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

APPLICATION OF NORTHWIND MIDSTREAM PARTNERS LLC FOR APPROVAL OF AN ADDITIONAL REDUNDANT ACID GAS INJECTION WELL AND TO AMEND ORDER NO. R-20913, AS AMENDED, AND SWD-2622 TO AUTHORIZE AN INCREASED SHARED MAXIMUM DAILY INJECTION RATE, LEA COUNTY, NEW MEXICO

CASE NO. 24881 (ORDER NO. R-20913-D, AS AMENDED)

RESPONSE IN OPPOSITION TO MOTION FOR STAY

Northwind Midstream Partners LLC ("Northwind") respectfully files this response in opposition to Desert Ram South Ranch, Inc. ("Desert Ram")'s Motion for a Stay (the "Motion").

INTRODUCTION

Desert Ram's Motion makes multiple inconsistent requests. On one hand, it seeks "a stay of all . . . [Northwind's] proposed requests to amend Order Nos. R-20913, as amended, and SWD-2622." Mot. at p. 1. With this, Desert Ram asks the Commission (at the eleventh hour) to stay a hearing that has been scheduled for several months for the express purpose of resolving Desert Ram's objections. On the other hand, Desert Ram asks "to stay the effectiveness" of an order that has not yet been issued. *Id.* at pp. 1, 8.

Either way, the outcome is the same: There is no basis to stay the hearing. To the extent the Motion is seeking a stay of the effectiveness of the Commission's eventual order in this matter, the Motion should be denied as premature. And under the governing regulatory framework, Desert Ram is not a proper party to this proceeding. Desert Ram owns no relevant mineral interests; in the end, therefore, this pore space dispute does not involve any risk of waste or impairment of correlative rights. Accordingly, the Motion should be denied, and the Commission should proceed with the scheduled hearing.

ARGUMENT

I. Desert Ram Offers No Procedural Basis to Support a Stay of the Hearing.

Northwind submitted its application in this Case No. 24881 on September 17, 2024, seeking authorization of injection of treated acid gas ("TAG") into two wells in Lea County (the "Application"). *See* Application, Case No. 24881, at 1. One of those wells—the "Salt Creek AGI #2"—was approved by the Commission for TAG operations in November 2023. *See* NMOCD Order SWD-2580. These wells will support Northwind's natural gas midstream and processing facilities. *See id.* at 1-2.

On December 9, 2024, Desert Ram filed a protest to the Application. *See* Notice of Intervention, Case No. 24881. Because of the protest, the Commission set a contested hearing for March 20, 2025, to consider Northwind's Application and Desert Ram's objections. Desert Ram acknowledges that, at the hearing, it "intends to present evidence and testimony regarding its objections to Northwind's proposed requests ... due to the Northwind's trespass of Desert Ram's subsurface pore space." Mot. at 3-4.

But rather than proceed to the hearing and present this evidence and testimony as it previously informed the Commission it would do, Desert Ram now asks the Commission to stay the hearing so it can litigate a new trespass claim against Northwind in district court. *See id.* at 1, 4. Desert Ram provides no authority for such a stay. Its Motion provides two citations, neither of which is relevant.

Desert Ram cites NMAC § 19.15.4.23(B) (*see* Mot. at 4), which authorizes the Commission to consider a request for "a stay of a division or commission *order*"—not a hearing.

NMAC § 19.15.4.23(B) (emphasis added). It also cites *Tenneco Oil Co. v. N.M. Water Quality Control Comm'n*, 1986-NMCA-033, 736 P.2d 986, as support for a stay. *See* Mot. at 5. *Tenneco* likewise applies to staying the effect of an agency order pending an administrative appeal. *See* 1986-NMCA-033, ¶ 10. Neither Section 19.15.4.23(B) nor *Tenneco* applies to a stay of a Commission hearing.

Nor should the Commission extend these authorities to stays of its hearing. Doing so disrupts the Commission's core function of determining whether permits, like those requested in Northwind's Application, should be approved. *See, e.g., New Energy Econ., Inc. v. Shoobridge*, 2010-NMSC-049, ¶ 14, 243 P.3d 746. It also confuses the clear lines between New Mexico administrative actions and disputes between private parties over issues outside of the Commission's purview. The New Mexico Supreme Court addressed this specific issue in *Snyder Ranches, Inc. v. Oil Conservation Commission of N.M.*, 1990-NMSC-090, ¶¶ 7–8, 798 P.2d 587, which prevented a party from interfering with the Commission's agency function based on a supposed trespass. Staying this month's hearing would undermine the Commission's authority recognized in *Snyder Ranches*.

A stay also creates fertile ground for procedural mischief. Here, for example, Desert Ram filed a protest to Northwind's Application, and the Commission duly set a contested hearing approximately four months out from Desert Ram's protest. *See* Notice of Intervention; *supra* n. 1. Desert Ram submitted itself to the administrative process to raise its objections (however meritless and outside the Commission's purview, as explained below). It cannot now seek to stay the Commission's functions based on facts that, by its own admission, it has long known and complained about. *See* Mot. at pp. 3-4. "Under the exhaustion of administrative remedies doctrine, '[w]here relief is available from an administrative agency, the plaintiff is

ordinarily required to pursue that avenue of redress before proceeding to the courts."" *Smith v. City of Santa Fe*, 2007-NMSC-055, ¶ 26, 171 P.3d 300 (quoting U.S. West Commc'ns, Inc. v. *N.M. State Corp. Comm'*, 1998-NMSC-032, ¶ 9, 965 P.2d 917).

There is no procedural basis to stay the hearing on the Application set for March 20, 2025. For this reason alone, Desert Ram's Motion should be denied.

II. Desert Ram Has No Standing to Seek a Stay of the Hearing.

Even if a stay were procedurally appropriate (and it is not), Desert Ram has no standing to seek one, because it is not a proper party to this proceeding. Protests are limited to those persons required to receive notice under NMAC § 19.15.4.10(A)(2). Those persons are limited to "each owner of the land surface on which each injection or disposal well is to be located . . . and other affected persons . . . within any tract wholly or partially contained within one-half mile of the well." NMAC § 19.15.26.8(B)(2).

Desert Ram is neither a surface owner nor an "affected person" for purposes of Northwind's Application. Desert Ram does not own the land surface on which Northwind's existing well and proposed well are located. *Cf.* Mot. at p. 2 ("Desert Ram owns the neighboring and adjoining property "). Desert Ram also is not an "affected person" within the meaning of the regulation. Under Section 19.15.2.7(A)(8), affected persons are limited to the following pertinent entities: "(a) the operator . . . of a well on the tract, or . . . the designated unit operator; " "(b) in the absence of an operator, or with respect to an application wherein the operator of the spacing unit or identified tract is the applicant, each working interest owner; " and "(c) as to any tract or interest therein that is not subject to an existing oil and gas lease, each mineral interest owner." Desert Ram is not the well operator or designated unit operator, it is not a working

interest owner, and it is not a mineral interest owner either. *See* Mot. at p. 2. It simply claims ownership of surface land and pore space on *adjacent tracts*. *Id*.

Desert Ram also is not entitled to intervene in this proceeding. Only a "person with standing with respect to the case's subject matter may intervene." NMAC § 19.15.4.11(A). But Desert Ram does not own a mineral interest in any of the relevant lands—again, it only owns surface land and pore space in offsetting tracts.

As explained below, Desert Ram cannot claim an impairment of correlative rights, nor can it claim waste because the relevant injection interval is non-hydrocarbon bearing. Therefore, Desert Ram is not an affected party, so has no standing to seek a stay in this matter. Its Motion should be denied.

III. Desert Ram Has No Substantive Basis for a Stay of the Hearing.

According to Desert Ram, the "basis for [its] motion to stay Northwind's [permit application] . . . is that Northwind has no legal right in the pore space impacted by the migration of the proposed injection operations." Mot. at p. 6. Desert Ram argues that Northwind's proposed operations will result in "trespass of Desert Ram's subsurface pore space." *Id.* at p. 4. As explained above, however, the Supreme Court and the Commission have made clear that subsurface trespass disputes have no place in administrative proceedings like this. The Commission should follow its precedent and, on that basis, deny Desert Ram's Motion.

In *Snyder Ranches*, the Supreme Court made clear that trespass claims involve private disputes between parties and therefore have no bearing on the issuance of permits by the Commission. *See* 1990-NMSC-090, ¶ 8. Following *Snyder Ranches*, the Commission has continued to draw this distinction. For example, in Case No. 13589, the Commission granted a permit for its proposed acid gas injection operation. *See* Order No. R-12546, at ¶¶ 22–27.

Although there was "some evidence that fluids injected pursuant to the license granted by [the Commission's] order might migrate beyond the lateral limits of the particular tract on which the injection facility will be located," the Commission nonetheless concluded that "it is unnecessary that the Commission make a finding with respect to that possibility." *Id.* at ¶ 26. Citing *Snyder Ranches*, the Commission explained that if "activity conducted within the scope of the permit exceeds those property rights, *this would be a matter for adjudication in the courts, and not within the jurisdiction or competence of the Commission*." Order No. R-12546, at ¶ 26 (emphasis added).

Similarly, just a few years earlier, in Case No. 12905, an operator sought a permit to dispose of produced water by injection. *See* Order No. R-11855-B, at \P 5. There, too, the Commission based its order on *Snyder Ranches*. *Id.* at \P 24. It observed that the *Snyder Ranches* Court held "that a salt water disposal permit . . . is merely a license to inject and does not confer any specific property rights on the holder. Thus, the issue of subsurface trespass is the responsibility of the operator." *Id.* As in Case No. 13589, the Commission highlighted one key requirement—"that the operator has a good faith claim to operate the well." *Id.* Expanding on this notion, the Commission declined to adjudicate property rights: "[The Commission] does not determine whether an applicant can validly claim real property interest in the property subject to the application, and therefore whether the applicant is 'duly authorized' to [manage] the . . . operation of a producing property." *Id.* (quoting Order No. R-11700-B, at \P 27). "[E]xclusive jurisdiction of such matters resides in the courts." *Id.*

Here, Desert Ram's Motion makes clear that its protest is related to a subsurface pore space dispute. *See* Mot. at pp. 2–4, 8. This is not a dispute over "correlative rights" or "waste,"

which are limited to *mineral* rights. *See, e.g.*, NMAC § 19.15.2.7(W)(1)(a) (defining correlative rights); *see id.* and NMSA § 70-2-3(A) (defining "waste").

It is also a dispute that has no merit. Desert Ram sold the property in question to Northwind in September 2024. At the time of the sale, Northwind had received a permit for TAG injection operations for the Salt Creek AGI #2. *See* NMOCD Order SWD-2580.¹ Also at the time of the sale, Desert Ram was well aware the potential plume from Northwind's TAG operations for the Salt Creek AGI #2 could extend 2.6 miles over 30 years, not just the 138 acres referenced in its Motion. *Compare* Mot. at p. 2 *with* Excerpts of Application for a Redundant Class II AGI Well ("Original Application"), submitted 10/14/2022, attached as <u>Exhibit A</u> (explaining, and then modeling, plume's expansion into Sections 17 and 29); *see also id.* (confirming Desert Ram's predecessor-by-name-change, NGL South Ranch, Inc., received notice of the Original Application).² The plume was clearly described in the Original Application.

Desert Ram's reference to a 138-acre plume in the Original Application is misplaced. As the Commission is aware, this reference is to a strictly mathematical calculation based on anticipated daily injection rates, used primarily to determine maximum allowable operating pressures. The Original Application also separately modeled the potential plume, based on subsurface porosity and other data, to determine its potential maximum aerial extent over 30 years, as required by the Commission. *See* Exhibit A. Based on that modeling, Northwind anticipated that "the resultant acid gas plume would occupy an area with an approximate

¹ Note that SWD-2580 was later amended by SWD-2622 to address an updated AGI well design and bottom-hole location.

² A full copy of the Original Application is on file with the Commission in Case No. 23943. Northwind also can submit a copy upon the Commission's request.

diameter of 2.6 miles." *Id.* Further, the application included visual models projecting the plume footprint. *Id.* at Fig. 6, Panels A & C. The modeling also demonstrated that, even under the most extreme conditions, the TAG would only occupy the uppermost portion of the subsurface formation. *See id.* at Fig. 6, Panel B.

It was on this basis that Desert Ram sold the property to Northwind in September 2024. In the parties' sales agreement, Desert Ram expressly "*acknowledges* that the Property will be used for the treatment and disposal of acid gas, including in acid gas injection wells and uses related thereto." *See* Mot. at Exhibit A (attaching copy of Desert Ram's civil complaint filed 2/17/25), ¶ 11 (quoting the parties' sales agreement at § 11.2). Indeed, Desert Ram acknowledged *multiple* TAG wells that would be used on the property. *See id*. And Desert Ram expressly agreed it would not "interfere or intervene in any respect with the obtaining of any permits or approvals related to the construction, operation and maintenance of facilities for the treatment and for the disposal of acid gas on the Property" or to "the usage of the Property for such purpose." *Id*. Northwind therefore had express consent to conduct TAG operations that would potentially enter into Desert Ram's pore space. *Id*. Desert Ram sold the property knowing Northwind's operations could extend into adjacent pore space, and agreeing not to interfere with Northwind's operations. *See* Exhibit A; *see also* Mot. at Exhibit A, ¶ 11.

In addition, Desert Ram offers no reason to believe it will suffer "irreparable harm" or will be "substantially harmed" by Northwind's use of the property. Mot. at pp. 5,7. Desert Ram sold the property to Northwind for TAG operations. It knew about the scope of those operations. *See* <u>Exhibit A</u>. Its Motion (and its complaint in the lawsuit) offers no allegation of how it will be harmed by Northwind's operations. And, regardless, this issue has no relevance to the

Commission's administrative proceeding. See Snyder Ranches, 1990-NMSC-090, ¶ 8, 798 P.2d

587; Order No. R-12546, at ¶ 26; Order No. R-11855-B, at ¶ 24; Order No. R-11700-B, at ¶ 27.

CONCLUSION

There is no reason for the Commission to stay the hearing set for March 20, 2025. Desert

Ram's Motion should be denied.

Respectfully submitted,

HOLLAND & HART LLP

By: <u>s/ Adam G. Rankin</u> Adam G. Rankin Post Office Box 2208 Santa Fe, NM 87504 (505) 988-4421 agrankin@hollandhart.com

ATTORNEYS FOR NORTHWIND MIDSTREAM PARTNERS LLC

CERTIFICATE OF SERVICE

I hereby certify that on March 12, 2025, I served a copy of the foregoing document to the following counsel of record via Electronic Mail to:

Reagan Marble Jackson Walker, LLP 1900 Broadway, Suite 1200 San Antonio, TX 78215 rmarble@jw.com

Kaitlyn A. Luck P.O. Box 483 Taos, NM 87571 luck.kaitlyn@gmail.com

34384219

By: <u>/s/ Adam G. Rankin</u>

•

EXHIBIT A





APPLICATION FOR A REDUNDANT CLASS II AGI WELL NORTHWIND MIDSTREAM PARTNERS, LLC

(AS REQUIRED BY NMOCC ORDER R-20913)

SALT CREEK AGI WELL #2 Section 21, Township 26 South, Range 36 East Lea County, New Mexico

Surface Hole Latitude (NAD83): 32.028828 Surface Hole Longitude (NAD83): -103.277809



Originally submitted: October 14, 2022

Prepared For: Northwind Midstream Partners, LLC 825 Town & Country Ln.; Bldg. 5, Suite 700 Houston, TX 77024 (281) 382-7785

Prepared By: Geolex, Incorporated 500 Marquette Ave, Suite 1350 Albuquerque, NM 87102 (505) 842-8000

For this reason, Northwind Midstream requests approval for a surface injection MAOP of 5,798 psig for the proposed Salt Creek AGI #2.

Table 3. Reservoir Injection Pressure and Volume Calculations

Proposed	Injection	Stream	Characteristics
11000000	meetion	oneann	Characteribules

TAG	H_2S	CO_2	H_2S	CO_2	TAG
Gas Volume	Conc.	Conc.	Injection Rate	Injection Rate	Injection Rate
MMSCFD ⁻¹	Mol %	Mol %	lbs/day	lbs/day	lbs/day
12	20	80	227814	1176733	1404547

Conditions at Wellhead

We	llhead	TAG							
Temp F	Pressure psig	Gas Vol (MMSCFD) ⁻¹	Comp CO ₂ :H ₂ S	Inject Rate lbs/day	Density 1	SG ²	Density lbs/gal	Volume ft ³	Volume bbl
					kg/m ³				
110	1700	12	80:20	1404547	660.90	0.66	5.52	34026	6060

Conditions at Bottom of Well

Well	lhead	TAG							
Temp F	Pressure psig	Depth _{Top} ft	Depth _{Bot} ft	Thickness ⁴ ft	Density kg/m ³	SG	Density lbs/gal	Volume ft ³	Volume bbl
243	8075	17550	18650	1100	816.98	0.82	6.82	27526	4903

Conditions in Reservoir at Equilibrium

Well	lhead	TAG							
Temp ⁵ F	Pressure ³ psig	Avg. Porosity	\mathbf{S}_{WR}	Porosity (ft)	Density ¹ kg/m ³	SG ²	Density lbs/gal	Volume ft ³	Volume bbl
236	7837	4.5	0.36	45.75	829.69	0.83	6.93	27104	4827

3.5 ACID GAS INJECTION PLUME MODELING

To evaluate the impact of operation of the proposed Salt Creek AGI #2 well on the target Siluro-Devonian reservoir, Geolex collaborated with Sproule in constructing a geologic reservoir model to complete a detailed reservoir evaluation and injection modeling assessment. Components of this evaluation included: 1) Review of available subsurface data (e.g., geophysical logs and drill-stem and injection tests) to identify and estimate reservoir characteristics in the area of the proposed AGI well location, and 2) construction of a geologic simulation grid and injection model utilizing Schlumberger Petrel and Eclipse platforms, respectively.

3.5.1 Siluro-Devonian Reservoir Evaluation

Upon review of available subsurface data, six discrete zones were identified within the target injection reservoir delineated by their porosity and permeability characteristics (Table 4). Within these zones, interpreted porosity types include solution-enhanced primary porosity (SEP), solution-enhanced fracture porosity (SEF), and small-fracture porosity (FX). Utilizing available log data, porosity within each zone was estimated utilizing the density and neutron logs.

Zone	Zone	Ф Туре	Φ*Thickness	Average Φ	Φ Range	Average K
	Thickness			(%)	(%)	(mD)
4	100	SEP, SEF	9	9	2-15	200
5	99	SEP, SEF	8.91	9	2-12	100
6	121	SEP	4.84	4	1-6	30
7	255	-	0	0	0	0
8	204	SEP, FX	8.16	4	0-8	70
9	247	SEF, SEF, FX	14.82	6	2-12	150

 Table 4. Summary of reservoir characteristics within each discrete zone identified in the Siluro-Devonian injection interval near Salt Creek AGI #2

Generally, average porosity values within each identified zone range from approximately 0% to 9% and the total proposed Siluro-Devonian injection interval exhibits an average porosity of 4.5%. Average permeability values were estimated from nearby porosity logs and where additional drill-stem tests, or adequate resistivity log data were available and were further informed by extensive dolomite permeability studies of Lucia et al. (1995).

3.5.2 Acid Gas Injection Modeling

To simulate the proposed injection scenario and better understand the potential resultant acid gas injection plume after 30 years of operation at the maximum anticipated daily injection rate (12 MMSCF per day), Geolex collaborated with Sproule to complete a detailed reservoir injection simulation. This modeling evaluation was completed utilizing Schlumberger Petrel to construct a geologic simulation grid informed by the previously described reservoir evaluation and available well data in the area of Salt Creek AGI #2. Schlumberger Eclipse was then utilized to conduct injection simulations representative of the proposed injection scenario described in this application.

The geologic simulation grid constructed as the environment, in which the proposed injection scenario was simulated, is comprised of 292 simulation layers characterizing the six distinct intervals identified within the proposed injection reservoir. The simulation model area covers approximately 30 square miles and includes nearby subsurface features. There are no active injection wells within this area and although there have been saltwater disposal well applications submitted, none have been authorized. In total, the simulation grid contains 923,000 cells with areal dimensions of 500 by 500 feet.

Porosity and permeability characteristics within the simulation environment were defined utilizing available well-log data and reservoir characteristics identified during the evaluation discussed in Section 3.5.1. From this data, a model distribution for porosity, and subsequently permeability, was generated (Figure 5). Model permeability distribution was determined using the Winland R35 method as normal and beta distribution methods generated no instances of simulation cells with permeability less than 0.1 mD.

Following construction of the model simulation grid, the proposed injection scenario was simulated utilizing the Schlumberger Eclipse simulation platform. Specific scenarios simulated include operation of the proposed AGI at the maximum anticipated injection rate (12 MMSCFD). Subsurface faults in the area of review were assumed to be non-transmissive of fluids (sealed).

Figure 6 illustrates the results of Eclipse injection modeling for the proposed Salt Creek AGI #2. After 30 years of injection at the maximum anticipated rate of 12 MMSCF per day, the resultant acid gas plume would occupy an area with an approximate diameter of 2.6 miles and is not predicted to reach any wells (active or inactive) that penetrate the target injection interval.

3.5.3 Potential for Vertical Migration of Acid Gas to Overlying Productive Zones

Results of the injection system simulations predict that some fraction of acid gas injectate will exhibit a dispersion pattern such that gas reaches local fault features in the area. These features represent potential conduits allowing the vertical transmission of acid gas out of the target injection reservoir and into overlying productive zones. To address this concern, Geolex reviewed available drilling fluid records in the area of the proposed AGI. Additionally, published literature evaluating regional reservoir pressure conditions in the Delaware Basin were utilized. Based on this analysis, we determined these sealed faults could not result in an escape of TAG from the injection zone.

Illustrated in Figure 7 are wells and associated drilling fluid densities utilized while drilling through overlying producing zones in the area of the Salt Creek AGI #2 well. Above the proposed Siluro-Devonian injection reservoir mud weights utilized range from 11.9 to 15.1 pounds per gallon (ppg). For those wells identified that penetrate the proposed injection reservoir, fluid records indicate utilization of less dense fluids (average of 9.0 ppg). These records support the interpretation that overlying producing zones in this area are over-pressured with respect to the target injection reservoir.

Over-pressured reservoir conditions within the Lower Bone Springs to Woodford formation strata have been recognized in many areas of the eastern Delaware Basin (Luo et al., 1994). Rittenhouse et al. (2016) generated a regional pore-pressure model of the Delaware Basin informed by over 23,700 drilling fluid recordings and more than 4,000 drill-stem and fracture injection tests. As shown in Figure 8, these compiled fluid records and testing operations indicate increased pore-pressure gradients from Lower Bone Springs to Woodford Formation strata expressed in the utilization of heavier drilling fluids. Normal pressure conditions are observed to return underlying the Woodford Shale.

Based on the record of local drilling fluids utilized and extensive records compiled by Rittenhouse et al. (2016), the proposed Siluro-Devonian injection reservoir at this location is anticipated to be underpressured with respect to overlying strata. Under these conditions, there is no anticipated potential for the vertical migration of acid gas out of the target reservoir as the pressure differential between the over- and under-pressured intervals will act as a barrier impeding vertical migration, even along potential conduits. MIDSTREAM







Figure 6. Summary of ECLIPSE injection simulation results. Panel A displays a map of gas saturation with the greatest diameter of approximately 2.6 miles. Panel B illustrates the cross-sectional view of the resultant injection plume. Panel C shows the approximate plume footprint.

4



PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions