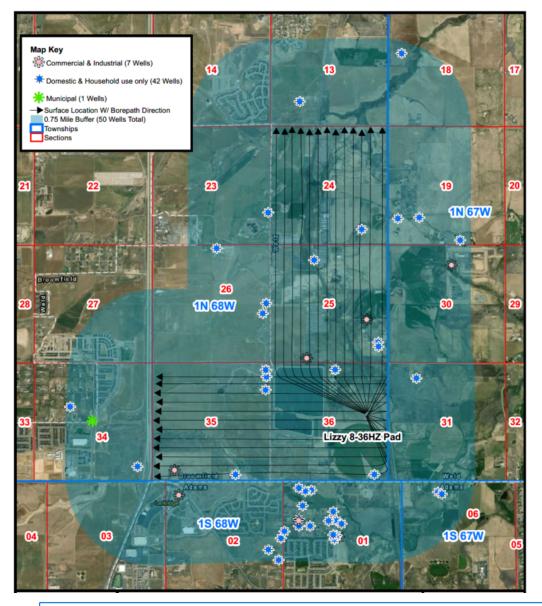
MONITORING – GROUNDWATER WELLS *



- Three water wells are located within 0.5 miles of pad
- No water wells located downgradient of pad out to 1 mile
- Will attempt to sample all three water wells within 0.5 miles to meet the requirements in the Water Quality Mitigation Plan and ECMC Rule 615
- Any deviation to this plan will be communicated to Northglenn and the ECMC



MONITORING - GROUNDWATER WELLS *



- In addition, Kerr-McGee will attempt to collect an initial sample from every consumptive use water well within 0.75 miles of both our surface location and the horizontal wellbore paths
- 50 eligible water wells fall within this area
- Subsequent samples will be collected at the request of water well owners
- Samples will be analyzed for the parameters required in ECMC Rule 615



AIR MONITORING PROGRAM

Air Monitoring Plan

Approved by Colorado Department of Public Health and Environment (CDPHE) on August 14, 2023

Air Monitoring Reports

- Air monitoring will occur during production drilling, completion phases and six months of production facility operations
- Air monitoring reports will be submitted at the end of each month during monitoring activity to CDPHE, ECMC and City of Northglenn
- Air monitoring summaries are also posted to the Oxy Stakeholder Website:
 www.oxycoloradostakeholder.com

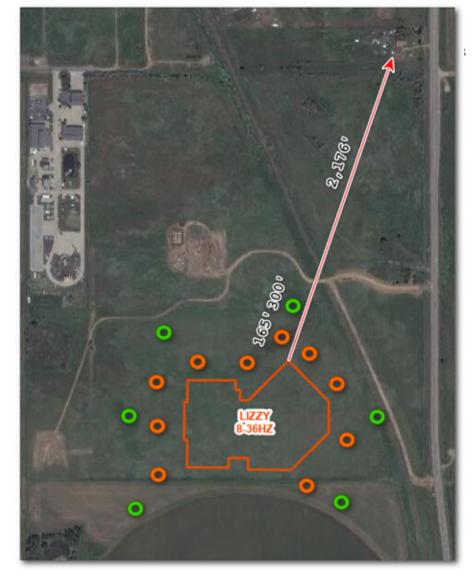




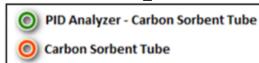
AIR MONITORING PROGRAM *

Main Program Components

- Continuous Volatile Organic Compounds (VOC) analyzers
 - Approximately 300 ft. from Pad
- Continuous Benzene monitoring
 - Carbon Sorbent Tubes
 - EPA Method 325
 - 12 tubes evenly spaced around the pad (approximately 165 ft. from pad)
- Three Investigation Levels monitored at the Integrated Operation Center (IOC)
 - Protective of public health
 - Indication of an event that requires an investigation and potential follow-up actions



Air Monitoring Locations





AIR MONITORING PROGRAM *

Conducting Air Monitoring based on program approved by CDPHE since September 2020

Air Monitoring has occurred at:

- 19 different Production Drilling sites
- 27 different Completions sites
- 15 different Production Facility sites



LOW EMITTING DESIGN *

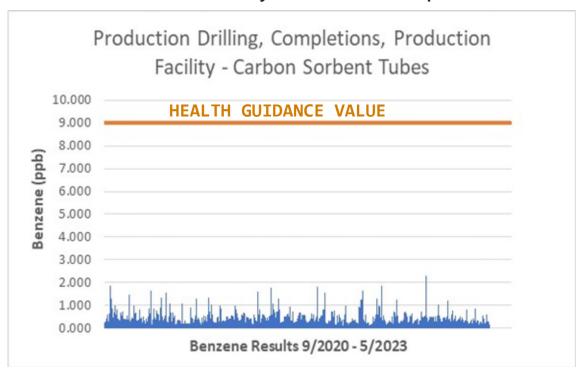
- Engineered out the highest emissions sources:
 - No oil tanks
 - No gas compression engines
 - Instrument air utilized for controls
- Controls in place on remaining emitting equipment:
 - Water tanks
 - Tank pressure monitoring to eliminate tank venting
 - Automation in place to shut in when control device is not lit
 - Separator heaters
 - Burner management system to shut in if not lit



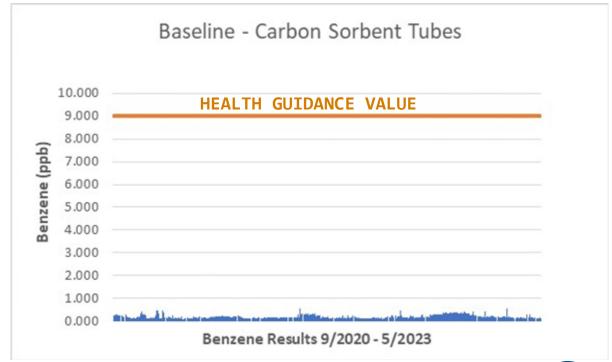
AIR MONITORING SUMMARY *

Since 2020, over 6,900 benzene samples collected

- Baseline monitoring 639 samples
- Production Drilling 2,272 samples
- Completions 2,599 samples
- Production Facility 1,409 samples



All results well below CDPHE Health Guidance Value (HGV) of 9 ppb per the approved air monitoring program





LEAK DETECTION INSPECTIONS *

Infrared (IR) Camera Inspections

- Quarterly IR camera inspections for the first 5 years
- Semi-annual after 5 years
- Colorado Regulation 7 will require monthly inspections for at least the first year

Audio, Visual, Olfactory (AVO) Inspections

- Weekly for at least the first year
- At least monthly after about the first year



HAZARDOUS MATERIAL MANAGEMENT PLAN (HMMP) *

Hazardous material include products that may be used to drill, complete, and construct wells and production facilities, products used to ensure functionality and integrity of wells and facilities.

The Plan includes:

- Material Storage
- Material Handling
- Best Management Practices
- Specific Hazardous Material List
- Waste Characterization and Manifesting
- Waste Transport and Disposal at a Licensed Facility

The Plan meets the requirements of the ECMC Rule 900 and Environmental Protection Agency (EPA) Code of Federal Regulation (CFR) and all information is reported through the Colorado Department of Health and Environment (CDPHE).



RISK MANAGEMENT PLAN (RMP) *

The ECMC requires a Management of Change (MOC) and Pre-Start up Safety Review (PSSR) program as part of the Oil and Gas Development Plan (ODGP).

The RMP shows that KMOG has an established risk management program that includes MOC, Process Hazard Analysis (PHA), and PSSR. The documentation and analyses required in the RMP will be completed during the appropriate project phases.

Management Of Change (MOC)

After project approval an MOC will be generated for the construction of the new facility

A Process Hazard Analysis is required for all MOCs.



RISK MANAGEMENT PLAN (RMP) *

Process Hazard Analysis (PHA)

During the detailed engineering phase, a PHA will be conducted to identify potential consequences and mitigations.

- Industry accepted Hazard and Operability (HAZOP) methodology is used to conduct an analysis for all process equipment associated with new construction.
- Study is scheduled to occur Mid December, 1-2 months prior to production facility construction start.
 - Any recommendations will be addressed during construction and any changes to design will
 - require an update to the HAZOP.

Pre-Startup Safety Review (PSSR)

After construction, a PSSR will be performed to ensure the facility is constructed as designed and safe to startup.

- The PSSR team includes, but is not limited to, members from the following disciplines:
 - Operations, Engineering, Construction and Automation



SITE SAFETY AND EMERGENCY RESPONSE PLAN (ERP)

Emergency Response Plan (ERP)

Included in the Lizzy Oil & Gas Permit and reviewed by North Metro Fire Rescue Authority.

- The ERP includes, but is not limited to the following:
 - List of Emergency Contacts and Agencies
 - Equipment Lists
 - Chemical Storage List
 - Spill Response and Clean-up
 - Haul Route
 - Reportable Quantities
 - Evacuation Information and Muster Locations
 - Coordination with First Responders
 - Will Serve Letter Northglenn Police Department



NORTHGLENN FINANCIAL BENEFITS (TAXES)

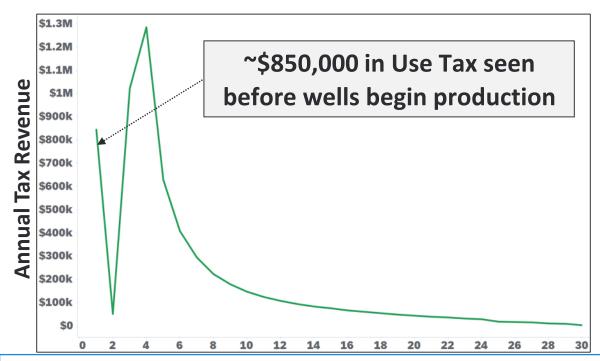
There are two sources of tax income from the Lizzy Pad:

Ad Valorem Tax on the revenues generated from the sale of oil and gas generated by the wells on the pad.

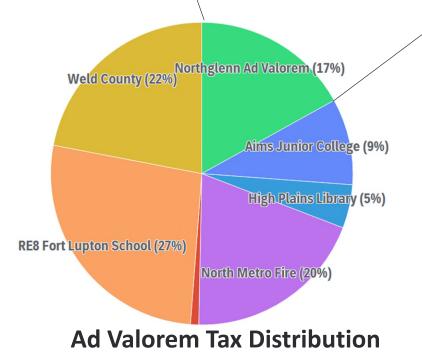
This value is tied directly to the parcel and is 11.597 mills based on the county assessor's records.

Use Tax on the equipment on the pad

4% based on the city's website



Represents ~\$5.2 million*, with more than 75% coming in the first 7 years.



Use Tax + Ad Val Tax estimated to be >\$6 Million for the City of Northglenn

Year of Pad

*Based on KMOG's internal estimate of equipment price, production and commodity prices over the life of the project. CR-115 - Page 24 of 27

THANK YOU



SPONSORED BY: MAYOR LEIGHTY

COUNCIL MEMBER'S RESOLUTION RESOLUTION NO.

No. CR-115
Series of 2023 Series of 2023

A RESOLUTION APPROVING AN OIL AND GAS PERMIT APPLICATION SUBMITTED BY KERR-MCGEE OIL & GAS ONSHORE LP FOR THE LIZZY WELL PAD SITE LOCATED WITHIN TOWNSHIP 1 NORTH, RANGE 68 WEST, 6TH P.M. S2NE SECTION 36, CITY OF NORTHGLENN, COUNTY OF WELD, STATE OF COLORADO

WHEREAS, Kerr-McGee Oil & Gas Onshore LP has submitted an application for an Oil and Gas Permit to drill twenty-five (25) new wells from one well pad site, referred to as the Lizzy 8-36HZ Well Pad and Production Facility (the "Facility");

WHEREAS, the Northglenn Planning Commission held a public hearing on the application on August 1, 2023 and has recommended approval of the application to City Council, with certain conditions as stated in Planning Commission Resolution 2023-10; and

WHEREAS, the City Council held a duly noticed public hearing on August 28, 2023 to consider and review the application as set forth in the requirements of Chapter 11, Article 3, and Chapter 3, Article 7 of the Northglenn Municipal Code.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF NORTHGLENN, COLORADO THAT:

Section 1. Pursuant to Section 11-3-6 of the City of Northglenn Municipal Code, the City Council of the City of Northglenn hereby makes the following findings of fact regarding the application by Kerr-McGee Oil & Gas Onshore LP for an Oil and Gas Permit for the Lizzy 8-36HZ Well Pad and Production Facility to be located within Township 1 North, Range 68 West, 6th P.M. S2NE Section 36, City of Northglenn, in Weld County, Colorado.

- A. The applicant has submitted the information required by Section 11-3-6(d)(1);
- B. The site plan for the well site complies with the requirements of subsection 11-3-6(d)(3)(A);
- C. The applicant has submitted information regarding a traffic control plan as required by subsection 11-3-6(d)(3)(B);
- D. The written narrative complies with the requirements of subsection 11-3-6(d)(3)(C);
- E. The application complies with the location restrictions provided in subsection 11-3-6(p);

- F. The application complies with the provisions for wildlife mitigation procedures provided in subsection 11-3-6(q);
- G. The proposed Facility will not result in a substantial or undue adverse effect on adjacent property, the character of the neighborhood, traffic conditions, parking, public improvements, either as they presently exist or as they may exist in the future;
- H. The proposed Facility is in conformance with the City of Northglenn Comprehensive Plan; and
- I. The proposed use will not significantly degrade the environment or public health, safety, or welfare.
- <u>Section 2</u>. Based on the findings set forth above, the City Council of the City of Northglenn approves the Oil and Gas Permit upon satisfaction of the following conditions:
 - A. All permitting required by the State of Colorado shall be obtained by the applicant prior to the start of operations.
 - B. If any of the State's review modifies the information contained in this Oil and Gas Permit, the permit will need to be updated. Any substantial modifications that might alter the intent of this permit will be required to be accepted by the City Council.
 - C. Civil, grading, right-of-way, and building construction drawings shall be submitted for review and approved prior to commencing construction. Civil drawings shall include specifications for the private access drive in compliance with the requirements in Section 11-3-6(l) of the Northglenn Municipal Code.
 - D. A final as-built survey shall be submitted once the Facility is constructed to verify the Facility complies with the 1,000-foot setback from the property line of the City's Wastewater Treatment Plant.

DATED, at Northglenn, Colorado, this _	day of	, 2023
	MEREDITH LEIGHTY Mayor	
ATTEST:	APPROVED AS TO FORM:	
JOHANNA SMALL, CMC City Clerk	COREY Y. HOFFMANN City Attorney	