STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

APPLICATIONS OF RILEY PERMIAN OPERATING COMPANY, LLC, FOR APPROVAL OF A SALT WATER DISPOSAL WELL, EDDY COUNTY, NEW MEXICO.

CASE NOS. 24279-24280

PERMIAN RESOURCES' AND MRC PERMIAN COMPANY'S CONSOLIDATED CLOSING STATEMENT

Permian Resources Operating, LLC ("Permian Resources") and Colgate Production, LLC ("Colgate") (collectively "Permian Resources") and MRC Permian Company ("Matador") submit this Consolidated Closing Argument opposing Riley Permian Operating Company, LLC's ("Riley") applications.

In **Case No. 24279**, Riley Permian Operating Company LLC ("Riley") seeks an order authorizing approval for a salt water disposal well for its proposed Angel Ranch SWD #1, to be drilled at a location 1,320 FSL and 1,320 FEL, Unit A, Section 12, Township 19 South, Range 27 East, N.M.P.M., Eddy County, New Mexico. Applicant proposes to set a packer at 8,300 feet below the surface of the earth and then inject into the Cisco formation (Pool Code 96099) at depths between 8,586 feet through 9,210 feet open hole, as stated in the C-108, being the administrative application filing for the proposed injection well.

In **Case No. 24280**, Riley similarly seeks an order authorizing approval for a salt water disposal well for its proposed Angel Ranch SWD #2, to be drilled at a location 588 FNL and 2,157 FEL, Unit B, Section 11, Township 19 South, Range 27 East, N.M.P.M., Eddy County, New Mexico. Riley proposes to set a packer at 8,100' feet below the surface of the earth and then inject into the Cisco formation (Pool Code 96099) at depths between 8,450 feet through 8,975 feet open

hole, as stated in the C-108, being the administrative application filing for the proposed injection well.

Permian is a working interest owner with active development in the area of the proposed injection. It opposes approving Riley's proposed injection because there is faulting in the immediate area, including within the target injection zone, has created communication pathways between the injection zone in the Cisco formation and the overlying Third Bone Spring interval that is a prospective oil and gas target for offsetting drilling and development. The lack of an intact barrier that can prevent injected produced water from entering the Third Bone Spring as the Cisco is pressured up through injection will Third Bone Spring interval to be watered out over time, causing waste and impairing Permian Resource's correlative rights.

Permian Resources presented unrebutted evidence at the hearing that injection from an offsetting section an existing saltwater disposal well that has been injecting for a number of years into the same interval Riley proposes correlates with a substantial increase in the water-oil ratio in the nearest offsetting Thid Bone Spring producing well operated by Permian. That injection well is located in the middle of the faulting that Permian has identified likely creates a communication pathway between the Cicso formation and the Third Bone Spring.

Similar to Permian Resources, Matador is a working interest owner with active development in the area of the proposed injection. It opposes approving Riley's proposed injection for two primary reasons. First, Matador believes Riley's proposed SWDs will water out the prospective Third Bone Spring target on Matador's adjacent acreage. Deep-rooted faulting in the area has caused fault-propagated folding of the overlying Cisco formation, which is the proposed injection interval for both of Riley's proposed SWDs. Fracturing associated with this faultpropagated folding through the Cisco and early Permian strata increases the risk of vertical communication between the water injection interval and the productive Third Bone Spring reservoir. Nor are there any clear geologic barriers between the proposed injection interval and Matador's horizontal target that would prevent vertical migration of the produced water Riley proposes to inject into its SWDs into the shallower Third Bone Spring.

Second, Matador believes that Riley's proposed SWDs will lead to increased risk of induced seismicity in this area. The Angel Ranch SWD wells both fall within a 10-mile radius of recent seismic activity. Seismic activity west of Angel Ranch is following a significant regional offset in the basement formations, and the Angel Ranch SWD wells are situated near a welldocumented regional basement fault that runs parallel to the offset to the west. These parallel basement-rooted features are similarly stressed and prone to failure. Thus, based on the fault identified in this area, the direction of the fault, and the previous seismic events, Matador is concerned that approval of Riley's applications will lead to an unreasonable increased risk of induced seismicity in this area.

Injection into the proposed SWDs will not be contained within the target injection zone; will likely water out the overlying Third Bone Spring that is a currently producing interval, violating the Oil and Gas Act's statutory mandate to prevent watering out of productive zones; will cause waste and impair correlative rights; and is not, therefore, approvable under the Division's Underground Injection Control program requirements.

Riley's applications must be denied to prevent waste, protect correlative rights, and prevent an unreasonable increase in the risk of induced seismicity in this area.

CONCLUSION

For the foregoing reasons, Riley's applications should be denied.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on August 21, 2024, I served a copy of the foregoing document to the following counsel of record via Electronic Mail to:

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