

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

**APPLICATIONS OF GOODNIGHT MIDSTREAM
PERMIAN, LLC FOR APPROVAL OF SALTWATER
DISPOSAL WELLS LEA COUNTY, NEW MEXICO.**

CASE NOS. 23614-23617

**APPLICATION OF GOODNIGHT MIDSTREAM
PERMIAN LLC TO AMEND ORDER NO. R-
22026/SWD-2403 TO INCREASE THE APPROVED
INJECTION RATE IN ITS ANDRE DAWSON SWD #1,
LEA COUNTY, NEW MEXICO.**

CASE NO. 23775

**APPLICATIONS OF EMPIRE NEW MEXICO LLC TO
REVOKE INJECTION AUTHORITY,
LEA COUNTY, NEW MEXICO.**

CASE NOS. 24018-24020, 24025

**APPLICATION OF GOODNIGHT MIDSTREAM
PERMIAN, LLC FOR APPROVAL OF A SALTWATER
DISPOSAL WELL, LEA COUNTY, NEW MEXICO.**

**DIVISION CASE NO. 24123
ORDER NO. R-22869-A**

GOODNIGHT MIDSTREAM PERMIAN, LLC'S APPLICATION FOR REHEARING

Goodnight Midstream Permian, LLC ("GNM" or "Goodnight") submits this Application for Rehearing ("Application") pursuant to 19.15.4.25 NMAC and NMSA 1978, § 70-2-25(A). The New Mexico Oil Conservation Commission ("OCC" or "Commission") issued Order No. R-24004 (the "Order") on September 12, 2025 Denying Goodnight's Applications and Partially Granting/Partially Denying Empire's Applications, denying Goodnight's applications in Case Nos. 23614-23617, 24123, and 23775, and ordering Goodnight's injection wells to be suspended in Case Nos. 24018-24020 and 24025 "in order to provide Empire with the opportunity to establish [a] CO2 EOR pilot project" in the Eunice Monument South Unit ("EMSU"). *See* Order No. R-24004 at 12-13. The Order further provides that the Division will implement the Order. *Id.* at 13.

For the following reasons, the Commission should grant Goodnight's Application or adopt the requested alternative relief.

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INTRODUCTION AND BACKGROUND

Goodnight, a midstream operator providing integrated produced water disposal and management services, began its operations in the EMSU in September 2019 when it applied for and received a permit for its first well shortly after the Division approved two other San Andres disposal wells in the EMSU operated by Rice Operating. Empire subsequently acquired the EMSU from XTO in March 2021, site unseen, and was not even aware of Goodnight's pre-existing operations—or any of the other pre-existing San Andres produced water disposal in the EMSU—until a site visit in 2023. GN FOF 26-27.

This is remarkable because for more than 60 years the San Andres in and around the EMSU has been designated for produced water disposal by the Division long before the EMSU was ever created in 1984. Attached as **Exhibit 1** is a map showing all active SWDs within two miles of the EMSU and Empire's two other operated units, the EMSU-B and the Arrowhead Grayburg Unit ("AGU"). Not surprisingly, the San Andres in the EMSU has long been designated an aquifer and a produced water disposal zone, not a hydrocarbon reservoir. It was erroneously included in the EMSU unitized interval when the EMSU was created because it was the only source of water available sufficient to conduct the planned waterflood and had historically been included as part of the Grayburg oil pool in the area. However, the San Andres has never produced hydrocarbons in or around the EMSU. It has instead been used for decades as a water management zone—a formation for produced water disposal and a prodigious source of water supply. In fact, it has supplied more than 350 million barrels for waterflood operations in the EMSU from six water supply wells permitted by the State Engineer that were completed in the same interval as Goodnight's disposal zone.

Exhibit 2 is a simplified diagram of the EMSU in cross section showing the EMSU's producing reservoir at the top and the San Andres disposal zone and water management interval at the bottom, separated by a confining zone approximately 200 feet thick. This representation, supported by the evidentiary record and the Commission's findings, show how the San Andres is a separate reservoir from the Grayburg. This is confirmed by the long, well-documented, and vastly disparate production histories

within the EMSU between the San Andres—having produced more than 350 million barrels of water with no depletion and no documented oil production, and having received approximately 450 million barrels of produced water through disposal largely on vacuum with a de minimis increase in pressure—and the Grayburg—having produced at the same time about 150 million barrels of oil¹ with substantial depletion and pressure drawdown. The San Andres and Grayburg are unmistakably separate formations and distinct reservoirs not in communication.

Although Empire had taken no steps to begin any kind of enhanced recovery in the two years following its purchase² and had never claimed impairment from Goodnight's disposal, its management allegedly issued a directive in August 2023 to cease all additional planned waterflood operations immediately upon learning of Goodnight's disposal. It then began efforts to shut down Goodnight's injection and recover damages in litigation, claiming Goodnight's activities prohibit it from undertaking a CO2 flood project it had yet to even plan, let alone attempt to evaluate, and coincidentally only after reporting significant financial losses to the SEC forecasting that it might be unable to sustain itself as a "going concern" and unable to meet projected operating expenses.³ Empire has primarily focused its attacks on Goodnight, although it has taken the position that no disposal wells should be allowed within two miles of the EMSU⁴ or any of the units its operates, and possibly not within five miles.^{5, 6}

What ensued has been a multiyear dispute over competing applications submitted by the parties, culminating in the Commission's Order at issue in this Application. The Order contains numerous legal and factual errors that require a re-hearing.

¹ See W. West, Dir. Testimony, Empire Exhibit I, ¶ 39; J. Wheeler, Dir. Testimony, Empire Exhibit A, ¶ 11.

² GN FOF 31.

³ See Goodnight Cross Exs. 15, 17

⁴ See Exhibit 1.

⁵ Empire Exhibit I-6; Empire Exhibit E at 4.

⁶ Empire filed applications to revoke the disposal authority of other third-party operators at the Division but has affirmatively dismissed those cases and is apparently no longer seeking administrative relief on its claimed impairment as to those disposal wells. See Order R-23608.

First, the Order improperly adopts a new, heightened evidentiary standard for Class II injection that has not previously been announced or applied to any other injection and contravenes the governing regulations and the agency's Class II UIC primacy authority. The correct standard, under 19.15.26.10(E) NMAC, requires Empire to demonstrate Goodnight's injection is not confined within the injection zone. The Commission also improperly shifted the burden of proof from Empire to Goodnight. The Commission's application of a more stringent single "continuous barrier" standard against Goodnight's injection—and no other Class II injection operations, including Class II injection operations within the EMSU—is arbitrary, capricious, and not in accordance with the law. Moreover, the "continuous barrier" standard is a novel construction of Class II injection requirements creating a new precedent that will have far-reaching negative consequences on the Division's administration of its UIC program, including existing and future disposal operations, risking the stability and reliability of the State's critical permitting program and its ability to sustainably manage produced water disposal in the future. This raises substantial concerns of public interest.

Second, the Order creates two clear constitutional conflicts: (1) it erroneously affirms the unitization of public waters in contravention of the New Mexico Constitution⁷ and, because the Order confirms there are no recoverable hydrocarbons in the San Andres and was included the EMSU as a source of water supply, violates the Statutory Unitization Act;⁸ and (2) until there is an actual finding that there are recoverable hydrocarbons in paying quantities in Goodnight's San Andres disposal zone and an exhibited failure to confine injected fluids, the Order constitutes an impermissible regulatory taking of both Goodnight's property interest and the surface owners' pore space in the San Andres disposal zone. The Commission's refusal to act to exclude the San Andres aquifer from the EMSU establishes a clear basis for a writ of mandamus.

⁷ N.M. Const. Art. XVI, § 2.

⁸ NMSA 1978, § 70-7-1 through -21.

Third, the Order's conclusions regarding the evidentiary basis for (i) a potential ROZ in Goodnight's San Andres disposal zone; (ii) the possibility of future impairment or waste in the EMSU; (iii) suspending Goodnight's injection; (iv) the non-existence of a "continuous barrier"; and (v) requiring proof of a "continuous barrier" across more than 14,000 acres are not supported by substantial evidence.

Fourth, having found that there are no recoverable hydrocarbons⁹ in Goodnight's San Andres disposal zone and that Goodnight's injection is not impairing Empire's operations in the Grayburg—findings that there is no waste and no impairment of correlative rights—the Commission lacks authority and discretion under the governing statutes and regulations to shut in Goodnight's injection. The Order found only that there was a "potential for FUTURE impairment or waste in the EMSU" but that finding is premised on an invalid evidentiary standard that improperly shifted the burden of proof from Empire to Goodnight.

Fifth, the Order's conclusion that the 1984 Commission Order creating the EMSU granted Empire "the exclusive rights to produce the ROZ in the EMSU" and to "decide how to best extract oil in the EMSU" is legally and factually incorrect.

Finally, the Order improperly prioritizes protecting against a theoretical risk of "potential" "future impairment," over an immediate impact to as much 34,000 barrels of daily oil production that may not be produced without Goodnight's disposal. Contrary to its statutorily imposed duty, and public interest, the Commission's Order substantially increases the risk of waste rather than protects against it.

Rather than deny Empire's claims for failure to meet its burden of proof, the Commission not only grants Empire three additional years to find its evidence but also suspends Goodnight's injection operations under validly issued permits without a proper legal or factual basis for doing so. Despite the Commission's no-waste and no-impairment findings, and the fact that there is no technical basis to do so, the Order will cause Goodnight's operations to be shut in pursuant to the Division's implementation. That

⁹ The Order also does not find that the potential ROZ is capable of being produced in paying quantities, a necessary finding.

result is arbitrary, inconsistent with the law, bereft of substantial evidentiary support, technically unfounded, and patently unjust. The Commission should instead—at a minimum—allow Goodnight to continue its existing injection operations unless and until Empire is able to present substantial evidence that there are hydrocarbons capable of being produced in paying quantities in Goodnight's San Andres disposal zone and Goodnight's injection exhibits a failure to confine injected fluids in the injection interval. Without those findings, the Commission has no legal or factual basis to shut in Goodnight's injection or deny Goodnight's pending applications.

Accordingly, the Application should be granted and the Order re-issued correcting the erroneous legal and factual issues identified herein. To the extent the Commission rejects any portion of Goodnight's legal or evidentiary arguments on the application of the new single "continuous barrier" standard, Goodnight should be afforded the opportunity to present evidence that there is a laterally continuous confining zone across its injection area at a rehearing addressing this new, previously unannounced legal standard. A rehearing on this narrow issue is necessary to avoid unfair prejudice to Goodnight.

Separately, and in addition, Goodnight proposes alternative relief given the substantial harm and severe gross negative consequences that suspension of injection will impose on Goodnight and its operations, as well as offsetting production supported by Goodnight's disposal and the public interest. As drafted, the Order imposes no requirements on Empire to demonstrate progress, planning, or milestones during the three-year CO2 EOR pilot project timeframe. As a result, Empire can do nothing under the Order for three years to the severe detriment of Goodnight, offsetting producers, the state, and the public interest. In the event the Commission rejects Goodnight's arguments in this Application, Goodnight proposes two alternatives for implementing the Order's mandate to suspend injection in an orderly and incremental manner that are supported by the evidentiary record and will mitigate the gross negative consequences of an immediate or near-immediate suspension. Goodnight urges the Commission to adopt one of these proposed alternatives if it otherwise denies Goodnight's Application and, if necessary, to hold

a re-hearing to link incremental suspension of injection to Empire's demonstration of key milestones necessary to implement a CO2 EOR pilot project, as provided under the Order.

ARGUMENT

I. The Order Applies the Wrong Test to Suspend Injection and Improperly Shifts the Burden of Proof.

Despite finding that Empire failed to meet its burden of proof regarding waste and impairment of correlative rights, the Commission nevertheless concluded Goodnight failed to refute the possibility of future waste or impairment by not proving the existence of a single "continuous barrier" between the Grayburg and its San Andres disposal zone across more than 14,000 acres. Order at III(B). The Commission's analysis relies on the wrong test to suspend injection—erroneously adopting a standard urged upon it by Empire in its closing brief and findings of fact—and improperly shifts the burden of proof from Empire to Goodnight before Empire met its initial burden to prove that Goodnight's injection fluids are not being confined within the disposal interval as required by the Commission's own governing regulations. Empire FOF ¶¶ 75, 81, 85(q), (r), L (3), (4); Empire Closing Brf. at 14, 20, 21; *Compare* Order at III(B) *with* 19.15.26.10(E) NMAC.

A. The Order Erroneously Relies on a New, Invalid Evidentiary Standard.

Neither the legislature nor the Commission's regulations impose a requirement that an operator of injection wells like Goodnight prove the existence of a single "continuous barrier" between formations at any point in a UIC Class II permit review process, either at the initial permitting stage or in response to a challenge of an existing permit, let alone across an area in excess of 14,000 acres.¹⁰ For injection operations, the regulations require only that injection wells be operated "in such a manner as will confine the injected fluids to the interval or intervals approved and prevent surface damage or pollution resulting from leaks, breaks or spills." 19.15.26.10(B) NMAC. As to suspension of injection, the regulations provide that the Commission "may" shut in injections wells only after such wells "have exhibited failure

¹⁰ A search of the Division and Commission's hearing orders returned no hearing orders that have adopted a "continuous barrier" standard for Class II UIC injection.

to confine injected fluids to the authorized injection zone or zones[.]” 19.15.26.10(E) NMAC (emphasis added).

Agencies are bound by their own regulations. *Saenz v. N.M. Dep’t of Human Servs., Income Support Div.*, 1982-NMCA-159, ¶ 14, 653 P.2d 181. Under the regulations governing injection of fluids, a movant seeking to revoke or suspend an existing permit must show a “failure to confine liquids to the authorized injection zone.” NMAC 19.15.26.10(E) (emphasis added).

As the applicant to revoke or suspend Goodnight’s injection permits that initial burden belonged to Empire. Empire should have been required to show a “failure to confine liquids to the authorized injection zone.” *See, infra*, § I(B). Empire clearly failed to make that necessary showing because the “Commission found Empire DID NOT adduce substantial evidence that their correlative rights are CURRENTLY impaired by Goodnight’s injection in the San Andres.” Order at III(C) ¶¶ 54-56. Likewise, the Commission’s finding that Goodnight failed to show the existence of a single continuous barrier across 14,000 acres does not justify suspending Goodnight’s existing injection operations because that is not the applicable test when evaluating whether to suspend injection. *Compare* 19.15.26.10(E) NMAC *with* Order at III(B) ¶ 53. Under the governing regulations, proving that no single “continuous barrier” exists is neither necessary nor sufficient to suspend an injection permit because the confinement test requires a showing of actual intrusion of fluids. *See* 19.15.26.10(E) NMAC. And, as discussed below, the Order fails to identify substantial evidence to support suspending Goodnight’s injection under its controlling regulations. *See, infra*, § I(C).

Similarly, failure to prove the existence of a single “continuous barrier” is not a proper basis to deny new injection applications. Nothing in the regulations, Division guidance, or the Form C-108 application for injection, requires proof of a single continuous barrier—let alone one that extends over more than 14,000 acres—as a condition for obtaining authority to inject. The regulations provide that injection wells must be “operate[d] and maintain[ed] at all times . . . in such a manner as will confine the injected fluids to the interval or intervals approved[.]” 19.15.26.10(B) NMAC. The C-108 requires an

affirmative statement based on review of the available geologic and engineering data there is “no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.”¹¹ Based on its findings and conclusions, the Commission has already determined there is substantial evidence that there is no loss of confinement of injection fluids from Goodnight’s existing injection. *See* Order at III(C) ¶¶ 54-56. Those findings are more than sufficient to authorize Goodnight’s continued injection in its existing four disposal wells and to approve Goodnight’s proposed new injection into the same interval through its five new proposed wells. *See* 19.15.26.10(B) NMAC.

B. The Commission Improperly Shifted the Burden of Proof to Goodnight, Despite No Finding that Empire had Met its Initial Burden.

In partially granting Empire’s applications, the Commission relies on its finding that “Goodnight DID NOT adduce substantial evidence of the existence of a continuous barrier between the Grayburg and the San Andres and therefore DID NOT refute the potential for FUTURE impairment or waste in the EMSU.” Order at § III(B). Not only is this finding based on the application of an improper evidentiary standard, it also improperly, and prematurely, shifts the burden of proof from Empire to Goodnight.

As the applicant seeking to shut in Goodnight’s injection, it was Empire’s burden to prove Goodnight’s injection wells “exhibited failure to confine injected fluids” to the San Andres. NMAC 19.15.26.10(E). It was not Goodnight’s burden to prove the existence of a single “continuous barrier,” especially given that Division prior approval for each of the wells means Goodnight has already shown injected fluid will be properly confined to its zone. *See Duke City Lumber Co. v. N.M. Env’t Improvement Bd.*, 1980-NMCA-160, ¶ 4, 622 P.2d 709 (explaining the common-law rule that a moving party bears the burden of proof); *see also* Goodnight’s Closing Legal Memo. at Pt. Four, filed 7/3/2025 (addressing burdens of proof and requirements to overturn an administrative agency’s adjudicatory order).

Even applying the improper standard, Empire failed to first prove or otherwise evidence the lack of a continuous barrier. *See, infra*, § IV(B). In fact, the Commission’s findings explicitly state that Empire

¹¹ <https://www.emnrd.nm.gov/oed/wp-content/uploads/sites/6/C-108.pdf>.

has not provided evidence proving Goodnight's activities in the San Andres have harmed or impaired Empire's rights within the Grayburg. Order at III(C) ¶¶ 54-56. Stated another way, Empire has failed to prove that: (1) Goodnight's injection wells have exhibited failure to confine injected fluids to the San Andres disposal zone and (2) Goodnight's injection has drowned out, encroached upon, or otherwise reduced ultimate recovery from the Grayburg. This evidentiary shortcoming alone establishes that Goodnight's activities do not meet the standards for shutting in injection under the Commission's governing regulations.

Having failed to establish its prima facie case, a requirement under the governing regulations and administrative law, the evidentiary burden never shifted to Goodnight. There was nothing for Goodnight to refute. That Empire was unable to prove lack of confinement after more than six decades of continuous injection into the San Andres in and around the EMSU is substantial evidence that injection is, and continues to be, confined to the disposal zone. *See, e.g.*, GN FOF 48-59, 74-75, 53, 68.

C. Application of Single "Continuous Barrier" Standard Contravenes Controlling Regulations and the Basis for UIC Primacy Authority.

The Division applied for, and was granted, primacy from the U.S. EPA for the Underground Injection Control ("UIC") Class II injection program under the standards promulgated in the administrative code, including the standards adopted under 19.15.26.10(B) and (E) NMAC. Nothing under the promulgated regulations, or even Division guidance, establishes a basis for requiring a conclusive showing of a single continuous barrier across more than 14,000 acres for issuance of a UIC Class II disposal permit or, as applicable here, to prevent suspension of previously approved injection operations. Indeed, nothing in the Division's application for UIC Class II primacy supports imposition of such a heightened standard. *See* New Mexico Energy and Minerals Department, Oil Conservation Division, Underground Injection Control Program, Class II Demonstration, Submitted to U.S. EPA, Sept. 15, 1981.¹² The Commission's sudden implementation of a new more stringent "continuous barrier" standard

¹² https://ocdimage.emnrd.nm.gov/Imaging/FileStore/santafeadmin/ao/77478/pcjc0919650740_2_ao.pdf (noting that the operating requirements for injection wells will require them to be "operated and maintained at all times in

contradicts the basis on which the Division was granted primacy to regulate UIC Class II injection and its current governing regulations. *See*, fn. 16; *see also* 19.15.26.10(B) & (E) NMAC. In addition, imposition of this heightened and unpromulgated standard establishes a new precedent that will have far-reaching negative consequences on the Division's administration of its UIC program, including existing and future disposal operations, risking the stability and reliability of the State's critical permitting program.

19.15.26.10(B) and (E) NMAC partially implement both the Division's UIC regulatory authority, as well as the Commission's statutory authority to prevent waste and protect correlative rights by preventing the drowning by water of any stratum capable of producing oil or gas in paying quantities and to prevent the premature and irregular encroachment of water in any zone capable of producing commercial quantities of oil and gas. *See* NMSA 1978, § 70-2-12(B)(4); Order No. R-7637 at 2, ¶¶ 4, 6 (approving disposal where injection "into the proposed disposal interval will not cause the premature drowning by water of any zone capable of producing commercial quantities of oil and gas in the area.")). In construing its authority to prevent waste and protect correlative rights under Section 70-2-12(B)(4), the Commission promulgated 19.15.26.10(E) NMAC, providing that it "may" shut in injections wells only after such wells "have exhibited failure to confine injected fluids to the authorized injection zone or zones[.]" (emphasis added). No other regulation incorporates standards addressing the basis for orders to restrict injection volumes or shut in injection wells.

Without the evidentiary showing required by 19.15.26.10(E) NMAC, neither the Commission nor Division have discretion to suspend or shut in Goodnight's injection. Doing so in contravention of its governing regulations and UIC primacy authority is arbitrary and capricious and not in accordance with the law.

such manner as will confine the injected fluids to the interval or intervals approved and prevent surface damage or pollution resulting from leaks, breaks, or spills."); *see also* 19.15.26.10(B) NMAC ("The operator of an injection project shall operate and maintain at all times the injection project, including injection wells, producing wells and related surface facilities, in such a manner as will confine the injected fluids to the interval or intervals approved and prevent surface damage or pollution resulting from leaks, breaks or spills.") (emphasis added).

D. The Commission's Application of the More Stringent Single "Continuous Barrier" Standard Has Not Been Applied Equally to all Injection, Including Existing EMSU Waterflood Injection.

The Commission's application of its new, heightened "continuous barrier" standard against Goodnight is arbitrary and capricious because it is being applied unfairly and inconsistently. It not only contravenes the express language of the governing regulations and the Commission's Class II UIC primacy authority, but it also has not been applied equally under the law, in particular, within the EMSU or its waterflood operations.

Specifically, the Commission applied the more lenient standard applicable under the express terms of the governing regulations and UIC primacy when approving EMSU waterflood injection operations in 1984 and did not require proof of a continuous barrier across the entire EMSU. Application of a new "continuous barrier" standard against Goodnight—and only Goodnight—directly contravenes the Commission's regulations and its prior orders governing Class II UIC injection within the same acreage and is not being equally or fairly applied to all injection operations in the state or even within the EMSU itself. Unequal application of the Commission's regulations governing Class II UIC injection is per se arbitrary and capricious and not in accordance with the law. *See Hobbs Gas Co. v. N.M. PSC*, 1993-NMSC-032, ¶ 7, 858 P.2d 54; *see also Bass Enters. Prod. Co. v. Mosaic Potash Carlsbad Inc.*, 2010 NMCA 65, ¶ 20, 148 N.M. 516 ("[A]n agency is not free to arbitrarily disregard its own rules and prior decisions.")

The Commission's administrative record contains no evidence supporting the existence of a continuous barrier across the EMSU above the Grayburg that would serve to contain fluids within the waterflood injection zone. Just the opposite—the Commission's administrative record establishes that no such continuous barrier exists. The 1983 EMSU Technical Committee Report confirmed that "**[t]here is no indication that a barrier to communication exists between the Grayburg and Penrose formations.**" *See* Goodnight Cross Exhibit 19 at 43 (emphasis added); *see also id.* at 5 ("At this time there is insufficient data available to determine the degree of vertical communications."). Then, in 1984, when

the Commission approved waterflood operations within the Grayburg and Lower Penrose in the EMSU under order No. R-7766 (the “EMSU Order”), it received testimony from Gulf Oil Corporation’s (“Gulf”) witnesses that a tight dolomitic zone in the mid-Penrose level that could possibly serve as a barrier to vertical communication was not mappable across the entire unit. See **Exhibit 3**, Case No. 8399, 11/7/84 Tr. 93:18-94:9. Empire’s engineering witness, William West, also acknowledged a history of fluid communication between the Grayburg, Penrose, and Queen formations. See West, Tr. 4/10/25, 162:7-18. In response to concerns about upward fluid migration into the overlying Penrose gas zone, Gulf believed at the time “that the use of good operating procedures in monitoring and confining injection water, and keeping producing wells pumped off will reduce the risk of driving oil and/or water up into the overlying gas zone.” See **Exhibit 4**, EMSU Technical Committee Meeting Minutes (June 1, 1983), Ex. 21 at 40, Case No. 8399.

The Commission agreed and issued Order No. R-7766 authorizing waterflood injection operations in the Grayburg and Lower Penrose despite the lack of a single continuous barrier across the entire EMSU. In accordance with the Commission’s injection regulations—which remain essentially unchanged today—Commission Order No. R-7766 did not require proof of a single continuous barrier across the entire EMSU but instead expressly provides that the EMSU operator “should otherwise take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.” **Exhibit 5**, Order No. R-7766, ¶ 11 (emphasis added); accord 19.15.26.10(B) NMAC (“The operator of an injection project shall operate and maintain at all times the injection project, including injection wells, producing wells and related surface facilities, in such a manner as will confine the injected fluids to the interval or intervals approved and prevent surface damage or pollution resulting from leaks, breaks or spills.”).

Notwithstanding imposition of this operational requirement, overlying gas operators started experiencing increased water production in their gas wells that were “originally non-productive of water” after waterflooding commenced, and filed objections in 1999 opposing the conversion of additional

EMSU wells to waterflood injection. See **Exhibit 6**, Objection of Doyle Hartman, Division Case No. 12320; see also **Exhibit 7**, Hartman Exhibits B-1 and B-2 (showing loss of gas production and accelerated water production in overlying gas wells). Chevron, the EMSU operator at the time, eventually withdrew and dismissed its proposal to convert additional wells to waterflood injection to address Mr. Hartman's concerns. See **Exhibit 8**, Case No. 12320, Tr. 4/18/2002, 6:8-7:3.

In addition to never having applied the new single "continuous barrier" standard to any other injection project in the state—let alone imposing that requirement across more than 14,000 acres—the Commission's unequal application of the same governing regulations within the same acreage as between Goodnight and Empire is arbitrary and capricious and not in accordance with the express language of the controlling regulations or any prior Commission construction of the rules. This is particularly problematic where the Commission is applying a heightened standard against Goodnight at the same time the Commission's findings conclude that there is no loss of confinement of injection fluids from Goodnight's injection interval¹³ and the Commission applied a less stringent standard to EMSU waterflood injection where there is record evidence of loss of confinement of injection fluids from the injection zone.

The Commission's disparate and unequal treatment of Class II injection projects within the same acreage under the same governing regulations is per se arbitrary and capricious and not in accordance with the law.

E. The Commission's Heightened "Continuous Barrier" Standard is Demonstrably Improper Because it is More Stringent than Applicable Standards for Class I, III, IV, and V Wells, Which Include Injection of Hazardous Waste.

New Mexico sought and obtained primacy for its UIC Class II regulatory program contemporaneously with primacy to regulate UIC Class I, III, IV, and V injection.¹⁴ Class I injection includes industrial and municipal wastes, including hazardous wastes and radioactive Naturally Occurring

¹³ Order III(C) ¶¶ 54-56.

¹⁴ See <https://ocdimage.emnrd.nm.gov/Imaging/AEOrderFileView.aspx?appNo=pCJC0919650864>.

Radioactive Material or NORM.¹⁵ Class III wells are permitted for solution mining of minerals such as uranium, salt, copper, and sulfur.¹⁶ Class IV wells are for shallow disposal of hazardous or radioactive wastes into or above a geologic formation that contains an underground source of drinking water.¹⁷ Class V wells include wells that inject a range of wastes, including septic waste, municipal stormwater, and industrial waste, including such waste as chemicals from photo processors and dry cleaners.¹⁸

Unlike Class II wells, Class I, III, IV, and V injection wells are regulated under a separate set of rules approved by the U.S. EPA and promulgated by the New Mexico Water Quality Control Commission (“WQCC”). *See* 20.6.2 NMAC. These regulations governing injection of more diverse and potentially more harmful wastes include additional express requirements necessary to obtain approval, including identification of “confining zones” within the geologic formations targeted for injection. *See* 20.6.2.5205(A)(3)(i) NMAC. The Division’s regulations governing Class II injection include no equivalent definition and no parallel requirement for injection authorization. *Compare* 20.6.2 NMAC with 19.15.26 NMAC.

Critically, the WQCC regulations define a “confining zone” as “a geological formation, group of formations, or part of a formation that is capable of limiting fluid movement from an injection zone.” 20.6.2.7(C)(6) NMAC (emphasis added). Unlike the Commission’s new “continuous barrier” standard, the WQCC’s regulations do not require a “confining zone” to be a single geologic interval but can be a group of formations or even part of a formation. *See id.* Notably, a “confining zone” also is not required be a complete barrier or total seal to fluid migration but is required only to be “capable of limiting fluid movement[.]” 20.6.2.7(C)(6) NMAC. Only for purposes of Class I hazardous waste injection is proof required that the confining zone be “laterally continuous and free of transecting, transmissive faults or

¹⁵ *See* <https://www.epa.gov/uic/class-i-industrial-and-municipal-waste-disposal-wells>.

¹⁶ *See* <https://www.epa.gov/uic/class-iii-injection-wells-solution-mining>.

¹⁷ *See* <https://www.epa.gov/uic/class-iv-shallow-hazardous-and-radioactive-injection-wells>.

¹⁸ *See* <https://www.epa.gov/uic/basic-information-about-class-v-injection-wells>.

fractures” and then only over an area sufficient to prevent movement of fluids into ground water. *See* 20.6.2.5352(C)(2) NMAC.

In contrast, the Commission’s Order suddenly, and for the first time, articulates a new requirement applicable to Class II injection that requires proof, not just of the existence of a confining zone capable of limiting fluid migration, but of a single continuous barrier to fluid migration spanning more than 14,000 acres rather than an area sufficient to prevent movement of fluids into groundwater. The Commission’s imposition of more stringent requirements on Goodnight’s Class II injection than either the actual Class II regulations require, or that are required under the WQCC regulations governing potentially more harmful Class I, III, IV, and V injection wells, makes no sense. This imposition of an unreasonably stringent standard exemplifies the arbitrary and capricious nature of the Commission’s adoption of this previously unknown, unannounced standard.

Moreover, if the Commission had intended to incorporate similar requirements for Class II injection approval as required for Class I, III, IV, and V injection wells, it would have included similar language, definitions, and requirements in its Class II primacy proposal and governing regulations to what was submitted at the same time for approval to EPA for Class I, III, IV, and V injection. The fact that the Commission did not—and has never sought to amend its regulations to mirror the WQCC requirements—demonstrates it was never the Commission’s intent to impose similarly stringent requirements on Class II injection.

The Commission’s adoption and application of an unannounced heightened standard against Goodnight’s injection—and no other Class II injection operations, including Class II injection operations within the EMSU—is arbitrary, capricious, and not in accordance with the law.

II. Goodnight Should Be Afforded the Opportunity to Present Evidence to Address the Commission’s New “Continuous Barrier” Standard Announced for the First Time After the Hearing.

If the Commission rejects Goodnight’s foregoing arguments regarding the impropriety of imposing its new single “continuous barrier” standard, then Goodnight should be afforded the opportunity to present

evidence at a rehearing addressing the Commission's new, previously unannounced legal standard to avoid unfair prejudice to Goodnight.

In response to the Commission's determination that Goodnight failed to map a "continuous barrier" and did not present a model to refute potential future impairment, Goodnight engaged Geolex, Inc. to analyze its licensed 3D seismic data and the potential to use that data in a subsurface model. *See* Self-Affirmed Statement of Jasha Cultreri, attached as **Exhibit 9**; *see also* Self-Affirmed Statement of David A. White, P.G., attached as **Exhibit 10**.

The 3D seismic survey data provide clear evidence supporting the conclusion that there is a lateral interval of confining strata separating Goodnight's injection zone from overlying geologic intervals, which would prevent the vertical migration of injected fluids out of the approved San Andres formation injection interval. *See* **Ex. 8** Cultreri, ¶ 16. Analysis and interpretation of available geophysical log data demonstrates that intervals of high acoustic impedance correspond to low porosity, vertically restrictive geologic strata, which are characterized by low porosity (0-3%) carbonates interbedded with tight fine-grain siliciclastic deposits (i.e., silt, clay) that consistently overlay Goodnight's injection interval. *See* **Ex. 9**, White, P.G., ¶ 6. These confining strata are observed and confirmed in several wells within and around the EMSU area. *Id.* ¶ 7. Geolex also conducted geologic depth interval mapping that confirms and supports the lateral continuity of these geologic confining strata observed and demonstrated by 3D impedance attribute mapping. *Id.* Geolex's analysis concludes that reservoir attributes identified and confirmed through geological and geophysical (i.e., 3D seismic data) analyses can be used effectively to model and further demonstrate the sealing capacity of local confining strata. *Id.* ¶ 8. With the shortness of time, however, subsurface modeling was not prepared; however, in the event the Commission grants Goodnight's Application for Rehearing,¹⁹ such modeling could be prepared and presented to the Commission for consideration with sufficient time.

¹⁹ Or allows for a limited rehearing under the newly imposed standard.

Given the Commission's sudden adoption of a previously unannounced standard that contravenes governing regulations and previous agency guidance, Goodnight respectfully requests the opportunity at a rehearing to present additional data and analyses using its licensed 3D seismic data, including subsurface modeling, to demonstrate the existence of a continuous confining zone across Goodnight's injection area within the EMSU.

III. The Commission's Order Creates Constitutional Conflicts.

The Commission's Order creates constitutional conflicts in at least two ways. First, the Order unitizes public waters. The San Andres aquifer has no history of hydrocarbon production and has never been reasonably defined by primary production, as required under the Statutory Unitization Act. NMSA 1978, § 70-7-1 through -21. The San Andres "was intended to be used initially for make-up water for water flooding operations for oil operations." Order at ¶ 19 (describing provisions in the Unit Agreement). Based on the evidence presented at the hearing, the Commission concluded "there was insufficient evidence . . . to prove whether the ROZ is recoverable." These findings, taken together, create an order that conflicts with the United States and New Mexico constitutions.

First, unitizing an aquifer that has no proven recoverable hydrocarbons capable of being produced in paying quantities is prohibited by the New Mexico Constitution, which declares all underground waters of the state to belong to the public and thus are precluded from unitization. N.M. Const. Art. XVI, § 2; *see also McBee v. Reynolds*, 1965-NMSC-007, ¶14, 399 P.2d 110 (confirming that "waters of underground streams, channels, artesian basins, reservoirs and lakes, the boundaries of which may be reasonably ascertained, are public" and "included within the term 'water' as used in Art. XVI, §§ 1-3, of our Constitution.").²⁰

²⁰ Unitizing an aquifer that has no proven recoverable hydrocarbons also contravenes the express provisions of the Oil and Gas Act and the Statutory Unitization Act because each applies to and gives the Commission authority to only unitize formations with recoverable hydrocarbons capable of being produced in paying quantities. *See, e.g.*, § 70-7-1 through -21; § 70-2-12(B)(4).

Second, and similar to improperly unitizing public waters, until there is an actual finding that there are recoverable hydrocarbons in paying quantities within Goodnight's San Andres disposal zone and an exhibited failure to confine injected fluids, the Commission's Order constitutes an impermissible regulatory taking of both Goodnight's property interest and the surface owners' property interests in and to the pore space underlying the EMSU without just compensation under both the New Mexico Constitution as well as the Fifth Amendment. *See* U.S.Const. amend. V.; N.M. Const., Art. II, § 20.

A. The Order's Conclusion that there are no Recoverable Hydrocarbons in the San Andres Confirms it is an Aquifer Under the N.M. Constitution Not Subject to Unitization.

The Order contains two findings that confirm inclusion of the San Andres aquifer within the EMSU's unitized interval is legally invalid that require (1) its inclusion to be deemed void ab initio, and (2) the EMSU Order to be amended to exclude the San Andres from the EMSU. First, the Commission properly found that the San Andres was included within the unitized interval of the EMSU not because it was a producing oil zone that had been reasonably defined by primary production and properly subject to statutory unitization²¹ but as a source for makeup water for waterflooding operations. Order at ¶ 19. Second, the Commission found that hydrocarbons within the EMSU's purported ROZ, including within Goodnight's San Andres disposal zone, have not been proven to be recoverable. Order at III(D).²²

Notwithstanding these determinations, which each separately foreclose inclusion of the San Andres within the EMSU as a statutory unit, the Order reaffirms and perpetuates the Commission's original legally invalid unitization of the San Andres aquifer within the EMSU. In so doing, the Commission mistakenly determined that "any debate over the exclusion of the San Andres would require notice to, and likely participation from, multiple additional parties," ostensibly because the underlying Unit Agreement and Unit Operating Agreement include the BLM, State Land Office, and other working

²¹ Goodnight incorporates by reference herein its arguments and authorities raised in its Renewed Motion for Judgment of Exclusion of San Andres Formation with EMSU, dated July 3, 2025.

²² As important, the Commission did not find that hydrocarbons in the ROZ—in either the Grayburg or San Andres—can be recovered economically or in paying quantities.

interest owners. Order ¶¶ 71-73. The Commission did not cite legal authority in support of this determination. The Commission instead cited Empire’s arguments raised in its response to Goodnight’s renewed motion to exclude the San Andres from the EMSU’s Unitized Interval. *See* Order ¶ 72. The Commission’s conclusion that it cannot immediately act on this fundamental legal error is misplaced and erroneous for at least four reasons. *See* Order ¶ 73.

First, as with all Commission and Division orders, jurisdiction over the EMSU Order—and all orders governing the EMSU—was retained by the Commission “for entry of such further orders as the Commission may deem necessary.” *See, e.g., Ex. 5*, Decretal ¶ 11. Because the EMSU is a creature of statute—created under and entirely subject to the authority of the Commission and the requirements of the Statutory Unitization Act—the Commission has a continuing obligation to determine whether further orders are necessary, including to cure legal defects to align the EMSU Order with New Mexico law, including the Statutory Unitization Act (the “Act”) and the New Mexico Constitution.

The Act does not authorize the Commission to unitize formations or reservoirs that are not a “pool or part of [a] pool,” as defined. *Id.* § 70-7-7. In particular, the Act does not vest the Commission with authority to unitize non-hydrocarbon bearing formations, such as aquifers. An aquifer is not an oil and gas property, does not give rise to claims under the correlative rights doctrine, and is not subject to statutory unitization. *Id.* § 70-2-33(H) (providing that “correlative rights” are applicable only to oil and gas rights). As a non-hydrocarbon-bearing aquifer, the San Andres does not qualify for inclusion in a “pool.” Unitization of an aquifer, geologically distinct from a pool, is not “reasonably necessary” to protect the correlative rights of owners with an interest in the oil and gas minerals. § 70-2-11(A). As important, because the San Andres, as an aquifer, has never been “reasonably defined by development[.]”²³ the

²³ To be considered “reasonably defined by development,” the proposed pool must have a history of primary recovery of oil and/or gas. §§ 70-7-1 & 70-7-5(B); *see also* 6 Williams & Meyers, OIL AND GAS LAW, § 913.8 (“Only so much of a common source of supply as has been defined and determined to be productive of oil and gas by actual drilling operations may be so included within the unit area.”); *see also* Empire Exhibit I (West) at ¶ A.6 (“No wells have produced from the San Andres at EMSU”); *id.* at Ex. I-4 (“no production was made from the San Andres interval”).

Commission lacked statutory authority to unitize it or include it within the definition of a pool. *Id.* at § 70-7-5(B). The San Andres is not subject to unitization by the Commission for any purpose.

Second, both the Unit Agreement and Unit Operating Agreement include, as they must, express provisions making them subject to and automatically consistent with subsequent, duly authorized Commission orders. *See* EMSU Unit Agreement, § 39 (providing that it “shall automatically be revised and/or amended” “to conform to the [Commission’s] order[.]”), attached as **Exhibit 11**. In particular, the parties to the Unit Agreement agreed in advance that both the Unit Agreement “and/or the Unit Operating Agreement shall be amended in any and all respects necessary to conform to the [Commission’s] order approving statutory unitization” and that “[a]ny and all” such amendments “shall be deemed to be hereby approved in writing by the parties hereto without any necessity for further approval by said parties[.]” *Id.* Similarly, the Unit Operating Agreement expressly provides that it is “subject to all valid laws . . . and orders of all regulatory bodies having jurisdiction . . . and to all other applicable federal, state, and local laws, ordinances, rules, regulations and orders; and any provision of this Agreement found to be contrary to or inconsistent with any such law, ordinance, rule, regulation or order shall be deemed modified accordingly[.]” EMSU Unit Operating Agreement, Art. 21.1 (emphasis added), attached as **Exhibit 12**. Thus, no notice is required; the parties to the Unit Agreement and Unit Operating Agreement, including the BLM, State Land Office, and all Working Interest Owners, agreed in advance that the EMSU is subject to the Commission’s orders implementing the Statutory Unitization Act.

Third, the parties to the Unit Agreement also agreed that Empire, as unit operator, has the right “to appear for or on behalf of any interested affected hereby before the . . . Division, and to appeal from any order issued under the rules and regulations of the . . . Division, or to apply for relief from any of said rules and regulations or in any proceedings relative to operations before the . . . Division[.]” **Ex. 11**, § 27. The parties have thus delegated to Empire the right to appear on their behalf at the Commission for all purposes. No notice is required to any other party.

Finally, the Unit Agreement and the Unit Operating Agreement, and all terms and provisions, are binding on all parties who executed and ratified them, including the BLM, State Land Office, and all Working Interest Owners. **Ex. 11**, § 27. Under federal law, a unit agreement “is a binding contract between the United States and the participating parties.” *Rio de Viento, Inc.*, 153 IBLA 32, 38 (2000). Similarly, under New Mexico law, the Commissioner is bound by the terms of the agreements and has no discretion or authority to avoid its mandatory requirements. *See* NMSA 1978, § 19-10-54; *see generally*, *ConocoPhillips Company v. Lyons*, 2013-NMSC-009, 299 P.3d 844.

Having executed the unit agreements, all parties are bound by their provisions, including the acknowledgement that the EMSU and the Unit Agreement and Unit Operating Agreement are governed by, subject to, and automatically amended to conform with Commission orders implementing the Statutory Unitization Act. The Commission has no basis to assert it is powerless to immediately effect the mandatory requirements of the Statutory Unitization Act or to issue orders necessary to comply with the New Mexico Constitution.

The Commission’s refusal to act to exclude the San Andres aquifer from the EMSU establishes a clear basis for Goodnight to pursue a writ of mandamus to compel the Commission to (1) act in accordance with the express requirements of the Statutory Unitization Act; (2) amend Order No. R-7765 to comply with the Statutory Unitization Act; (3) restrain the Commission from encroaching on the authority and jurisdiction of the Office of the State Engineer by unitizing an aquifer with no proven recoverable hydrocarbons; and (4) challenge the constitutionality of the EMSU Order and the Commission’s Order.

B. The Commission’s Order Constitutes a Regulatory Taking.

The United States Constitution and the New Mexico Constitution guarantee that private property may not be taken without just compensation. U.S. Const. amend. V.; N.M. Const., Art. II, § 20. A regulatory taking occurs when the government regulates the use of private property but does not take title to it. *Moongate Water Co. v. City of Las Cruces*, 2013-NMSC-018, ¶ 18, 302 P.3d 405. In New Mexico, a regulation, or in this case a regulatory action, does not constitute a taking if it “(1) is reasonably related

to a proper purpose and (2) does not unreasonably deprive the property owner of all, or substantially all, of the beneficial use of his property.” *Temple Baptist Church, Inc. v. City of Albuquerque*, 1982- NMSC 055, 646 P.2d 565. Under the Fifth Amendment, a taking by the government must be accompanied by adequate compensation, and in order to be compensable, the taking must impact some substantive aspect of the landowner’s use and enjoyment of his property. *Santa Fe Pac. Tr., Inc. v. City of Albuquerque*, 2014-NMCA-093, ¶ 37, 335 P.3d 232; *Manning v. Mining & Minerals Div. of the Energy, Minerals & Nat. Res. Dep’t*, 2006-NMSC-027, ¶ 21, 144 P.3d 87. The Order constitutes a regulatory taking because it deprives Goodnight of its exclusive rights to use and enjoy the pore space it leased within the EMSU without just compensation.

i. Goodnight, and the surface owners who leased their surface rights to Goodnight, have a constitutionally protected interest in the San Andres disposal pore space.

The property taken by the Order is the pore space that third party surface owners leased to Goodnight through validly executed lease agreements. To establish a violation under the Constitution’s takings clause, Goodnight must demonstrate it has a property interest that is constitutionally protected. *Phillips v. Wash. Legal Found.*, 524 U.S. 156, 164 (1998). Under New Mexico law, surface owners have a property interest in the pore space underlying their lands, and it may be conveyed to third parties in any of the same ways as real property. NMSA § 74-14-7(A), (D); *see also Jones-Noland Drilling Co. v. Bixby*, 1929 NMSC 91, ¶ 11, 34 N.M. 413 (“The fee in the soil, except the oil and gas, remains in the lessor unincumbered with those rights of the lessee.”). Accordingly, when the landowners of the surface estate located within the EMSU executed lease agreements with Goodnight, each of them granted Goodnight the exclusive right to enter into and utilize that pore space. *See* Surface Lease, attached hereto as **Exhibit 13**.

ii. The Order does not serve a proper purpose, and unreasonably deprives Goodnight and the Surface Owners of all beneficial use of the pore space under the lease agreements.

The Order to suspend Goodnight's injection is not "reasonably related to a proper purpose" for each of the reasons outlined in this Application. *See supra* at § I; *infra* at §§ IV-VII. Specifically, because the Order was issued without proper jurisdiction and primarily based on a new, improper standard, it cannot fulfill any proper purpose. Nor does it constitute a valid use of the police power because it does not protect correlative rights or prevent waste.

The Order unreasonably deprives Goodnight of all, or substantially all, of the beneficial use of its property under the lease agreements, because it grants Empire the exclusive rights in and to the pore space validly leased by Goodnight. *See* Order at ¶¶ 40-41. The Order, as written, makes no findings that differentiate the portion of the San Andres that purportedly contains an ROZ from the portion of the San Andres that Goodnight utilizes for its operations, and therefore precludes Goodnight's usage of the entirety of its pore space property interest. Because the Order prohibits Goodnight's economically viable use of land, it constitutes a taking. Goodnight executed and paid for these lease agreements specifically for the use of the San Andres, and Goodnight has established extensive infrastructure to support its injection operations into the leased pore space in substantial reliance on its previously issued injection permits. *See* Goodnight Motion to Stay, Ex. A ¶ 12, attached as **Exhibit 14**. The Order thus deprives Goodnight of those tangible assets, as well as the profits Goodnight was earning and would have earned through its continued usage under the lease agreements. The Order entirely prevents Goodnight from receiving any economic benefit for its interest in the pore space. The Order also deprives the surface owners of their exclusive and existing right to lease their pore space for produced water disposal wells. *Cf.* **Ex. 12**, ¶ 13.1. The Order constitutes an unconstitutional regulatory taking in violation of the state and federal constitutions.

IV. The Commission's Findings Do Not Support the Order.

A. The Commission's Determination that an ROZ Exists in Goodnight's San Andres Disposal Zone is Not Supported by Substantial Evidence.

The Commission commits that its ROZ finding rests “especially” on the analysis on the EMSU 679 and the R.R. Bell #4 cores testified to by Dr. Lindsay. *See* Order ¶¶ 28-34. Based on that analysis, the Commission determined Empire adduced substantial evidence that an ROZ exists throughout the San Andres formation, apparently including within Goodnight's San Andres disposal zone. However, while recognizing that the evidentiary record substantiates a distinction between Goodnight's disposal zone in the Lower San Andres and the formations and reservoir above (*see* Order ¶ 51), the Order fails to identify substantial evidence in **Finding Nos. 28-37** to support the Commission's conclusion that an ROZ, as defined by Empire's own experts, exists within Goodnight's disposal zone. The evidence the Commission relied upon in reaching Finding Nos. 28-37 provides no evidence at all of oil saturations within Goodnight's San Andres disposal zone and no evidence that oil saturations meet the 20% minimum threshold required to define an ROZ. Therefore, none of the findings recited in the Order support the conclusion that an ROZ, as defined by Empire's own ROZ experts, exists below -652 feet subsea in the EMSU, let alone below the top of Goodnight's confining zone at -672 feet subsea. *See* **Ex. 2**.

Whether an ROZ exists in Goodnight's San Andres disposal zone, let alone anywhere within the EMSU, was a core factual dispute of the multi-week hearing. Yet the Commission's findings fail to articulate the location of a potential ROZ across the Grayburg or San Andres—a span of more than 1,700 vertical feet. *See, e.g.*, Empire Rebuttal Exhibit K-11. This is particularly problematic when Empire's own ROZ experts testified that the thickest ROZ identified to date is in the Tall Cotton field, where the ROZ is no more than 400 feet thick, *see* Empire Table D-1,²⁴ and their own petrophysics expert testified that he understood the Lower San Andres is an aquifer because the majority of the oil saturations he identified

²⁴ *See also* Trentham 2/27/25 Tr. 816:1-13 (not aware of any ROZs thicker than what is listed on Table D-1).

are closer to what Empire defines as the top of the San Andres, above the top of Goodnight's confining zone at -672 feet subsea. Birkhead 2/26/25 Tr. 647:10-13; 647:14-676:11; 676:4-14; GNM FOF 126.

When the sufficiency of the Commission's findings in an order is at issue, or their substantial support is questioned, "the following must appear: (A) Findings of ultimate facts which are material to the issues . . . [and] (B) Sufficient findings to disclose the reasoning of the Commission in reaching its ultimate findings." *Fasken v. Oil Conservation Comm'n*, 1975-NMSC-009, ¶ 8. "Administrative findings by an expert administrative commission should be sufficiently extensive to show the basis of the commission's order." *Id.* (citing *Cont'l Oil Co*, 1962-NMSC-062, ¶ 16). In the Commission's Order, no findings of ultimate fact address in what interval over more than 1,700 vertical feet across the Grayburg and San Andres the potential ROZ is located. To the extent the Commission's Order finds a potential ROZ across the entire 1,700 vertical feet of the EMSU, more than four times thicker than the thickest ROZ identified to date, then such a finding is not supported by substantial evidence and the Order's findings are not sufficiently extensive to justify such a determination.

Empire's ROZ experts uniformly testified, and numerous publications spanning their respective careers cited throughout the record confirm, that an ROZ is defined as a zone containing oil saturations ranging from a minimum of 20% up to 40% or more, with oil saturations decreasing with depth.²⁵ The deepest core available in the EMSU is the EMSU-679 core, which extends to a depth of -762 feet subsea. Empire Exhibit B-8; *see also* Ex. 2. The R.R. Bell #4 core extends to a depth of only -455 feet subsea. Empire Exhibit B-10; *see also* Ex. 2. The top of the confining interval that isolates Goodnight's disposal zone from the reservoirs above starts at a depth of -672 feet subsea, which is more than 200 feet below the deepest cored interval with any evidence of core oil saturations in the R.R. Bell #4 —let alone oil saturations that average above 20%. *See* Goodnight Exhibit B-32; *see also* Ex. 2. The core oil saturations

²⁵ *See, e.g.*, Lindsay 2/24/25 Tr. 25:16-19 ("What a residual oil zone would look like is, in a conventional core analysis, would be anything with 20 percent or greater percent oil would be considered a residual oil zone."); Empire Ex. D at 3-4 (ROZs contain between 20-40% oil saturation); GN FOF 126; Lindsay 2/24/25 Tr. 192:8-10 (ROZ profile shows higher oil saturations decreasing to lower oil saturations); Empire Ex. C-1.

for the R.R. Bell #4 therefore provide no evidence at all of oil saturations within Goodnight's San Andres disposal zone and no evidence that oil saturations meet the 20% minimum threshold required to define an ROZ.

As to the EMSU-679 core, the deepest consecutive oil saturation measurements above 20% occur at -652 feet subsea. Empire Table B-4; McGuire Direct, GNM Ex. B ¶ 144, GN Ex. B-32 at p. 3; *see also* **Ex. 2**. Stated simply, there are no consecutive one-foot increments in the EMSU-679 core below -652 feet subsea with oil saturations above 20%, only two, one-foot increments with oil saturations 20% or higher below that depth (20.0% at 4,262-63 feet measured depth and 24.4% at 4,256-57 feet measured depth), and no oil saturations above 20% within Goodnight's disposal interval below -762 feet subsea. Empire Table B-4 through B-8; Goodnight Ex. B-32 at pp. 2-3. That is 110 feet of cored interval with only two non-consecutive, one-foot increments with a measured core oil saturation above 20%—and none with 20% oil saturations in Goodnight's disposal zone. *Id.* The core oil saturation data for the EMSU-679 shows that a potential ROZ zone with oil saturations above 20% is limited to the reservoir above the top of Goodnight's confining zone at -672 feet subsea. Empire Table B-1 through B-8; GN Ex. B-32 at pp. 2-3.

Even the measured core oil saturations above the top of Goodnight's identified confining interval—taking into account all available core oil saturations available within the EMSU—do not exceed 20% on average, including through the entirety of EMSU's main pay zone. *Id.*; Goodnight Ex. B-32 at 3. Because Empire's experts define an ROZ as having conventional core oil saturations above 20% and a profile of decreasing oil saturations with depth, the core data provides no substantial evidence that there is an ROZ—or even a potential ROZ—below the top of Goodnight's confining interval at -672 feet subsea. The average core oil saturation is approximately 18% at and above -672 feet subsea, but drops to 7.11% below -672 feet subsea. Goodnight Ex. B-32 at 3. Based on Empire's own ROZ experts, there is no basis to conclude that average core oil saturations will increase above 20% below the base of the cored interval where the previous 110 feet reflect an average core oil saturation of only 7.11%. GN Ex. B-32; Empire Ex. C-1; Lindsay 2/24/25 Tr. 192:8-10; McGuire 5/19/25 Tr. 89:6-9 (“ROZs, by definition, have a

decreasing oil saturation, so it is unfounded to assume that oil saturations would be higher[.]”) Finding that there is a base of the ROZ at approximately -652 feet subsea is supported by the sales materials XTO presented to Empire at the time Empire acquired the EMSU that put the base of a potential ROZ at no deeper than -700 feet subsea. Empire Ex. A-5. No new or additional data has been acquired by Empire in the EMSU since XTO made that assessment to justify a different conclusion. GN FOF ¶¶ 26, 31. Therefore, none of the Order’s recited findings support the conclusion that an ROZ, as defined by Empire’s own ROZ experts, exists below -652 feet subsea in the EMSU,²⁶ let alone below Goodnight’s confining zone at -672 feet subsea.

For the same reasons, neither **Finding No. 28** nor **Finding No. 29** (or the cited testimony) support a conclusion that there is an ROZ below -672 feet subsea within Goodnight’s San Andres disposal zone. Dr. Lindsay’s testimony, cited in the Order, addresses only generally what he defines as the San Andres without identifying specific depths or oil saturations. But we know from the core data discussed above that saturations do not reach 20% in Goodnight’s disposal zone and, therefore, do not meet the threshold definition for an ROZ.

Finding No. 30 identifies in Empire Exhibit B-7 specific oil saturations—most of which are above 20%—at depths ranging from -643 feet subsea to -653 feet subsea, all of which are above the top of Goodnight’s confining zone at -672 feet and thus well above Goodnight’s disposal interval.

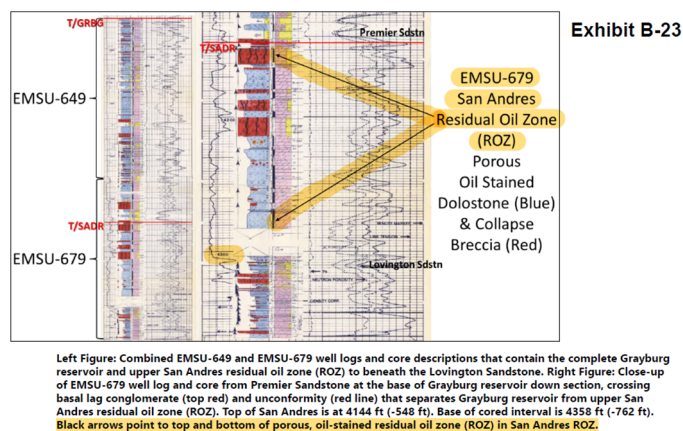
Similarly, **Finding No. 31**, which relates solely to the R.R. Bell #4, describes oil saturations from -445 feet to -451 feet subsea that are all substantially shallower than the top Goodnight’s confining zone at -672 feet subsea. See **Ex. 2**.

Finding No. 32 relies on testimony from Dr. Lindsay suggesting that oil staining at the base of the cores “indicates that oil saturations exist deeper into the San Andres”; however, that testimony is not supported by any direct evidence and the basis for his supposition contradicts Empire’s own experts’

²⁶ Empire’s ROZ expert, Dr. Trentham, agreed with Goodnight’s placement of the base of a potential ROZ based on the EMSU-679 core data and a 20% oil saturation cutoff shown in Goodnight Exhibit B-32. See Goodnight Ex. B-39.

definition of an ROZ as having decreasing oil saturations with depth. Lindsay 2/24/25 Tr. 192:8-10 (ROZ profile shows higher oil saturations decreasing to lower oil saturations); Empire Ex. C-1. Because the bottom 110 feet of the EMSU-679 core has an average oil saturation of only 7.11%, it is unreasonable to conclude—and there is no direct evidence to support finding—that there may be oil saturations above 20% below that depth. McGuire, 5/19/25 Tr., 87:20-89:21; Goodnight Ex. B-32 at p. 3; Empire Table B-4 through B-8. In addition, the Commission’s finding rests solely on Dr. Lindsay’s unsupported assumption that higher oil saturations will extend deeper than the base of the cored intervals. Not only does that contradict Empire’s own ROZ experts’ ROZ definition, including Dr. Lindsay’s definition of an ROZ, but Dr. Lindsay also contradicts that finding when he testified he does not know the oil saturations below the cored intervals: “We got the logs and then we got logs deeper in the section, but we don’t know the oil saturations. That’s the problem.” 2/24/25 Tr., 194:22-195:11; GN FOF 168. The Commission’s finding provides no substantial evidence to support the conclusion that there is an ROZ within Goodnight’s San Andres disposal zone below -672 feet subsea.

Finding No. 34 concludes that well logs presented by Dr. Lindsay corroborate the core data, and refers to Empire Exhibits B-23, B-24, B-25, and B-26 as support. However, none of those exhibits show oil saturations within Goodnight’s disposal zone below -672 feet subsea. Empire Exhibit B-23 shows Empire’s pick for the top of the San Andres at -548 feet subsea and points to what Dr. Lindsay states is the “top and bottom of porous, oil-stained residual oil zone (ROZ) in the San Andres ROZ[,]” the base of which is depicted to be no deeper than 4,300 feet measured depth and thus does not show an ROZ extending into Goodnight’s disposal zone. *See* Goodnight Ex. B-32 at pp. 2-3. Because Exhibit B-23 purports to show the bottom of the San Andres ROZ at a depth shallower than Goodnight’s San Andres disposal interval, it cannot serve as substantial evidence to conclude that there is an ROZ in Goodnight’s San Andres disposal zone.



Similarly, Empire Exhibits B-24 through B-26 all address the R.R. Bell #4 well log and show that the base of the cored interval is at -455 feet subsea, which is, again, substantially shallower than the top of Goodnight's confining zone at -672 feet subsea. The well logs may corroborate the R.R. Bell #4 core data, but the deepest core saturation data is more than 200 feet above the top of Goodnight's confining zone. These exhibits also provide no support for the conclusion that there is an ROZ within Goodnight's San Andres disposal zone.

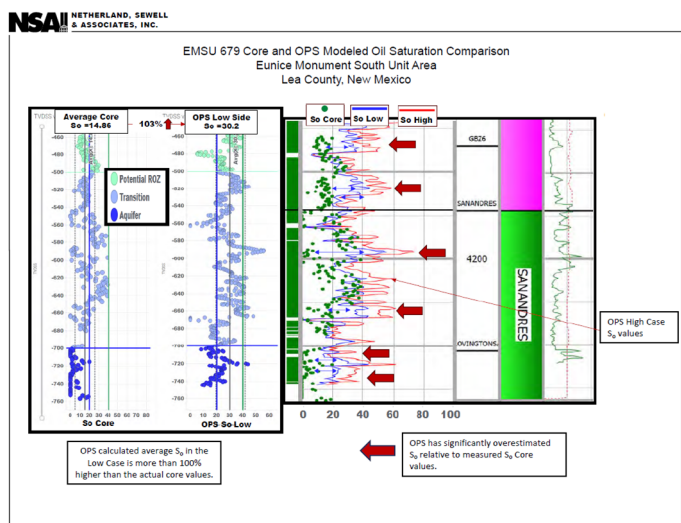
As to **Finding No. 35**, while it is true that "Empire's witnesses testified that a ROZ exists," it is not true that they all testified that an ROZ exists within Goodnight's San Andres disposal zone, which is below -672 feet subsea. Dr. Trentham testified that Empire has not "done enough analysis to solidify the argument about the existence of . . . potential recoverable ROZ in the San Andres[.]" and testified that he did not know if one existed in the Lower San Andres where Goodnight's disposal zone is located. Trentham 2/27/25 Tr. 822:6-18; 829:18-22 (" . . . Q: But not [existing] in the Lower San Andres? A: Don't know."). Similarly, Mr. Melzer testified: "[W]e just know that it [an ROZ] is present for some thickness to where the core ended, but we do not know how deep it goes. Q. So you can't tell below the core whether there is ROZ? A. Well, I'm not a skeptic of petrophysics, because I use it a lot. But by itself it is not enough to say that it is going to tell you where the ROZ is[.]" Melzer 2/27/25 Tr. 844:21-845:15. None of the testimony cited in the Commission's Order from Mr. Marek addresses the Lower San Andres formation at all. See Marek 4/7/25 Tr. 122:6-10, 21-23. In fact, none of the testimony from any of Empire's ROZ experts conveys more than mere speculation as to the existence of an ROZ below the core

measurements. The Order also cites testimony from Mr. Bailey and Mr. Birkhead based on their petrophysical and geologic interpretations—not direct evidence—that a potential ROZ extends to the base of the San Andres; however, that testimony is unreliable and cannot serve as substantial evidence for at least two reasons.

First, Mr. Bailey and Mr. Birkhead's analyses are entirely based on Mr. Birkhead's petrophysical interpretations, (*see, e.g.*, Bailey 2/25/25 Tr. 372:20-373:1) which Mr. Melzer stated "is not enough to say that it is going to tell you where the ROZ is[.]" Melzer 2/27/25 Tr. 844:21-845:15. Mr. Melzer was one of Empire's key ROZ experts. Unlike Mr. Melzer, neither Mr. Bailey nor Mr. Birkhead are ROZ experts and are not competent, therefore, to opine on what may qualify as an ROZ. Bailey 2/25/25 Tr. 295:16-19; Birkhead 2/26/25 Tr. 570:6-12; 572:9-14.

Second, Mr. Bailey and Mr. Birkhead's testimony cannot serve as substantial evidence for the existence of an ROZ below the cored intervals because their analysis is unreliable, having excluded at least one-third of the core-calibrated data from their interpretation without any scientific justification. Mr. While Mr. Bailey testified that "all the wells [in their model] are quality checked based off that core calibration," to get "the n points for the petrophysical model[.]" (Bailey 2/25/25 Tr., 414:6-13) and that "[w]e did not alter it [the core data] in any way[.]" (Bailey 2/25/25 Tr., 415:3-11; *see* GN FOF 153), in fact, their analysis excluded all core-calibrated oil saturations with an "n" value of 11 or above as "very suspicious" and relied instead on literature to determine a range of "n" values. Empire Cross Exhibit 7 at 2; Birkhead 2/26/25 Tr., 643:18-644:12; GN FOF 152. This resulted in the elimination of about one-third of the uncorrected, core-calibrated oil saturation values from their analysis, adjusting the average oil saturation values in their analysis for the Grayburg from 16.2% to 17.2% and for the San Andres from 14.34% to 19.5%. *See* Empire Cross Exhibit 7 at 3; GN FOF 152. That increased their average core oil saturations in the Grayburg by 6.17% and in the San Andres by 36%. *Id.*; *see also* GN FOF 152. As a result, their model predicted oil saturations reflecting movable oil in the water supply wells completed in the Lower San Andres that have never produced reported oil despite having produced more than 350

million barrels of water. *See* GN FOF 42, 156; Bailey 2/25/25 Tr., 348:23-354:12 and 406:8-25. The unreliability of Mr. Bailey and Mr. Birkhead's analytical approach is confirmed by the fact that their interpretation does not match the production history of the EMSU water supply wells. GN FOF 156. It is also confirmed by the fact that Mr. Birkhead's data manipulations resulted in interpreted core oil saturations for his low-side case that, on average, were more than 100% above the actual core values.



Knights Sur-Rebuttal Fig. 5 showing the effect on Mr. Birkhead's oil saturation interpretation by excluding core data from his analysis that results in a substantial overestimation of oil saturations, especially at depth.

Finding Nos. 36 and 37 state that four of Goodnight's witnesses agreed that an ROZ exists but interprets their cited testimony out of context and fails to recognize that all Goodnight witnesses affirmatively testified that any potential ROZ is limited to intervals above Goodnight's San Andres disposal zone. Dr. Davidson testified that "there's indications there's one [ROZ] in the Upper San Andres above what I call the gamma ray marker" (*see* 04/21/25 Tr. 234:3-5) but clarified he does not believe an ROZ exists in the Lower San Andres formation, which is most likely an abandoned oil migration pathway. *See, e.g.,* Davidson 4/21/25 Tr. 243:21-244:2; 244:22-245:9. Dr. Lake merely qualified his testimony to agree with Dr. Davidson's petrophysical assessment that an ROZ might exist in the lower Grayburg and Upper San Andres but otherwise maintained that no ROZ exists in Goodnight's disposal zone. Lake 04/24/25 Tr. 223:4-21; 177:20-24. Mr. Knights testified no ROZ exists below -500 feet subsea—well above the top of the confining interval at -672 feet subsea isolating Goodnight's San Andres disposal zone. Knights 4/22/25 Tr. 27:3-21. Mr. Tomastik testified that he had "not done any studies" on an ROZ and stated only "there might be an ROZ in the San Andres directly below the base of the Grayburg[.]"

(Tomastik 04/25/25 Tr. 104:19-21), but affirmatively testified he did not believe one existed in Goodnight's disposal zone. Tomastik 04/25/25 Tr. 105:3-7.

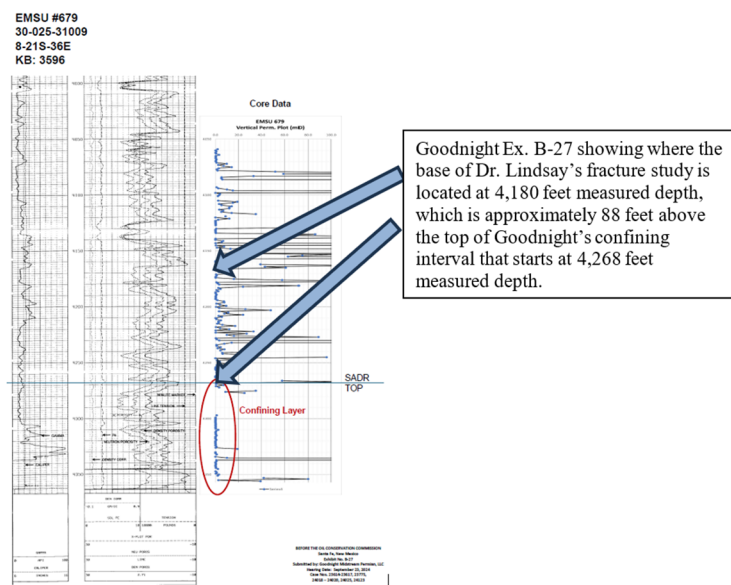
B. The Commission's Finding that There is Potential Future Impairment of Correlative Rights or Waste is Not Based on Substantial Evidence.

The Commission found that Empire adduced substantial evidence of the possibility of future impairment of correlative rights or waste in the EMSU. Order III(A) ¶¶ 43-49. That conclusion is not based on substantial evidence. And because the Commission's finding on possible future waste or impairment conflicts with its finding that there is no current waste or impairment (Order III(C) ¶¶ 54-56), the Commission has not provided sufficient explanation regarding what conditions are expected to change from the present that could give rise to possible future impairment or waste.

The Commission found that "[t]he strongest evidence' for no communication between the San Andres and Grayburg 'is material balance, which is volumes and pressure.'" Order ¶ 56. Notwithstanding this finding, the Commission's findings about possible future communication rest on Dr. Lindsay's fracture study and Dr. Buchwalter's model simulation. *See* Order ¶¶ 43-48. Neither provides substantial evidence for future harm or waste and neither provides an explanation about what conditions might change that could lead to future impairment or waste.

The Order specifically relies on the finding that Dr. Lindsay's fracture study shows 129 vertical fractures in the upper 36 feet of what Empire defines as the San Andres. Order ¶ 46. The Commission concluded that "[t]his could lead to communication between the Grayburg and the San Andres." *Id.* Fundamentally, Dr. Lindsay's fracture study cannot be substantial evidence of possible future communication because the fracture study that he relies on does not extend into or through Goodnight's identified confining zone. The deepest rock analyzed for fractures by Dr. Lindsay in the EMSU-679 core are no deeper than 4,180 feet, about 88 feet above the confining zone that starts at 4,268 feet isolating the Grayburg from Goodnight's disposal zone. Lindsay 4/24/25 Tr. 154:20-155:4; Lindsay Rebuttal., Ex. J. at 8 ("The remainder of the EMSU-679 cored interval . . . from 4180' to 4258' (178' total) were not oriented and were not included in the fracture study." (emphasis added)); McGuire Direct, Ex. B ¶¶

126-128; GNM Ex. B-27 (showing measured depths and location of Goodnight's confining zone in the core); Knights Rebuttal, Ex. E at 4; Tomastik Rebuttal, Ex C. ¶ 19; Davidson Direct, Ex. D, Appx. B (679 well showing GNM San Andres top); GN FOF No. 64.



Moreover, the largest vertical fractures observed in Dr. Lindsay's fracture study were only three feet in length, which is not nearly long enough to connect to Goodnight's disposal zone nearly 90 feet below. GN FOF 65. The fact that Dr. Lindsay's testimony fails to explain how communication could occur through fractures across Goodnight's confining interval nearly 90 feet below the deepest rock analyzed in his fracture study is not surprising. He testified that he never reviewed Goodnight's testimony or exhibits and did not know where Goodnight's disposal zone interval was located or at what depth Goodnight had identified a confining zone. *See* GN FOF 63.

To the extent the Commission relies on Dr. Lindsay's testimony that dolomite in the San Andres is brittle and therefore may have vertical fractures, this testimony also provides no substantial evidence. *See* Order ¶ 53. Dr. Lindsay's generalized testimony is mere supposition and not supported by any scientific methodology, let alone direct or indirect evidence of communication or fractures.²⁷ It is also

²⁷ Dr. Lindsay's testimony is also contradicted by his own 2014 dissertation when he wrote there is a "reservoir seal" establishing different pressure regimes between the Grayburg and San Andres and points to no new data or evidence that would justify a different conclusion today.

directly contradicted by the Commission's finding that there is no current communication between the San Andres and Grayburg based on direct evidence of injection volumes and pressures. *See* Order ¶ 56. If there are fractures in the San Andres that could lead to future communication between the Grayburg and San Andres, as the Commission found, the Commission provided no explanation from the evidentiary record for why communication has not been observed to date after more than 60 years of injection into the San Andres. *See* Order ¶¶ 14-15 (finding that from discovery of the field in 1929 to the present there has been injection for disposal into the San Andres); *id.* ¶¶ 54-56 (finding no evidence of communication to date). Nor has the Commission provided an explanation based on the evidence for what it expects may change in the future that would possibly result in communication when no communication has been observed to date. Stated simply, Commission **Finding Nos. 43-46** provide no substantial evidence for a conclusion that future communication resulting in impairment or waste is possible.

Nor can Dr. Buchwalter's model provide substantial evidence for the Commission's findings. The model is fundamentally unreliable and speculative because it does not account for substantial volumes of water produced from and injected into the San Andres over the timeframe of the model. As Dr. Buchwalter admitted, he did not confirm the validity or accuracy of the data or input ranges provided by Empire for his model. Buchwalter 2/28/25 Tr. 919:6-914:15; 1050:10-18. Dr. Buchwalter also admitted that if all water supply wells and withdrawal volumes were included in the model that had been left out, the model "would never work, not even close." Buchwalter 2/28/25 Tr. 1027:4-7, 1026:18-1027:7, 1024:19-25, 1025:1-1026:5; 1108:15-19; GN Ex. B-19. This admission alone renders Dr. Buchwalter's analysis useless. Similarly, based on the exclusion of substantial volumes of nearby disposal wells, Dr. Buchwalter testified "[Y]ou're not going to come up with the pressure in the San Andres in 1986 and currently if you put in all these wells. So that is real data that needs to be matched." Buchwalter 4/28/25 Tr. 1031:4-21; 1032:2-15; 1034:10-20; 1035:17-1036:14; 1108:15-19. Dr. Buchwalter's model never matched that data because it was not included, making his model, and the conclusions he drew from it, unreliable and invalid.

Proof that Dr. Buchwalter's model is unreliable and invalid is demonstrated by its inability to even reasonably predict simple volumes and pressure responses. For example, his model predicts that 23,000-24,000 barrels of water per day are currently moving into the Grayburg in the EMSU as a result of Goodnight's San Andres injection, but actual water production data shows the EMSU is consistently injecting about 70,000 barrels of water per day and producing about 70,000 barrels per day from the Grayburg. This data shows that the predicted response in water production from the alleged influx of more than 20,000 barrels per day into the Grayburg does not exist. GN FOF 103(i). Similarly, the model predicts that for every 1 million barrels of water Goodnight injects into the San Andres, San Andres pressure will increase by about 4 psi; however, bottom-hole shut-in pressure data shows that after 39.3 million barrels were injected through Goodnight's ten disposal wells over a nine-month period the pressure actually increased only about 0.25 psi per million barrels injected. McGuire 5/19/25 Tr. 73:10-74:9; Knights 4/22/25 Tr. 213:6-214:5; 214:14-15; McBeath Supplemental, Ex. F ¶¶ 8-9; GN FOF 103(i). Actual data shows Dr. Buchwalter's model predictions are orders of magnitude off. His model is wildly unreliable and provides no basis for substantial evidence.

The Commission's conclusion that "the model shows to a reasonable degree that water is moving from the San Andres into the Grayburg" is not substantiated by any direct evidence in the record—the Commission merely cites to Empire's closing brief and a single line in Dr. Buchwalter's testimony in support of this conclusion where he states he does not see how water could not be migrating from the San Andres into the Grayburg but includes no basis for the opinion. *See* Order ¶ 47 (citing Buchwalter TR. 2/27/25 at 766:11). Empire's closing brief is argument of counsel, not evidence and cannot, therefore, serve as substantial evidence. "The mere assertions and arguments of counsel are not evidence." *Garcia v. Garcia*, 2010-NMC-14, ¶ 75 (citing *Muse v. Muse*, 2009-NMCA-3, ¶ 51); *see also Henning v. Rounds*, 2007-NMCA-139, ¶ 2 ("[A]rguments of counsel are not evidence."); *G & G Servs., Inc. v. Agora Syndicate, Inc.*, 2000-NMCA-3, ¶ 51; *Fitzsimmons v. Fitzsimmons*, 1986-NMCA-029, ¶ 25 ("[C]ounsel's beliefs and statements cannot be considered as evidence."). The Commission's conclusion is further

contradicted by the record evidence and the Commission's own subsequent findings that "Empire has not identified production data from any particular well within the EMSU that shows evidence of impacts from Goodnight's disposal operations in its production or operation[.]" (Order ¶ 55), and the that there is "no communication between the San Andres and Grayburg" based on the material balance evidence of "volumes and pressure." Order ¶ 56 (emphasis added).

The Commission's findings do not support with substantial evidence the conclusion that there is the possibility of future impairment of correlative rights or waste in the EMSU.

C. The Commission's Order is not Based on Substantial Evidence to the Extent it Suspends Goodnight's Injection Before Commencement of a CO2 Pilot Project.

The Order states that to "provide Empire the opportunity to establish a CO2 EOR pilot project within a period of 3 years" it denies Goodnight's five new proposed injection wells, denies the request to increase the injection rate in Case No. 23775, and suspends Goodnight's existing injection wells within the EMSU (i.e., Dawson, Banks, Sosa, and Ryno) but leaves implementation of suspension of injection to the Division. *See* Order at Decretal pp. 12-13.

Under the Order's findings, however, there is no evidentiary basis to suspend or shut in Goodnight's active injection in its four wells until Empire commences injection through a CO2 EOR pilot project and only if it specifically targets Goodnight's disposal zone. The only basis the Order provides for suspending Goodnight's injection is that it will allegedly interfere with a CO2 EOR flood and its economics. Order ¶ 40. Specifically, the Order states, quoting directly from Empire's engineering witness, that "to perform a successful CO2 flood EOR project, the injection of CO2 and water must be monitored closely and adjustments made based upon design." *Id.* For that reason, the Order concludes—quoting again directly from Empire's engineering witness—"Goodnight's SWD wells cannot dispose of water when Empire's active CO2 flood is being performed without adversely effecting economics." *Id.* (emphasis added). Rejecting Empire's argument that immediate shut in of Goodnight's wells is necessary or intended, the Commission declined to extend its conclusions to include the very next sentence of

Empire's engineering witness testimony: "To prevent further damage caused by these wells, they should be shut in immediately." *Compare* Order ¶ 40 with Empire Ex. I at 12, ¶ 44.

The Commission mistakenly concludes that Goodnight's six applications must be denied because injection of produced water "conflicts with Empire's exclusive rights to extract oil in the EMSU and approval would contradict the responsibility of the Commission to prevent drowning by water of any stratum capable of producing oil." Order ¶ 40. As discussed below, the Commission's conclusion that Empire has exclusive rights to develop the ROZ in the EMSU under Order No. R-7765 is erroneous. Similarly, its conclusion that injection in the San Andres disposal zone contradicts the Commission's responsibility to prevent drowning by water of any stratum capable of producing oil is also legally erroneous and not supported by substantial evidence.

Under the Oil and Gas Act, the Commission's authority is limited to protecting strata that are capable of "producing oil or gas or both oil and gas in paying quantities[".] NMSA § 70-2-12 (emphasis added). The Commission substantially misstates its regulatory obligation by excluding the statutory language requiring protectable strata to have hydrocarbons that are recoverable and economic. More than that, the Commission subsequently finds that Empire has not established the ROZ it targets in either the Grayburg or San Andres are actually recoverable (Order III(D) ¶¶ 57-60) and has made no finding that the purported ROZ is recoverable in "in paying quantities," as required. *See also* Order No. R-7637 at 2, ¶ 6 (finding that injection of "produced water into the proposed disposal interval will not cause the premature drowning by water of any zone capable of producing commercial quantities of oil and gas in the area"). Without both findings—supported by substantial evidence—the Commission has no basis to deny Goodnight's applications or to suspend Goodnight's injection, especially not before Empire has an approved CO2 pilot project that targets the San Andres disposal zone and actually commences injection. The conclusion that approving Goodnight's applications "will contradict the responsibility of the Commission to prevent drowning by water of any stratum capable of producing oil" is equally unsupported by substantial evidence to the extent it was intended to address existing EMSU production in the

Grayburg.. The Commission found that Goodnight's injection is not currently impairing Empire's correlative rights in the Grayburg because there is substantial evidence showing "no communication between the San Andres and Grayburg[.]" Order ¶ 56.

Finally, as Empire's engineering witness admitted, ROZ hydrocarbons are immobile and mobilized only through injection of CO₂. West 4/10/25 Tr. 86:3-6; *see also* Birkhead 2/26/25 Tr. 552:13-18. Goodnight's continued injection will have no adverse impact on Empire's proposed CO₂ flood operations. *See, e.g.*, Davidson 4/21/25 Tr. 256:3-20 ("[T]he fact that it's an ROZ and the oil is not mobile . . . the injection is not moving the oil anywhere."); GN FOF 116-123.

The Order provides no substantial evidence for suspending Goodnight's injection before Empire obtains approval for a CO₂ pilot project and commences CO₂ injection flood operations.

D. The Commission's Conclusion that Goodnight Did Not Prove Existence of a "Continuous Barrier" is Not Based on Substantial Evidence.

Notwithstanding the improper imposition of a new "continuous barrier" standard (discussed *supra* § I(A), the Commission found that Goodnight failed to adduce substantial evidence of a single continuous barrier between the Grayburg and San Andres across the entire 14,000 acres of the EMSU and, therefore, did not refute the potential for future correlative rights impairment or waste. Order III(B).

Contrary to the Commission's findings, Goodnight's witness, Mr. McGuire, did map a confining zone in the lower Grayburg and Upper San Andres across the extent of and directly overlying Goodnight's injection area within the EMSU. Goodnight Exhibit B-9 depicts a continuous confining zone that is correlated across all well logs and the injection area isolating Goodnight's disposal interval from the overlying Grayburg producing interval. *See* Goodnight Ex. B-9, attached as **Exhibit 15**. Specifically, it shows a confining zone that limits the upward migration of fluids between all four existing disposal wells (Banks, Sosa, Dawson, and Ryno) and the overlying Grayburg producing interval that is correlated across the entire injection area, including the EMSU-460 and EMSU-462. *Id.* In support of its conclusion that Goodnight failed to establish a continuous barrier, the Commission improperly relies on Empire's closing brief, not on evidence in the record. *See* Order ¶ 52a-f; *Garcia v. Garcia*, 2010-NMC-14, ¶ 75 ("The mere

assertions and arguments of counsel are not evidence.”). Arguments of counsel are not substantial evidence, especially given Goodnight’s contrary evidence identifying a continuous confining zone.

E. The Commission’s Order Requiring Proof of a Single “Continuous Barrier” Across the Entire EMSU is not Based on Substantial Evidence.

The Order concludes that Goodnight failed to establish a single continuous barrier “that was radially/laterally mappable . . . across the 14,000+ acres of the EMSU.” Order III(B) ¶ 52f (citing to Empire Closing Brief, at 17). In addition to relying on the argument of Empire’s counsel rather than record evidence, the Commission’s conclusion that Goodnight is required to map a continuous barrier across the EMSU is not supported by substantial evidence. Nowhere does the Commission provide a legal or factual basis for imposing a continuous barrier requirement across more than 14,000 acres.

As noted above, the Commission did not require a similar showing of a single continuous barrier overlying the EMSU’s Grayburg waterflood injection in 1984. Nor is such a showing required for Class II injection approvals. Only for purposes of Class I hazardous waste injection is proof required that a confining zone be “laterally continuous and free of transecting, transmissive faults or fractures” and then it is necessary to show only over an area sufficient to prevent movement of fluids into ground water. *See* 20.6.2.5352(C)(2) NMAC. *See, supra*, § I(E). The Order provides no legal or factual basis supported by substantial evidence to justify imposing a Class I hazardous waste standard requiring proof of a “laterally continuous” confining zone or the conclusion that Goodnight’s injection will extend across 14,000+ acres.

V. The Commission Lacks Authority to Enter the Order Absent a Finding of Recoverable Hydrocarbons and Impairment of Correlative Rights.

The Commission lacks jurisdiction to order Goodnight to suspend its disposal operations without finding that such action is necessary to prevent waste or protect correlative rights. Such findings are necessary prerequisites to the validity of the Order because those findings are foundations to the Commission’s authority to act. “[A]n order which failed to include a finding of the jurisdictional fact upon which its issuance is conditioned by the legislature” is invalid and void. *See Cont’l Oil Co. v. Oil Conservation Comm’n*, 1962-NMSC-062, ¶ 16, 373 P.2d 809 (quoting *Hunter v. Hussey*, 90 So.2d 429,

441 (La. App. 1956)). The Commission's authority is conveyed through statute and is bound by the contents of those statutes. NMSA 1978, § 70-2-11; *see Cont'l Oil Co.*, 1962-NMSC-062, ¶ 11. In addition, "[t]he Commission cannot grant equitable remedies[.]" *AA Oilfield Serv. v. N.M. State Corp. Comm'n*, 1994-NMSC-085, ¶ 18, 881 P.2d 18. The Commission's legislative purpose is to prevent waste and protect correlative rights, but before that purpose can be fulfilled, there must be a showing of recoverability. NMSA 1978, § 70-2-3 (defining waste in relation to "the total quantity of crude petroleum oil or natural gas ultimately recovered"). The Order is invalid because it seeks to enjoin Goodnight's duly authorized injection without a requisite finding that doing so is necessary to prevent the waste of recoverable hydrocarbons.²⁸ The Commission properly found that Empire failed to prove that hydrocarbons within the alleged ROZ (which included Goodnight's San Andres disposal zone) are recoverable. Order III(D). This finding alone renders the Order suspending Goodnight's injection void. *Cont'l Oil Co.*, 1962-NMSC-062, ¶ 16.

The Order instead purports to protect against the "possibility" of future waste or impairment where there has not yet been a showing that the alleged reserves to be protected are even recoverable, economic, or that injection from Goodnight's disposal has or will impair recovery in either the Grayburg or San Andres. Order at III(C). The Commission found only that there was a "potential for FUTURE impairment or waste in the EMSU" but, as discussed above, that finding is premised on an invalid evidentiary standard that improperly shifted the burden of proof from Empire to Goodnight. Order III(B) (emphasis retained). *See supra* at § I(B).

These compounded potentialities—contingent, first, on proof of recoverability and, second, on potential future impairment of the Grayburg and San Andres from Goodnight's injection, which is itself contingent on proof of future loss of confinement of injection fluids from the disposal zone—make the

²⁸ This jurisdictional fact distinguishes Order No. R-24004 from the holding in *Grace v. Oil Conservation Comm'n of N.M.*, 1975-NMSC-001, ¶ 11, 531 P.2d 939 and *Cont'l Oil Co. v. Oil Conservation Comm'n*, 1962-NMSC-062, ¶ 11, 373 P.2d 809 where there was no dispute as to the recoverability of the oil or gas at issue or the Commission's jurisdictional authority to enter an order.

Commission's Order to suspend Goodnight's permits and injection an ultra vires act, outside the Commission's statutory jurisdiction to prevent waste and protect correlative rights and contrary to Commission's governing authorities. At a minimum, this aspect of the Order is arbitrary and capricious and not in accordance with the law because the findings necessary to suspend and shut in Goodnight's injection are completely lacking. *See* NMSA 1978, § 39-3-1.1.

VI. The Order Erroneously Expands Empire's Authority Under Order No. R-7765.

The Commission denied Goodnight's applications and suspended its existing injection operations within the EMSU partly based on a flawed construction of the Commission's prior orders and authority under the Statutory Unitization Act (the "Act"). According to the Commission, it denied Goodnight's applications and suspended its existing injection, in part, because "Empire has the exclusive rights to produce the ROZ in the EMSU" based on the EMSU Order. Order II(A). The Commission's misapprehension of the EMSU Order and its overarching statutory powers led the Commission to erroneously conclude the Commission granted Empire the exclusive rights to produce any ROZ in the EMSU and that Empire has broad discretion to decide how best to extract hydrocarbons from the EMSU. Order II(A) ¶¶ 14-27. The Commission's Order exceeds the limited authority carefully articulated and conveyed through the EMSU Order, which unitized the EMSU only for purposes of secondary recovery through waterflood operations, and otherwise substantially circumscribes Empire's authority and discretion. It was error, therefore, for the Commission to have denied Goodnight's applications on the basis that the EMSU Order granted Empire exclusive rights to produce an ROZ or to decide how best to produce oil in the EMSU.

In 1984, Empire's predecessor, Gulf, asked the Commission to create the EMSU for the explicit purpose of conducting "a waterflood project for the secondary recovery of oil and associated gas, condensate, and all associated liquifiable hydrocarbons within and to be produced from the proposed unit area." **Ex. 5**, ¶ 14. To assist the Commission in evaluating Gulf's proposal, owners within the EMSU formed a technical committee that "evaluate[d] aspects of unitization and operation of the proposed

secondary recovery operation (waterflood).” *Id.* at ¶ 15. Relying on the technical committee’s conclusions, the Commission authorized Gulf’s proposal and granted it authority “to institute a secondary recovery project for the recovery of oil and all associated and constituent liquid or liquified hydrocarbons within the unit area.” *Id.* at Decretal ¶ 4 (emphasis added). Gulf did not request authority to conduct a carbon dioxide flood; the technical committee did not evaluate the operation of a carbon dioxide flood; and the Commission did not authorize Gulf to operate a carbon dioxide flood. The EMSU Order authorized statutory unitization only for the purpose of conducting secondary waterflood operations. *See id.* at ¶ 4. Moreover, the Commission’s conclusion that under the EMSU Order “Empire has the exclusive rights to decide how to best extract oil in the EMSU” contravenes the limited authorizations granted under the express terms of that order. Empire currently has no right to conduct a carbon dioxide flood under the EMSU Order, the Statutory Unitization Act, or under any other order issued by the Commission. Empire must apply for separate, additional approval to amend the EMSU Order to expand its authority under the Statutory Unitization Act to include carbon dioxide flooding as a method of operations to recover the alleged ROZ within the EMSU, in addition to obtaining separate Class II UIC approval to inject carbon dioxide for enhanced oil recovery. And, as expressly stated in the Unit Agreement and Unit Operating Agreement, which are incorporated by reference into the EMSU Order, Empire explicitly lacks authority to implement a method of enhanced oil recovery operations in the EMSU different than what was expressly approved by the parties to those agreements and authorized by the Commission.

A. The EMSU Order Does Not Grant Authority for a CO2 Flooding Project.

Under the Act, as a requirement for unitization, an applicant must specify the type of operations the applicant will implement to explore and produce unitized substances. *See* NMSA § 70-7-5(C). Applicants must also establish that “the estimated additional costs, if any, of conducting such operations will not exceed the estimated value of the additional oil and gas so recovered plus a reasonable profit.” § 70-7-6(A)(3). Similarly, the Commission is required to find that the specified “unitized method of operations as applied” to the unitized “pool or portion thereof is feasible, will prevent waste and will result

with reasonable probability in the increased recovery of substantially more oil and gas from the pool or unitized portion thereof than would otherwise be recovered.” § 70-7-6(A)(2). Based on the Act’s requirements, the Commission authorized only secondary recovery through waterflood operations in the EMSU.

In granting Empire’s predecessor authority for secondary recovery operations, the Commission made numerous predicate findings necessary under the Act to authorize waterflood operations—and only waterflood operations—to be conducted within the EMSU. For example, the Commission found the proposed “‘unitized formation’ will include the entire oil column under the unit area permitting the efficient and effective recovery of secondary oil therefrom.” **Ex. 5** at ¶ 10 (emphasis added); *see also Id.* at ¶ 14 (finding unit operations are for purposes of instituting a “waterflood project for the secondary recovery of oil”). It found that the “unitized management, operation, and further development of the unit, as proposed, is reasonable and necessary to effectively and efficiently carry on secondary recovery operations and will substantially increase the ultimate recovery of oil and gas from the unitized formations.” *Id.* at ¶ 18 (emphasis added). The Commission found “The proposed unitized method of operation applied to the Unit Area is feasible and will result with reasonable probability in the increased recovery of substantially more oil from the unitized portion of the pool than would otherwise be recovered without unitization.” *Id.* at ¶ 19 (emphasis added). The Commission also determined the “estimated additional investment costs of the proposed operations,” including capital costs necessary to institute the waterflood operations, will not exceed the value of the additional oil obtained plus a reasonable profit. *Id.* at ¶¶ 20-22 (emphasis added).

In issuing the Order, however, the Commission impermissibly expanded Empire’s authority and erroneously determined that Empire has the exclusive right to decide how best to extract oil in the EMSU and to produce the alleged ROZ pursuant to the EMSU Order. Order II(A). The EMSU Order never authorized CO2 flood operations in the EMSU or any other type of enhanced oil recovery operation necessary to produce an ROZ—it was expressly limited to secondary recovery operations through

waterflooding. Nor did the Commission make findings necessary to authorize CO2 flood operations in the EMSU. The profitability of Empire's proposed San Andres CO2 flood—including capital costs—was never presented to the Commission, and still has not been presented, as required. *See* § 70-7-6(A)(2)-(3). The Commission has never found that a San Andres CO2 flood would be profitable, as required. *See* **Ex. 5**, ¶ 22.²⁹ The Commission therefore has erroneously expanded Empire's rights and authority regarding CO2 flood operations in the EMSU beyond the approved secondary recovery operations before the necessary showings have been made and before any such necessary authority has been issued under the requirements of the Act and the UIC permitting program. Accordingly, the Order is in direct contravention of the Act, the Division's UIC permitting requirements, U.S. EPA's primacy authority, and the EMSU Order, which expressly limits approved operations to secondary recovery through waterflood operations.

B. The EMSU Order Did Not Grant Empire Exclusive Rights to “Decide How to Best Extract Oil in the EMSU.”

Without citation to specific authorization in the EMSU Order, or the Statutory Unitization Act, the Commission erroneously concluded that “Empire has the exclusive rights to decide how to best extract oil in the EMSU.” Order ¶ 27. In apparent substantial reliance on Section 10 of the Unit Agreement, however, the Commission misconstrued the Unit Agreement as conveying, through the EMSU Order, broad authority for Empire to act in its discretion within the EMSU. But construction of Section 10 must be evaluated as a whole and in context with governing law, including the limitations imposed by the EMSU Order. When read together with key provisions in the Unit Agreement and Unit Operating Agreement, the EMSU Order does not grant Empire “exclusive rights to decide how best to extract oil in the EMSU”; instead, it substantially constrains Empire's authorized operations to only what has been approved—secondary recovery through waterflood injection.

²⁹ Limiting finding of profitability to proposed waterflood operations. *See also* Ex. 1, OCC Case No. 8397-8399 Tr. 76:4-77:10, 105:11-107:5, 109:13-110:16 (outlining waterflood profitability analysis); *id.* at 224:22-25 (EMSU waterflood is limited to the Grayburg and Lower Penrose and excludes San Andres); *id.* at 214:23-215:1 (San Andres formation is a non-productive water source); Ex. 2 at 3; Ex. 3; Ex. 4.

First, the Unit Agreement and Unit Operating Agreement, while incorporated by reference into the EMSU Order, are also expressly subject to the limitations imposed by the EMSU Order, as they must be, because the EMSU is a statutory creation, its ultimate existence and operation is completely subject to the provisions and requirements of the Statutory Unitization Act and the Commission's orders. *See* **Ex. 11**, § 39 (incorporating provisions to “automatically” revise the Agreement “in any and all respects necessary to conform” to the Commission's orders affecting statutory unitization); **Ex. 12**, Art. 21.1 (making the agreement “subject to all valid laws and valid rules, regulations and orders of all regulatory bodies having jurisdiction and to all other applicable federal, state, and local laws, ordinances, rules, regulations and orders; and any provision of this Agreement found to be contrary to or inconsistent with any such law, ordinance, rule, regulation or order shall be deemed modified accordingly”) (emphasis added). In addition, the Commission retains continuing jurisdiction over the EMSU Order “for entry of such further orders as the Commission may deem necessary.” *See, e.g.*, **Ex. 5**, Decretal ¶ 11. Accordingly, the EMSU Order constrains and limits Empire's authority to operate the EMSU to only the method of operations approved—which is secondary recovery through waterflood operations. *See, supra*, § VI(A).

Second, under Section 6 of the Unit Agreement, Gulf is designated unit operator “for the operation, development, and production of Unitized Substances, as herein provided.” **Ex. 11**, § 6 (emphasis added). Because the Unit Agreement is modified and amended to conform to the EMSU Order, the operation, development and production Empire is authorized to conduct is necessarily limited to secondary recovery through waterflood operations.

Third, Section 11 of the Unit Agreement limits the type of operations Empire may conduct to only those which have been approved “by the Working Interest Owners, the [BLM Authorized Officer], the Land Commissioner and the Division[.]” **Ex. 11**, § 11 (emphasis added). Empire therefore does not have exclusive authority to decide how to best extract oil in the EMSU; Empire's rights are constrained by what the other parties have agreed to include in the plan of operation, which is currently limited to secondary recovery through waterflood injection.

Fourth, Article 3.2 of the Unit Operating Agreement expressly provides that it is the “Working Interest Owners,” not the Unit Operator, who decide through a specified voting procedure matters pertaining to Unit Operations, which include “[t]he kind, character and method of operation, including any type of pressure maintenance, secondary recovery or other enhanced recovery program to be employed.” **Ex. 12**, § 3.2. (emphasis added). It is therefore patently incorrect to conclude Empire has the exclusive right to decide how best to develop oil in the EMSU—it is the Working Interest Owners who decide.

Finally, Empire’s rights to operate the EMSU are further constrained under Article 3.2.2. Pursuant to this provision, Empire is not allowed to drill, deepen, or sidetrack “any well within the Unit Area” unless approved by vote of the Working Interest Owners. **Ex. 12**, § 3.2.2. Similarly, under Article 3.2.3, Empire is not authorized to rework, recomplete or repair any well for purposes of producing Unitized Substances if the cost is reasonably expected to exceed \$35,000, nor can Empire unilaterally make “any single expenditure in excess of” \$35,000, as provided in Article 3.2.4. *Id.* at §§ 3.2.3-.4.

Contrary to the Order, Empire’s rights to operate the EMSU are severely constrained by the EMSU Order. The only exclusive right Empire has in the EMSU is to operate the previously approved waterflood. The Commission’s decision to deny Goodnight’s applications on grounds that its proposed injection may someday interfere with Empire’s “exclusive rights” is misplaced. This is especially true when the Commission expressly found that Goodnight’s existing injection has not impaired Empire’s waterflood operations. Order III(C) ¶¶ 54-56. The only exclusive rights Empire has within the EMSU have been found to be unimpaired by Goodnight’s injection. Accordingly, there is no legal or factual basis to deny Goodnight’s new disposal well applications on these grounds.

VII. The Order Risks Immediate Waste Instead of Preventing It.

The Oil and Gas Act imbues the Commission with broad authority to protect against waste and impairment of correlative rights. NMSA 1978, § 70-2-11. But, as limited and defined by the Oil and Gas Act, both waste and correlative rights exist only when hydrocarbons are recoverable in paying quantities.

See NMSA 1978, § 70-2-3; § 70-2-12(B)(4); *Cont'l Oil Co.*, 1962-NMSC-062, ¶ 11. The Commission's jurisdiction, broad as it may be, is still confined to instances involving commercial quantities of recoverable oil and gas. The Order clearly finds that there is no proof that the hydrocarbons Empire's claims are at risk of impairment and waste are recoverable or commercial, but then temporarily suspends Goodnight's valid injection permits and applications for five new injection wells on the grounds that Goodnight failed to refute the potential for future impairment or waste in the EMSU. Order III(A)-(B), Decretal pp. 12-13. The Commission then goes one step further, finding that while future waste and impairment of correlative rights are possible, Empire has not shown that Goodnight's activity is currently causing waste or impairing its rights. *Id.* at III(C).

Because the Commission's authority to act requires a finding that hydrocarbons are recoverable and economic, the Commission erred in prioritizing impacts to an unproven ROZ over impacts to existing production. Future waste or impairment of unproven resources at the expense of existing production violates the Oil and Gas Act. In prioritizing protecting against a theoretical risk for "potential" "future impairment," the Order unreasonably and improperly risks immediate impact to the 34,000 barrels of daily oil production that may not be produced without Goodnight's disposal. See generally, **Ex. 14**. Contrary to its statutorily imposed duty, and public interest, the Commission's Order substantially increases the risk of waste rather than protects against it.

VIII. Alternative Relief Requested.

Goodnight's injection capacity for its wells affected by the Order is approximately 105,000 barrels of produced water per day, meaning that Goodnight facilitates the production of approximately 34,000 barrels of crude oil per day through its four injection wells in the EMSU. See **Ex. 14** at Ex. A, Self-Affirmed Statement of Grant Adams, ¶ 2. That is production that will be immediately and irreparably impacted if the Order's suspension mandate takes immediate or near-immediate effect. As much as 8%-10% of Lea County's operable disposal capacity will be shut-in with the loss of Goodnight's four wells. *Id.* ¶ 13. And if Goodnight's customers are unable to immediately find alternative disposal operators able

to replace Goodnight's disposal capacity, that would result in a loss of 32 to 37 million barrels of oil production over the Order's three-year shut-in period. *Id.* ¶ 13. Goodnight's disposal operations are therefore critical to ongoing oil and gas development in the state of New Mexico. *See generally*, **Ex. 14**.

Given the complexities of Goodnight's operations and facilities, shutting in Goodnight's four wells cannot be accomplished quickly without risk of damage to Goodnight's infrastructure and adverse impacts to offsetting producers who rely on Goodnight's disposal. To the extent suspension of injection is mandated, orderly curtailment implemented incrementally over time will help avoid the most significant adverse impacts to Goodnight, offsetting producers, as well as third-party disposal operators, who will be expected to make up lost disposal capacity. Incremental curtailment will also allow timely notice to producing operators and third-party disposal companies to make preparations and alternative arrangements—including additional capital expenditures and physical connections—necessary to potentially avoid the need to shut in producing wells for lack of produced water disposal capacity.

Separately, the Order currently imposes no requirements on Empire to undertake any expenditures, analysis, or planning necessary to timely institute a CO2 EOR pilot project within the three-year period under the Order. As drafted, nothing ensures Empire will even attempt to prove the purported hydrocarbons in the purported ROZ are economically recoverable. As a consequence, with no requirements for intermittent reporting, status updates, or demonstration of incremental milestones, Empire can sit back and do nothing under the Order for three years to the severe detriment of Goodnight, offsetting producers, the state, and the public interest.

Goodnight's operations provide a substantial and present benefit that reaches far beyond its own gain. *See generally*, **Ex. 14** (reciting benefits of Goodnight's injection). In contrast, Empire's EMSU currently produces only about 800 barrels of oil a day. Order at ¶ 54. Not only has Goodnight already provided a substantial and demonstrable benefit to the public, but operations of this volume and frequency cannot simply come to an immediate stop without causing delay and other harms to operators of oil and gas who rely on this disposal.

Accordingly, a mandate to shut in or curtail Goodnight's injection should be imposed in an orderly manner and only if Empire's proposed CO2 EOR pilot project actually targets Goodnight's San Andres disposal zone. If Empire's proposed CO2 EOR pilot project targets ROZ intervals above the top of Goodnight's confining zone at -672 feet subsea, Goodnight should not be required to shut in or curtail injection in any of its four injection wells in the EMSU unless and until Empire is able to demonstrate that Goodnight has "exhibited failure to confine injected fluids to the authorized injection zone," and then only until Goodnight "has identified and corrected the failure." 19.15.26.10(E) NMAC.

A. Pursuant to the Order's Express Language, Goodnight Should be Allowed to Continue Operating Until Empire Actually Begins its CO2 Flood.

As discussed above, Goodnight disagrees that its injection operations prevent Empire from concurrently conducting a CO2 pilot project in the EMSU for all the reasons outlined in this Application and its Findings of Fact, as well as the fact that the only reasonable ROZ target supported by the evidence is located above the top of Goodnight's confining zone at -672 feet subsea.

Accordingly, Goodnight maintains its position that there is no legal or factual basis to require it to shut in its existing injection operations in the EMSU. However, to the extent the Commission maintains its position that "Goodnight's SWD wells cannot dispose of water when Empire's active CO2 flood is being performed[.]" Goodnight respectfully requests the Commission amend the Order to clarify that, in implementing the Order, the Division is authorized to allow Goodnight to continue injection operations in its Dawson, Banks, Sosa, and Ryno disposal wells under their respective permits until Empire has (1) obtained the necessary regulatory approvals for a CO2 EOR pilot project that targets Goodnight's disposal zone;³⁰ (2) implemented the necessary capital expenditures and facility modifications to conduct a CO2 EOR pilot project; (3) obtained the necessary CO2 for injection as proposed; (4) and is otherwise prepared to immediately commence CO2 flood operations in connection with an approved CO2 EOR pilot project.

³⁰ Goodnight maintains and re-urges that a project of this nature is subject to the issuance of the necessary permits by the Division, and is woefully premature at this time.

B. If Goodnight is Required to Shut in Injection Before Empire Commences a CO2 Pilot Project, it Should be Required to do so Only Incrementally as Empire Meets Specific Pilot Project Milestones.

Similarly, for the same reasons cited above, to the extent either the Commission or Division (in implementing the Order) determine that Goodnight should be required to suspend its injection operations at any time up to and including initiation of injection for a CO2 EOR pilot project, Goodnight respectfully requests the Commission amend the Order to allow Goodnight to shut in its injection operations incrementally over a period of no less than six months as Empire fulfills certain milestones necessary for implementing a CO2 EOR pilot project, as determined by the Commission, such as: (1) obtaining the necessary regulatory approvals for a CO2 EOR pilot project that targets Goodnight's disposal zone; (2) implementing the necessary capital expenditures and facility modifications to conduct a CO2 EOR pilot project; (3) obtaining the necessary CO2 for injection; (4) and otherwise has demonstrated all technical, financial, regulatory and contractual requirements are in place to immediately commence CO2 flood operations.

Goodnight requests that upon completion of each milestone, as confirmed by the Commission, Empire be required to present at a status conference before the Commission proof that it has met each milestone. Upon confirmation by the Commission, Goodnight will curtail its injection by reducing its maximum allowable surface injection pressure by 20% at each of its four wells as each milestone is met until such time as Empire has demonstrated it is otherwise prepared to immediately commence CO2 flood operations in connection with an approved CO2 EOR pilot project. At such time, Goodnight will fully suspend its injection operations at the four wells identified in the Order pending Empire's final report to the Commission on the results of the pilot project at the conclusion of the three-year period. If, at any time during the three-year period, Empire is unreasonably dilatory or demonstrates it is unwilling or unable to prove that ROZ is recoverable in paying quantities from Goodnight's disposal zone within the three-year period, the Commission, on Goodnight's motion or its own initiative, should terminate the three-year pilot project period and allow Goodnight's injection to resume unabated.

Given the substantial gross negative consequences to Goodnight and its operations, offsetting producers, the state, and the public interest resulting from the Order, the Commission should take all reasonably necessary steps to ensure Goodnight's disposal capacity that substantially supports offsetting production and benefits the state is not unnecessarily shut in or prematurely curtailed by providing for incremental curtailment of Goodnight's injection tied to Empire's demonstration that it sequentially meets reasonable project milestones. Doing so will help prevent waste and will protect correlative rights and the public interest.

CONCLUSION

For the foregoing reasons, Goodnight Midstream Permian respectfully requests the Commission grant the Application for Rehearing or adopt the proposed alternative relief.

Respectfully submitted,

HOLLAND & HART LLP

/s/ Adam G. Rankin

By: _____

Michael H. Feldewert
Adam G. Rankin
Nathan R. Jurgensen
Paula M. Vance
Post Office Box 2208
Santa Fe, NM 87504
505-988-4421
505-983-6043 Facsimile
mfeldewert@hollandhart.com
agrankin@hollandhart.com
nrjurgensen@hollandhart.com
pmvance@hollandhart.com

**ATTORNEYS FOR GOODNIGHT MIDSTREAM PERMIAN,
LLC**

CERTIFICATE OF SERVICE

I hereby certify that on October 2, 2025, I served a copy of the foregoing document to the following counsel of record via Electronic Mail to:

Ernest L. Padilla
Padilla Law Firm, P.A.
Post Office Box 2523
Santa Fe, New Mexico 87504
(505) 988-7577
padillalawnm@outlook.com

Dana S. Hardy
Jaclyn M. McLean
HARDY MCLEAN LLC
125 Lincoln Ave., Suite 223
Santa Fe, NM 87505
(505) 230-4410
dhardy@hardymclean.com
jmclean@hardymclean.com

Sharon T. Shaheen
Spencer Fane LLP
Post Office Box 2307
Santa Fe, New Mexico 87504-2307
(505) 986-2678
sshhaheen@spencerfane.com
cc: dortiz@spencerfane.com

Corey F. Wehmeyer
SANTOYO WEHMEYER P.C.
IBC Highway 281 N. Centre Bldg.
12400 San Pedro Avenue, Suite 300
San Antonio, Texas 78216
cwehmeyer@swenergylaw.com

Attorneys for Empire New Mexico, LLC

Jesse Tremaine
Chris Moander
Assistant General Counsels
New Mexico Energy, Minerals, and
Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
(505) 741-1231
(505) 231-9312
jessek.tremaine@emnrd.nm.gov
chris.moander@emnrd.nm.gov

***Attorneys for New Mexico Oil Conservation
Division***

Matthew M. Beck
PEIFER, HANSON, MULLINS & BAKER, P.A.
P.O. Box 25245
Albuquerque, NM 87125-5245
Tel: (505) 247-4800
mbeck@peiferlaw.com

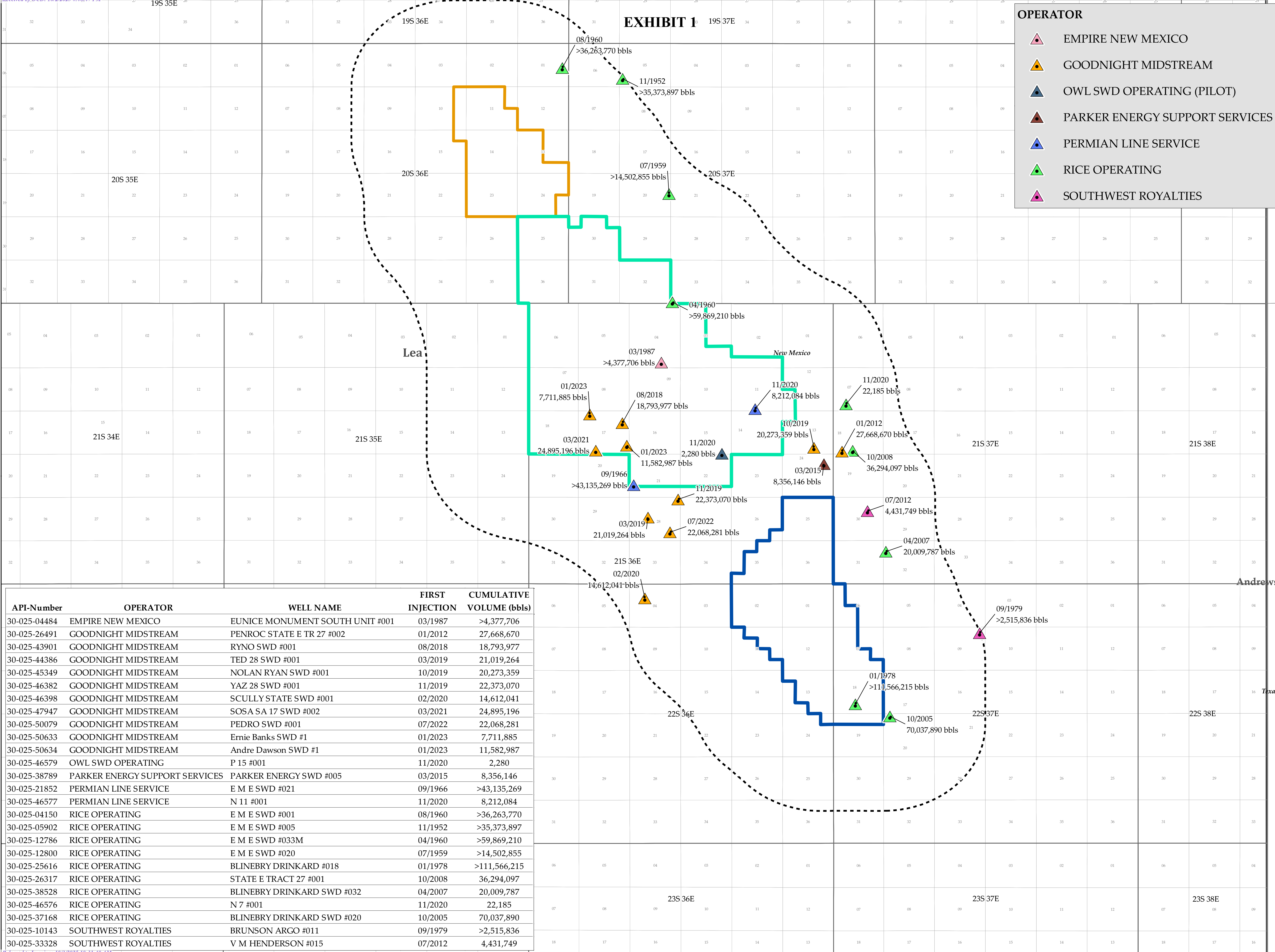
***Attorneys for Rice Operating Company and
Permian Line Service, LLC***

Miguel A. Suazo
BEATTY & WOZNIAK, P.C.
500 Don Gaspar Ave.
Santa Fe, NM 87505
Tel: (505) 946-2090
msuazo@bwenergylaw.com

Attorneys for Pilot Water Solutions SWD, LLC

Adam G. Rankin
Adam G. Rankin

35818327



San Andres SWDs

AGU Outline

EMSU Outline

EMSU -B

2 mile buffer

Printed Date: January 13, 2025

Document Path: C:\Users\james.madden\Desktop - Goodnight Midstream\Documents\Geology Reports\EMSU\EMSU 2025 JH1.mxd

Montana North Dakota Minnesota
Idaho Wyoming South Dakota Wisconsin
Utah Colorado Nebraska Iowa
Arizona New Mexico Kansas Missouri
Texas Arkansas
Louisiana

1 in = 1 miles

1 inch = 4,956 feet

Coordinate System: GCS WGS 1984
Datum: WGS 1984
Units: Degree

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GOODNIGHT MIDSTREAM

5910 N. CENTRAL EXPWY SUITE 800 | DALLAS, TX 75206

EXHIBIT 2

EMSU
679

Goodnight Midstream
Disposal

RR Bell
4

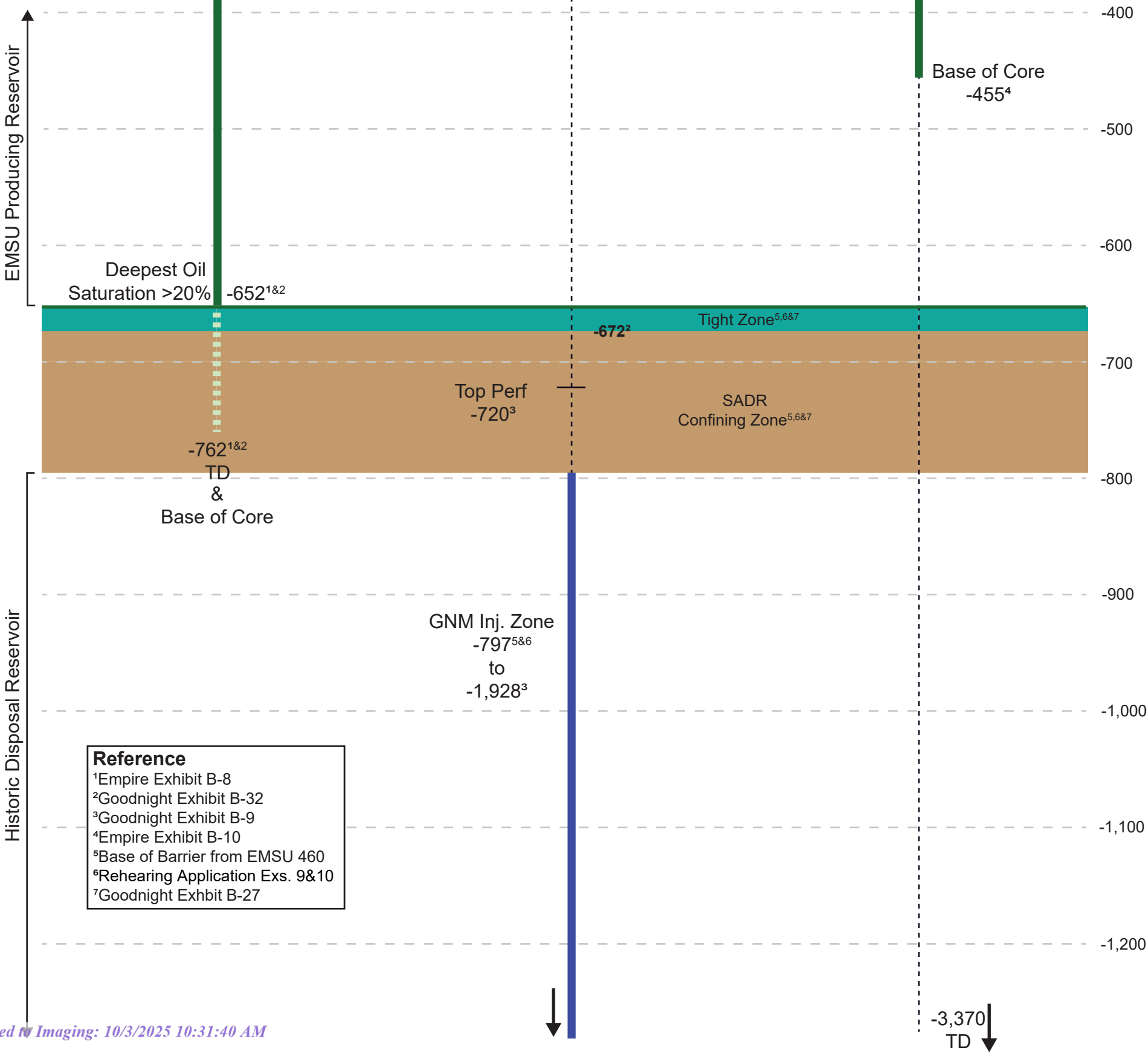


EXHIBIT 3

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO

7 November 1984

COMMISSION HEARING

VOLUME I OF II VOLUMES

IN THE MATTER OF:

Application of Gulf Oil Corporation CASE
for statutory unitization, Lea 8397
County, New Mexico.

Application of Gulf Oil Corporation CASE
for a waterflood project, Lea 8398
County, New Mexico.

Application of Gulf Oil Corporation CASE
for pool extension and contraction, 8399
Lea County, New Mexico.

BEFORE: Richard L. Stamets, Chairman
Commissioner Ed Kelley

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Jeff Taylor
Commission: Attorney at Law
 Legal Counsel to the Division
 State Land Office Bldg.
 Santa Fe, New Mexico 87501

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2 top of the Penrose as the top of the vertical interval, we
3 find that there are some advantages, that it is relatively
4 easily found on electrical logs, and that it will include
5 all the oil production interval except for wells on the ex-
6 tremes western edge of the unit; however, there are some sig-
nificant disadvantages to this.

7 First of all, the Upper Penrose, as has
8 been testified to this morning, is a gas productive interval
9 over most of the unit. Inclusion of a portion of the Eumont
10 gas interval, which we recognize as being gas productive,
11 would not be beneficial to the waterflood unit because the
12 gas zones do not contribute to the oil production and fur-
13 thermore it would create a problem where owners in the gas
14 zone who are not owners in the oil pool would have a problem
15 with equities. The equity problems would become a major
16 factor and the resolution for communitization would not be
17 probable in this event, where we have gas owners who are not
owners in the prospective oil waterflood.

18 So we looked at a third possibility. We
19 began examining the Penrose itself and tried to isolate some
20 marker in the mid-Penrose which might be identifiable across
21 the unit and I would refer you to Mr. Hoffman's testimony
22 this morning that there is, in fact, a tight zone in about
the mid-Penrose level which covers most of the unit area.

23 We began looking in that vicinity for a
24 top of the vertical limit.

25 The advantage, of course, would be that

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2 such a tight zone would exclude most of the gas productive
3 interval and it would allow us to include most of the oil
4 productive interval, but there are some disadvantages here
5 also.

6 This mid-Penrose marker would not include
7 all of the oil productive zone, as you can see by wells on
8 the western edge of the field, and furthermore, we were not
9 able to find a definitive marker that was available over the
entire unit.

10 So after we considered these three alter-
11 natives and could not really settle on any of these, we be-
12 gan an attempt to define in somewhat better measure the gas-
13 oil contact in the unit area and the surrounding areas.

14 Once again, as we looked at our comple-
15 tion interval schematics which you have in front of you,
16 some general correlations become clear, and as you run
through these, you might also pick these out.

17 In general there is reasonable separation
18 between the oil interval and the gas interval, regardless of
19 which cross section we look at in this package.

20 Also the zone from roughly sea level to -
21 100 feet below sea level is not particularly a productive
22 zone in any of the cross sections that we see.

23 At this point we also extended some of
24 Mr. Hoffman's cross sections further to the west to try to
25 identify the formations and the gas and oil productive in-
tervals to the west of our unit, and the result that we

EXHIBIT 4

MEETING MINUTES
Eunice Monument South Unit
Technical Committee and
Working Interest Owners' Committee

May 10, 1979 - August 25, 1983

<u>Transmittal Letter Date</u>	<u>Type/Meeting Date</u>	<u>Page</u>
July 31, 1979	WIO/May 10, 1979	1
	TC/July 26, 1979	9
February 18, 1982	TC/February 2, 1982	15
May 17, 1982	TC/May 5, 1982	24
March 4, 1983	TC/February 25, 1983	32
June 10, 1983	WIO/June 1, 1983	38
September 16, 1983	WIO/August 25, 1983	48

EXHIBIT NO. 21
Case No. 8397
November 7, 1984

Mr. Berlin introduced Mr. Tom Wheeler, who presented a summary of the Technical Committee efforts to define a vertical interval for the proposed unit using the following guidelines: (1) unitize all Eunice Monument production if possible, (2) include the entire continuous oil column within the unit area, (3) define an interval which will allow a reasonable waterflood possibility without affecting nonunitized formations. Mr. Wheeler discussed at length the alternatives which were evaluated as the top of the interval and pointed out the advantages and disadvantages of each choice. Mr. Wheeler reviewed the process which was used to attempt to define the gas-oil contact for the unit area. He then presented the Technical Committee recommendation for defining the vertical interval as follows:

"The unitized interval shall include the formations from a lower limit defined by the base of the San Andres formation, to an upper limit defined by the top of the Grayburg formation or a -100 foot subsea datum, whichever is higher."

Some owners expressed concern over the use of a subsea datum as part of the interval definition since this is not a common practice. Mr. Wheeler pointed out that Technical Committee members were aware of this problem, however, the Technical Committee was of the opinion that a two part definition was necessary to enable flooding of the entire oil productive zone within the unit area.

Mr. Landis stated that Amoco was concerned that there was a risk of oil and/or water being forced up into the gas formation above the Grayburg. This would cause a loss of revenue to the unit because of the lost oil, and a legal liability if gas wells were damaged as a result of waterflood operations.

Gulf representatives pointed out that while there is not sufficient quantitative log and core information to conclusively prove that there is no vertical communication between the oil and gas pools, there is no evidence to show that the pools are in communication. In fact there is significant information from production tests in wells to show that the interval from sea level to approximately -100 feet subsea is not productive of either oil or gas. From this information and the observation that gas productive intervals and oil productive intervals throughout the unit area are generally well segregated by this nonproductive zone, Gulf believes that the use of good operating procedures in monitoring and confining injection water, and keeping producing wells pumped off will reduce the risk of driving oil and/or water up into the overlying gas zone.

At this point Amoco asked to present their alternate definition for Committee vote, but agreed to table the vote until the presentation was concluded.

Mr. Wheeler continued the presentation by reviewing the major points of the preliminary design and cost estimate as outlined in the Technical Committee Report. The assumptions which were used as a basis for the preliminary design and cost estimate are presented on page 28 of the Report.

Mr. Wheeler presented the project secondary recovery estimates for the unit as discussed in the Technical Report and illustrated in Figure 96 of the Report.

EXHIBIT 5

STATE OF NEW MEXICO
DEPARTMENT OF ENERGY AND MINERALS
OIL CONSERVATION COMMISSION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION FOR THE PURPOSE OF
CONSIDERING:

CASE No. 8398
Order No. R-7766

APPLICATION OF GULF OIL CORPORATION
FOR A WATERFLOOD PROJECT, LEA
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This case came on for hearing at 9:00 A.M. on November 7, 1984, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW, on this _____ day of December, 1984, the Commission, a quorum having been present, having considered the testimony and the record and being otherwise fully advised in the premises,

FINDS THAT:

(1) Due public notice has been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Gulf Oil Corporation, in Commission Case 8398, seeks authority to institute a waterflood project in its Eunice Monument South Unit, by the injection of water into the unitized interval which shall include the formations which extend from an upper limit of 100 feet below mean sea level or the top of the Grayburg formation, whichever is higher, to a lower limit being the base of the San Andres formation in the proposed unitized area, all as shown on Exhibit "A" attached to this order.

(3) The subject Commission Case 8398 was consolidated for hearing with Commission Cases 8397 and 8399.

(4) Gulf proposes to utilize an 80-acre five spot injection pattern using a well number system and proposed

-2-

Case No. 8398
Order No. R-7766

Unit injection wells all as shown and identified on Exhibit "B" attached hereto.

(5) Said injection wells shall be conversions of existing wells or newly drilled wells as noted on said Exhibit "B".

(6) The proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(7) The producing formations in the proposed project area are in an advanced stage of depletion and the area is suitable for waterflooding.

(8) There are five wells within or adjacent to the proposed project which may not have been completed or plugged in a manner which will assure that their wellbores will not serve as a conduit for movement of injected fluid out of the injection interval.

(9) The five possible problem wells are identified and described on Exhibit "C" attached hereto.

(10) Prior to instituting injection within one-half mile of any of the five possible "problem wells" Gulf shall first contact the Oil Conservation Division's District Supervisor at Hobbs to develop a plan acceptable to the Director of said Division for repairing or replugging such wells, for monitoring for determination of fluid movement from the injected interval, or for the drilling of replacement producing wells to lower reservoir pressure and fluid levels in order to protect neighboring properties and to protect other oil or gas zones or fresh water.

(11) The operator should otherwise take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.

(12) The injection wells or injection pressurization system should be so equipped as to limit injection pressure at the wellhead to no more than 0.2 psi per foot of depth from the surface to the top injection perforation in any injection well, but the Division Director should have authority to increase said pressure limitation, should circumstances warrant.

-3-

Case No. 8398

Order No. R-7766

(13) The subject application should be approved and the project should be governed by the provisions of Rule 701 through 708 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Gulf Oil Corporation, is hereby authorized to institute a waterflood project in the Eunice Monument South Unit Area for the acreage described on Exhibit "A" attached hereto and made a part hereof, by the injection of water into the unitized interval which shall include the formations which extend from an upper limit described as 100 feet below mean sea level or at the top of the Grayburg formation, whichever is higher, to a lower limit being the base of the San Andres formation said geologic markers having been as found to occur at 3,666 feet to 5,283 feet, respectively, in the Continental Oil Company's Meyer B-4 Well No. 23 located 660 feet from the South line and 1980 feet from the East line of Section 4, Township 21 South, Range 36 East, Lea County, New Mexico.

(2) Applicant, Gulf Oil Corporation, is hereby authorized to utilize for injection purposes the wells identified and described on Exhibit "B" attached hereto and made a part hereof.

(3) The injection wells herein authorized and/or the injection pressurization system shall be so equipped as to limit injection pressure at the wellhead to no more than 0.2 psi per foot of depth from the surface to the top injection perforation, provided however, the Division Director may authorize a higher surface injection pressure upon satisfactory showing that such pressure will not result in fracturing of the confining strata.

(4) Injection into each of said wells shall be through plastic or cement-lined tubing, set in a packer which shall be located as near as practicable to the uppermost perforations, or, in the case of open-hole completions, as near as practicable to the casing-shoe; that the casing-tubing annulus shall be loaded with an inert fluid and equipped with an approved pressure gauge or attention attracting leak detection device.

(5) Prior to injection into any well located within one-half mile of any of the five wells listed on Exhibit "C" attached to this order, the applicant shall consult with the supervisor of the Oil Conservation Division's district office at Hobbs to develop a plan acceptable to

-4-

Case No. 8398
Order No. R-7766

the Director of said Division, for the repairing, plugging, or replugging of said wells or for the monitoring for determination of fluid movement from the injected interval or for the drilling of producing wells to lower reservoir pressure and fluid levels in the vicinity of said wells in order to protect neighboring properties and to protect other oil or gas zones or fresh water.

(6) The operator shall immediately notify the supervisor of the Division's Hobbs District Office of the failure of the tubing or packer in any of said injection wells, the leakage of water or oil from around any producing well, or the leakage of water or oil from any plugged and abandoned well within the project area, and shall take such timely steps as may be necessary or required to correct such failure or leakage.

(7) The authorized subject waterflood project is hereby designated the Eunice Monument South Unit Waterflood Project and shall be governed by the provisions of Rules 701 through 708 of the Commission Rules and Regulations.

(8) Monthly progress reports of the waterflood projects herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(9) Jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

-5-
Case No. 8398
Order No. R-7766

DONE at Santa Fe, New Mexico, on the day and year
hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

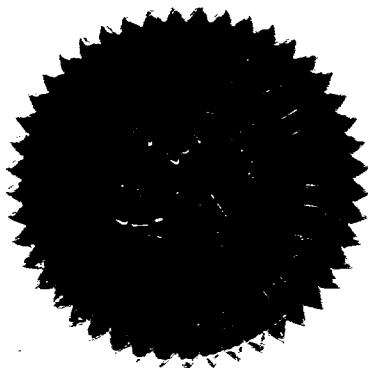
JIM BACA, Member



ED KELLEY, Member



R. L. STAMETS, Chairman and
Secretary



S E A L

LEA COUNTY, NEW MEXICO

TOWNSHIP 20 SOUTH, RANGE 36 EAST, NMPM

Section 25: All

Section 36: All

TOWNSHIP 20 SOUTH, RANGE 37 EAST, NMPM

Section 30: S/2, S/2 N/2, NE/4 NW/4 and NW/4 NE/4

Section 31: All

Section 32: All

TOWNSHIP 21 SOUTH, RANGE 36 EAST, NMPM

Section 2: S/2 S/2

Section 3: Lots 3, 4, 5, 6, 11, 12, 13, and 14
and S/2

Sections 4 through 11: All

Section 12: W/2 SW/4

Section 13: NW/4 NW/4

Sections 14 through 18: All

Section 21: N/2 and N/2 S/2

Section 22: N/2 and N/2 S/2

CASE NO. 8398
ORDER NO. R-7766
EXHIBIT "A"

LEA COUNTY, NEW MEXICO

UNIT WELL NO.	UNIT LETTER	SECTION-TOWNSHIP-RANGE SOUTH EAST	NEW WELL
101	C	30 20 37	N
102	A	25 20 36	
104	C	25 20 36	
106	E	25 20 36	
108	G	25 20 36	
110	E	30 20 37	
112	G	30 20 37	
114	I	30 20 37	
116	K	30 20 37	
118	I	25 20 36	
120	K	25 20 36	
122	M	25 20 36	
124	O	25 20 36	
126	M	30 20 37	
128	O	30 20 37	
130	A	32 20 37	N
132	C	32 20 37	
134	A	31 20 37	
136	C	31 20 37	
138	A	36 20 36	
140	C	36 20 36	
142	E	36 20 36	
144	G	36 20 36	
146	E	31 20 37	
148	G	31 20 37	
150	E	32 20 37	
152	G	32 20 37	
154	I	32 20 37	N
156	K	32 20 37	
158	I	31 20 37	
160	K	31 20 37	
162	I	36 20 36	
164	K	36 20 36	
166	M	36 20 36	
168	O	36 20 36	
170	M	31 20 37	
172	O	31 20 37	
174	M	32 20 37	
176	O	32 20 37	

CASE NO. 8398
ORDER NO. R-7766
EXHIBIT "B"

LEA COUNTY, NEW MEXICO

179	D	3	21	36
181	B	4	21	36
183	D	4	21	36
185	B	5	21	36
187	D	5	21	36
189	B	6	21	36
191	D	6	21	36
193	F	6	21	36
195	H	6	21	36
197	F	5	21	36
199	H	5	21	36
201	F	4	21	36
203	H	4	21	36
205	F	3	21	36
207	L	3	21	36
209	J	4	21	36
211	L	4	21	36
213	J	5	21	36
215	L	5	21	36
217	J	6	21	36
219	L	6	21	36
221	N	6	21	36
223	P	6	21	36
225	N	5	21	36
227	P	5	21	36
229	N	4	21	36
231	P	4	21	36
233	N	3	21	36
235	R	3	21	36
237	T	3	21	36
239	R	4	21	36
241	T	4	21	36
243	R	5	21	36
245	T	5	21	36
247	R	6	21	36

N

N

N

CASE NO. 8398
ORDER NO. R-7766
EXHIBIT "B"

LEA COUNTY, NEW MEXICO

249	T	6	21	36
251	V	6	21	36
253	X	6	21	36
255	V	5	21	36
257	X	5	21	36
259	V	4	21	36
261	X	4	21	36
263	V	3	21	36
265	X	3	21	36
267	V	2	21	36
269	X	2	21	36
271	B	11	21	36
273	D	11	21	36
275	B	10	21	36
277	D	10	21	36
279	B	9	21	36
281	D	9	21	36
283	B	8	21	36
285	D	8	21	36
287	B	7	21	36
289	D	7	21	36
291	F	7	21	36
293	H	7	21	36
295	F	8	21	36
297	H	8	21	36
299	F	9	21	36
301	H	9	21	36
303	F	10	21	36
305	H	10	21	36
307	F	11	21	36
309	H	11	21	36
310	L	12	21	36
312	J	11	21	36
314	L	11	21	36
316	J	10	21	36
318	L	10	21	36
320	J	9	21	36
322	L	9	21	36
324	J	8	21	36

CASE NO. 8398
ORDER NO. R-7766
EXHIBIT "B"

LEA COUNTY, NEW MEXICO

326	L	8	21	36
328	J	7	21	36
330	L	7	21	36
332	N	7	21	36
334	P	7	21	36
336	N	8	21	36
338	P	8	21	36
340	N	9	21	36
342	P	9	21	36
344	N	10	21	36
346	P	10	21	36
348	N	11	21	36
350	P	11	21	36
352	D	13	21	36
354	B	14	21	36
356	D	14	21	36
358	B	15	21	36
360	D	15	21	36
362	B	16	21	36
364	D	16	21	36
366	B	17	21	36
368	D	17	21	36
370	B	18	21	36
372	D	18	21	36
374	F	18	21	36
376	H	18	21	36
378	F	17	21	36
380	H	17	21	36
382	F	16	21	36
384	H	16	21	36
386	F	15	21	36
388	H	15	21	36
390	F	14	21	36
392	H	14	21	36
394	J	14	21	36
396	L	14	21	36
398	J	15	21	36
400	L	15	21	36
402	J	16	21	36
404	L	16	21	36

N

CASE NO. 8398
ORDER NO. R-7766
EXHIBIT "B"

LEA COUNTY, NEW MEXICO

406	J	17	21	36
408	L	17	21	36
410	J	18	21	36
412	L	18	21	36
414	N	18	21	36
416	P	18	21	36
418	N	17	21	36
420	P	17	21	36
422	N	16	21	36
424	P	16	21	36
426	N	15	21	36
428	P	15	21	36
430	N	14	21	36
432	P	14	21	36
434	B	22	21	36
436	D	22	21	36
438	B	21	21	36
440	D	21	21	36
442	F	21	21	36
444	H	21	21	36
446	F	22	21	36
448	H	22	21	36
450	J	22	21	36
454	J	21	21	36
456	L	21	21	36
452	L	22	21	36

CASE 8398
ORDER NO. R-8398
EXHIBIT "B"

EXHIBIT 6

DOYLE HARTMAN

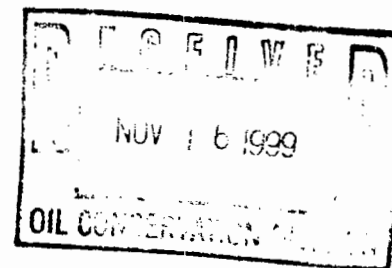
Oil Operator

3811 TURTLE CREEK BLVD., SUITE 200
DALLAS, TEXAS 75219

(214) 520-1800

(214) 520-0811 FAX

November 15, 1999



VIA FACSIMILE: 505/827-8177
and FEDERAL EXPRESS

7 PAGES

Lori Wrotenbery, Director
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Re: Chevron's November 10, 1999 Water Injection Application
Eunice Monument South Unit Waterflood Program

Dear Ms. Wrotenbery:

Reference is made to Chevron's November 10, 1999 application to convert additional wells to water injection within the Chevron-operated Eunice Monument South Unit ("EMSU") waterflood project (copy of application enclosed).

In order that we do not inadvertently waive any legal rights, while waiting to be furnished with sufficient supporting documentation regarding Chevron's newly proposed injection wells, please initially consider this letter as our objection to Chevron's application.

However, Doyle Hartman is not opposed to additional injection wells being added to the EMSU waterflood project providing that Chevron can make a satisfactory showing that its proposed additional injection wells can be installed and operated in accordance with the following set of industry-accepted injection practices and standards:

- 1) The proposed additional EMSU water injection will be kept, at all times, within Chevron's originally approved EMSU water injection interval.
- 2) The proposed new EMSU injection wells have been properly cemented with adequate volumes of API sulfate-resistant cement and the individual injection well cement jobs demonstrate satisfactory bonding and pipe characteristics using a state-of-the-art 360° bond-pipe evaluation tool such as Schlumberger's USI-GR-CCL log.
- 3) The wellhead injection pressure for the proposed injection wells will always be kept at or below the NMOCD's maximum surface injection pressure limit of 0.2 psi/ft.

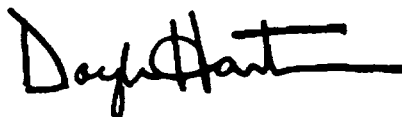
Ms. Lori Wrotenbery
November 15, 1999
Page 2

- 4) The primary cement job for the proposed injection wells has not been compromised by nitro-glycerin stimulation or excessive acid treatments.
- 5) The individual well and overall project injection-to-withdrawal ratios are kept at 1.0 or less ensuring that out-of-zone non-oil-recovery injection is not occurring.
- 6) The proposed new injection wells do not exhibit injection profiles that indicate a large volume (or percentage) of injection water is exiting the wellbore at the upper part of the injection interval.

For the following reasons, we are requesting that the foregoing requirements be met:

- A) Our State "A" Nos. 4 and 5 Eumont gas wells (Sections 5 and 8, T-21-S, R-36-E) are now producing water from a Eumont completion interval that was originally non-productive of water; and
- B) We have experienced additional significant negative impact (on the order of several million dollars), in the overall Eunice-Monument-Jalmat trend, due to water injection projects that have injected substantial volumes of water out of zone, although such injection projects were to have originally been operated in accordance with NMOCD rules and regulations.

Very truly yours,



Doyle Harman

DH/ao
Enclosures

cc w/ encs.:

VIA FACSIMILE: 505/827-8177
and FEDERAL EXPRESS

Michael Stogner, Chief Hearing Examiner
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

7 PAGES

Ms. Lori Wrotenbery
November 15, 1999
Page 3

VIA FACSIMILE: 915/687-7905
and FEDERAL EXPRESS

7 PAGES

Tracy G. Love, Petroleum Engineer
Chevron U.S.A. Production Co.
P.O. Box 1150
Midland, TX 79702

VIA FACSIMILE: 505/986-0741

7 PAGES

G.E. Gallegos, Esq.
Gallegos Law Firm
460 St. Michaels Drive, Bldg. 300
Santa Fe, New Mexico 87505

James A. Davidson
214 W. Texas, Suite 710
Midland, TX 79701

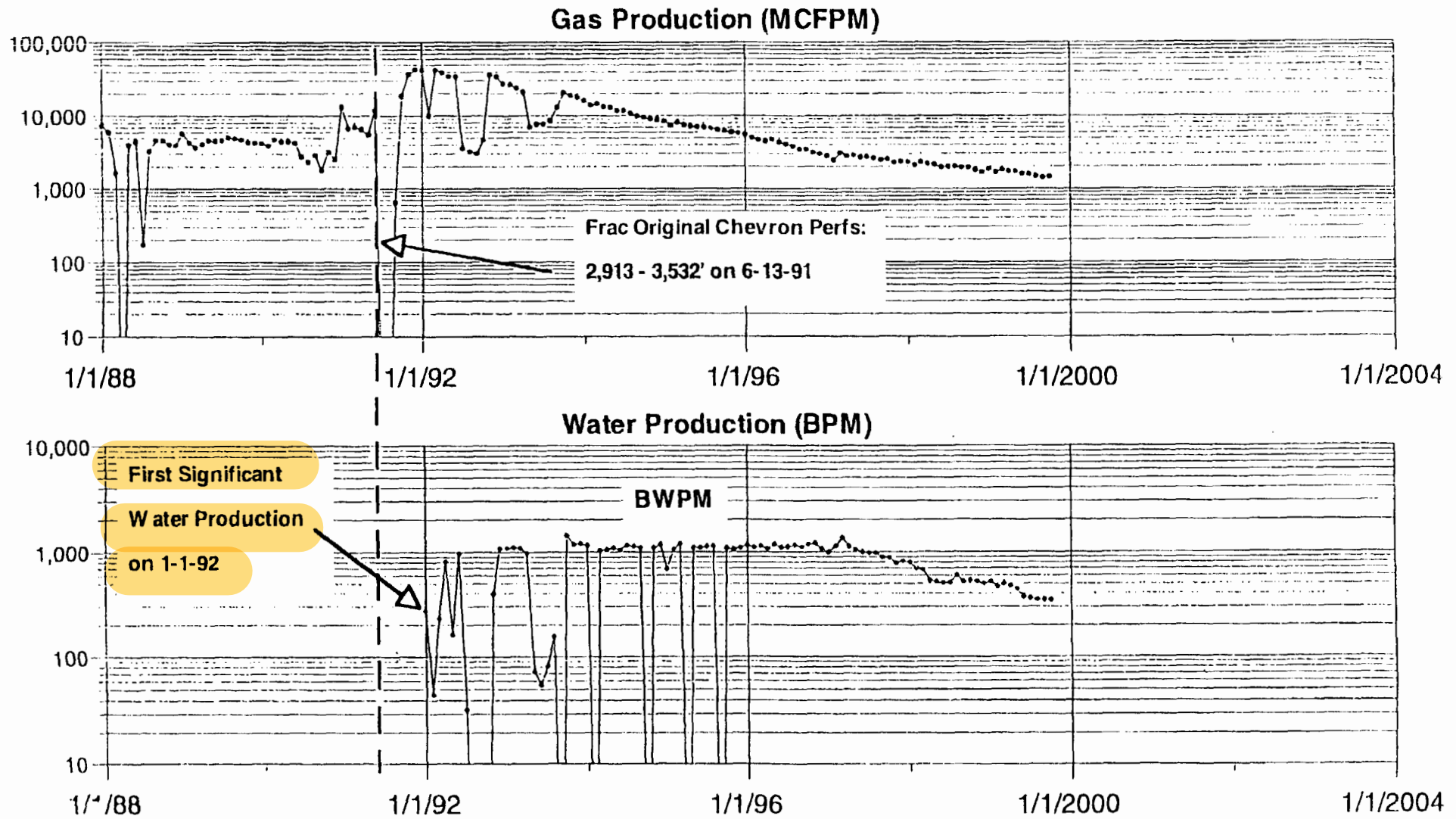
DOYLE HARTMAN. Oil Operator (Dallas)

DOYLE HARTMAN. Oil Operator (Midland)

Don Mashburn
Steve Hartman
Sheila Potts
Linda Land
Cindy Brooks

EXHIBIT 7

STATE A COM # 4
EUMONT YATES 7 RIVERS QN
A - 8 T-21-S R-36-E
DOYLE HARTMAN OIL OPERATOR



STATE A COM # 5
EUMONT YATES 7 RIVERS QN
O - 5 T-21-S R-36-E
DOYLE HARTMAN OIL OPERATOR

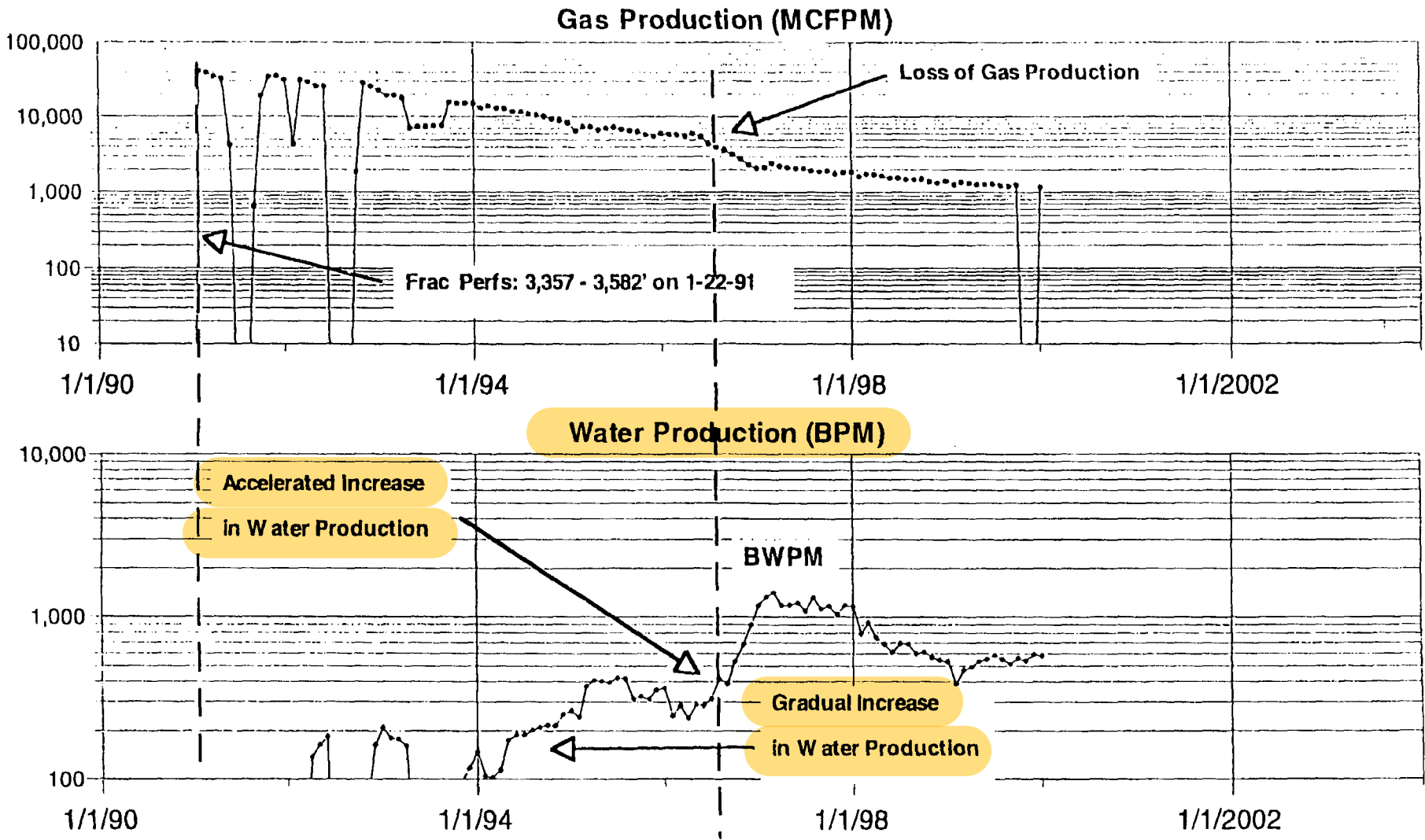


EXHIBIT "B-2"

EXHIBIT 8

1

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY)
 THE OIL CONSERVATION DIVISION FOR THE)
 PURPOSE OF CONSIDERING:) CASE NO. 12,320
)
 APPLICATION OF CHEVRON USA PRODUCTION)
 COMPANY FOR APPROVAL TO CONVERT THE EMSU)
 WELLS NO. 210, 212, 222, 252 AND 258 TO)
 INJECTION IN THE EUNICE MONUMENT SOUTH)
 UNIT, LEA COUNTY, NEW MEXICO)
)

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGSEXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

April 18th, 2002

Santa Fe, New Mexico

02 APR 26 AM 8:34

OIL CONSERVATION DIV.

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID R. CATANACH, Hearing Examiner, on Thursday, April 18th, 2002, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South Saint Francis Drive, Room 102, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

* * *

STEVEN T. BRENNER, CCR
 (505) 989-9317

I N D E X

April 18th, 2002
Examiner Hearing
CASE NO. 12,320

PAGE

REPORTER'S CERTIFICATE

8

* * *

Document submitted by Chevron, not offered or admitted:

Identified

Letter dated 4-9-02 from
J.E. Gallegos to William F. Carr

6

* * *

STEVEN T. BRENNER, CCR
(505) 989-9317

A P P E A R A N C E S

FOR THE DIVISION:

DAVID K. BROOKS
Attorney at Law
Energy, Minerals and Natural Resources Department
Assistant General Counsel
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

FOR THE APPLICANT:

HOLLAND & HART, L.L.P., and CAMPBELL & CARR
110 N. Guadalupe, Suite 1
P.O. Box 2208
Santa Fe, New Mexico 87504-2208
By: WILLIAM F. CARR

ALSO PRESENT:

WILL JONES
Engineer
New Mexico Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe, NM 87501

* * *

STEVEN T. BRENNER, CCR
(505) 989-9317

1 WHEREUPON, the following proceedings were had at
2 9:11 a.m.:

3 EXAMINER CATANACH: Let's go ahead and --
4 speaking of carrying the case month to month, year to year,
5 whatever the case may be, I will at this time call Case
6 12,320, which is the Application of Chevron USA Production
7 Company for approval to convert the EMSU Wells Number 210,
8 212, 222, 252 and 258 to injection in the Eunice Monument
9 South Unit, Lea County, New Mexico.

10 Call for appearances in this case.

11 MR. CARR: May it please the Examiner, my name is
12 William F. Carr with the Santa Fe office of Holland and
13 Hart, L.L.P. We represent Chevron USA Production Company
14 in this matter. I have no witness.

15 EXAMINER CATANACH: Any additional appearances?

16 There being none, Mr. Carr, you may proceed.

17 MR. CARR: Mr. Examiner, as you're aware, in
18 November of 1999 Chevron filed an Application seeking
19 authorization to convert five wells in the Eunice Monument
20 South Unit to injection.

21 This case came for hearing before a Division
22 Examiner in March of 2000, at which time the attorneys for
23 Doyle Hartman appeared and examined the Chevron witnesses.
24 Mr. Hartman presented no testimony. An order in this case
25 was entered in March of the year 2000, and Mr. Hartman

STEVEN T. BRENNER, CCR
(505) 989-9317

1 timely filed an application for hearing *de novo*.

2 Initially, Mr. Hartman had written the Oil
3 Conservation Division, and he had expressed concern about
4 the application. He said he didn't object if Chevron would
5 agree to certain industry-accepted standards, and there
6 were questions about whether or not those were standards
7 that were accepted by the industry, and so there was
8 testimony on that point.

9 When Mr. Hartman went *de novo* he indicated that
10 he didn't have objection to converting these wells to
11 injection, but he did take exception to certain findings in
12 the order. And the order contains some findings that, if I
13 were Mr. Hartman, I would not want sitting in a public
14 record. At one level -- said he testified to certain
15 things, and he did not.

16 There were statements made by a Chevron witness,
17 who had never testified before and became angry, that were
18 elevated into findings. It was never characterized as
19 determinations, but it was carried in the findings as
20 statements by Chevron.

21 And then there were findings that said Mr.
22 Hartman did not respond to those, and Mr. Hartman tried to
23 respond and asked that the record be left open so he could
24 respond. The record was closed, the case taken under
25 advisement, and although affidavits were filed the findings

1 said that there was no response.

2 In the meantime -- And his *de novo* application
3 said he didn't object to the conversion of the Chevron
4 wells to injection, and in the meantime Chevron has
5 determined that it doesn't intend to convert these wells to
6 injection. And so we've had this problem sitting before
7 the Division, as you've noted, for some time.

8 Chevron has withdrawn its application, and we're
9 here today to request that the case be dismissed and that
10 the order be withdrawn. Withdrawing the order will
11 accommodate the concerns of Mr. Hartman, and if these
12 matters ever become issues they can be brought in the
13 context of another case where the issue is fully presented,
14 the evidence is presented.

15 And so we have submitted to you a letter
16 requesting dismissal. We have withdrawn our application
17 requesting dismissal of the order -- or dismissal of the
18 case and rescission of the order.

19 I have reviewed this with Mr. Gallegos, attorney
20 for Mr. Hartman. He has written, he concurs not only in
21 this recommendation but in the proposed order and documents
22 that we've filed with the Division.

23 I have reviewed this not only with the attorneys
24 for Hartman but with the attorneys for the Division, the
25 Commission and the Department, and I believe what we

STEVEN T. BRENNER, CCR
(505) 989-9317

1 propose is acceptable to all involved.

2 We therefore request that the case be dismissed
3 and the prior order rescinded.

4 MR. BROOKS: Sounds good to me.

5 EXAMINER CATANACH: Thank you, Mr. Carr.

6 MR. CARR: Thank you, Mr. Catanach.

7 EXAMINER CATANACH: There being nothing further,
8 Case 12,320 will be taken under advisement.

9 MR. CARR: Would you like a copy of Mr. Gallegos'
10 letter --

11 EXAMINER CATANACH: Yes --

12 MR. CARR: -- for the record?

13 EXAMINER CATANACH: -- I would. Thank you.

14 (Thereupon, these proceedings were concluded at
15 9:20 a.m.)

16 * * *

17
18 I do hereby certify that the foregoing is
19 a complete record of the proceedings in
20 the Examiner hearing of Case No. 12320,
heard by me on April 18, 1920.

21 David R. Catanach, Examiner
22 Oil Conservation Division
23
24
25

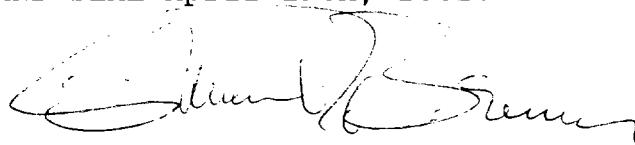
CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

I FURTHER CERTIFY that I am not a relative or employee of any of the parties or attorneys involved in this matter and that I have no personal interest in the final disposition of this matter.

WITNESS MY HAND AND SEAL April 19th, 2002.



STEVEN T. BRENNER
CCR No. 7

My commission expires: October 14, 2002

STEVEN T. BRENNER, CCR
(505) 989-9317

GALLEGOS LAW FIRM

A Professional Corporation

460 St. Michael's Drive
Building 300
Santa Fe, New Mexico 87505
Telephone No. 505-983-6686
Telefax No. 505-986-1367
Telefax No. 505-986-0741
E-Mail glf460@spinn.net

April 9, 2002
(Our File No. 00-1.85)

CONFIRMATION COPY
OF FACSIMILE

J.E. GALLEGOS **

VIA TELECOPY

William F. Carr, Esq.
Campbell, Carr, Berge & Sheridan, P.A.
Post Office Box 2208
Santa Fe, New Mexico 87504-2208

RECEIVED

APR 10 2002

HOLLAND & HART LLP

Re: New Mexico Oil Conservation Division Case No. 12320; Application of Chevron for EMSU Wells – For Approval to Convert EMSU Wells to Injection in the Eunice Monument South Unit

Dear Bill:

Time finally permitted my reviewing the draft letter to the Division and draft dismissal Order in this matter.

These items represent a good solution to close this case. I suggest no changes and have my fingers crossed that the Division will embrace this resolution. By copy of this fax, I am sending Doyle Hartman a copy of your draft letter and order for his information. I doubt that he will have any problem, but if he does surely he will let me know.

Sincerely,

GALLEGOS LAW FIRM, P.C.

BY:


J.E. GALLEGOS

JEG:sg
fxc: Doyle Hartman

EXHIBIT 9

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

**APPLICATIONS OF GOODNIGHT
MIDSTREAM PERMIAN, LLC FOR
APPROVAL OF SALTWATER DISPOSAL
WELLS LEA COUNTY, NEW MEXICO.**

CASE NOS. 23614-23617

**APPLICATION OF GOODNIGHT MIDSTREAM
PERMIAN LLC TO AMEND ORDER NO. R-
22026/SWD-2403 TO INCREASE THE
APPROVED INJECTION RATE IN ITS ANDRE
DAWSON SWD #1,
LEA COUNTY, NEW MEXICO.**

CASE NO. 23775

**APPLICATIONS OF EMPIRE NEW MEXICO
LLC TO REVOKE INJECTION AUTHORITY,
LEA COUNTY, NEW MEXICO.**

CASE NOS. 24018-24020, 24025

**APPLICATION OF GOODNIGHT MIDSTREAM
PERMIAN, LLC FOR APPROVAL OF A
SALTWATER DISPOSAL WELL, LEA
COUNTY, NEW MEXICO.**

**DIVISION CASE NO. 24123
ORDER NO. R-22869-A
ORDER NO. R-24004**

SELF-AFFIRMED STATEMENT OF JASHA CULTRERI

1. My name is Jasha Cultreri., and I am employed by Geolex, Inc., as a consulting geophysicist. Geolex has been retained by Goodnight Midstream Permian, LLC (“Goodnight Midstream”) to provide geophysical consulting services in response to Commission Order No. R-24004.

2. I have previously testified before the Oklahoma Corporation Commission as an expert witness in seismic acquisition and interpretation. I have been involved in acquisition, processing and interpretation of geophysical data for 51 years; 19 years with Arco Oil and Gas, and 32 years a consulting geophysicist. I worked the midcontinent of the USA from the Permian

basin through the Rockies and east through Michigan. I have a BS in Geophysics and a BS in Physics from New Mexico Tech. My resume is attached as **Attachment 1**.

3. Order No. R-24004 concludes that “Goodnight DID NOT adduce substantial evidence of the existence of a continuous barrier between the Grayburg and the San Andres and therefore DID NOT refute the potential for FUTURE impairment or waste in the EMSU.” Order at III(B).

4. In addition, the Commission found that Goodnight’s Exhibit B-9 did not “map a containment barrier continuously across the EMSU.” Order ¶ 52.

5. The Commission also noted that “Goodnight did not prepare any subsurface modeling to support their argument that the water influx from the San Andres to the Grayburg will not occur in the future.” Order ¶ 49.

6. At the same time, the Commission found “Empire DID NOT adduce substantial evidence that their correlative rights in the Grayburg are CURRENTLY impaired by Goodnight’s injection in the San Andres.” Order at III(C). The Commission also found that Empire had not proven that any of the “ROZ” Empire has identified in either the Grayburg or San Andres “is recoverable.” Order at III(D).

7. I understand that Goodnight has substantive legal and factual challenges to certain of the Commission’s conclusions and the bases for them that Goodnight is separately addressing, including whether it was ever Goodnight’s burden to prove the existence of a “continuous barrier” over the entire EMSU or to refute the potential for future impairment or waste.

8. For purposes of this statement, I have been asked by Goodnight to evaluate whether Goodnight’s 3D seismic data can be used to map a geologic confining zone across

Goodnight's area of injection that correlates to the geologic interval identified as an effective confining zone in the testimony of Goodnight's expert witnesses.

9. At the hearing, Goodnight's geology and engineering witness, Preston McGuire, testified that the company has 3D seismic data within the EMSU and over its injection area that aligns with Goodnight's mapped confining zone and confirms Goodnight's engineering data showing the upper San Andres is an effective seal. *See* Hearing Tr. 5/20/25, 168:12-169:5; 170:5-7. Commissioner Ampomah confirmed that "we all agree that we used 3D seismic to map up surfaces," and asked why it was not used to support Goodnight's arguments. *Id.*, 169:18-24.

10. Mr. McGuire testified that the 3D seismic data was not initially used in the hearing because of a licensing agreement that requires the data and derivatives to be maintained as confidential, and because the engineering data and pressure differentials between the Grayburg and San Andres reservoir systems presented at hearing are the ultimate test that the two systems are not in communication. *Id.*, 168:18-25; 169:14-17.

11. In response to the Commission's determination that Goodnight failed to map a "continuous barrier" and did not present a model to refute potential future impairment, I was asked by Goodnight to conduct an analysis of the 3D seismic data and the potential to use that data in a subsurface model.

12. To confirm the presence of a continuous confining layer overlying the Goodnight Midstream SWD injection zone, 3D seismic reflection data was utilized and interpreted. Utilizing industry standard methods, these data were inverted to acoustic impedance, which is a good proxy for, and correlates well to, porosity attributes in carbonate reservoirs and confining strata. The resultant acoustic impedance volume was tied to porosity logs and interpreted.

13. Interpretation and analysis of the seismic data and derivative acoustic impedance volume identified a distinct, approximately 60-200 feet thick layer of finely bedded (e.g., 10-20 feet) tight strata between Grayburg Formation porosity and the interval of well-developed porosity within the San Andres Formation (**Attachment 2**), which is the target disposal zone of Goodnight Midstream's SWD wells. As shown in **Attachment 2**, this interval is annotated as "San Andres Dense" and is identifiable on local well logs as well as the seismic inversion data (i.e., acoustic impedance volume).

14. **Attachment 2** shows cross section Line 281, which represents a limited west to east representation of the Grayburg and San Andres formations. The cross section shows local acoustic impedance attributes, which across the San Andres Dense vertical section indicates a finely bedded interval with tight zones ranging in porosity from approximately 0-2% (represented as purple intervals). While non-uniform and not to log resolution, these intervals form a continuous, and stacked, vertical seal above Goodnight Midstream's SWD injection zone.

15. As shown in **Attachment 3**, the high acoustic impedance interval identified as San Andres Dense is present over the entirety of the 3D seismic survey. Furthermore, the interpretation of acoustic impedance and interpretation of a laterally continuous confining zone overlying SWD injection zone is consistent with confining strata attributes identified in well log analysis.

16. Based on these results, 3D seismic survey data provide clear evidence for a laterally continuous barrier, or interval of confining strata separating Goodnight Midstream SWD injection zone from overlying geologic intervals, which would prevent the vertical migration of injected fluids out of the approved San Andres formation injection interval.

17. I affirm under penalty of perjury under the laws of the State of New Mexico that the foregoing statements are true and correct. I understand that this self-affirmed statement will be used as written testimony in this case. This statement is made on the date next to my signature below.



Jasha Cultreri

9/30/2025

Date

Jasha Cultreri

Geophysicist
Geophysical Management

60 Vaquero Rd
Santa Fe, NM 87508

505-466-1160 (O)
432/559-8948 (Cell)
jashac@aol.com

- 22 years Geophysical consulting / prospect generation (2/2004 – present)
- 1 year Vecta Exploration (9/2002 – 2/2004)
Vice president Exploration. Devise exploration program to exploit nine component full wave seismic data. Interpret 7 nine-component surveys, prepare prospects for drilling. Work with geologists in multiple companies for prospect generation. Develop five plays throughout the mid-continent of the U.S. Drill three prospects.
- 10 years Geophysical consulting (2/1992 – 9/2002)
Interpreted/designed/inverted numerous 3D surveys in the Permian and Anadarko Basins, Survey Design and Acquisition and processing Nevada and Utah. 2D interpretation in the Permian Basin. 15 discoveries and interpretation for their development. Reservoir Characterization. Inversion interpretation. Shear wave interpretation two 3D 9C surveys.
- 19 years Exploration/Exploitation with Arco Oil and Gas (5/1974 – 2/1992)
Program management 6 years - Drilled 70 wells discovered 96 MMBOE including the Wilburton discovery in the Arkoma basin, Big Bow in the Hugoton embayment, and Conners Marsh in the Michigan Basin. Conducted exploration programs in seven basins throughout the Mid-Continent and Rockies. Organized and coordinated two large 3D group shoots in the Permian Basin. Primary responsibility for \$10MM G&G budget - shared \$30 MM exploration budget.
Project management 5 years - Acquired data and evaluated a 2500 square mile unexplored portion of the Arkoma Basin. Sold a package of six deep exploratory wells to industry partners. --some concurrent with:
Interpretation 6 years - recommended participation in the McComb Field discovery. Worked throughout the Permian Basin. - Central Basin Platform Edge structural plays, and Fusselman pinch out play. 3D interpretation on 3 Permian fields.
Seismic data processing 4 years - State of the Art Processing, for Permian, Mid-Continent, and Rockies. Wavelet processing, Seismic Inversion, Migration, 3D acquisition research.
Field Acquisition 1 year - Throughout West Texas and S.E. New Mexico
- BS Physics BS Geophysics (1974) New Mexico Tech

9/29/2025

Jasha Cultreri

Geophysicist
Geophysical Management

60 Vaquero Rd.
Santa Fe, NM 87508

505-466-1160 (O)
432/559-8948 (Cell)

Geophysical and Project Management Services
Geophysical

Acquisition

Geologic Objectives
Project Design
Parameter Selection
Field Quality Control
Permitting Supervision
Shear Wave project design

Processing

Quality Control
Statics
Velocity
Noise Attenuation
High Resolution Processing
Migration
3D inversion
Shear wave processing

Interpretation

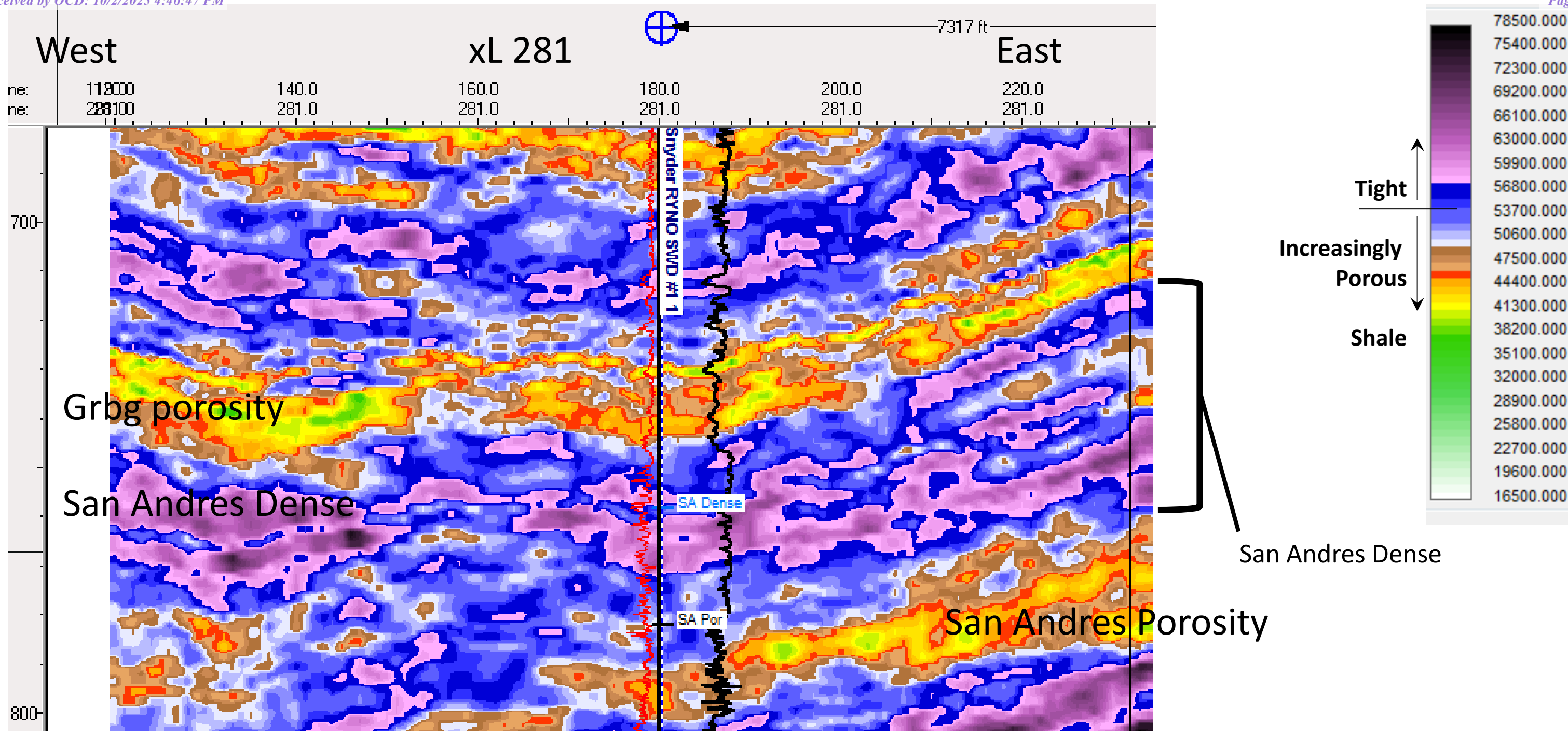
3D interpretation
2D interpretation
Stratigraphic/
Structural prospecting
Prospect Delineation
Reservoir mapping
3D inversion interpretation
Shear wave interpretation

Project Management Services

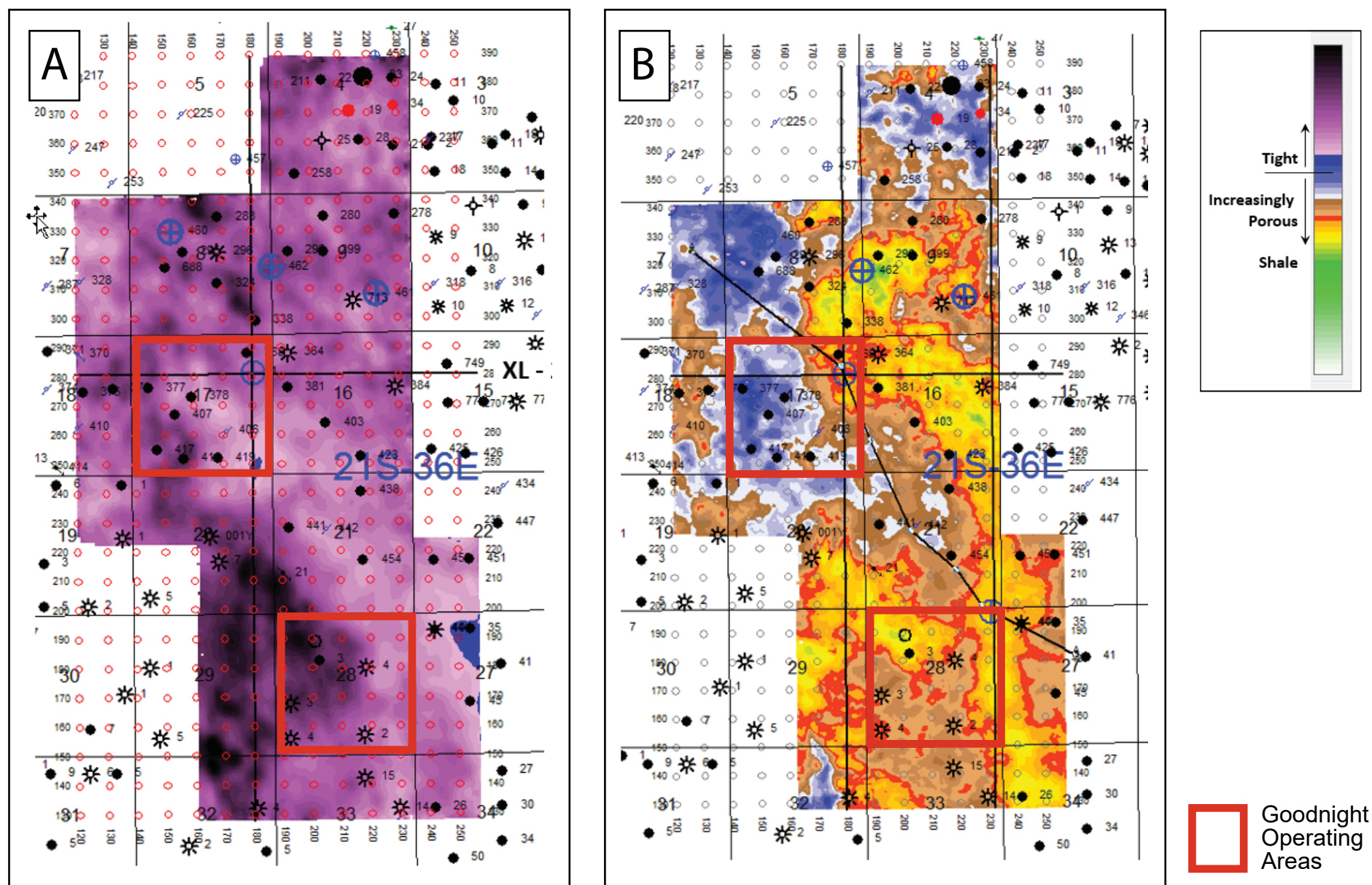
Bidding and Contracting

Co-Owner negotiations
Acquisition/Processing coordination

Whole project management



Attachment 2: Cross section line 281 illustrating limited acoustic impedance attributes within the Grayburg and San Andres formations. Note the inversion volume demonstrates a continuous high impedance interval (shown as purple and blue data), which correspond to intervals of low porosity and confining strata in available log data. Porosity within confining strata overlying SWD activities generally ranges from approximately 0-2% (purple).



Attachment 3: Location map illustrating the area of 3D seismic data coverage and mapped acoustic impedance interpreted within the San Andres Dense (Panel A) and injection reservoir intervals (Panel B). High impedance (low porosity) strata clearly characterize geologic units overlying the disposal zone of Goodnight Midstream injection wells and is laterally continuous within the area covered by the current 3D seismic dataset.

EXHIBIT 10

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

**APPLICATIONS OF GOODNIGHT
MIDSTREAM PERMIAN, LLC FOR
APPROVAL OF SALTWATER DISPOSAL
WELLS LEA COUNTY, NEW MEXICO.**

CASE NOS. 23614-23617

**APPLICATION OF GOODNIGHT MIDSTREAM
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CASE NO. 23775

**APPLICATIONS OF EMPIRE NEW MEXICO
LLC TO REVOKE INJECTION AUTHORITY,
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CASE NOS. 24018-24020, 24025

**APPLICATION OF GOODNIGHT MIDSTREAM
PERMIAN, LLC FOR APPROVAL OF A
SALTWATER DISPOSAL WELL, LEA
COUNTY, NEW MEXICO.**

**DIVISION CASE NO. 24123
ORDER NO. R-22869-A
ORDER NO. R-24004**

SELF-AFFIRMED STATEMENT OF DAVID A. WHITE, P.G.

1. My name is David A. White, P.G., and I am employed by Geolex, Inc., as Vice President and Senior Geologist. Geolex has been retained by Goodnight Midstream Permian, LLC (“Goodnight Midstream”) to provide geophysical and geological consulting services in response to Commission Order No. R-24004.

2. I have previously testified before the New Mexico Oil Conservation Commission as an expert witness in saltwater disposal (“SWD”) and acid gas injection (“AGI”) well permitting

and design, petroleum geology, seismic interpretation, and fault-slip probability modeling, and have previously testified in these consolidated cases. My credentials, attached hereto as **Attachment 1**, have been accepted and made a matter of record before the Commission.

3. For purposes of this statement, I have been asked by Goodnight to evaluate whether Goodnight's 3D seismic data, and the results of detailed analyses of those data, can be used to map a geologic confining zone across Goodnight's area of injection that correlates to the geologic interval identified as an effective confining zone in the testimony of Goodnight's expert witnesses.

4. In response to the Commission's determination that Goodnight failed to map a "continuous barrier" and did not present a model to refute potential future impairment, I was asked by Goodnight to conduct a geologic analysis, leveraging additional information derived from 3D seismic data analysis, to confirm the presence of sealing geologic strata and to assess the potential to use that data in a subsurface model.

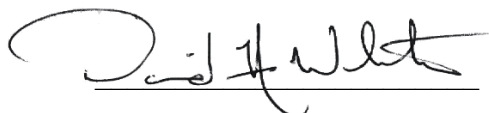
5. Results of 3D seismic data analysis (**Attachment 2**), specifically high-resolution seismic trace inversion analysis, demonstrate a laterally continuous and approximately 60 to 205 feet-thick vertical interval of strata exhibiting relatively high acoustic impedance properties and overlying the injection zones of the Goodnight SWD wells. In carbonate geologic strata, impedance attributes directly relate to porosity of the injection reservoir and associated confining intervals.

6. Analysis and interpretation of available geophysical log data demonstrates that intervals of high acoustic impedance correspond to low porosity, vertically restrictive geologic strata, which are characterized by low porosity (0-3%) carbonates interbedded with tight fine-grain siliciclastic deposits (i.e., silt, clay) (**Attachment 2**). This low porosity and low permeability confining strata consistently overlies the approved injection interval of the Goodnight SWD wells.

7. Confining strata overlying the injection zone of the Goodnight SWD wells is observed and confirmed in several wells within the EMSU and greater project area. As demonstrated by local mapping of the confining interval (**Attachment 2**), the interval of low porosity and low permeability strata ranges in thickness from approximately 60 to 205 feet and is identified in numerous nearby wells within, and in close proximity, to the EMSU. The results of geologic depth interval mapping also confirm and support the lateral continuity of these geologic confining strata, as has been observed and demonstrated by 3D impedance attribute mapping.

8. Based on the results of geophysical and geological analysis, combined with observations and conditions experienced during drilling activities (i.e., subsurface pressure isolation and lost circulation conditions), there is clear evidence to support the presence of a laterally continuous confining zone that overlies the injection interval of the Goodnight Midstream SWD wells, which would prevent the vertical migration of injected fluids from the approved SWD injection zone into overlying geologic strata. Furthermore, reservoir attributes identified and confirmed through geological and geophysical (i.e., 3D seismic data) analyses can be utilized effectively to model and further demonstrate the sealing capacity of local confining strata.

9. I affirm under penalty of perjury under the laws of the State of New Mexico that the foregoing statements are true and correct. I understand that this self-affirmed statement will be used as written testimony in this case. This statement is made on the date next to my signature below.



David A. White, P.G.

9/30/2025

Date

CURRICULUM VITAE

David Allen White, P.G.

PERSONAL

Name:	David Allen White
Birth date:	October 11, 1981
Birthplace:	Oscoda, Michigan
Citizenship:	United States
Languages:	English

SPECIALIZATION

Acid gas injection (AGI) project management and development including well design, drilling and completion, and long-term operational monitoring; injection well permitting and regulatory compliance; acid gas injection system due diligence evaluation; geologic and hydrogeologic site characterization, modeling, and simulation; seismic interpretation, induced-seismicity modeling, and seismic monitoring station design and deployment; expert witness testimony; environmental site assessment and environmental litigation support; sedimentology and stratigraphy; geochemistry and geochemical lab analysis; geotechnical writing; graphics design and development; data analysis; ArcGIS analysis and map development.

EDUCATION

University of New Mexico
Master of Science – Geology

University of Tennessee
Bachelor of Science – Geology (Summa cum laude)

PROFESSIONAL REGISTRATION

Licensed Professional Geologist – State of Texas #15257
Professional Geologist – National Association of State Boards of Geology

ORGANIZATIONS

American Association of Petroleum Geologists
American Institute of Professional Geologists
Geological Society of America
National Ground Water Association

New Mexico Geological Society
Society for Sedimentary Geology – Permian Basin Section
West Texas Geological Society

HONORS AND AWARDS

Graduate Teaching Assistantship – University of New Mexico
Alexander and Geraldine Wanek Graduate Scholarship – University of New Mexico
Albert M. Kudo Outstanding Teaching Assistant – University of New Mexico
Jerry Harbour Memorial Endowed Scholarship – University of New Mexico
Geological Society of America Student Research Grant
Graduate and Professional Student Association Grant – University of New Mexico
Otto Kopp Undergraduate Research Award – University of Tennessee
Jimmy Walls Award for Excellence in Introductory Geology – University of Tennessee

PUBLICATIONS, PRESENTATIONS, AND PANEL DISCUSSIONS

- White, D.A., 2024, Corrosion Resistant Alloys CCUS Industry Discussion Forum – The Ideal CCUS Well Design and CCUS Challenges & Collaborative Solutions, Brenham, Texas.
- White, D.A., Flores, S., Gutiérrez, A.A., Flores, K., and Robin, G., 2023 A Practical Approach to Estimating Reservoir Performance Duration at Existing Injection Sites, Acid Gas Injection Symposium IX, Calgary, Alberta, Canada
- White, D.A., 2023, Carbon Strategic Conclave – Barriers and Solutions to Carbon Capture and Storage Execution in the United States, Houston Strategy Forum, Houston, Texas.
- White, D.A., Elrick, M., Romaniello, S., and Zhang, F., 2018, Global seawater redox trends during the Late Devonian mass extinction detected using U isotopes of marine carbonates, Earth and Planetary Science Letters, v. 503, p. 68-77, doi:10.1016/j.epsl.2018.09.020.
- White, D.A., 2018. Global seawater redox trends during the Late Devonian mass extinction detected using U isotopes of marine carbonates. University of New Mexico Digital Repository, https://digitalrepository.unm.edu/eps_etds/227.
- White, D.A., Elrick, M., Romaniello, S., and Zhang, F., 2017, Tracking global seawater redox trends during the Late Devonian extinction using U isotopes of Upper Devonian marine carbonates, Geological Society of America Annual Meeting, Seattle, Washington.
- White, D.A., Elrick, M., Romaniello, S., and Zhang, F., 2016, Multiple, short-lived ocean anoxic events across the Late Devonian mass extinction detected using uranium isotopes of marine carbonates, Geological Society of America Annual Meeting, Denver, Colorado.

Gutiérrez, A., and White, D.A., 2019, Updates on seismic analysis for AGI siting and injection data analysis for AGI well condition and reservoir monitoring, Acid Gas Injection Symposium VIII, Calgary, Alberta, Canada.

Elrick, M., White, D., Bartlett, R., and Romaniello, S., 2018, Do uranium isotopes of marine limestones provide evidence for seawater anoxia as a common driver for Phanerozoic mass extinctions? Goldschmidt Abstracts, 2018.

Elrick, M., White, D.A., Algeo, T.J., and Romaniello, S., 2018, Do uranium isotopes of marine limestones provide evidence for seawater anoxia as a common driver for Phanerozoic mass extinctions?, Geological Society of America *Abstracts with Programs*, v. 50, no. 6, doi: 10.1130/abs/2018-318936.

CERTIFICATIONS AND TRAINING

2018 – 2025	Hydrogen Sulfide Safety Awareness Certification
2023	Petroleum Remediation Principles and Technologies for Soil, Vapor, and Groundwater (Training Course)
2022	PFAS Transport, Fate, and Remediation (Training Course)
2022	Understanding Induced Seismicity – Earthquake Monitoring, Seismic Analysis, Geological Characterization, Mechanistic Analysis (Short Course)
2021	Principles of Contaminant Transport and Fate in Soil and Groundwater (Training Course)

EXPERIENCE

August 2018 – Present
Geolex, Inc.® - Vice President and Senior Geologist
500 Marquette Avenue NW, Suite 1350
Albuquerque, NM 87102

Duties, Accomplishments, Responsibilities:

1. Project manager, as general contractor, for the drilling and completion of acid gas injection wells in the San Juan Basin of New Mexico and the Permian Basin of New

Mexico and Texas. Responsibilities included providing general project oversight, coordination, and management, on-site general supervision of daily activities, geological supervision, regulatory and safety compliance support, and project budget management.

2. Provide support duties associated with the drilling, completion, commissioning, and general operation of acid gas injection and saltwater disposal (SWD) wells. These duties include on-site geological support and supervision, evaluation and interpretation of geologic data, post-installation regulatory compliance and testing, and acid gas injection well maintenance and operational support.
3. Permit application development for acid gas injection and saltwater disposal wells through the following agencies: Bureau of Land Management, New Mexico Oil Conservation Division, Railroad Commission of Texas, Utah Department of Natural Resources, and the Environmental Protection Agency.
4. Geologic site assessment and mapping, reservoir characterization, static geologic model construction, and dynamic model simulation to assess impacts of AGI, CCS/CCUS, and third-party injection operations utilizing industry standard modeling and simulation platforms.
5. Completion of Induced Seismicity Risk Assessments to support injection-permit applications, with assessments based on a detailed review of seismic survey data to identify subsurface features and model-simulation results to predict the associated fault-slip probability for a proposed injection scenario.
6. Support client asset acquisition processes through completion of due diligence investigations for acid gas injection and saltwater disposal well systems. Investigations identify issues relating to regulatory compliance, suitability of injection well design and construction, long-term reservoir sustainability, historic environmental violations and on-going obligations, and other related issues.
7. Design and administer comprehensive training sessions for gas-processing and gas-treatment plant operators on the general operation, monitoring, and maintenance of acid gas injection well systems.
8. Geologic sequestration project planning including AGI and SWD well design, geological assessment, procurement of injection equipment, and project budget management.
9. Development of procedures suitable for addressing well-testing, maintenance, or remedial needs and provide supervision for associated on-site operations.

10. Provide expert witness testimony supporting injection well applications before the NM Oil Conservation Division, NM Oil Conservation Commission, and the Railroad Commission of Texas (recognized as an expert in AGI and SWD well permitting and design, petroleum geology, geology and hydrogeology, seismic interpretation, reservoir characterization modeling and simulation, and fault-slip probability modeling).
11. Investigations and analyses to support environmental litigation matters and the development of Rule 26 expert reports to assist clients in dispute resolution concerning claims of soil and groundwater contamination, correlative rights and trespass issues, and claims resulting from oil and gas activities (litigation support). Subject matter experience spans numerous groundwater contaminants and industrial activities with environmental impact potential.
12. Completion of comprehensive environmental site assessments, as required by various state and federal agency programs and financial institutions to ensure program compliance and identify potential environmental impact.
13. Assist operators in AGI/SWD protest resolution by addressing project concerns of operators, regulatory agencies, and other interested parties.
14. Design and deployment of seismic monitoring stations to monitor and assess seismic activity in the area of active AGI and SWD injection wells.
15. Development of comprehensive seismic monitoring plans and earthquake response plans for operators, as required by regulatory agencies in areas of concern for induced seismicity.
16. Utilization of ArcGIS, GeoGraphix, and Spotfire software for geospatial and operational analyses and map development.

August 2014 – May 2017
Graduate Teaching Assistant
Department of Earth and Planetary Sciences
Northrop Hall, 221 Yale Blvd NE
University of New Mexico
Albuquerque, NM 87131

Duties, Accomplishments, Responsibilities:

1. Prepared lectures and designed curriculum to engage and develop both students pursuing Earth and Planetary Science degrees, as well as those fulfilling general

education requirements. Courses taught include Sedimentology & Stratigraphy, Earth History, Physical Geology, and Introductory Environmental Science.

2. Supervised and conducted laboratory activities and field exercises while maintaining a safe and productive environment.
3. Evaluated student performance and provided mentorship and guidance to ensure student success and educational growth.
4. Assisted in a summer field methods course, which required the application of lecture content in the field while ensuring students understood and maintained safe fieldwork practices.

January 2013 – May 2014

Research Lab Assistant and Departmental Tutor
Department of Earth and Planetary Sciences
University of Tennessee
Knoxville, TN 87120

Duties, Accomplishments, Responsibilities:

1. Responsible for the preparation of samples for geochemical and isotopic analysis for faculty and graduate students at the University of Tennessee.
2. Conducted individualized tutoring sessions for students enrolled in Earth & Planetary Science courses.



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EXHIBIT 11

UNIT AGREEMENT
EUNICE MONUMENT SOUTH UNIT
LEA COUNTY, NEW MEXICO

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2	Unit Area and Definitions	2
3	Exhibits	3
4	Expansion	4
5	Unitized Land	5
6	Unit Operator	5
7	Resignation or Removal of Unit Operator	5
8	Successor Unit Operator	6
9	Accounting Provisions and Unit Operating Agreement	6
10	Rights and Obligations of Unit Operator	6
11	Plan of Operations	7
12	Use of Surface and Use of Water	7
13	Tract Participation	7
14	Tracts Qualified for Participation	8
15.A.	Allocation of Unitized Substances	9
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15.C.	Imputed Newly Discovered Crude Oil	9
15.D.	Imputed Stripper Crude Oil	10
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15.F.	Excess Imputed Stripper Crude Oil	11
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17	Royalty Settlement	12
18	Rental Settlement	13
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22	Leases and Contracts Conformed and Extended	13
23	Covenants Run With Land	15
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EXHIBIT NO. 3Case No. 8397

November 7, 1984

UNIT AGREEMENT
FOR THE DEVELOPMENT AND OPERATION
OF THE
EUNICE MONUMENT SOUTH UNIT
LEA COUNTY, NEW MEXICO

THIS AGREEMENT, entered into as of the 22nd day of June, 1984, by and between the parties subscribing, ratifying, or consenting hereto, and herein referred to as the "parties hereto,"

WITNESSETH:

WHEREAS, the parties hereto are the owners of working, royalty, or other oil and gas interests in the Unit Area subject to this Agreement; and

WHEREAS, the Mineral Leasing Act of February 25, 1920, 41 Stat. 437, as amended, 30 U.S.C. Secs. 181 et seq., authorizes Federal lessees and their representatives to unite with each other, or jointly or separately with others, in collectively adopting and operating a cooperative or unit plan of development or operation of any oil or gas pool, field, or like area, or any part thereof for the purpose of more properly conserving the natural resources thereof whenever determined and certified by the Secretary of the Interior to be necessary or advisable in the public interest; and

WHEREAS, the Commissioner of Public Lands of the State of New Mexico is authorized by an Act of the Legislature (Section 1, Chapter 88, Laws 1943, as amended by Section 1 of Chapter 176, Laws of 1961) (Chapter 19, Article 10, Section 45, New Mexico Statutes 1978 Annotated), to consent to and approve the development or operation of State lands under agreements made by lessees of State land jointly or severally with other lessees where such agreements provide for the unit operation or development of part of or all of any oil or gas pool, field or area; and

WHEREAS, the Commissioner of Public Lands of the State of New Mexico is authorized by an Act of the Legislature (Section 1, Chapter 88, Laws 1943, as amended by Section 1, Chapter 162, Laws of 1951) (Chapter 19, Article 10, Section 47, New Mexico Statutes 1978 Annotated) to amend with the approval of lessee, evidenced by the lessee's execution of such agreement or otherwise, any oil and gas lease embracing State lands so that the length of the term of said lease may coincide with the term of such agreements for the unit operation and development of part or all of any oil or gas pool, field or area; and

WHEREAS, the Oil Conservation Division of the State of New Mexico (hereinafter referred to as the "Division") is authorized by an Act of the Legislature (Chapter 72, Laws of 1935 as amended) (Chapter 70, Article 2, Section 2 et seq., New Mexico Statutes 1978 Annotated) to approve this Agreement and the conservation provisions hereof; and

WHEREAS, the Oil Conservation Division of the Energy and Minerals Department of the State of New Mexico is authorized by law (Chapter 65, Article 3 and Article 14, N.M.S. 1953 Annotated) to approve this Agreement and the conservation provisions hereof; and

WHEREAS, the parties hereto hold sufficient interest in the Unit Area covering the land hereinafter described to give reasonably effective control of operations therein; and

WHEREAS, it is the purpose of the parties hereto to conserve natural resources, prevent waste, and secure other benefits obtainable through development and operation of the area subject to this Agreement under the terms, conditions, and limitations herein set forth;

NOW, THEREFORE, in consideration of the premises and the promises herein contained, the parties hereto commit to this Agreement their respective interest in the below-defined Unit Area, and agree severally among themselves as follows:

SECTION 1. ENABLING ACT AND REGULATIONS. The Mineral Leasing Act of February 25, 1920, as amended, supra, and all valid pertinent regulations, including operating and unit plan regulations, heretofore issued thereunder or valid, pertinent, and reasonable regulations hereafter issued thereunder are accepted and made a part of this Agreement as to Federal lands, provided such regulations are not inconsistent with the terms of this Agreement; and as to non-Federal lands, the oil and gas operating regulations in effect as of the Effective Date hereof governing drilling and producing operations, not inconsistent with the terms hereof or the laws of the state in which the non-Federal land is located, are hereby accepted and made a part of this Agreement.

SECTION 2. UNIT AREA AND DEFINITIONS. For the purpose of this Agreement, the following terms and expressions as used herein shall mean:

(a) "Unit Area" is defined as those lands described in Exhibit "B" and depicted on Exhibit "A" hereof, and such land is hereby designated and recognized as constituting the Unit Area, containing 14,190 acres, more or less, in Lea County, New Mexico.

(b) "Land Commissioner" is defined as the Commissioner of Public Lands of the State of New Mexico.

(c) "Division" is defined as the Oil Conservation Division of the Department of Energy and Minerals of the State of New Mexico.

(d) "Authorized Officer" or "A.O." is any employee of the Bureau of Land Management who has been delegated the required authority to act on behalf of the BLM.

(e) "Secretary" is defined as the Secretary of the Interior of the United States of America, or his duly authorized delegate.

(f) "Department" is defined as the Department of the Interior of the United States of America.

(g) "Proper BLM Office" is defined as the Bureau of Land Management office having jurisdiction over the federal lands included in the Unit Area.

(h) "Unitized Formation" shall mean that interval underlying the Unit Area, the vertical limits of which extend from an upper limit described as 100 feet below mean sea level or at the top of the Grayburg formation, whichever is higher, to a lower limit at the base of the San Andres formation; the geologic markers having been previously found to occur at 3,657 feet and 5,290 feet, respectively, in Continental Oil Company's #23 Meyer B-4 well (located at 660 feet FSL and 1,980 feet FEL of Section 4, T-21-S, R-36-E, Lea County, New Mexico) as recorded on the Welex Acoustic Velocity Log taken on October 30, 1962, said log being measured from a kelly drive bushing elevation of 3,595 feet above sea level.

(i) "Unitized Substances" are all oil, gas, gaseous substances, sulphur contained in gas, condensate, distillate and all associated and constituent liquid or liquefiable hydrocarbons, other than outside substances, within and produced from the Unitized Formation.

(j) "Tract" is each parcel of land described as such and given a Tract number in Exhibit "B".

(k) "Tract Participation" is defined as the percentage of participation shown on Exhibit "B" for allocating Unitized Substances to a Tract under this Agreement.

(l) "Unit Participation" is the sum of the percentages obtained by multiplying the Working Interest of a Working Interest Owner in each Tract by the Tract Participation of such Tract.

(m) "Working Interest" is the right to search for, produce and acquire Unitized Substances whether held as an incident of ownership of mineral fee simple title, under an oil and gas lease, operating agreement, or otherwise held, which interest is chargeable with and obligated to pay or bear, either in cash or out of production, or otherwise, all or a portion of the cost of drilling, developing and producing the Unitized Substances from the Unitized Formation and operations thereof hereunder. Provided that any royalty interest created out of a working interest subsequent to the execution of this Agreement by the owner of the working interest shall continue to be subject to such working interest burdens and obligations.

(n) "Working Interest Owner" is any party hereto owning a Working Interest, including a carried working interest owner, holding an interest in Unitized Substances by virtue of a lease, operating agreement, fee title or otherwise. The owner of oil and gas rights that are free of lease or other instrument creating a Working Interest in another shall be regarded as a Working Interest Owner to the extent of seven-eighths (7/8) of his interest in Unitized Substances, and as a Royalty Owner with respect to his remaining one-eighth (1/8) interest therein.

(o) "Royalty Interest" or "Royalty" is an interest other than a Working Interest in or right to receive a portion of the Unitized Substances or the proceeds thereof and includes the royalty interest reserved by the lessor or by an oil and gas lease and any overriding royalty interest, oil payment interest, net profit contracts, or any other payment or burden which does not carry with it the right to search for and produce unitized substances.

(p) "Royalty Owner" is the owner of a Royalty Interest.

(q) "Unit Operating Agreement" is the agreement entered into by and between the Unit Operator and the Working Interest Owners as provided in Section 9, *infra*, and shall be styled "Unit Operating Agreement, Eunice Monument South Unit, Lea County, New Mexico".

(r) "Oil and Gas Rights" is the right to explore, develop and operate lands within the Unit Area for the production of Unitized Substances, or to share in the production so obtained or the proceeds thereof.

(s) "Outside Substances" is any substance obtained from any source other than the Unitized Formation and injected into the Unitized Formation.

(t) "Unit Manager" is any person or corporation appointed by Working Interest Owners to perform the duties of Unit Operator until the selection and qualification of a successor Unit Operator as provided for in Section 7 hereof.

(u) "Unit Operator" is the party designated by Working Interest Owners under the Unit Operating Agreement to conduct Unit Operations.

(v) "Unit Operations" is any operation conducted pursuant to this Agreement and the Unit Operating Agreement.

(w) "Unit Equipment" is all personal property, lease and well equipment, plants, and other facilities and equipment taken over or otherwise acquired for the joint account for use in Unit Operations.

(x) "Unit Expense" is all cost, expense, or indebtedness incurred by Working Interest Owners or Unit Operator pursuant to this Agreement and the Unit Operating Agreement for or on account of Unit Operations.

(y) "Effective Date" is the date determined in accordance with Section 24, or as redetermined in accordance with Section 39.

SECTION 3. EXHIBITS. The following exhibits are incorporated herein by reference: Exhibit "A" attached hereto is a map showing

the Unit Area and the boundaries and identity of tracts and leases in said Unit Area to the extent known to the Unit Operator. Exhibit "B" attached hereto is a schedule showing, to the extent known to the Unit Operator, the acreage comprising each Tract, percentages and kind of ownership of oil and gas interests in all land in the Unit Area, and Tract Participation of each Tract. However, nothing herein or in said schedule or map shall be construed as a representation by any party hereto as to the ownership of any interest other than such interest or interests as are shown in said map or schedule as owned by such party. The shapes and descriptions of the respective Tracts have been established by using the best information available. Each Working Interest Owner is responsible for supplying Unit Operator with accurate information relating to each Working Interest Owner's interest. If it subsequently appears that any Tract, because of diverse royalty or working interest ownership on the Effective Date hereof, should be divided into more than one Tract, or when any revision is requested by the A.O., or any correction of any error other than mechanical miscalculations or clerical is needed, then the Unit Operator, with the approval of the Working Interest owners, may correct the mistake by revising the exhibits to conform to the facts. The revision shall not include any reevaluation of engineering or geological interpretations used in determining Tract Participation. Each such revision of an exhibit made prior to thirty (30) days after the Effective Date shall be effective as of the Effective Date. Each other such revision of an exhibit shall be effective at 7:00 a.m. on the first day of the calendar month next following the filing for record of the revised exhibit or on such other date as may be determined by Working Interest Owners and set forth in the revised exhibit. Copies of such revision shall be filed with the Land Commissioner, and not less than four copies shall be filed with the A.O. In any such revision, there shall be no retroactive allocation or adjustment of Unit Expense or of interests in the Unitized Substances produced, or proceeds thereof.

SECTION 4. EXPANSION. The above described Unit Area may, with the approval of the A.O. and Land Commissioner, when practicable be expanded to include therein any additional Tract or Tracts regarded as reasonably necessary or advisable for the purposes of this Agreement provided however, in such expansion there shall be no retroactive allocation or adjustment of Unit Expense or of interests in the Unitized Substances produced, or proceeds thereof. Pursuant to Subsection (b), the Working Interest Owners may agree upon an adjustment of investment by reason of the expansion. Such expansion shall be effected in the following manner:

(a) The Working Interest Owner or Owners of a Tract or Tracts desiring to bring such Tract or Tracts into this unit, shall file an application therefor with Unit Operator requesting such admission.

(b) Unit Operator shall circulate a notice of the proposed expansion to each Working Interest Owner in the Unit Area and in the Tract proposed to be included in the unit, setting out the basis for admission, the Tract Participation to be assigned to each Tract in the enlarged Unit Area and other pertinent data. After negotiation (at Working Interest Owners' meeting or otherwise) if at least three Working Interest Owners having in the aggregate seventy-five percent (75%) of the Unit Participation then in effect have agreed to inclusion of such Tract or Tracts in the Unit Area, then Unit Operator shall:

(1) After obtaining preliminary concurrence by the A.O. and Land Commissioner, prepare a notice of proposed expansion describing the contemplated changes in the boundaries of the Unit Area, the reason therefor, the basis for admission of the additional Tract or Tracts, the Tract Participation to be assigned thereto and the proposed effective date thereof; and

(2) Deliver copies of said notice to Land Commissioner, the A.O. at the Proper BLM Office, each Working Interest Owner and to the last known address of each lessee and lessor whose interests are affected, advising such parties that thirty (30) days will be allowed for submission to the Unit Operator of any objection to such proposed expansion; and

(3) File, upon the expiration of said thirty (30) day period as set out in (2) immediately above with the Land Commissioner and A.O. the following: (a) evidence of mailing or delivering copies of said notice of expansion; (b) an application for approval of such expansion; (c) an instrument containing the appropriate joinders in compliance with the participation requirements of Section 14, and Section 34, infra; and (d) a copy of all objections received along with the Unit Operator's response thereto.

The expansion shall, after due consideration of all pertinent information and approval by the Land Commissioner and the A.O., become effective as of the date prescribed in the notice thereof, preferably the first day of the month subsequent to the date of notice. The revised Tract Participation of the respective Tracts included within the Unit Area prior to such enlargement shall remain the same ratio one to another.

SECTION 5. UNITIZED LAND. All land committed to this Agreement as to the Unitized Formation shall constitute land referred to herein as "Unitized Land" or "Land subject to this Agreement". Nothing herein shall be construed to unitize, pool, or in any way affect the oil, gas and other minerals contained in or that may be produced from any formation other than the Unitized Formation as defined in Section 2(h) of this Agreement.

SECTION 6. UNIT OPERATOR. GULF OIL CORPORATION is hereby designated the Unit Operator, and by signing this instrument as Unit Operator, agrees and consents to accept the duties and obligations of Unit Operator for the operation, development, and production of Unitized Substances as herein provided. Whenever reference is made herein to the Unit Operator, such reference means the Unit Operator acting in that capacity and not as an owner of interests in Unitized Substances, when such interests are owned by it and the term "Working Interest Owner" when used herein shall include or refer to the Unit Operator as the owner of a Working Interest when such an interest is owned by it.

Unit Operator shall have a lien upon interests of Working Interest Owners in the Unit Area to the extent provided in the Unit Operating Agreement.

SECTION 7. RESIGNATION OR REMOVAL OF UNIT OPERATOR. Unit Operator shall have the right to resign at any time, but such resignation shall not become effective so as to release Unit Operator from the duties and obligations of Unit Operator and terminate Unit Operator's rights as such for a period of six (6) months after written notice of intention to resign has been given by Unit Operator to all Working Interest Owners, the Land Commissioner and the A.O. unless a new Unit Operator shall have taken over and assumed the duties and obligations of Unit Operator prior to the expiration of said period.

The Unit Operator shall, upon default or failure in the performance of its duties and obligations hereunder, be subject to removal by Working Interest Owners having in the aggregate eighty percent (80%) or more of the Unit Participation then in effect exclusive of the Working Interest Owner who is the Unit Operator. Such removal shall be effective upon notice thereof to the Land Commissioner and the A.O.

In all such instances of effective resignation or removal, until a successor to Unit Operator is selected and approved as hereinafter provided, the Working Interest Owners shall be jointly responsible for the performance of the duties of the Unit Operator and shall, not later than thirty (30) days before such resignation or removal becomes effective, appoint a Unit Manager to represent them in any action to be taken hereunder.

The resignation or removal of Unit Operator under this Agreement shall not terminate its right, title or interest as the owner of a Working Interest or other interest in Unitized Substances, but upon the resignation or removal of Unit Operator becoming effective, such Unit Operator shall deliver possession of all wells, equipment, books and records, materials, appurtenances and any

other assets used in connection with the Unit Operations to the new duly qualified successor Unit Operator or to the Unit Manager if no such new Unit Operator is elected. Nothing herein shall be construed as authorizing the removal of any material, equipment or appurtenances needed for the preservation of any wells. Nothing herein contained shall be construed to relieve or discharge any Unit Operator or Unit Manager who resigns or is removed hereunder from any liability or duties accruing or performable by it prior to the effective date of such resignation or removal.

SECTION 8. SUCCESSOR UNIT OPERATOR. Whenever the Unit Operator shall tender its resignation as Unit Operator or shall be removed as hereinabove provided, the Working Interest Owners shall select a successor Unit Operator as herein provided. Such selection shall not become effective until (a) a Unit Operator so selected shall accept in writing the duties and responsibilities of Unit Operator, and (b) the selection shall have been approved by the Land Commissioner and the A.O. If no successor Unit Operator or Unit Manager is selected and qualified as herein provided, the Land Commissioner and/or the A.O., at their election, may declare this Agreement terminated.

In selecting a successor Unit Operator, the affirmative vote of three or more Working Interest Owners having a total of sixty-five percent (65%) or more of the total Unit Participation shall prevail; provided that if any one Working Interest Owner has a Unit Participation of more than thirty-five percent (35%), its negative vote or failure to vote shall not be regarded as sufficient unless supported by the vote of one or more other Working Interest Owners having a total Unit Participation of at least five percent (5%). If the Unit Operator who is removed votes only to succeed itself or fails to vote, the successor Unit Operator may be selected by the affirmative vote of the owners of at least seventy-five percent (75%) of the Unit Participation remaining after excluding the Unit Participation of Unit Operator so removed.

SECTION 9. ACCOUNTING PROVISIONS AND UNIT OPERATING AGREEMENT. Costs and expenses incurred by Unit Operator in conducting Unit Operations hereunder shall be paid, apportioned among and borne by the Working Interest Owners in accordance with the Unit Operating Agreement. Such Unit Operating Agreement shall also provide the manner in which the Working Interest Owners shall be entitled to receive their respective proportionate and allocated share of the benefits accruing hereto in conformity with their underlying operating agreements, leases or other contracts and such other rights and obligations as between Unit Operator and the Working Interest Owners as may be agreed upon by the Unit Operator and the Working Interest Owners; however, no such Unit Operating Agreement shall be deemed either to modify any of the terms and conditions of this Agreement or to relieve the Unit Operator of any right or obligation established under this Agreement, and in case of any inconsistency or conflict between this Agreement and the Unit Operating Agreement, this Agreement shall prevail. Copies of any Unit Operating Agreement executed pursuant to this Section shall be filed with the Land Commissioner and with the A.O. at the Proper BLM Office as required prior to approval of this Agreement.

SECTION 10. RIGHTS AND OBLIGATIONS OF UNIT OPERATOR. Except as otherwise specifically provided herein, the exclusive right, privilege and duty of exercising any and all rights of the parties hereto including surface rights which are necessary or convenient for prospecting for, producing, storing, allocating and distributing the Unitized Substances are hereby delegated to and shall be exercised by the Unit Operator as herein provided. Upon request, acceptable evidence of title to said rights shall be deposited with said Unit Operator, and together with this Agreement, shall constitute and define the rights, privileges and obligations of Unit Operator. Nothing herein, however, shall be construed to transfer title to any land or to any lease or operating agreement, it being understood that under this Agreement the Unit Operator, in its capacity as Unit Operator, shall exercise the rights of interest vested in the parties hereto only for the purposes herein specified.

SECTION 11. PLAN OF OPERATIONS. It is recognized and agreed by the parties hereto that all of the land subject to this Agreement is reasonably proved to be productive of Unitized Substances and that the object and purpose of this Agreement is to formulate and to put into effect an improved recovery project in order to effect additional recovery of Unitized Substances, prevent waste and conserve natural resources. Unit Operator shall have the right to inject into the Unitized Formation any substances for secondary recovery or enhanced recovery purposes in accordance with a plan of operation approved by the Working Interest Owners, the A.O., the Land Commissioner and the Division, including the right to drill and maintain injection wells on the Unitized Land and completed in the Unitized Formation, and to use abandoned well or wells producing from the Unitized Formation for said purpose. Subject to like approval, the Plan of Operation may be revised as conditions may warrant.

The initial Plan of Operation shall be filed with the A.O., the Land Commissioner and the Division concurrently with the filing of this Unit Agreement for final approval. Said initial plan of operations and all revisions thereof shall be as complete and adequate as the A.O., the Land Commissioner and the Division may determine to be necessary for timely operation consistent herewith. Upon approval of this Agreement and the initial plan by the A.O. and Commissioner, said plan, and all subsequently approved plans, shall constitute the operating obligations of the Unit Operator under this Agreement for the period specified therein. Thereafter, from time to time before the expiration of any existing plan, the Unit Operator shall submit for like approval a plan for an additional specified period of operations. After such operations are commenced, reasonable diligence shall be exercised by the Unit Operator in complying with the obligations of the approved Plan of Operation.

Notwithstanding anything to the contrary herein contained, should the Unit Operator fail to commence Unit Operations for the secondary recovery of Unitized Substances from the Unit Area within eighteen (18) months after the effective date of this Agreement, or any extension thereof approved by the A.O., this Agreement shall terminate automatically as of the date of default.

SECTION 12. USE OF SURFACE AND USE OF WATER. The parties to the extent of their rights and interests, hereby grant to Unit Operator the right to use as much of the surface, including the water thereunder, of the Unitized Land as may reasonably be necessary for Unit Operations.

Unit Operator's free use of water or brine or both for Unit Operations, shall not include any water from any well, lake, pond or irrigation ditch of a surface owner, unless approval for such use is granted by the surface owner.

Unit Operator shall pay the surface owner for damages to growing crops, fences, improvements and structures on the Unitized Land that result from Unit Operations, and such payments shall be considered as items of unit expense to be borne by all the Working Interest Owners of lands subject hereto.

SECTION 13. TRACT PARTICIPATION. In Exhibit "B" attached hereto there are listed and numbered the various Tracts within the Unit Area, and set forth opposite each Tract are figures which represent the Tract Participation, during Unit Operations if all Tracts in the Unit Area qualify as provided herein. The Tract Participation of each Tract as shown in Exhibit "B" was determined in accordance with the following formula:

Tract Participation = 50% A/B + 40% C/D + 10% E/F

A = the Tract Cumulative Oil Production from the Unitized Formation as of September 30, 1982.

B = the Unit Total Cumulative Oil Production from the Unitized Formation as of September 30, 1982.

C = the Remaining Primary Oil Reserves from the Unitized Formation for the Tract, beginning October 1, 1982, as determined by the Technical Committee on February 25, 1983.

D = the Remaining Primary Oil Reserves from the Unitized Formation for all Unit Tracts, beginning October 1, 1982, as determined by the Technical Committee on February 25, 1983.

E = the amount of oil produced from the Unitized Formation by the Tract from January 1, 1982, through September 30, 1982.

F = the amount of oil produced from the Unitized Formation by all Unit Tracts from January 1, 1982, through September 30, 1982.

In the event less than all Tracts are qualified on the Effective Date hereof, the Tract Participation shall be calculated on the basis of all such qualified Tracts rather than all Tracts in the Unit Area.

SECTION 14. TRACTS QUALIFIED FOR PARTICIPATION. On and after the Effective Date hereof, the Tracts within the Unit Area which shall be entitled to participation in the production of Unitized Substances shall be those Tracts more particularly described in Exhibit "B" that corner or have a common boundary (Tracts separated only by a public road or a railroad right-of-way shall be considered to have a common boundary), and that otherwise qualify as follows:

(a) Each Tract as to which Working Interest Owners owning one hundred percent (100%) of the Working Interest have become parties to this Agreement and as to which Royalty Owners owning seventy-five percent (75%) or more of the Royalty Interest have become parties to this Agreement.

(b) Each Tract as to which Working Interest Owners owning one hundred percent (100%) of the Working Interest have become parties to this Agreement, and as to which Royalty Owners owning less than seventy-five percent (75%) of the Royalty Interest have become parties to this Agreement, and as to which (1) the Working Interest Owner who operates the Tract and Working Interest Owners owning at least seventy-five percent (75%) of the remaining Working Interest in such Tract have joined in a request for the inclusion of such Tract, and as to which (2) Working Interest Owners owning at least seventy-five percent (75%) of the combined Unit Participation in all Tracts that meet the requirements of Section 14(a) above have voted in favor of the inclusion of such tract.

(c) Each Tract as to which Working Interest Owners owning less than one hundred percent (100%) of the Working Interest have become parties to this Agreement, regardless of the percentage of Royalty Interest therein that is committed hereto; and as to which (1) the Working Interest Owner who operates the Tract and Working Interest Owner owning at least seventy-five percent (75%) of the remaining Working Interest in such Tract who have become parties to this Agreement have joined in a request for inclusion of such Tract, and have executed and delivered, or obligated themselves to execute and deliver an indemnity agreement indemnifying and agreeing to hold harmless the other owners of committed Working Interests, their successors and assigns, against all claims and demands that may be made by the owners of Working Interest in such Tract who are not parties to this Agreement, and which arise out of the inclusion of the Tract; and as to which (2) Working Interest Owners owning at least seventy-five percent (75%) of the Unit Participation in all Tracts that meet the requirements of Section 14(a) and 14(b) have voted in favor of the inclusion of such Tract and to accept the indemnity agreement. Upon the inclusion of such a Tract, the Tract Participations which would have been attributed to the nonsubscribing owners of Working Interest in such Tract, had they become parties to this Agreement and the Unit Operating Agreement, shall be attributed to the Working Interest Owners in

such Tract who have become parties to such agreements, and joined in the indemnity agreement, in proportion to their respective Working Interests in the Tract.

If on the Effective Date of this Agreement there is any Tract or Tracts which have not been effectively committed to or made subject to this Agreement by qualifying as above provided, then such Tract or Tracts shall not be entitled to participate hereunder. Unit Operator shall, when submitting this Agreement for final approval by the Land Commissioner and the A.O., file therewith a schedule of those tracts which have been committed and made subject to this Agreement and are entitled to participate in Unitized Substances. Said schedule shall set forth opposite each such committed Tract the lease number or assignment number, the owner of record of the lease, and the percentage participation of such tract which shall be computed according to the participation formula set forth in Section 13 (Tract Participation) above. This schedule of participation shall be revised Exhibit "B" and upon approval thereof by the Land Commissioner and the A.O., shall become a part of this Agreement and shall govern the allocation of production of Unitized Substances until a new schedule is approved by the Land Commissioner and A.O.

SECTION 15.A. ALLOCATION OF UNITIZED SUBSTANCES. All Unitized Substances produced and saved (less, save and except any part of such Unitized Substances used in conformity with good operating practices on unitized land for drilling, operating, camp and other production or development purposes and for injection or unavoidable loss in accordance with a Plan of Operation approved by the A.O. and Land Commissioner) shall be apportioned among and allocated to the qualified Tracts in accordance with the respective Tract Participations effective hereunder during the respective periods such Unitized Substances were produced, as set forth in the schedule of participation in Exhibit "B". The amount of Unitized Substances so allocated to each Tract, and only that amount (regardless of whether it be more or less than the amount of the actual production of Unitized Substances from the well or wells, if any, on such Tract) shall, for all intents, uses and purposes, be deemed to have been produced from such Tract.

The Unitized Substances allocated to each Tract shall be distributed among, or accounted for, to the parties entitled to share in the production from such Tract in the same manner, in the same proportions, and upon the same conditions, as they would have participated and shared in the production from such Tracts, or in the proceeds thereof, had this Agreement not been entered into; and with the same legal force and effect.

No Tract committed to this Agreement and qualified for participation as above provided shall be subsequently excluded from participation hereunder on account of depletion of Unitized Substances.

If the Working Interest and/or the Royalty Interest in any Tract are divided with respect to separate parcels or portions of such Tract and owned now or hereafter in severalty by different persons, the Tract Participation shall in the absence of a recordable instrument executed by all owners in such Tract and furnished to Unit Operator fixing the divisions of ownership, be divided among such parcels or portions in proportion to the number of surface acres in each.

SECTION 15.B. WINDFALL PROFIT TAX. In order to comply with the Windfall Profit Tax Act of 1980, as amended, and applicable regulations and to ensure that interest owners of each Tract retain the Windfall Profit Tax benefits accruing to each Tract prior to January 1, 2025, for Windfall Profit Tax purposes only, crude oil shall be allocated to individual Tracts as follows:

SECTION 15.C. IMPUTED NEWLY DISCOVERED CRUDE OIL. Each Tract contributing newly discovered crude oil to the Unit Area, that is, each Tract certified as a newly discovered property for Windfall Profit Tax purposes prior to joining the Unit (Newly Discovered Tract), shall be allocated imputed newly discovered crude oil in the proportion that the Tract Participation of such Tract bears to the total of the Tract Participations of all Newly discovered Tracts; provided, however, that imputed newly discovered crude oil allocated to any Tract under this Subsection 15.C. shall not exceed, in any month, the total number of barrels of crude oil allocable out of unit production to such Tract in accordance with its Tract Participation. In the event a Newly Discovered Tract is so allocated a number of barrels of imputed newly discovered crude oil which is less than the total number of barrels of crude oil allocable out of unit production to such Tract in accordance with its Tract Participation, then such Newly Discovered Tract shall be allocated any remaining unallocated newly discovered crude oil in the proportion that the Tract Participation of such Tract bears to the total of the Tract Participations of all Newly Discovered Tracts not previously so allocated the total number of barrels allocable out of unit production in accordance with their Tract Participations. This additional allocation process shall continue to be repeated, as outlined in the preceding sentence, until such time as:

(a) all Newly Discovered Tracts have been so allocated a number of barrels of imputed newly discovered crude oil equal to the total number of barrels of crude oil allocable out of unit production to such Tracts in accordance with their Tract Participations; or

(b) there is no imputed newly discovered crude oil remaining to be allocated,

whichever occurs first.

Any imputed newly discovered crude oil in excess of the amount of oil allocable to a Tract in accordance with this Subsection 15.C. shall be termed excess imputed newly discovered crude oil.

SECTION 15.D. IMPUTED STRIPPER CRUDE OIL. Each Tract contributing stripper crude oil to the Unit Area, that is, each Tract certified as a stripper property for Windfall Profit Tax purposes prior to joining the Unit (Stripper Tract), shall be allocated imputed stripper crude oil in the proportion that the Tract Participation of such Tract bears to the total of the Tract Participations of all Stripper Tracts; provided, however, that imputed stripper crude oil allocated to any Tract under this Subsection 15.D. shall not exceed, in any month, the total number of barrels of crude oil allocable out of unit production to such Tract in accordance with its Tract Participation. In the event a Stripper Tract is so allocated a number of barrels of imputed stripper crude oil which is less than the total number of barrels of crude oil allocable out of unit production to such Tract in accordance with its Tract Participation, then such Stripper Tract shall be allocated any remaining unallocated imputed stripper crude oil in the proportion that the Tract Participation of such Tract bears to the total of the Tract Participations of all Stripper Tracts not previously so allocated the total number of barrels allocable out of unit production in accordance with their Tract Participations. This additional allocation process shall continue to be repeated, as outlined in the preceding sentence, until such time as:

(a) all Stripper Tracts have been so allocated a number of barrels of imputed stripper crude oil equal to the total number of barrels of crude oil allocable out of unit production to such Tracts in accordance with their Tract Participations; or

(b) there is no imputed stripper crude oil remaining to be allocated,

whichever comes first.

Any imputed stripper crude oil in excess of the amount of oil allocable to a Tract in accordance with this Subsection 15.D. shall be termed excess imputed stripper crude oil.

SECTION 15.E. EXCESS IMPUTED NEWLY DISCOVERED CRUDE OIL.

Each Tract shall be allocated any excess imputed newly discovered crude oil in the proportion that its Tract Participation bears to the total of the Tract Participations of all Tracts not previously allocated the total number of barrels of crude oil allocable to these Tracts out of unit production in accordance with the Tract Participations of such Tracts; provided, however, that excess imputed newly discovered crude oil allocated to each such Tract, when added to the total number of barrels of imputed newly discovered crude oil previously allocated to it, shall not exceed, in any month, the total number of barrels of oil allocable to it out of unit production in accordance with its Tract Participation.

SECTION 15.F. EXCESS IMPUTED STRIPPER CRUDE OIL.

Each Tract shall be allocated any excess imputed stripper crude oil in the proportion that its Tract Participation bears to the total of the Tract Participations of all Tracts not previously allocated the total number of crude oil barrels allocable to these Tracts out of unit production in accordance with the Tract Participations of such Tracts; provided, however, that excess imputed stripper crude oil allocated to each such Tract, when added to the total number of barrels of imputed stripper crude oil previously allocated to it, shall not exceed, in any month, the total number of barrels of oil allocable to it out of unit production in accordance with its Tract Participation.

SECTION 15.G. TAKING UNITIZED SUBSTANCES IN KIND.

The Unitized Substances allocated to each Tract shall be delivered in kind to the respective parties entitled thereto by virtue of the ownership of oil and gas rights therein. Each such party shall have the right to construct, maintain and operate all necessary facilities for that purpose within the Unitized Area, provided the same are so constructed, maintained and operated as not to interfere with Unit Operations. Subject to Section 17 hereof, any extra expenditure incurred by Unit Operator by reason of the delivery in kind of any portion of the Unitized Substances shall be borne by the party taking delivery. In the event any Working Interest Owner shall fail to take or otherwise adequately dispose of its proportionate share of the production from the Unitized Formation, then so long as such condition continues, Unit Operator, for the account and at the expense of the Working Interest Owner of the Tract or Tracts concerned, and in order to avoid curtailing the operation of the Unit Area, may, but shall not be required to, sell or otherwise dispose of such production to itself or to others, provided that all contracts of sale by Unit Operator of any other party's share of Unitized Substances shall be only for such reasonable periods of time as are consistent with the minimum needs of the industry under the circumstances, but in no event shall any such contract be for a period in excess of one year, and at not less than the prevailing market price in the area for like production, and the account of such Working Interest Owner shall be charged therewith as having received such production. The net proceeds, if any, of the Unitized Substances so disposed of by Unit Operator shall be paid to the Working Interest Owner of the Tract or Tracts concerned. Notwithstanding the foregoing, Unit Operator shall not make a sale into interstate commerce of any Working Interest Owner's share of gas production without first giving such Working Interest Owner sixty (60) days' notice of such intended sale.

Any Working Interest Owner receiving in kind or separately disposing of all or any part of the Unitized Substances allocated to any Tract, or receiving the proceeds therefrom if the same is sold or purchased by Unit Operator, shall be responsible for the payment of all royalty, overriding royalty and production payments due thereon, and each such party shall hold each other Working Interest Owner harmless against all claims, demands and causes of

action by owners of such royalty, overriding royalty and production payments.

If, after the Effective Date of this Agreement, there is any Tract or Tracts that are subsequently committed hereto, as provided in Section 4 (Expansion) hereof, or any Tract or Tracts within the Unit Area not committed hereto as of the Effective Date hereof but which are subsequently committed hereto under the provisions of Section 14 (Tracts Qualified for Participation) and Section 32 (Nonjoinder and Subsequent Joinder); or if any Tract is excluded from this Agreement as provided for in Section 21 (Loss of Title), the schedule of participation as shown in Exhibit "B" shall be revised by the Unit Operator; and the revised Exhibit "B", upon approval by the Land Commissioner and the A.O., shall govern the allocation of production on and after the effective date thereof until a revised schedule is approved as hereinabove provided.

SECTION 16. OUTSIDE SUBSTANCES. If gas obtained from formations not subject to this Agreement is introduced into the Unitized Formation for use in repressuring, stimulating of production or increasing ultimate recovery which shall be in conformity with a Plan of Operation first approved by the Land Commissioner and the A.O., a like amount of gas with appropriate deduction for loss or depletion from any cause may be withdrawn from unit wells completed in the Unitized Formation royalty free as to dry gas, but not royalty free as to the products extracted therefrom; provided that such withdrawal shall be at such time as may be provided in the approved Plan of Operator or as otherwise may be consented to or prescribed by the Land Commissioner and the A.O. as conforming to good petroleum engineering practices and provided further that such right of withdrawal shall terminate on the termination date of this Agreement.

SECTION 17. ROYALTY SETTLEMENT. The State of New Mexico and United States of America and all Royalty Owners who, under an existing contract, are entitled to take in kind a share of the substances produced from any Tract unitized hereunder, shall continue to be entitled to such right to take in kind their share of the Unitized Substances allocated to such Tract, and Unit Operator shall make deliveries of such Royalty share taken in kind in conformity with the applicable contracts, laws and regulations. Settlement for Royalty not taken in kind shall be made by Working Interest Owners responsible therefor under existing contracts, laws and regulations on or before the last day of each month for Unitized Substances produced during the preceding calendar month; provided, however, that nothing herein contained shall operate to relieve the lessees of any land from their respective lease obligations for the payment of any Royalty due under the leases, except that such Royalty shall be computed on Unitized Substances as allocated to each Tract in accordance with the terms of this Agreement. With respect to Federal leases committed hereto on which the royalty rate depends upon the daily average production per well, such average production shall be determined in accordance with the operating regulations pertaining to Federal leases as though the committed Tracts were included in a single consolidated lease.

If the amount of production or the proceeds thereof accruing to any Royalty Owner (except the United States of America) in a Tract depends upon the average production per well or the average pipeline runs per well from such Tract during any period of time, then such production shall be determined from and after the effective date hereof by dividing the quantity of Unitized Substances allocated hereunder to such Tract during such period of time by the number of wells located thereon capable of producing Unitized Substances as of the Effective Date hereof, provided that any Tract not having any well so capable of producing Unitized Substances on the Effective Date hereof shall be considered as having one such well for the purpose of this provision.

All Royalty due the State of New Mexico and the United States of America and the other Royalty Owners hereunder shall be computed and paid on the basis of all Unitized Substances allocated to the

respective Tract or Tracts committed hereto, in lieu of actual production from such Tract or Tracts.

With the exception of Federal and State requirements to the contrary, Working Interest Owners may use or consume Unitized Substances for Unit Operations and no Royalty, overriding royalty, production or other payments shall be payable on account of Unitized Substances used, lost, or consumed in Unit Operations.

Each Royalty Owner (other than the State of New Mexico and the United States of America) that executes this Agreement represents and warrants that it is the owner of a Royalty Interest in a Tract or Tracts within the Unit Area as its interest appears in Exhibit "B" attached hereto. If any Royalty Interest in a Tract or Tracts should be lost by title failure or otherwise in whole or in part, during the term of this Agreement, then the Royalty Interest of the party representing himself to be the owner thereof shall be reduced proportionately and the interests of all parties shall be adjusted accordingly.

SECTION 18. RENTAL SETTLEMENT. Rentals or minimum Royalties due on the leases committed hereto shall be paid by Working Interest Owners responsible therefor under existing contracts, laws and regulations provided that nothing herein contained shall operate to relieve the lessees of any land from their respective lease obligations for the payment of any rental or minimum Royalty in lieu thereof, due under their leases. Rental for lands of the State of New Mexico subject to this Agreement shall be paid at the rate specified in the respective leases from the State of New Mexico. Rental or minimum Royalty for lands of the United States of America subject to this Agreement shall be paid at the rate specified in the respective leases from the United States of America, unless such rental or minimum Royalty is waived, suspended or reduced by law or by approval of the Secretary or his duly authorized representative.

SECTION 19. CONSERVATION. Operations hereunder and production of Unitized Substances shall be conducted to provide for the most economical and efficient recovery of said substances without waste, as defined by or pursuant to Federal and State laws and regulations.

SECTION 20. DRAINAGE. The Unit Operator shall take all reasonable and prudent measures to prevent drainage of Unitized Substances from unitized land by wells on land not subject to this Agreement.

The Unit Operator, upon approval by the Working Interest Owners, the A.O. and the Land Commissioner, is hereby empowered to enter into a borderline agreement or agreements with working interest owners of adjoining lands not subject to this Agreement with respect to operation in the border area for the maximum economic recovery, conservation purposes and proper protection of the parties and interest affected.

SECTION 21. LOSS OF TITLE. In the event title to any Tract of unitized land shall fail and the true owner cannot be induced to join in this Agreement, such Tract shall be automatically regarded as not committed hereto, and there shall be such readjustment of future costs and benefits as may be required on account of the loss of such title. In the event of a dispute as to title to any Royalty, Working Interest, or other interests subject thereto, payment or delivery on account thereof may be withheld without liability for interest until the dispute is finally settled; provided, that, as to State or Federal lands or leases, no payments of funds due the United States or the State of New Mexico shall be withheld, but such funds shall be deposited as directed by the A.O. or Land Commissioner (as the case may be) to be held as unearned money pending final settlement of the title dispute, and then applied as earned or returned in accordance with such final settlement.

If the title or right of any party claiming the right to receive in kind all or any portion of the Unitized Substances allocated to a Tract is in dispute, Unit Operator at the direction of Working Interest Owners shall either:

(a) require that the party to whom such Unitized Substances are delivered or to whom the proceeds thereof are paid furnish security for the proper accounting therefor to the rightful owner if the title or right of such party fails in whole or in part, or

(b) withhold and market the portion of Unitized Substances with respect to which title or right is in dispute, and impound the proceeds thereof until such time as the title or right there-to is established by a final judgment of a court of competent jurisdiction or otherwise to the satisfaction of Working Interest Owners, whereupon the proceeds so impounded shall be paid to the party rightfully entitled thereto.

Each Working Interest Owner shall indemnify, hold harmless, and defend all other Working Interest Owners against any and all claims by any party against the interest attributed to such Working Interest Owner on Exhibit "B".

Unit Operator as such is relieved from any responsibility for any defect or failure of any title hereunder.

SECTION 22. LEASES AND CONTRACTS CONFORMED AND EXTENDED. The terms, conditions and provisions of all leases, subleases and other contracts relating to exploration, drilling, development or operation for oil or gas on lands committed to this Agreement are hereby expressly modified and amended to the extent necessary to make the same conform to the provisions hereof, but otherwise to remain in full force and effect, and the parties hereto hereby consent that the Secretary and the Land Commissioner, respectively, shall and by their approval hereof, or by the approval hereof by their duly authorized representatives, do hereby establish, alter, change or revoke the drilling, producing, rental, minimum Royalty and Royalty requirements of Federal and State leases committed hereto and the regulations in respect thereto to conform said requirements to the provisions of this Agreement.

Without limiting the generality of the foregoing, all leases, subleases and contracts are particularly modified in accordance with the following:

(a) The development and operation of lands subject to this Agreement under the terms hereof shall be deemed full performance of all obligations for development and operation with respect to each Tract subject to this Agreement, regardless of whether there is any development of any Tract of the Unit Area, notwithstanding anything to the contrary in any lease, operating agreement or other contract by and between the parties hereto, or their respective predecessors in interest, or any of them.

(b) Drilling, producing or improved recovery operations performed hereunder shall be deemed to be performed upon and for the benefit of each Tract, and no lease shall be deemed to expire by reason of failure to drill or produce wells situated on the land therein embraced.

(c) Suspension of drilling or producing operations within the Unit Area pursuant to direction or consent of the Land Commissioner and the A.O., or their duly authorized representatives, shall be deemed to constitute such suspension pursuant to such direction or consent as to each Tract within the Unitized Area.

(d) Each lease, sublease, or contract relating to the exploration, drilling, development, or operation for oil and gas which by its terms might expire prior to the termination of this Agreement, is hereby extended beyond any such term so provided therein, so that it shall be continued in full force and effect for and during the term of this Agreement.

(e) Any lease embracing lands of the State of New Mexico which is made subject to this Agreement shall continue in force beyond the term provided therein as to the lands committed hereto until the termination hereof.

(f) Any lease embracing lands of the State of New Mexico having only a portion of its land committed hereto shall be segregated as to that portion committed and that not committed, and the terms of such lease shall apply separately to such segregated portions

commencing as of the Effective Date hereof. Provided, however, that notwithstanding any of the provisions of this Agreement to the contrary, such lease (including both segregated portions) shall continue in full force and effect beyond the term provided therein as to all lands embraced in such lease if oil or gas is, or has heretofore been discovered in paying quantities on some part of the lands embraced in such lease committed to this Agreement or, so long as a portion of the Unitized Substances produced from the Unit Area is, under the terms of this Agreement, allocated to the portion of the lands covered by such lease committed to this Agreement, or, at any time during the term hereof, as to any lease that is then valid and subsisting and upon which the lessee or the Unit Operator is then engaged in bona fide drilling, reworking, or improved recovery operations on any part of the lands embraced in such lease, then the same as to all lands embraced therein shall remain in full force and effect so long as such operations are diligently prosecuted, and if they result in the production of oil or gas, said lease shall continue in full force and effect as to all of the lands embraced therein, so long thereafter as oil or gas in paying quantities is being produced from any portion of said lands.

(g) The segregation of any Federal lease committed to this Agreement is governed by the following provision in the fourth paragraph of Section 17(j) of the Mineral Leasing Act, as amended by the Act of September 2, 1960 (74 Stat. 781-784): "Any (Federal) lease heretofore or hereafter committed to any such (unit) plan embracing lands that are in part within and in part outside of the area covered by any such plan shall be segregated into separate leases as to the lands committed and the lands not committed as of the effective date of unitization; Provided, however, that any such lease as to the nonunitized portion shall continue in force and effect for the term thereof but for not less than two years from the date of such segregation and so long thereafter as oil or gas is produced in paying quantities."

SECTION 23. COVENANTS RUN WITH LAND. The covenants herein shall be construed to be covenants running with the land with respect to the interest of the parties hereto and their successors in interest until this Agreement terminates, and any grant, transfer or conveyance of interest in land or leases subject hereto shall be and hereby is conditioned upon the assumption of all privileges and obligations hereunder by the grantee, transferee or other successor in interest. No assignment or transfer of any Working Interest subject hereto shall be binding upon Unit Operator until the first day of the calendar month after Unit Operator is furnished with the original, or acceptable photostatic or certified copy, of the recorded instrument or transfer; and no assignment or transfer of any Royalty Interest subject hereto shall be binding upon the Working Interest Owner responsible therefor until the first day of the calendar month after said Working Interest Owner is furnished with the original, or acceptable photostatic or certified copy, of the recorded instrument or transfer.

SECTION 24. EFFECTIVE DATE AND TERM. This Agreement shall become binding upon each party who executes or ratifies it as of the date of execution or ratification by such party and shall become effective on the first day of the calendar month next following the approval of this Agreement by the A.O., the Land Commissioner and the Commission.

If this Agreement does not become effective on or before June 1, 1986, it shall ipso facto expire on said date (hereinafter called "Expiration Date") and thereafter be of no further force or effect, unless prior thereto this Agreement has been executed or ratified by Working Interest Owners owning a combined Participation of at least seventy five percent (75%); and at least seventy-five percent (75%) of such Working Interest Owners committed to this Agreement have decided to extend Expiration Date for a period not to exceed one (1) year (hereinafter called "Extended Expiration Date"). If Expiration Date is so extended and this Agreement does not become effective on or before Extended Expiration Date, it shall ipso facto expire on Extended Expiration Date and thereafter be of no further force and effect.

Unit Operator shall file for record within thirty (30) days after the Effective Date of this Agreement, in the office of the

County Clerk of Lea County, New Mexico, where a counterpart of this Agreement has become effective according to its terms and stating further the effective date.

The terms of this Agreement shall be for and during the time that Unitized Substances are produced from the unitized land and so long thereafter as drilling, reworking or other operations (including improved recovery operations) are prosecuted thereon without cessation of more than ninety (90) consecutive days unless sooner terminated as herein provided.

This Agreement may be terminated with the approval of the Land Commissioner and the A.O. by Working Interest Owners owning eighty percent (80%) of the Unit Participation then in effect whenever such Working Interest Owners determine that Unit Operations are no longer profitable, or in the interest of conservation. Upon approval, such termination shall be effective as of the first day of the month after said Working Interest Owners' determination. Notice of any such termination shall be filed by Unit Operator in the office of the County Clerk of Lea County, New Mexico, within thirty (30) days of the effective date of termination.

Upon termination of this Agreement, the parties hereto shall be governed by the terms and provisions of the leases and contracts affecting the separate Tracts just as if this Agreement had never been entered into.

Notwithstanding any other provision in the leases unitized under this Agreement, Royalty Owners hereby grant Working Interest Owners a period of six months after termination of this Agreement in which to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with Unit Operations.

SECTION 25. RATE OF PROSPECTING, DEVELOPMENT AND PRODUCTION. All production and the disposal thereof shall be in conformity with allocations and quotas made or fixed by any duly authorized person or regulatory body under any Federal or State statute. The A.O. is hereby vested with authority to alter or modify from time to time, in his discretion, the rate of prospecting and development and within the limits made or fixed by the Division to alter or modify the quantity and rate of production under this Agreement, such authority being hereby limited to alteration or modification in the public interest, the purpose thereof and the public interest to be served thereby to be stated in the order of alteration or modification; provided, further, that no such alternation or modification shall be effective as to any land of the State of New Mexico as to the rate of prospecting and development in the absence of the specific written approval thereof by the Land Commissioner and as to any lands in the State of New Mexico or privately-owned lands subject to this Agreement or to the quantity and rate of production from such lands in the absence of specific written approval thereof by the Division.

Powers in this Section vested in the A.O. shall only be exercised after notice to Unit Operator and opportunity for hearing to be held not less than fifteen (15) days from notice, and thereafter subject to administrative appeal before becoming final.

SECTION 26. NONDISCRIMINATION. Unit Operator in connection with the performance of work under this Agreement relating to leases of the United States, agrees to comply with all of the provisions of Section 202(1) to (7) inclusive of Executive Order 11246, (30 F.R. 12319), which are hereby incorporated by reference in this Agreement.

SECTION 27. APPEARANCES. Unit Operator shall have the right to appear for or on behalf of any interests affected hereby before the Land Commissioner, the Department, and the Division, and to appeal from any order issued under the rules and regulations of the Land Commissioner, the Department or the Division, or to apply for relief from any of said rules and regulations or in any proceedings relative to operations before the Land Commissioner, the Department or the Division or any other legally constituted authority; provided, however, that any other interested party shall also

have the right at his or its own expense to be heard in any such proceeding.

SECTION 28. NOTICES. All notices, demands, objections or statements required hereunder to be given or rendered to the parties hereto shall be deemed fully given if made in writing and personally delivered to the party or parties or sent by postpaid certified or registered mail, addressed to such party or parties at their last known address set forth in connection with the signatures hereto or to the ratification or consent hereof or to such other address as any such party or parties may have furnished in writing to the party sending the notice, demand or statement.

SECTION 29. NO WAIVER OF CERTAIN RIGHTS. Nothing in this Agreement contained shall be construed as a waiver by any party hereto of the right to assert any legal or constitutional right or defense as to the validity or invalidity of any law of the State wherein said Unitized Lands are located, or regulations issued thereunder in any way affecting such party, or as a waiver by any such party of any right beyond his or its authority to waive; provided, however, each party hereto covenants that it will not resort to any action to partition the unitized land or the Unit Equipment.

SECTION 30. EQUIPMENT AND FACILITIES NOT FIXTURES ATTACHED TO REALTY. Each Working Interest Owner has heretofore placed and used on its Tract or Tracts committed to this Agreement various well and lease equipment and other property, equipment and facilities. It is also recognized that additional equipment and facilities may hereafter be placed and used upon the Unitized Land as now or hereafter constituted. Therefore, for all purposes of this Agreement, any such equipment shall be considered to be personal property and not fixtures attached to realty. Accordingly, said well and lease equipment and personal property is hereby severed from the mineral estates affected by this Agreement, and it is agreed that any such equipment and personal property shall be and remain personal property of the Working Interest Owners for all purposes.

SECTION 31. UNAVOIDABLE DELAY. All obligations under this Agreement requiring the Unit Operator to commence or continue improved recovery operations or to operate on or produce Unitized Substances from any of the lands covered by this Agreement shall be suspended while, but only so long as, the Unit Operator, despite the exercise of due care and diligence, is prevented from complying with such obligations, in whole or in part, by strikes, acts of God, Federal, State or municipal law or agency, unavoidable accident, uncontrollable delays in transportation, inability to obtain necessary materials or equipment in open market, or other matters beyond the reasonable control of the Unit Operator whether similar to matters herein enumerated or not.

SECTION 32. NONJOINER AND SUBSEQUENT JOINER. Joinder by any Royalty Owner, at any time, must be accompanied by appropriate joinder of the corresponding Working Interest Owner in order for the interest of such Royalty Owner to be regarded as effectively committed. Joinder to this Agreement by a Working Interest Owner, at any time, must be accompanied by appropriate joinder to the Unit Operating Agreement in order for such interest to be regarded as effectively committed to this Agreement.

Any oil or gas interest in the Unitized Formations not committed hereto prior to submission of this Agreement to the Land Commissioner and the A.O. for final approval may thereafter be committed hereto upon compliance with the applicable provisions of this Section and of Section 14 (Tracts Qualified for Participation) hereof, at any time up to the Effective Date hereof on the same basis of Tract Participation as provided in Section 13, by the owner or owners thereof subscribing, ratifying, or consenting in writing to this Agreement and, if the interest is a Working Interest, by the owner of such interest subscribing also to the Unit Operating Agreement.

It is understood and agreed, however, that from and after the Effective Date hereof the right of subsequent joinder as provided

in this Section shall be subject to such requirements or approvals and on such basis as may be agreed upon by Working Interest Owners owning not less than sixty-five percent (65%) of the Unit Participation then in effect, and approved by the Land Commissioner and A.O. Such subsequent joinder by a proposed Working Interest Owner must be evidenced by his execution or ratification of this Agreement and the Unit Operating Agreement and, where State or Federal land is involved, such joinder must be approved by the Land Commissioner or A.O. Such joinder by a proposed Royalty Owner must be evidenced by his execution, ratification or consent of this Agreement and must be consented to in writing by the Working Interest Owner responsible for the payment of any benefits that may accrue hereunder in behalf of such proposed Royalty Owner. Except as may be otherwise herein provided, subsequent joinder to this Agreement shall be effective as of the first day of the month following the filing with the Land Commissioner and A.O. of duly executed counterparts of any and all documents necessary to establish effective commitment of any Tract or interest to this Agreement, unless objection to such joinder by the Land Commissioner or the A.O., is duly made sixty (60) days after such filing.

SECTION 33. COUNTERPARTS. This Agreement may be executed in any number of counterparts, no one of which needs to be executed by all parties and may be ratified or consented to by separate instrument in writing, specifically referring hereto, and shall be binding upon all those parties who have executed such a counterpart, ratification or consent hereto with the same force and effect as if all parties had signed the same document, and regardless of whether or not it is executed by all other parties owning or claiming an interest in the land within the described Unit Area. Furthermore, this Agreement shall extend to and be binding on the parties hereto, their successors, heirs and assigns.

SECTION 34. JOINDER IN DUAL CAPACITY. Execution as herein provided by any party as either a Working Interest Owner or a Royalty Owner shall commit all interests owned or controlled by such party; provided, that if the party is the owner of a Working Interest, he must also execute the Unit Operating Agreement.

SECTION 35. TAXES. Each party hereto shall, for its own account, render and pay its share of any taxes levied against or measured by the amount or value of the Unitized Substances produced from the unitized land; provided, however, that if it is required or if it be determined that the Unit Operator or the several Working Interest Owners must pay or advance said taxes for the account of the parties hereto, it is hereby expressly agreed that the parties so paying or advancing said taxes shall be reimbursed therefor by the parties hereto, including Royalty Owners, who may be responsible for the taxes on their respective allocated share of said Unitized Substances. No taxes shall be charged to the United States or to the State of New Mexico, nor to any lessor who has a contract with a lessee which requires his lessee to pay such taxes.

SECTION 36. NO PARTNERSHIP. The duties, obligations and liabilities of the parties hereto are intended to be several and not joint or collective. This Agreement is not intended to create, and shall not be construed to create, an association or trust, or to impose a partnership duty, obligation or liability with regard to any one or more of the parties hereto. Each party hereto shall be individually responsible for its own obligation as herein provided.

SECTION 37. PRODUCTION AS OF THE EFFECTIVE DATE. Unit Operator shall make a proper and timely gauge of all leases and other tanks within the Unit Area in order to ascertain the amount of merchantable oil above the pipeline connection, in such tanks as of 7:00 a.m. on the Effective Date hereof. All such oil which has then been produced in accordance with established allowables shall be and remain the property of the Working Interest Owner entitled thereto, the same as if the unit had not been formed; and the responsible Working Interest Owner shall promptly remove said oil

from the unitized land. Any such oil not so removed shall be sold by Unit Operator for the account of such Working Interest Owners, subject to the payment of all Royalty to Royalty Owners under the terms hereof. The oil that is in excess of the prior allowable of the wells from which it was produced shall be regarded as Unitized Substances produced after Effective Date hereof.

If, as of the Effective Date hereof, any Tract is over-produced with respect to the allowable of the wells on that Tract and the amount of over-production has been sold or otherwise disposed of, such over-production shall be regarded as a part of the Unitized Substances produced after the Effective Date hereof and shall be charged to such Tract as having been delivered to the parties entitled to Unitized Substances allocated to such Tract.

SECTION 38. NO SHARING OF MARKET. This Agreement is not intended to provide and shall not be construed to provide, directly or indirectly, for any cooperative refining, joint sale or marketing of Unitized Substances.

SECTION 39. STATUTORY UNITIZATION. If and when Working Interest Owners owning at least seventy-five percent (75%) Unit Participation and Royalty Owners owning at least seventy-five percent (75%) Royalty Interest have become parties to this Agreement or have approved this Agreement in writing and such Working Interest Owners have also become parties to the Unit Operating Agreement, Unit Operator may make application to the Division for statutory unitization of the uncommitted interests pursuant to the Statutory Unitization Act (Chapter 65, Article 14, N.M.S. 1953 Annotated). If such application is made and statutory unitization is approved by the Division, then effective as of the date of the Division's order approving statutory unitization, this Agreement and/or the Unit Operating Agreement shall automatically be revised and/or amended in accordance with the following:

(1) Section 14 of this Agreement shall be revised by substituting for the entire said section the following:

"SECTION 14. TRACTS QUALIFIED FOR PARTICIPATION. On and after the Effective Date hereof, all Tracts within the Unit Area shall be entitled to participation in the production of Unitized Substances."

(2) Section 24 of this Agreement shall be revised by substituting for the first three paragraphs of said section the following:

"SECTION 24. EFFECTIVE DATE AND TERM. This Agreement shall become effective on the first day of the calendar month next following the effective date of the Division's order approving statutory unitization upon the terms and conditions of this Agreement, as amended (if any amendment is necessary) to conform to the Division's order; approval of this Agreement, as so amended, by the Land Commissioner; and the A.O. and the filing by Unit Operator of this Agreement or notice thereof for record in the office of the County Clerk of Lea County, New Mexico. Unit Operator shall not file this Agreement or notice thereof for record, and hence this Agreement shall not become effective, unless within ninety (90) days after the date all other prerequisites for effectiveness of this Agreement have been satisfied, such filing is approved by Working Interest Owners owning a combined Unit Participation of at least sixty-five percent (65%) as to all Tracts within the Unit Area.

"Unit Operator shall, within thirty (30) days after the Effective Date of this Agreement, file for record in the office of the County Clerk of Lea County, New Mexico, a certificate to the effect that this Agreement has become effective in accordance with its terms and conditions, and in identifying the Division's order approving statutory unitization and stating the Effective Date."

(3) This Agreement and/or the Unit Operating Agreement shall be amended in any and all respects necessary to conform to the Division's order approving statutory unitization.

Any and all amendments of this Agreement and/or the Unit Operating Agreement that are necessary to conform said agreements to the Division's order approving statutory unitization shall be deemed to be hereby approved in writing by the parties hereto without any necessity for further approval by said parties, except as follows:

(a) If any amendment of this Agreement has the effect of reducing any Royalty Owner's participation in the production of Unitized Substances, such Royalty Owner shall not be deemed to have hereby approved the amended agreement without the necessity of further approval in writing by said Royalty Owner; and

(b) If any amendment of this Agreement and/or the Unit Operating Agreement has the effect of reducing any Working Interest Owner's participation in the production of Unitized Substances or increasing such Working Interest Owner's share of Unit Expense, such Working Interest Owner shall not be deemed to have hereby approved the amended agreements without the necessity of further approval in writing by said Working Interest Owner.

Executed as of the day and year first above written.

GULF OIL CORPORATION *KJB*

By *L. A. Turner*

Attorney-in-Fact

Date of Execution:

June 22, 1984

THE STATE OF TEXAS §

COUNTY OF MIDLAND §

The foregoing instrument was acknowledged before me this 22nd day of June, 1984, by L. A. Turner Attorney-in-Fact, for/of Gulf Oil Corporation, a Pennsylvania corporation, on behalf of said corporation.

My Commission Expires:

7-30-88

Carolyn D. Larson

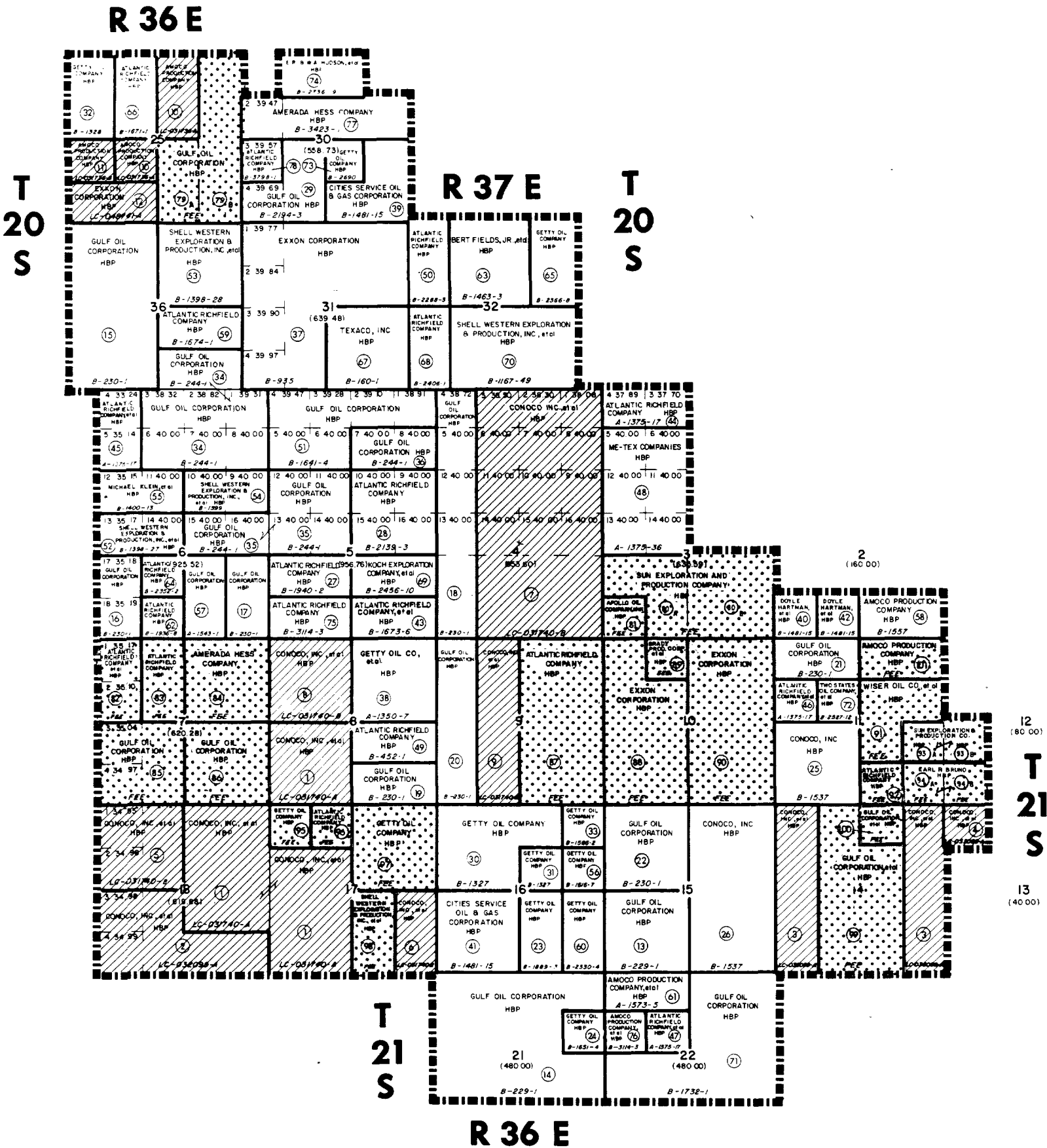





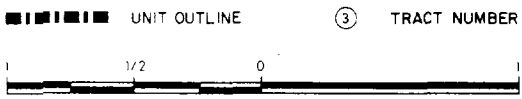
EXHIBIT "A"

EUNICE MONUMENT SOUTH

UNIT AREA

LEA COUNTY, NEW MEXICO

	ACREAGE	PERCENTAGE
 FEDERAL LANDS	2,734.76	19.27 %
 STATE LANDS	8,274.80	58.32 %
 PATENTED LANDS	3,180.28	22.41 %
TOTAL	14,189.84	100.00 %



NOTE: UNLESS OTHERWISE INDICATED, THE VARIOUS SECTIONS ON THIS PLAT CONTAIN 640.00 ACRES

GULF OIL CORPORATION

MIDLAND, TEXAS

EXHIBIT "B"

SCHEDULE SHOWING THE PERCENTAGE AND KIND OF OWNERSHIP OF OIL AND GAS INTERESTS
IN ACCORDANCE WITH THE PARTICIPATION FORMULA FOR THE UNITIZED FORMATION FOR THE
EUNICE MONUMENT SOUTH UNIT AREA
LEA COUNTY, NEW MEXICO

September 27, 1984

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	SERIAL NO. AND EFFECTIVE DATE	BASIC ROYALTY OWNER AND PERCENTAGE	LESSEE OF RECORD	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE
<u>Federal Lands:</u>							
1. Meyer "A-1" (was Tract 81)	R21S-R36E, N.M.P.M. Sec. 8: SW $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$, Sec. 17: SW $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$, Sec. 18: NE $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$	640.00	LC-031740-A HBP 2-19-31 Exchanged 2-1-51	U.S.A. Schedule "C"	A. E. Meyer	Atlantic Richfield Co. .92105 Helen L. Bedford .01842 Henry De Graffenreid Bedford .01842 Rachel Bedford Bowen .01842 Triton Oil & Gas Corp. .11513 Charles H. Coll .13239 Jon F. Coll .13239 James N. Coll .13241 Max W. Coll, II .13241 Etz Oil Properties, Inc. .17269 George H. Etz, Jr., Trustee of George H. Etz, Sr. Trust .17269 Ira Hays .30703 Kirby Exploration Co. .57422 Munro L. Lyeth and Patricia D. Lyeth, First of Denver A/C 11033-00-8 .41447 Ones Norman Rooney .41447 Ellis Rudy .00143 Alann P. Bedford, Trustee Alann P. Bedford Trust .01842 Southland Royalty Co. 1.38158	Conoco Inc. Amoco Product Company Atlantic Richf Company Chevron U.S.A. Inc.

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	SERIAL NO. AND EFFECTIVE DATE	BASIC ROYALTY OWNER AND PERCENTAGE	LESSEE OF RECORD	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE
2. Lockhart "A-18" (was Tract 82)	T21S-R36E, N.M.P.M. Sec. 18: Lots 3, 4, E½SW¼ S½ SE¼	229.97	LC-032099-A HBP 6/23/31 Exchanged 6-1-51	U.S.A. Schedule "C"	Conoco Inc. Amoco Production Company Atlantic Rich- field Company Chevron U.S.A. Inc.	Amex Petroleum Corp. .05555* Amoco Production Co. .66667* Betty B. Beare .00130* Beatrice Christman Bell Estate .00782* Cecil P. Bordages, II .07291* Joyce Bordages .07292* Boys Clubs of America .03333* Braille Institute of America Agency No. 631-00 .61727* Kathryn M. Byrd .00348* Jean K. Cline .00347* Richard L. Cline, Jr. .00347* Virginia M. Drake.00521* Elks Nat'l Fdn, New England Merchants Nat'l Bank, Boston .03333* Elliott Oil Company .16667* Etz Oil Properties, Inc. .25000* George H. Etz, Jr., Trustee George H. Etz, Sr. Trust .25000* First Nat'l Bank Denver, Trustee U/W of Josephine M. Smith, Dec'd .37292* Barbara Christman Farrell .00130* Dolores Gilmer Heirs .00390* Manufacturers Hanover Trust Co. Oil Successor Trustee	Conoco Inc. Amoco Production Company Atlantic Richfield Company Chevron U.S.A. Inc.

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	SERIAL NO. AND EFFECTIVE DATE	BASIC ROYALTY OWNER AND PERCENTAGE	LESSEE OF RECORD	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE	PARTICIPANT OF TRACT IN UNIT
						U/A dated 4-30-56 as amended M/B and for Charles Gutman .02777*		
						Daniel L. Gutman, Trustee U/W of Max Gutman, Dec'd .05556*		
						Betty Guttag .02778* Higgins Trust, Inc.		
						Mary Jane Hyman .02778*		
						Mary Jane Hyman, Ind. Exrx. Est. of Jack F. Hyman, Dec'd .02778*		
						Burford I. King, Trustee 1 .04167*		
						Patrick J. Leonard .05556*		
						Robert J. Leonard,05555*		
						Timothy T. Leonard .05555*		
						Mary J. & Art V. McKone, JT .04167*		
						Mobil Oil Corporation .33333*		
						Mobil Oil Corp., Attn. Crude Oil & Gas Liquids Acctg. Sec. .33333*		
						New Mexico Boys Ranch Inc. .03334*		
						David M. Pedley .00556*		
						John C. Pedley .00556*		
						Lawrence L. Pedley .00555*		
						T. A. Pedley, Jr.,01666*		
						Mrs. Reede Christman Ross .00130*		
						Regents of Univ. of Colo. .01389*		
						Regents of Univ. of NM .03334*		
						Republic Nat'l Bank Dallas Test. Trustee Selma E. Andrews Tr. No. 5188-00 .71606*		
						Jackson L. Sadler,02778*		
						Shattuck-St. Mary's Schools .03333*		

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	SERIAL NO. AND EFFECTIVE DATE	BASIC ROYALTY OWNER AND PERCENTAGE	LESSEE OF RECORD	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE	PARTICIPAT OF TRACT IN UNIT
3. Lockhart "B-14" (was Tract 97)	T21S-R36E, N.M.P.M. Sec. 14: W$\frac{1}{2}$W$\frac{1}{2}$ E$\frac{1}{2}$E$\frac{1}{2}$	320.00	LC-032099-B HBP 6/23/31 Exchanged 7/1/52	U.S.A. Schedule "D"	Conoco Inc. Amoco Production Company Atlantic Richfield Company Chevron U.S.A Inc.	None Edith G. Socolow & A. Walter Socolow, Trustees U/A dated 11-24-76 .05556* Texaro Oil Company .01389*	Conoco Inc. 25% Amoco Production Company 25% Atlantic Richfield Company 25% Chevron U.S.A. Inc. 25%	.647555
4. Lockhart "B-13" (was Tract 116)	T21S-R36E, N.M.P.M. Sec. 13: NW/4 NW/4	40.00	LC-032099-B HBP 6/23/31 Exchanged 7/1/52	U.S.A. Schedule "D"	Conoco Inc. Amoco Production Company Atlantic Richfield Company Chevron U.S.A. Inc.	None 	Conoco Inc. 25% Amoco Production Company 25% Atlantic Richfield Company 25% Chevron U.S.A. Inc. 25%	.070883
5. Meyer "B-18" (was Tract 80)	T21S-R36E, N.M.P.M. Sec 18: Lots 1,2, E $\frac{1}{2}$ NW $\frac{1}{4}$	149.91	LC-031740-B HBP 10/26/34 Exchanged 10/1/54 Exchanged 10/1/54	U.S.A. Schedule "D"	Lois E. Meyer	None	Conoco Inc. 25% Amoco Production Company 25% Atlantic Richfield Company 25% Chevron U.S.A. Inc. 25%	.254760
6. Meyer "B-17" (was Tract 87)	T21-T36E, NM.MP.M. Sec. 17: E $\frac{1}{2}$ SE $\frac{1}{4}$	80.00	LC-031740-B HBP 10/26/34 Exchanged 10/1/54	U.S.A. Schedule "D"	Lois E. Meyer	None	Conoco Inc. 25% Amoco Production Company 25% Atlantic Richfield Company 25% Chevron U.S.A. Inc. 25%	.323145

*By court decision, oil production ORRI is 6.90789% when average leasehold production per well is more than 15 BPD, and by agreement, ORRI on oil is 5% when average production per well per day is 15 bbls or less.

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7. Meyer "B-4" (was Tract 48)	T21S-R36E, N.M.P.M. Sec. 4: Lot 1, 2, 3, 6, 7, 8, 9, 10, 11, 14, 15, 16, E½SW¼, SE¼E½SW¼, SE¼	714.88	LC-031740-B HBP 10/26/34 Exchanged 10/1/54	U.S.A. Schedule "np"	Lois E. Meyer	None	Conoco Inc. 25% Amoco Production Company 25% Atlantic Richfield Company 25% Chevron U.S.A. Inc. 25%	6.664506
8. Meyer "B-8" (was Tract 59)	T21S-R36E, N.M.P.M. Sec. 8: NW¼	160.00	LC-031740-B HBP 10/26/34 Exchanged 10/1/54	U.S.A. Schedule "np"	Lois E. Meyer	None	Conoco Inc. 25% Amoco Production Company 25% Atlantic Richfield Company 25% Chevron U.S.A. Inc. 25%	9.059453
9. Meyer "B-9" (was Tract 65)	T21S-R36E, N.M.P.M. Sec. 9: E½NW¼	160.00	LC-031740-B HBP 10/26/34 Exchanged 10/1/54	U.S.A. Schedule "np"	Lois E. Meyer	None	Conoco Inc. 25% Amoco Production Company 25% Atlantic Richfield Company 25% Chevron U.S.A. Inc. 25%	1.326104
10. Gillyuly "A" (was Tract 3)	T20S-R36E, N.M.P.M. Sec. 25: W½NE¼, NE¼SW¼	120.00	LC-031736-A HBP 3/30/37 Exchanged 3/1/57	U.S.A. Schedule "cn"	Amoco Production Company	Selma E. Andrews Trust #5188 2.68525 C. R. Brauchli .01116 Roy P. and Doris M. Dolley .25000 Claradean Gallant.12500 Marvin G. Jenkins.25000 Leonard D. Keefler.37500 Julia H. Payne .01696 Julia H. Payne, individually and as Trustee u/w of Weston Payne .02768 Ethel R. Pease Trust and Ethel R. Pease, Trustee under Declaration of Trust dated 4/19/77 .25000 Union Texas Petroleum Corporation .32366 (When production is in excess of 15 BOPD, and .21580 when 15 BOPD or less) Elmer H. Wahl, Inc. .04465	Amoco Production Company 100%	.584461

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11. Gillyuly "B" Federal (was Tract 4)	T20S-R36E, N.M.P.M. Sec. 25: NW ¹ / ₄ SW ¹ / ₄	40.00	LC-031736-B HBP 3/30/37 Exchanged 3/1/57	U.S.A. Schedule "C"	Amoco Production Company	None	Amoco Production Company 100%	.027077
12. Fopeano Federal (was Tract 6)	T20S-R36E, N.M.P.M. Sec. 25: S ¹ / ₂ SW ¹ / ₄	80.00	LC-048741-A HBP 7/1/37 Renewal 7/1/77	U.S.A. Schedule "C"	Exxon Corporation	Robert M. Light .04246 Stanley W. Light .04246 E. W. Mendez .19955 George D. Riggs .78120 Neil T. Christensen .04246 Thayer P. Christensen .04246 Ronald K. DeFord .78130 Nellie P. Fopeano .78130 Ray Hobbs .00849 Bradley T. Light .04247 R.S. and J.W. Light .35239 Donald Light Kilgore .04247	Exxon Corporation 100%	.151224
12	FEDERAL TRACTS	TOTALING 2,734.76	ACRES	OR 19.27%	OF	UNIT	AREA	

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STATE LANDS:								
13. J.F. Janda (NCT-C) (was Tract 95)	T21S-R36E, N.M.P.M. Sec. 15: SW $\frac{1}{2}$	160.00	B-229-1 HBP 2/28/28	State of New Mexico 12 $\frac{1}{2}$ %	Gulf Oil Corporation	None	Gulf Oil Corporation 100%	1.055350
14. Arnoott-Ramsay (NCT-C) (was Tract 102)	T21S-R36E, N.M.P.M. Sec. 21: NW $\frac{1}{2}$, N $\frac{1}{2}$ SW $\frac{1}{2}$, N $\frac{1}{2}$ NE $\frac{1}{2}$, SW $\frac{1}{2}$ NE $\frac{1}{2}$, N $\frac{1}{2}$ SE $\frac{1}{2}$	440.00	B-229-1 HBP 2/28/28	State of New Mexico 12 $\frac{1}{2}$ %	Gulf Oil Corporation	None	Gulf Oil Corporation 100%	2.739613
15. R.R. Bell (NCT-F) (was Tract 17)	T20S-R36E, N.M.P.M. Sec. 36: W $\frac{1}{2}$	320.00	B-230-1 HBP 2/28/28	State of New Mexico 12 $\frac{1}{2}$ %	Gulf Oil Corporation	None	Gulf Oil Corporation 100%	3.195507
16. R.R. Bell (NCT-D) (was Tract 35)	T21S-R36E, N.M.P.M. Sec. 6: Lots 17,18	70.37	B-230-1 HBP 2/28/28	State of New Mexico 12 $\frac{1}{2}$ %	Gulf Oil Corporation	None	Gulf Oil Corporation 100%	.682139
17. R.R. Bell (NCT-B) (was Tract 38)	T21S-R36E, N.M.P.M. Sec. 6: E $\frac{1}{2}$ SE $\frac{1}{2}$	80.00	B-230-1 HBP 2/28/28	State of New Mexico 12 $\frac{1}{2}$ %	Gulf Oil Corporation	None	Gulf Oil Corporation 100%	3.726787
18. Bell-Ramsey (NCT-A) (was Tract 47)	T21S-R36E, N.M.P.M. Sec. 4: Lots 4,5, 12,13 W $\frac{1}{2}$ SW $\frac{1}{2}$	238.72	B-230-1 HBP 2/28/28	State of New Mexico 12 $\frac{1}{2}$ %	Gulf Oil Corporation	None	Gulf Oil Corporation 100%	1.459570
19. R.R. Bell (NCT-A) (was Tract 63)	T21S-R36E, N.M.P.M. Sec. 8: S $\frac{1}{2}$ SE $\frac{1}{2}$	80.00	B-230-1 HBP 2/28/28	State of New Mexico 12 $\frac{1}{2}$ %	Gulf Oil Corporation	None	Gulf Oil Corporation 100%	.426101
20. Bell-Ramsey (NCT-A) (was Tract 64)	T21S-R36E, N.M.P.M. Sec. 9: W $\frac{1}{2}$ W $\frac{1}{2}$	160.00	B-230-1 HBP 2/28/28	State of New Mexico 12 $\frac{1}{2}$ %	Gulf Oil Corporation	None	Gulf Oil Corporation 100%	.796347
21. R.R. Bell (NCT-E) (was Tract 71)	T21S-R36E, N.M.P.M. Sec. 11: N $\frac{1}{2}$ NW $\frac{1}{2}$	80.00	B-230-1 HBP 2/28/28	State of New Mexico 12 $\frac{1}{2}$ %	Gulf Oil Corporation	None	Gulf Oil Corporation 100%	.355933
22. R.R. Bell (NCT-C) (was Tract 94)	T21S-R36E, N.M.P.M. Sec. 15: NW $\frac{1}{2}$	160.00	B-230-1 HBP 2/28/28	State of New Mexico 12 $\frac{1}{2}$ %	Gulf Oil Corporation	None	Gulf Oil Corporation 100%	2.683321
23. State "up" (was Tract 92)	T21S-R36E, N.M.P.M. Sec. 16: W $\frac{1}{2}$ SE $\frac{1}{2}$	80.00	B-1889-3 HBP 6/8/28	State of New Mexico 12 $\frac{1}{2}$ %	Getty Oil Company	None	Getty Oil Company 100%	.918539

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24. State "C" (was Tract 103)	<u>T21S-R36E, N.M.P.M.</u> <u>Sec. 21: SE$\frac{1}{2}$NE$\frac{1}{4}$</u>	40.00	B-1651-4 HBP 9/18/28	State of New Mexico 12 $\frac{1}{2}$	Getty Oil Company	None	Getty Oil Company 100%	.277424
25. State "D"- Battery 2 (was Tract 75)	<u>T21S-R36E, N.M.P.M.</u> <u>Sec. 11: SW$\frac{1}{4}$</u>	160.00	B-1537 HBP 9/25/28	State of New Mexico 12 $\frac{1}{2}$	Conoco Inc.	None	Conoco Inc. 100%	.474353
26. State "D" (was Tract 96)	<u>T21S-R36E, N.M.P.M.</u> <u>Sec. 15: E$\frac{1}{4}$</u>	320.00	B-1537 HBP 9/25/28	State of New Mexico 12 $\frac{1}{2}$	Conoco Inc.	None	Conoco Inc. 100%	1.957890
27 State "E" (was Tract 43)	<u>T21S-R36E, N.M.P.M.</u> <u>Sec. 5: N$\frac{1}{2}$SW$\frac{1}{4}$</u>	80.00	B-1940-2 HBP 10/1/28	State of New Mexico 12 $\frac{1}{2}$	Atlantic Richfield Co.	None	Atlantic Richfield Company 100%	2.680609
28. State "H" (was Tract 42)	<u>T21S-R36E, N.M.P.M.</u> <u>Sec. 5: Lots 9,10, 15, 16</u>	160.00	B-2139-3. HBP 10/5/28	State of New Mexico 12 $\frac{1}{2}$	Atlantic Richfield Co.	None	Atlantic Richfield Company 100%	.934498
29. Sunshine (was Tract 10)	<u>T20S-R37E, N.M.P.M.</u> <u>Sec. 30: Lot 4, E$\frac{1}{2}$SW$\frac{1}{4}$</u>	119.69	B-2194-3 HBP 10/26/28	State of New Mexico 12 $\frac{1}{2}$	Gulf Oil Corporation	None	Gulf Oil Corporation 100%	.405359
30. Skelly"B" State (was Tract 88)	<u>T21S-R36E, N.M.P.M.</u> <u>Sec. 16: NW$\frac{1}{4}$, NW$\frac{1}{2}$NE$\frac{1}{4}$</u>	200.00	B-1327 HBP 11/2/28	State of New Mexico 12 $\frac{1}{2}$	Getty Oil Company	None	Getty Oil Co. Company 100%	1.328423
31. Mexico "V" (was Tract 117)	<u>T21S-R36E, N.M.P.M.</u> <u>Sec. 16: SW$\frac{1}{2}$NE$\frac{1}{4}$</u>	40.00	B-1327 HBP 11/2/28	State of New Mexico 12 $\frac{1}{2}$	Getty Oil Company	None	Getty Oil Company 100%	.137520
32. Skelly "H" State (was Tract 1)	<u>T20S-R36E, N.M.P.M.</u> <u>Sec. 25: W$\frac{1}{2}$NW$\frac{1}{4}$</u>	80.00	B-1328 HBP 11/2/28	State of New Mexico 12 $\frac{1}{2}$	Getty Oil Company	None	Getty Oil Company 100%	.427150
33. State "AW" (was Tract 89)	<u>T21S-R36E, N.M.P.M.</u> <u>Sec. 16: NE$\frac{1}{2}$NE$\frac{1}{4}$</u>	40.00	B-1566-2 HBP 11/20/28	State of New Mexico 12 $\frac{1}{2}$	Getty Oil Company	None	Getty Oil Company 100%	.169794
34. H. T. Orcutt (NCT-C) (was Tract 20)	<u>T20S-R36E, N.M.P.M.</u> <u>Sec. 36: S$\frac{1}{2}$SE$\frac{1}{4}$</u> <u>T21S-R36E, N.M.P.M.</u> <u>Sec. 6: Lots 1,2,3, 6,7,8</u>	316.45	B-244-1 HBP 11/22/28	State of New Mexico 12 $\frac{1}{2}$	Gulf Oil Corporation	None	Gulf Oil Corporation 100%	3.559763

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35. H. T. Orcutt (NCT-A) (was Tract 34)	T21S-R36E, N.M.P.M. Sec. 5: Lots 11, 12, 13, 14 Sec. 6: Lots 15, 16	240.00	B-244-1 HBP 11/22/28	State of New Mexico 12%	Gulf Oil Corporation	None	Gulf Oil Corporation 100%	1.701394
36. H. T. Orcutt (NCT-B) (was Tract 40)	T21S-R36E, N.M.P.M. Sec. 5: Lots 7, 8	80.00	B-244-1 HBP 11-22-28	State of New Mexico 12%	Gulf Oil Corporation	None	Gulf Oil Corporation 100%	.361025
37. Aggies State (was Tract 21)	T20S-R37E, N.M.P.M. Sec. 31: Lots 1, 2, 3, 4 E $\frac{1}{2}$ W $\frac{1}{2}$, NE $\frac{1}{4}$	479.48	B-935 HBP 11-22-28	State of New Mexico 12%	Exxon Corporation	None	Exxon Corporation 100%	1.962315
38. State "A" (was Tract 60)	T21S-R36E, N.M.P.M. Sec. 8: NE $\frac{1}{4}$	160.00	A-1350-7 HBP 11/26/28	State of New Mexico 12%	Gulf Oil Corporation Getty Oil Company Sun Exploration and Production Company	None	Gulf Oil Corporation Getty Oil Company Sun Exploration and Production Company 25%	1.770012
39. State "F" (was Tract 13)	T20S-R37E, N.M.P.M. Sec. 30: E $\frac{1}{2}$ SE $\frac{1}{4}$, SW $\frac{1}{4}$ SE $\frac{1}{4}$	120.00	B-1481-15 HBP 11/26/28	State of New Mexico 12%	Cities Service Oil & Gas Corporation	None	Cities Service Oil & Gas Corporation 100%	.244360
40. Rasmussen State (was Tract 70)	T21S-R36E, N.M.P.M. Sec. 2: SW $\frac{1}{4}$ SW $\frac{1}{4}$	40.00	B-1481-15 HBP 11/26/28	State of New Mexico 12%	Cities Service Oil & Gas Corporation	Pinto Exploration Company .84875	Doyle Hartman Carl Pfluger 33.3333%	.076549
41. State "C" (was Tract 91)	T21S-R36E, N.M.P.M. Sec. 16: SW $\frac{1}{4}$	160.00	B-1481-15 HBP 11/26/28	State of New Mexico 12%	Cities Services Oil & Gas Corporation	None	Cities Service Oil & Gas Corporation 100%	.751093
42. State "G" (was Tract 113)	T21S-R36E, N.M.P.M. Sec. 2: SE $\frac{1}{4}$ SW $\frac{1}{4}$	40.00	B-1481-15 HBP 11/26/28	State of New Mexico 12%	Cities Service Oil & Gas Corporation	None	Doyle Hartman Carl Pfluger 50%	.064967
43. State "C" (was Tract 46)	T21S-R36E, N.M.P.M. Sec. 5: SE $\frac{1}{4}$ SE $\frac{1}{4}$	80.00	B-1673-6 HBP 11/30/28	State of New Mexico 12%	Atlantic Richfield Co. Getty Oil Co.	None	Atlantic Richfield Company Getty Oil Co. 50%	1.269394
44. State "L" (was Tract 49)	T21S-R36E, N.M.P.M. Sec. 3: Lots 3, 4	75.59	A-1375-17 HBP 12/5/28	State of New Mexico 12%	Atlantic Richfield Co.	None	Atlantic Richfield Company Catron W.I. 50%	.126788

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45. State "L" Battery 2 (was Tract 28)	T21S-R36E, N.M.P.M. Sec. 6: Lots 4,5,	68.38	A-1375-17 HBP 12/5/28	State of New Mexico 12%	Atlantic Richfield Co.	None	Atlantic Richfield Co. 50% Catron W.I. 50%	.477689
46. State "L" - Battery 3 (was Tract 72)	T21S-R36E, N.M.P.M. Sec. 11: SW $\frac{1}{4}$ NN $\frac{1}{4}$	40.00	A-1375-17 HBP 12/5/28	State of New Mexico 12%	Atlantic Richfield Co.	None	Atlantic Richfield Co. 50% Catron W.I. 50%	.270790
47. State "L" - Battery 4 (was Tract 106)	T21S-R36E, N.M.P.M. Sec. 22: SE $\frac{1}{4}$ NN $\frac{1}{4}$	40.00	A-1375-17 HBP 12/5/28	State of New Mexico 12%	Atlantic Richfield Company	None	Atlantic Richfield Company 50% Catron W.I. 50%	.265867
48. Wallace State (was Tract 50)	T21S-R36E, N.M.P.M. Sec. 3: Lots 5,6, 11,12,13,14	240.00	A-1375-36 HBP 12/5/28	State of New Mexico 12%	Thomas B. Catron, III and John S. Catron	Thomas B. Catron, III and John S. Catron 12.5%	Me-Tex Companies 87.5% Thomas B. Catron, III and John S. Catron 6.5% Thomas B. Catron, III Trustee U/W/O Sue C. Bergere 6.5%	.290369
49. State "B" (was Tract 62)	T21S-R36E, N.M.P.M. Sec. 8: N $\frac{1}{2}$ SE $\frac{1}{4}$	80.00	B-452-1 HBP 12/5/28	State of New Mexico 12%	Atlantic Richfield Co.	None	Atlantic Richfield Co. 100%	.751002
50. State "O" (was Tract 23)	T20S-R37E, N.M.P.M. Sec. 32: W $\frac{1}{2}$ NN $\frac{1}{4}$	80.00	B-2288-3 HBP 12/13/28	State of New Mexico 12%	Atlantic Richfield Co.	None	Atlantic Richfield Co. 100%	.050367
51. Healsey State (was Tract 39)	T21S-R36E, N.M.P.M. Sec. 5: Lots 1,2,3, 4,5,6	236.76	B-1641-4 HBP 12/17/28	State of New Mexico 12%	Gulf Oil Corporation	None	Gulf Oil Corporation 100%	2.723870
52. State "F" (was Tract 33)	T21S-R36E, N.M.P.M. Sec. 6: Lots 13,14	75.17	B-1398-27 HBP 12/26/28	State of New Mexico 12%	Shell Western Exploration & Production, Inc. and El Paso Natural Gas Co.	None	Shell Western Exploration & Production, Inc. 100%	.237670
53. State "K" (was Tract 18)	T20S-R36E, N.M.P.M. Sec. 36: NE $\frac{1}{4}$	160.00	B-1398-28 HBP 12/26/28	State of New Mexico 12%	Shell Western Exploration & Production, Inc. and El Paso Natural Gas Co.	None	Shell Western Exploration & Production, Inc. 100%	5.112422
54. State "EE" (was Tract 32)	T21S-R36E, N.M.P.M. Sec. 6: Lots 9,10	80.00	B-1399-15 HBP 12/26/28	State of New Mexico 12%	Shell Western Exploration & Production, Inc.	None	Shell Western Exploration & Production, Inc.	.485838

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	SERIAL NO. AND EFFECTIVE DATE	BASIC ROYALTY OWNER AND PERCENTAGE	LESSEE OF RECORD	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE	PARTICIPAT OF TRACT IN UNIT
55. State "G" (was Tract 31)	T21S-R36E, N.M.P.M. Sec. 6: Lots 11, 12	75.15	B-1400-13 HBP 12/26/28	State of New Mexico 12%	Shell Western Exploration & Production, Inc. and El Paso Natural Gas Co.	None	John H. Hendrix 30% Bruce A. Wilbanks 28.75% Michael Klein 14.375% Suzanne H. Klein 14.375% Thomas W. Ellison 6.25% Mrs. Ethel T. Dennis 6.25%	.221097
56. State "AX" (was Tract 90)	T21S-R36E, N.M.P.M. Sec. 16: SE $\frac{1}{4}$ NE $\frac{1}{4}$	40.00	B-1616-7 HBP 12/27/28	State of New Mexico 12%	Getty Oil Company	None	Getty Oil Co. 100%	.186322
57. Graham State (NCT-"E") (was Tract 37)	T21S-R36E, N.M.P.M. Sec. 6: W $\frac{1}{2}$ SE $\frac{1}{4}$	80.00	A-1543-1 HBP 12/29/28	State of New Mexico 12%	Gulf Oil Corporation	None	Gulf Oil Corporation 100%	.520475
58. State "C" Tract 11 (was Tract 114)	T21S-R36E, N.M.P.M. Sec. 2: S $\frac{1}{2}$ SE $\frac{1}{4}$	80.00	B-1557 HBP 12/29/28	State of New Mexico 12%	Amoco Production Company	None	Amoco Production Company 100%	.031885
59. State "M" (was Tract 19)	T20S-R36E, N.M.P.M. Sec. 36: N $\frac{1}{2}$ SE $\frac{1}{4}$	80.00	B-1674-1 HBP 12/31/28	State of New Mexico 12%	Atlantic Richfield Co.	None	Atlantic Richfield Co. 100%	.882435
60. State "E" (was Tract 93)	T21S-R36E, N.M.P.M. Sec. 16: E $\frac{1}{2}$ SE $\frac{1}{4}$	80.00	B-2330-4 HBP 12/31/28	State of New Mexico 12%	Getty Oil Co.	None	Getty Oil Co. 100%	.559636
61. State "I" (was Tract 104)	T21S-R36E, N.M.P.M. Sec. 22: N $\frac{1}{2}$ NW $\frac{1}{4}$	80.00	A-1573-5 HBP 1/3/29	State of New Mexico 12%	Amoco Production Company	First National Bank of Midland, Trustee of the Dorothy Louise Henderson Trust No. 862 .13021 First National Bank of Midland, Independent Executor of the Estate of A.N. Hendrickson Trust No. 1851 1.56250 First National Bank of Midland Trustee of the Jeanne Edna Hunt Trust No. 863 .13021	Amoco Production Company 50.87% Landreth Production Corporation (carried working interest) 49.13%	.391924

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	SERIAL NO. AND EFFECTIVE DATE	BASIC ROYALTY OWNER AND PERCENTAGE	LESSEE OF RECORD	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE
62. State "K" (was Tract 36)	T21S-R36E, N.M.P.M. Sec. 6: SE $\frac{1}{4}$ SW $\frac{1}{4}$	40.00	B-1936-8 HBP 1/11/29	State of New Mexico 12%	Atlantic Richfield Co.	None	Atlantic Richfield Co. .00%
63. Turner State	T20S-R37E, N.M.P.M. Sec. 32: E $\frac{1}{2}$ NW $\frac{1}{4}$, W $\frac{1}{2}$ NE $\frac{1}{4}$	160.00	B-1463-3 HBP 1/11/29	State of New Mexico 12%	Bert Fields, Jr.	First Hutchings-Sealy National Bank of Galveston .285	F. W. Turner, Jr Estate Bert Fields, Jr. .5% J. F. Shelby Estate W. A. and E. R. Hudson 10.25% E. R. Hudson, Agent 1.75%

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	SERIAL NO. AND EFFECTIVE DATE	BASIC ROYALTY OWNER AND PERCENTAGE	LESSEE OF RECORD	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE	PARTICIPAL OF TRACT IN UNIT
(A) (Was Tract 24) Sec. 32: E½NW¼, SW¼NE¼ (120.00)								
% of Tract Participation: F.W. Turner, Jr. Estate 32.1429%* Bert Fields, Jr. 28.5714%* J.F. Shelby Estate 28.5714%* W.A. and E.R. Hudson 9.1071%* E.R. Hudson Agent 1.6072%*								
*(.203418)								
(B) (Was Tract 118) Sec. 32: NW¼NE¼ (40.00)								
Fred Turner, Jr. Estate 75.00%* W.A. and E.R. Hudson 21.25%* E.R. Hudson, Agent 3.75%*								
*(.029058)								
64. State "K" (was Tract 36)	T21S-R36E, N.M.P.M. Sec. 6: NE¼SW¼	40.00	B-2352-2 HBP 1/11/29	State of New Mexico 12½	Atlantic Richfield Co.	None	Atlantic Richfield Co. 100%	.067881
65. State "AY" (was Tract 25)	T20S-R37E, N.M.P.M. Sec. 32: E½NE¼	80.00	B-2366-8 HBP 1/11/29	State of New Mexico 12½	Getty Oil Co.	None	Getty Oil Co. 100%	.009005
66. State "P" (was Tract 2)	T20S-R36E, N.M.P.M. Sec. 25: E½NW¼	80.00	B-1671-1 HBP 1/14/29	State of New Mexico 12½	Atlantic Richfield Co.	None	Atlantic Richfield Co. 100%	.512798
67. State "H"(NCT-1) (was Tract 22)	T20S-R37E, N.M.P.M. Sec. 31: SE¼	160.00	B-160-1 HBP 1/15/29	State of New Mexico 12½	Texaco Inc.	None	Texaco Inc. 100%	.635537
68. State "196" (was Tract 26)	T20S-R37E, N.M.P.M. Sec. 32: W½SW¼	80.00	B-2406-1 HBP 1/15/29	State of New Mexico 12½	Atlantic Richfield Co.	None	Atlantic Richfield Co. 100%	.220241
69. State "A" (was Tract 44)	T21S-R36E, N.M.P.M. Sec. 5: N½SE¼	80.00	B-2456-10 HBP 2/26/29	State of New Mexico 12½	Koch Industries Inc.	Stephen L. Chandler 14.0625% Wells Fargo Bank, Tr. FBO Tupper Ansel Blake 14.0625% Smiser Investment Co.	Koch Exploration Co. 95% First National Bank Wichita, Trustee U/W of William E. Perdew 5%	.343773

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	SERIAL NO. AND EFFECTIVE DATE	BASIC ROYALTY OWNER AND PERCENTAGE	LESSEE OF RECORD	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE	PARTIAL OF TRACT IN 1
70. State "J" (was Tract 27)	T20S-R37E, N.M.P.M. Sec. 32: SE $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$	240.00	B-1167-49 HBP 9/15/32	State of New Mexico 12 $\frac{1}{2}$	El Paso Natural Gas Company and Shell Western Exploration and Production, Inc.	None 9.375%	Shell Western Exploration and Production, Inc. 100%	.287522
71. Harry Leonard (NCT-A) (was Tract 107)	T21S-R36E, N.M.P.M. Sec. 22: NE $\frac{1}{4}$, N $\frac{1}{2}$ SW $\frac{1}{4}$ N $\frac{1}{2}$ SE $\frac{1}{4}$	320.00	B-1732-1 HBP 2/28/33	State of New Mexico 12 $\frac{1}{2}$	Gulf Oil Corporation	None	Gulf Oil Corporation 100%	.825987
72. State "B" (was Tract 73)	T21S-R36E, N.M.P.M. Sec. 11: SE $\frac{1}{4}$ NW $\frac{1}{4}$	40.00	B-2527-12 HBP 2/10/34	State of New Mexico 12 $\frac{1}{2}$	Two States Oil Company	None	Two States Oil Company 81.25% The Herman R. Crile Sr. Revocable Trust dated 9-28-76 18.75%	.073299
73. Skelly "G" (was Tract 12)	T20S-R37E, N.M.P.M. Sec. 30: NW $\frac{1}{4}$ SE $\frac{1}{4}$	40.00	B-2690 HBP 4/2/34	State of New Mexico 12 $\frac{1}{2}$	Getty Oil Company	None	Getty Oil Co. 100%	.081241
74. Phillips (was Tract 7)	T20S-R37E, N.M.P.M. Sec. 30: NE $\frac{1}{4}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$	80.00	B-2736-9 HBP 4/10/34	State of New Mexico 12 $\frac{1}{2}$	Wm. A. and Edward R. Hudson	William A. Hudson .072917 B.D. and Edward R. Hudson .145833	W.A. and E.R. Hudson 85% E.R. Hudson, Agent 15%	.029017
75. State "G" (was Tract 45)	T21S-R36E, N.M.P.M. Sec. 5: S $\frac{1}{2}$ SW $\frac{1}{4}$	80.00	B-3114-3 HBP 9/24/34	State of New Mexico 12 $\frac{1}{2}$	Atlantic Richfield Co.	Bradley Resources Corp. 5.46870	Atlantic Richfield Company 100%	.693134
76. State "J" (was Tract 105)	T21S-R36E, N.M.P.M. Sec. 22: SW $\frac{1}{4}$ NW $\frac{1}{4}$	40.00	B-3114-4 HBP 9/24/34	State of New Mexico 12 $\frac{1}{2}$	Amoco Production Co.	None	Atlantic Richfield Company 37.5% Amoco Production Co. 31.794% Landreth Production Corporation (carried working interest) 30.706%	.233315
77. State "W" (was Tract 8)	T20S-R37E, N.M.P.M. Sec. 30: Lot 2, SE $\frac{1}{4}$ NW $\frac{1}{4}$, S $\frac{1}{2}$ NE $\frac{1}{4}$	159.47	B-3423-1 HBP 10/29/34	State of New Mexico 12 $\frac{1}{2}$	Amarada Hess Corporation	None	Amarada Hess Corporation 100%	.14270
78. State "I93" (was Tract 9)	T20S-R37E, N.M.P.M. Sec. 30: Lot 3	39.57	B-3798-1 HBP 4/22/35	State of New Mexico 12 $\frac{1}{2}$	Atlantic Richfield Co.	None	Atlantic Richfield Company 100%	.053491
66 STATE TRACTS TOTALING	8,274.80	ACRES	OK 58.32% OF	UNIT AREA				

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	LEASE STATUS	BASIC ROYALTY OWNER AND PERCENTAGE	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE	PARTICIPAL OF TRACT IN UNIT
PATENTED LANDS:							
79. White (NCT-A) (was Tract 5)	T20S-R36E, N.M.P.M. Sec. 25: E½NE¼, SE¼	240.00	HBP	See "A" and "B" below	None	Gulf Oil Corporation 100%	.714308*
A.	Sec. 25: W½SE¼	(80.00)		Texaro Elmer H. Wahl Marguerite H. Pettway Susan Trimble Eubank Gean Trimble Heidmann John R. Hudspeth Union Texas Petroleum James Seth Oliver Seth Burford I. King, Trustee W. W. White, First National Bank of Denver, Lawrence W. White, Trust Weston Payne Trust Julia H. Payne Ruth G. Pickens Grandchildren Joint Venture Sun Exploration & Production			(.127211)*
B.	Sec. 25: E½E½	(160.00)		.19530 .07810 .19530 .19530 .19540 .19530 1.17190 .39060 .39060 .58590 W. W. White, First National Bank of Denver, Lawrence W. White, Trust Weston Payne Trust Julia H. Payne Ruth G. Pickens Grandchildren Joint Venture Sun Exploration & Production			(.587097)*
80. Akens (was Tract 51)	T21S-R36E, N.M.P.M. Sec. 3: SE¼, N½SW¼, SE½SW¼	280.00	HBP	Marguerite H. Pettway Susan Trimble Eubank Gean Trimble Heidmann John R. Hudspeth James Seth Oliver Seth W. W. White and The Merchants National Bank of Cedar Rapids, Iowa W. W. White First National Bank of Denver Lawrence W. White Family Trust Henry Vandenburg, Trustee U/W/O Virgil White	None	Sun Exploration and Production Company 100%	.498853*
A.	Sec. 3: SE¼	(160.00)		See "A" and "B" below Atlantic Richfield Company Marjorie Cone Kastman			*(.22652)

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TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	LEASE STATUS	BASIC ROYALTY OWNER AND PERCENTAGE	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE	PARTICIPAL OF TRACT IN UNIT
B.	Sec. 3: N $\frac{1}{2}$ SW $\frac{1}{4}$; SE $\frac{1}{2}$ SW $\frac{1}{4}$	(120.00)		James E. Wallace, Ind. Exec. of Est. of Paul H. Pewett .166700			
				Mrs. Mary Vern Ransom Francis K. Royall John R. Royall Trustee U/W of N. R. Royall, Jr. Dec'd. .146500			
				N. R. Royall, III Trustee U/W of N. R. Royall, Jr. Dec'd. .208300			
				Tucker K. Royall, Trustee U/W of N. R. Royall, Jr. Dec'd. .003100			
				Jack L. Hart Georgia A. Stieren Ind. Excec. of Est. of Jack Stieren, Dec'd. .000700			
				W. E. F. Holding Inc. c/o Chemical Bank Acct. No. 092-016073 Nora Walker J. H. Williams .000700			
				Atlantic Richfield Company Marjorie Cone Kastman S. E. Cone, Jr. Abraham Abramson Est. Tortuga Oil & Gas, Inc. Grace M. Larson Katherine Cone Keck John R. Royall Tr. U/W of Fannie May Royall Dec'd. .015200			
				N. R. Royall III Tr. U/W of Fannie May Royall Dec'd. Tucker K. Royall Tr. U/W of Fannie May Royall Dec'd. .001734			
				Iiston Archer David A. Bower, Agent Jo Layne Antriy Penn Brothers, Inc. J. R. Bower, JR. Rosemann Mahoney Rosemann Mahoney, Exec. of the .001733			

*(.272301)

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	LEASE STATUS	BASIC ROYALTY OWNER AND PERCENTAGE	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE	PARTICIPAL OF TRACT IN UNIT
				est. of Nellie P. Hyland, Dec'd. .000000			
				Rita S. Holch .167400			
				Charles H. Sanford, Jr..167400			
				James D. Corbett .056800			
				John L. Frothingham .334800			
				Rhea S. Greenwood .167500			
				Albert Muldavin .133900			
				Charles Spencer Sarnoff.167400			
				Est. of O. L. Coleman Dec'd			
				c/o Emma Liston Archer Trst.			
				.395800			
				American State Bank, TTEE of			
				James Robert Nislar Tr.			
				.048825			
				American State Bank, TTEE of			
				O. L. Nislar, Jr. Tr. .048825			
				Ora Lee Nislar .097650			
				First National Bank and Vena			
				H. Long, Ind. Exec. est. of			
				F. O. Long, Dec'd.			
				No. 222-05963 .001000			
				Mobil-G. C. Corporation			
				1.562500			
				Eunice Cone Gibson .117200			
				Everett R. Jones, Jr. .015400			
				Charles W. Grimes, II and Philo			
				W. Grimes, TTEE of the C. W.			
				Grimes Trust .302800			
				Mrs. Exor Megan, Gdn. of Est.			
				of Maude Eagle Pfouts NCM			
				.000500			
				Mobil Oil Corporation 3.125000			
				Nancy Eliz. Penson 1.069700			
				Petrust Corp. of America			
				.166700			
				James F. Wallace, Ind. Exec. of			
				Est. of Paul H. Pewett			
				.146500			
				Mrs. Mary Vern Ransom .208300			
				Francis K. Royall .003100			
				John R. Royall Trustee U/W of			
				N. R. Royall, Jr. Dec'd.			
				.000700			
				N. R. Royall, III Trustee U/W			
				of N. R. Royall, Jr. Dec'd.			
				.000700			
				Tucker K. Royall, Trustee U/W			
				of N. R. Royall, Jr. Dec'd.			

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	LEASE STATUS	BASIC ROYALTY OWNER AND PERCENTAGE	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTER OWNER AND PERCENTAGE
81. Akens (was Tract 52)	T21S-R36E, N.M.P.M. Sec. 3: SW ¹ / ₄ SW ¹ / ₄	40.00	HBP	<p>Jack L. Hart .000700</p> <p>Georgia A. Stieren Ind. Execx. of Est. of Jack Stieren, Dec'd. .015200</p> <p>W. F. F. Holding Inc. c/o Chemical Bank Acct. No. 092-016073 .041600</p> <p>Nora Walker .000500</p> <p>J. H. Williams .195300</p> <p>Sun Exploration & Production Company 1.171870</p> <p>Abraham Abramson Est. .468750</p> <p>Allis Varga Corbett .029300</p> <p>Jo Layne Antry .078120</p> <p>David Armstrong Bower, Indiv. and as Agent .023120</p> <p>Getty Oil Company 1.171870</p> <p>Tortuga Oil and Gas, Inc. .001630</p> <p>Tortuga Oil and Gas, Inc. .003270</p> <p>Tortuga Oil and Gas, Inc. .001640</p> <p>James E. Wallace, Indep. Exec. of Est. of Paul H. Pewitt .146480</p> <p>Penn Brothers, Inc. .178250</p> <p>Rosemann Mahoney, Exrx. of Est. of Nelle P. Hyland .087890</p> <p>J. R. Bower, Jr. .067860</p> <p>Marjorie Cone Kastman .253900</p> <p>Petrust Corp. of America.083330</p> <p>Petroleum Landowners Corp., Ltd. .703120</p> <p>Mary Vern Ransom .104170</p> <p>WEF Holding Incorporated.020830</p> <p>Emma Liston Archer, Trustee U/W of O. L. Coleman .197920</p> <p>James D. Corbett .091150</p> <p>Eunice Cone Gibson .117190</p> <p>Everett R. Jones, Jr. .003850</p> <p>Everett R. Jones, Jr. .003860</p> <p>Nancy Elizabeth Penson .534860</p> <p>John R. Royall, Trustee of the John R. Royall Trust, U/W of N. R. Royall, Jr. .000349</p> <p>Liston Archer .010430</p> <p>Atlantic Richfield Company</p>	None	Kenneth R. Boss Apollo Oil Company S&S Engineering

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	LEASE STATUS	BASIC ROYALTY OWNER AND PERCENTAGE	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING OWNER AND
				Atlantic Richfield Company		
				.833340		
				S. F. Cone, Jr.		
				.253910		
				John L. Frothingham		
				1.171880		
				Rhea S. Greenwood		
				.585940		
				Carl E. Holch & Rita S. Holch		
				.585935		
				Katherine Adeline Cone Keck		
				.253910		
				Grace M. Larson		
				.000260		
				Philo W. Grimes and Charles W.		
				Grimes, II, Trustees of the		
				C. W. Grimes Trust		
				.224610		
				Mobil Producing Texas and New		
				Mexico		
				.781250		
				Albert Muldavin		
				.468750		
				Ora Lee Nislar		
				.097660		
				American State Bank, Trustee		
				of O. L. Nislar, Jr. Trust		
				.048830		
				American State Bank, Trustee		
				of James Robert Nislar Trust		
				.048830		
				Mrs. Frances K. Royall		
				.000520		
				Mrs. Frances K. Royall		
				.001045		
				Jack Hart		
				.001400		
				Jack Hart		
				.000260		
				John R. Royall and Tucker R.		
				Royall, Ind. Exec. of Est. of		
				Fannie May Royall		
				.002610		
				John R. Royall, Trustee of the		
				N. R. Royall, III Trust		
				.000348		
				John R. Royall, Trustee of the		
				Tucker K. Royall Trust U/W of		
				N. R. Royall, Jr.		
				.000348		
				Charles H. Sanford, Jr. and		
				Virginia L. Sanford		
				.585935		
				Charles Spencer Sarnoff		
				.585930		
				Georgia Ann Stieren, Indep.		
				Exrx of Est. of Jack Stieren		
				.007590		
				Nora Walker		
				.000260		
				Elizabeth G. Williams, Personal		
				Representative of Est. of		
				J. H. Williams		
				.195310		

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	LEASE STATUS	BASIC ROYALTY OWNER AND PERCENTAGE	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE	PARTIC OF TR IN U	
82. H.L. Houston (was Tract 53)	T21S-R36E, N.M.P.M. Sec. 7: Lots 1,2	70.27	HBP	Amoco Production Company Archbishopric of New York Atlantic Richfield Company Bradley Resources Corp. R. H. Brin, Jr. Jessie Blevins Crump, David C. Blevins and Ft. Worth Nat'l Bank, Trustees U/W of Jones Lester Crump, Acct. #2312 RepublicBank First Nat'l Midland and Jessie Blevins Crump, Co-Trustees, Trust #1069 Jacqueline Brin Goldberg F. C. Gottesman Daniel L. Gutman, Indep. Exec. of Est. of Max Gutman A. F. Houston Mary Jane Hyman Mary Jane Hyman, Trustee U/W of Jack F. Hyman B. I. King Trust #1 Edith Socolow and A. Walter Socolow, Trustees U/A dated 11-24-76 Edith Fabyd Read, Alexander Duncan Read and Howard E. Cox, Trustees U/W of William A. Read Texaro Oil Company W. B. Watson, Agent and Attorney-in-fact	1.17188 2.29690 3.51570 3.9070 0.3250 3.9060 0.3260 0.6510 0.6510 3.12500 0.3260 0.3250 0.04880 0.06510 0.06510 0.6510 0.39070 0.01620 0.43750	None	Atlantic Richfield Company 50% Getty Oil Company 50%	0.500113
83. H. L. Houston "MA" (was Tract 54)	T21S-R36E, N.M.P.M. Sec. 7: E2NW2	80.00	HBP	Atlantic Richfield Company Atlantic Richfield Company Bradley Resources Corp. Royal H. Brin, Jr. Jessie Blevins Crump and RepublicBank First Nat'l Midland, Co-Trustees, Trust No. 1069 Jessie B. Crump, David C. Blevins and The Fort Worth	3.12500 3.9062 3.9062 0.3256 3.9062	None	Atlantic Richfield Company 100%	0.197557

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TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	LEASE STATUS	BASIC ROYALTY OWNER AND PERCENTAGE	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE	PARTICIPAT OF TRACT IN UNIT
84. Houston (was Tract 55)	<u>T21S-R36E, N.M.P.M.</u> <u>Sec. 7: NE4</u>	160.00	HBP	Nat'l Bank, Trustees of the Joe and Jessie Crump Fund Acct. 2312 .39063 Jacqueline Brin Goldberg.03256 Morris & Fay C. Gottesman .06510	None	Amerada Hess Corporation 100%	1.153271
				Daniel L. Guttman, Trustee u/w/o Max Guttman .06510			
				Audrey F. Houston 1.56250			
				Audrey F. Houston, Admx. of H. L. Houston Estate 1.56250			
				Mary Jane Hyman .03255			
				Mary Jane Hyman, Trustee u/w/o Jack F. Hyman .03255			
				Nathan Kalvin/B. I. King .04883			
				Midwest Oil Corp. 1.17188			
				Edith Faby Read, Alexander Duncan Read, and Howard E. Cox, Trustees u/w/o William A. Read .39062			
				Archbishopric of New York 2.29688			
				Edith G. Socolow and A. Walter Socolow .06510			
				Texaro Oil Company .01628			
				William B. Watson, Agent and Attorney-in-Fact .43750			
				Amoco Production Co. 1.17188			
				Atlantic Richfield Company 3.51563			
				Archbishopric of New York 2.29687			
				Bradley Resources Corp. .39063			
				Jenson Western Title & Royalty Corp., c/o Bank of America, Acct. 0395307791 .39063			
				Royal H. Brin, Jr. .03255			
				Jessie Blevins Crump and RepublicBank First Nat'l Midland, Co-Trustees, Trust No. 1069 .39063			
				Jessie B. Crump, David C. Blevins and Fort Worth Nat'l Bank, Trustees u/w/o Jones Lester Crump .39062			
				Jacqueline Brin Goldberg.03255			
				Fay Combel Gottesman .06510			
				Daniel L. Guttman, Trustee u/w/o			

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	LEASE STATUS	BASIC ROYALTY OWNER AND PERCENTAGE	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE	PARTICIPANT OF TRACT IN UNIT
85. Mollie Campbell (was Tract 56)	T21S-R36E, N.M.P.M. Sec. 7: Lots 3,4, E½SW¼	150.01	HBP	Max Gutman .06510 Mrs. A. F. Houston, Indlv. and as Com. Admx. of Estate of H. L. Houston 3.12500 Mary Jane Hyman .03255 Mary Jane Hyman, Trustee u/w/o Jack F. Hyman .03255 Burford I. King, Trustee No. 1 .04883 Edith G. Socolow and A. Walter Socolow .06510 Texaro Oil Company .01627 William B. Watson, Agent and Attorney-in-Fact .43751 Home Stake Royalty Corporation .02062 Robert A. Venable, Testa- mentary Executor of Estate R. H. Venable .19530 Atlantic Richfield Co. 4.23180 Home Stake Oil & Gas Co. .02062 Texaro Oil Company .08600 Ashland Exploration, Inc. .78130 Emma Liston Archer, Trustee of Est. of O. L. Coleman .37110 Royal H. Brin, Jr. .03260 Mollie A. Campbell .44640 Jacqueline Brin Goldberg .03260 Clem Ronald Hooper .22320 Audrey F. Houston .89290 Myrtle Pevehouse .11160 Mary Vern Ransom .39060 Wm. A. Read, Est. .39060 Lois Cone Tekell .11160 The Wiser Oil Company .39060 Eunice Cone Gibson .44640 Rachel Louise Warner .11720 Mary Jane Hyman .03250 Mary Jane Hyman, Trustee under the will of Jack F. Hyman, deceased .03260 Catherine Bowe Est. .00650 Vivian Bowe .00650 Fluor Oil and Gas Corporation .78130	None	Guilf Oil Corporation 100%	.185457

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	LEASE STATUS	BASIC ROYALTY OWNER AND PERCENTAGE	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE	PARTICIPAT OF TRACT IN UNIT
86. A. F. Houston (was Tract 57)	<u>T21S-R36E, N.M.P.M. Sec. 7 : SEX</u>	160.00	HBP	Daniel L. Gutman, Trustee under the will of Max Gutman Burford I. King, Trustee .06510			
				Fay Combel Gotesman .25810			
				Gerald Hamil and Dolores .06510			
				Alberta Hooper .22320			
				Delma Inez Campbell .44640			
				Edith G. Socolow and A. Walter Socolow, Trustees U/A dated 11/24/76			
				Iliston Archer .06510			
				Thomas B. Wilson .01950			
				Robert Booth Kellough .02170			
				William G. and Marcellyn J. Seal .06510			
				Lone Star Production Co. .00072			
				The Ruth G. Pickens Grandchildren Joint Venture .83710			
				Edith G. Socolow and A. Walter Socolow, Trustees U/A dated 11/24/76 .06510	Atlantic Richfield Company 1.05150	Gulf Oil Corporation 100%	.649685
				Iliston Archer .01950			
				Thomas B. Wilson .02170			
				Robert Booth Kellough .06510			
				William G. and Marcellyn J. Seal .00072			
				Lone Star Production Co. .83710			
				The Ruth C. Pickens Grandchildren Joint Venture .27900			
				Jean Anderson Simpson .00072			
				Emely Ann Edwards .00072			
				Mary Jane Hyman .03250			
				Mary Jane Hyman, Trustee under will of Jack E. Hyman, deceased .03260			
				Catherine Bowe Est. .00650			
				Vivian Bowe .00650			
				Fluor Oil and Gas Corp. .78130			
				Daniel L. Gutman, Trustee			

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	LEASE STATUS	BASIC ROYALTY OWNER AND PERCENTAGE	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE	PARTICIPANT OF TRACT IN UNIT
87. E. C. Adkins (was Tract 66)	T21S-R36E, N.M.P.M. Sec. 9: E ₂	320.00	HBP	under will of Max Gutman			
				Burford I. King, Trustee			
				.06510			
				.25810			
				Fay Combel Gottesman			
				.06510			
				Gerald Hamil Hooper and			
				Dolores Alberta Hooper			
				.22320			
				Delma Inez Campbell			
				.44640			
				Royal H. Brin, Jr.			
				.03260			
				Mollie A. Campbell			
				.44640			
				Jacqueline Brin Goldberg			
				.03260			
				Clem Ronald Hooper			
				.22320			
				Aubrey F. Houston			
				.89290			
				Myrtle Pewehouse			
				.11160			
				Mary Vern Ransom			
				.39060			
				Wm. A. Read Est.			
				.39060			
				Lois Cone Tekell			
				.11160			
				The Wiser Oil Company			
				.39060			
				Eunice Cone Gibson			
				.44640			
				Rachel Louise Warner			
				.11720			
				Robert A. Venable, Testamentary			
				Executor of the Estate of			
				R.H. Venable			
				.19530			
				Home Stake Royalty Corporation			
				.02062			
				Atlantic Richfield Company			
				3.18030			
				Home Stake Oil and Gas Co.			
				.02062			
				Texaro Oil Company			
				.08600			
				Ashland Exploration Inc..			
				.78130			
				Emma Liston Archer, Trustee			
				of the Estate of O. L. Coleman			
				.37110			
				Atlantic Richfield Co. 2.343750			
				Archbishopric of New York			
				3.937500			
				Emma L. Archer, Trustee			
				.175780			
				Liston Archer			
				.019530			
				Julia Bergman			
				.026043			
				David A. Bower Indiv. and as			
				Agent			
				.043370			
				J. R. Bower, Jr.			
				.127250			
				Joan A. Carbone			
				.007323			
				Valmore M. Carignan Est			
				.039060			
				Colonial Royalties Co.			
				.045582			
				Atlantic Richfield Co. 2.343750	None	Atlantic Richfield Co. 100%	3.457044

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	LEASE STATUS	BASIC ROYALTY OWNER AND PERCENTAGE	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING OWNER AND
				Carl Costello		
				Iris G. Damsen		
				Marcia Lynn Del Core		
				Emily C. Greenhalgh and		
				Dolores Sloat, Indiv. and as		
				Exrxs U/W of Henry G.		
				Ludwig		
				Sarah B. Ferguson		
				Fluor Oil and Gas		
				Corporation		
				Home Stake Oil & Gas Co.		
					1.562500	
					.045569	
				Home Stake Royalty		
				Corporation		
				Everett R. Jones, Jr.		
				Grace M. Larson		
				Lawson Petroleum Company		
					.078130	
				Munro L. Lyeth and Patricia		
				D. Lyeth		
				Brian Maney		
				Kevin Maney		
				Marguerite C. Maney		
				Maureen Maney		
				Patricia A. Maney		
				Vivian G. Maney		
				Pauline K. Neppel Ind. and as		
				Exrx. of Est. of Arthur J.		
				Neppel		
				Gloria McFarland and Charles W.		
				Grimes, II Trustees of C. W.		
				Grimes Trust		
				Mary Vern Ransom		
				Onez Norman Rooney		
				Francis K. Royall		
				John R. Royall, Trustee of the		
				John R. Royall Trust u/w/o		
				N. R. Royall, Jr.		
				John R. Royall, Trustee of the		
				Tucker K. Royall Trust u/w/o		
				N. R. Royall, Jr.		
				John R. Royall, Trustee of the		
				N. R. Royall III Trust, u/w/o		
				N. R. Royall, Jr.		
				John R. Royall, Trustee of the		
				Tucker K. Royall Trust, u/w/o		
				Fannie May Royall		
				Frieda W. Schachner		
				Donald Tait		

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	LEASE STATUS	BASIC ROYALTY OWNER AND PERCENTAGE	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE	PARTICIPAT OF TRACT IN UNIT
88. A. J. Adkins (was Tract 67)	T21S-R36E, N.M.P.M. Sec. 10: W2NW1/4 , SE1/4NW1/4, SW1/4	280.00	HBP	James T. Tait W. B. Watson, Agent and Attorney-in-Fact .009765 .75000	None	Exxon Corporation 100%	.931331
89. A. J. Adkins (was Tract 68)	T21S-R36E, N.M.P.M. Sec. 10: NE1/4NW1/4	40.00	HBP	Archbishopric of New York 4.59380 Millikin University, Decatur, Illinois, Ina Mills Trust .25000 Colonial Royalties Co. .02777 Fluor Oil and Gas Corporation 1.56250 Sue Saunders Graham Home Stake Oil & Gas Co. .06950 .02777 Home Stake Royalty Corporation .02777 Munro L. Lyeth and Patricia D. Lyeth .78130 Elyse S. Patterson .06940 Atlantic Richfield Co. 2.34380 Petrust Corporation of America .41670 Onez Norman Rooney .78120 Frieda W. Schachner .08330 June D. Speight .52080 Sally Saunders Toles W. B. Watson, Agent and Attorney-in-Fact .87500	None	Brady Production Corporation 50% Exxon Corporation 50%	.423313
				Atlantic Richfield Co. 1.17188 Exxon Company, USA 5.46875 Home Stake Oil and Gas Co. .01389 Home Stake Royalty Corporation .01389 Colonial Royalties Co. .01389 Fluor Oil & Gas Corp. .78125 Petrust Corporation of America .20833 Sue Saunders Graham .03472 Munro L. Lyeth and Patricia D. Lyeth .78125 Millikin University, Decatur, Illinois, Ina Mills Trust .12500 Elyse Saunders Patterson			

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	LEASE STATUS	BASIC ROYALTY OWNER AND PERCENTAGE	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE	PARTICIPATE OF TRACT IN UNIT
90. J. D. Knox (was Tract 69)	T21S-R36E, N.M.P.M. Sec. 10: E $\frac{1}{2}$	320.00	HBP	Amoco Production Co. .390700 Atlantic Richfield Co. 6.250000 Aarco Oil & Gas .585900 Dan E. Boone .019945 Dorothy W. Boone .035227 J. E. B. Boone .148676 A. L. Cone .195300 Dorothy P. Carr .012432 Everett R. Carr .006216 H. E. Clift #1381 .195300 J. C. Clift #1608 .195300 Frances S. Madeley .139093 Herbert W. Madeley .001037 Mobil Producing Texas and New Mexico Inc. 1.562600 Petrust Corporation of America .312500 L. D. Phillips .006216 R. S. Phillips .006216 Protestant Episcopal Sabine Corporation .390600 June D. Speight .976500 June D. Speight-1 .976600 WEF Holding, Inc. .078100	None	Exxon Corporation 100%	1.604876
91. McQuatters (was Tract 74)	T21S-R36E, N.M.P.M. Sec. 11: S $\frac{1}{2}$ N $\frac{1}{2}$ E $\frac{1}{2}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$	120.00	HBP	Alan J. Antweil .7812500 E. Doyle Berryman .7812500 Bradley Resources Corporation 1.1718750 Fluor Oil and Gas Corporation 3.1250000 Jack Hart .0029838 Jack Hart .0041728 Manufacturer's Hanover Trust Co., Exec. of Est. of Constance A. Fleischman .7812500 Nancy E. Penson 2.2922410 Penn Brothers, Inc. .7639083 J. F. Sedlmayr .7812500	Amoco Production Co. 12.5%	Wiser Oil Co. 50% Two States Oil Company 25% Herman R. Crile Kenneth Headley 12.5% Kenneth Headley 12.5%	.2098476

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	LEASE STATUS	BASIC ROYALTY OWNER AND PERCENTAGE	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE	PARTICIPANT OF TRACT IN UNIT
92. M. S. Berryman (was Tract 77)	T21S-R36E, N.M.P.M. Sec. 11: SW ¹ / ₄ SE ¹ / ₄	40.00	HBP	Southland Royalty Company 1.9531250 Jack Stieren Estate .0325296 Tortuga Oil & Gas Co. .0280428 Nora Walker .0011217 Alan J. Antweil .7812500 Dora J. Aronson .0002850 E. Doyle Berryman .7812500 Bradley Resources Corporation 1.1718800 Carl Carr .0001400 Vernon Carr .0000500 Jack Hart .0022400 Manufacturers Hanover Trust Co. Exec. of Est. of Constance A. Fleischman .7812500 Fluor Oil and Gas Corporation 3.1250000 Penn Brothers, Inc. .7639100 Nancy E. Penson 2.2922400 Jack Hart .0039900 John E. Sedlmayr .7812500 Harry Smith Est. .0001800 Southland Royalty Company 1.9531200 Jack Stieren Estate .0325300 Tortuga Oil & Gas Co. .0280400 Nora Walker .0011100 Dora J. Aronson, Irwin Grossman and William J. Colen, Trustees U/W of S. M. Aronson .0002850	None	Company Atlantic Richfield 100%	.050973
93. Marshall (was Tract 78)	T21S-R36E, N.M.P.M. Sec. 11: NE ¹ / ₄ SE ¹ / ₄ Sec. 12: NW ¹ / ₄ SW ¹ / ₄ A. Sec. 11: NE ¹ / ₄ SE ¹ / ₄	80.00	HBP	See "A" and "B" below Selma E. Andrews Trust #5188 1.678280 Alan J. Antweil .781250 E. Doyle Berryman .781250 Boys Club of America .156250 Elks National Foundation Boston .156250 Juliette Rathbone Finch .781250 The Home Stake Oil & Gas Company The Home Stake Oil & Gas Company .195310 The Home Stake Royalty Corp. .195310 Marguerite McKim Kent .781250	None	Sun Exploration and Production Company 100%	.055857* (.055857)

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	LEASE STATUS	BASIC ROYALTY OWNER AND PERCENTAGE	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE	PARTICIPANT OF TRACT IN UNIT
B.	Sec. 12: NW $\frac{1}{4}$ SW $\frac{1}{4}$	(40.00)		Patrick J. Leonard .260410			
				Robert J. Leonard .260420			
				Timothy T. Leonard .260420			
				Manufacturers Hanover Trust Co. as agent for William H.			
				Fleischmann, Jr., Constance Von Contard, and Fredericka Agins			
				.781250			
				Raymond Lee McKim .781250			
				Juanita McMillan, Betty Kelly, David Loeffler, Co-Trustees for			
				H. M. McMillan .195310			
				J. S. Mullen, Jr. .195310			
				New Mexico Boys Ranch, Inc. .156250			
				Braille Institute of America, Inc. 1.446730			
				Lillian Ramsgate Sedlmayr, Exrx. of Estate of Theodore Sedlmayr			
				.781250			
				Shattuck School .156250			
				Charles Tyson Smith, II .781250			
				Regents of University of New Mexico .156250			
				June D. Speight .781250			
				Selma E. Andrews 1.678280			
				Trust #5188 .781250			
				Alan J. Antweil .781250			
				E. Doyle Berryman .156250			
				Boys Club of America Elks National Foundation			
				Boston .156250			
				Juliette Rathbone Finch .781250			
				The Home Stake Oil & Gas Company .195310			
				The Home Stake Royalty Corp. .195310			
				Marguerite McKim Kent .781250			
				Patrick J. Leonard .260410			
				Robert J. Leonard .260420			
				Timothy T. Leonard .260420			
				Manufacturers Hanover Trust Co. as agent for William H.			
				Fleischmann, Jr., Constance Von Contard, and Fredericka Agins			
				.781250			
				Raymond Lee McKim .781250			
				Juanita McMillan, Betty Kelly,			

B. Sec. 12: NW $\frac{1}{4}$ SW $\frac{1}{4}$ (40.00) (.000000)

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	LEASE STATUS	BASIC ROYALTY OWNER AND PERCENTAGE	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE	PARTICIPAT OF TRACT IN UNIT
94. Marshall (was Tract 79)	T21S-R36E, N.M.P.M. Sec. 11: SE½SE½ Sec. 12: SW½SW½	80.00	HBP	David Loeffler, Co-Trustees for H. M. McMillan .195310 J. S. Mullen, Jr. .195310 New Mexico Boys Ranch, Inc. .156250 Braille Institute of America, Inc. 1.446730 Lillian Ramsgate Sedlmayr, Exrx. of Estate of Theodore Sedlmayr .781250 Shattuck School .156250 Wanda Shults .1953125 Wilma Rutland .1953125 Van Shults .1953125 Jack Shults .1953125 Charles Tyson Smith, II .781250 Regents of University of New Mexico .156250	None	Earl R. Bruno 100%	.153687*
A.	Sec. 11: SE½SE½			Selma E. Andrews Trust #5188 1.678280 Alan J. Antweil .781250 E. Doyle Berryman .781250 Boys Club of America .156250 Elks National Foundation Boston .156250 Juliette Rathbone Finch .781250 William H. Fleischmann, Jr. .260410 The Home Stake Oil & Gas Company .195310 The Home Stake Royalty Corp. .195310 Manufacturers Hanover Trust Co. as agent for William H. Fleischmann, Jr., Constance Von Gontard, and Fredericka Aglins .781250 Marguerite McKim Kent .781250 Patrick J. Leonard .260410 Robert J. Leonard .260420 Timothy T. Leonard .260420 Raymond Lee McKim .781250 Juanita McMillan, Betty Kelly,			(.062358)

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	LEASE STATUS	BASIC ROYALTY OWNER AND PERCENTAGE	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE	PARTICIPAL OF TRACT IN UNIT
B.	Sec. 12: SW ¹ SW ⁴	(40.00)		David Loeffler, Co-Trustees for H. M. McMillan .195310 J. S. Mullen, Jr. .195310 New Mexico Boys Ranch, Inc. .156250 Braille Institute of America, Inc. 1.446730 Lillian Ramsgate Sedlmayr, Exrx. of Estate of Theodore Sedlmayr .781250 Shattuck School .156250 Charles Tyson Smith, II .781250 Regents of University of New Mexico .156250 June D. Speight .781250			(.091329)
				Selma E. Andrews Trust #5188 1.678280 Alan J. Antweil .781250 E. Doyle Berryman .781250 Boys Club of America .156250 Elks National Foundation Boston .156250 Julette Rathbone Finch .781250 The Home Stake Oil & Gas Company The Home Stake .195310			
				The Home Stake Royalty Corp. .195310 Marguerite McKim Kent .781250 Patrick J. Leonard .260410 Robert J. Leonard .260420 Manufacturers Hanover Trust Co. as agent for William H. Fleischmann, Jr., Constance Von Gontard, and Fredericka Agins .781250			
				Timothy T. Leonard .260420 Raymond Lee McKim .781250 Juanita McMillan, Betty Kelly, David Loeffler, Co-Trustees for H. M. McMillan .195310 J. S. Mullen, Jr. .195310 New Mexico Boys Ranch, Inc. .156250			
				Braille Institute of America, Inc. 1.446730 Lillian Ramsgate Sedlmayr, Exrx. of Estate of Theodore Sedlmayr .781250 Shattuck School .156250			

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TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	LEASE STATUS	BASIC ROYALTY OWNER AND PERCENTAGE	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE	PARTICIPANT OF TRACT IN UNIT
96. Coleman (was Tract 84)	T21S-R36E, N.M.P.M. Sec. 17: NE $\frac{1}{4}$ NW $\frac{1}{4}$	40.00	HBP	Edith Socolow, Trustees U/A dated 11-24-76 .07810 Robert L. Summers .19530 Texaro Oil Co. .07810 Robert Allen Venable, Ind. Exec. & Tr. U/W of R. H. Venable .19530 Philip J. Willis and Jack Willis, Joint Tenants .03910 Thomas B. Wilson .02169 Lasca, Inc. .25000 Nancy Z. G. Herpin .09770 Jack H. Mayfield, Jr. .09770 Jack H. Mayfield, Jr., Margaret Bell, and lanode Goldston, Attys. in Fact for Iris Goldston .19530 Atlantic Richfield Co. .227900 Archbishopric of New York Emma L. Archer, Trustee of Est. of O. L. Coleman 1.83590 Liston Archer .15630 Bradley Resources Corporation .09770 Anderson Carter .09765 Powhatan Carter, Jr. .09765 Emely Ann Edwards .000725 Mary A. Fonda .05210 Alfred F. Gutman .07820 Daniel L. Gutman .07810 Daniel L. Gutman, Indep. Exec. of Est. of Max Gutman .23440 Betty Guttag .117200 Manufacturers Hanover Trust Co. Oil Successor Trustee U/A dated 4-30-56 as amended M/B and for Charles Gutman .117200 Charles Gutman .097700 Nancy Z. G. Herpin Mary M. Hodge & Charles R. Cravens, Jr., Co-Trustees of Mary M. Horne Trust, .586000 Mary M. Hodge & Charles R. Cravens, Jr., Co-Trustees of Mary M. Horne Trust, .585900 Home Stake Royalty Corporation .010852	None	Atlantic Richfield Company 100%	.363610

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	LEASE STATUS	BASIC ROYALTY OWNER AND PERCENTAGE	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING OWNER AND	
97. Coleman (was Tract 85)	T21S-R36E, N.M.P.M. Sec. 17: NE¼	160.00	HBP	Home Stake Royalty Corp..009768 Home Stake Oil & Gas Co..010852 Home Stake Oil & Gas Co..009767 Jones Robinson Company .390600 Robert Booth Kellough .065100 Lasca, Inc. .250000 Jack H. Mayfield, Jr. .097600 Jack H. Mayfield, Jr., Margaret Bell and Lenode Goldston, Atlys. in Fact for Iris Goldston .195300 First City Nat'l Bank, Trustee Trust Acct. 0292-02-8 .19530 Mobil Producing Texas and New Mexico Inc. 1.562500 Mary Vern Ransom 1.718700 R. V. Siddall .039000 Jean Anderson Simpson .000723 Edith Socolow and A. Walter Socolow, Trustees U/A dated 11-24-76 .078100 R. L. Summers .195300 Texaro Oil Company .078100 R. A. Venable, Indep. Exec. of Est. of R. H. Venable .195300 Wentz Heritage .781250 Wentz Legacy .781250 Jack Willis .019550 Philip J. Willis .019550 Thomas B. Wilson .021691 William G. Seal .000722	Adobe Royalty, Inc. .13021 Amoco Production Co. .52083 Emma Liston Archer, Trustee of Est. of O. L. Coleman .91150 Liston Archer .03906 Atlantic Richfield Co. .38410 Jane C. Blackford .049805 J. R. Bower, Jr. .50898 David Armstrong Bower, Agent .17344 Bradley Resources Corp..09765 Charles J. Cooper/Fonda.05208 Emely Ann Edwards .00072 Farmer Union Company .29297 Home Stake Oil and Gas Co. .02062 Home Stake Royalty Corp.	None	Getty Oil

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TRACT NO., AND TRACT NAME	DESCRIPTION OF LAND	ACRES	LEASE STATUS	BASIC ROYALTY OWNER AND PERCENTAGE	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE	PARTICIPANT OF TRACT IN UNIT		
				InterFirst Bank, Corsicana N.A., J. L. Collins, Dec'd #638.00 .29297 InterFirst Bank, Corsicana N.A., Trustee for Susan Jane Wheelock, Tr. #247 .096679 Everett R. Jones, Jr. .05781 Robert Booth Kellough .06511 Betty W. Kennanugh, individually, and as co-independent executor and Trustee of the Maude C. Wheelock estate .073243 Grace M. Larson .00195 Wentz Legacy .78125 Munro Lyeth & Patricia D. Lyeth .19532 B. W. Vetter and Charles C. Killin, Trustees of the Hattie Hill McVey Intervivos Trust .29297 First City Nat'l Bank, Trustee Acct #0292-02-8 .19531 Mobil Oil Corp 3.12500 Panhandle Royalty Company .58594 Mary Vern Ransom 1.24999 William C. Ransom .07812 Republic National Bank & Trust Co., A.N. McMillan Est. 89 .23438 Onez Norman Rooney .19531 Frances K. Royall .00391 N. R. Royall, III, Indep. Exec. of Est. of N. R. Royall, Jr., Dec'd .01563 John R. Royall, Trustee U/W of Fannie May Royall, Dec'd .00651 Tucker K. Royall, Trustee of the T. K. Royall Trust U/W of Fannie May Royall, Dec'd .00651 N. R. Royall, III, Trustee U/W of Fannie May Royall, Dec'd .00651 William G. Seal .00072 Roland V. Siddall .03906 Jean Anderson Simpson .00072 W. Blake Smith .29297					

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TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	LEASE STATUS	BASIC ROYALTY OWNER AND PERCENTAGE	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE	PARTICIP OF TRACT IN UN
98. Coleman (was Tract 86)	T21S-R36E, N.M.P.M. Sec. 17: W ² S ² E ²	80.00	HBP	Smith Oil Company .29296 Robert A. Venable .19531 Robert L. Wheelock, Jr., individually, and as co- independent executor and Trustee of the Maude C. Wheelock Estate .07324 Wentz Heritage .78125 Philip Willis and Jack Willis .03906 Thomas B. Wilson .02170		Shell Western Exploration & Production Inc. 100%	.572268
				Adobe Royalty Co. .13021 Amoco Production Co. .52083 Archbishopric of New York 1.31250 Emma Liston Archer, Trustee of Est. of O. L. Coleman 1.65365 Liston Archer .07813 Atlantic Richfield Co. .22786 J. R. Bower, Jr. .50898 Bradley Resources Corporation .09766 First Denver Trt-Min, Munro & Patricia Lyeth .39063 M. A. Fonda .05209 Alfred E. Gutman .23437 D. L. Gutman, Trustee .23437 B. G. Guttag .11719 Manufacturers Hanover Trust Co. Oil Successor Trustee U/A dated 4-30-56 as amended M/B and for Charles Gutman .11719 D. A. Bower, Agent .17343 Home Stake Oil & Gas Co. .01085 Home Stake Royalty Corporation .01085 E. R. Jones, Jr. .05782 Robert B. Kellough .06510 Grace M. Larson .00195 Lasca, Inc. .25000 M. S. Latta .39063 MNB Trust #0292028 .19531 Mobil Producing Texas and New Mexico Inc. 1.56250 Mary Vern Ransom 1.71875 Frances K. Royall .01171			

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	LEASE STATUS	BASIC ROYALTY OWNER AND PERCENTAGE	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE	PARTICIPANT OF TRACT IN UNIT
99. H. C. Collins (was Tract 98)	T21S-R36E, N.M.P.M. Sec. 14: E ³ / ₄ W ² / ₃ SW ¹ / ₄ NE ¹ / ₄ , W ¹ / ₂ SE ¹ / ₄	280.00	HBP	John R. Royall, Trustee of the John R. Royall Trust u/w/o N. R. Royall, Jr. .00261			
				John R. Royall, Trustee of the N. R. Royall III Trust, u/w/o N. R. Royall, Jr. .00261			
				John R. Royall, Trustee of the Tucker K. Royall Trust, u/w/o N. R. Royall, Jr. .00261			
				John R. Royall, Trustee of the John R. Royall Trust, u/w/o Fannie May Royall .00651			
				John R. Royall, Trustee of the N. R. Royall III Trust, u/w/o Fannie May Royall .00651			
				John R. Royall, Trustee of the Tucker K. Royall Trust, u/w/o Fannie May Royall .00651			
				Onez Norman Rooney .39062			
				Roland V. Siddall .03906			
				Texaro Oil Co. .07812			
				Robert A. Venable .19531			
				Wentz Heritage .78125			
				Wentz Legacy .78125			
				Phillip and Jack Willis .03906			
				Home Stake Oil & Gas Co..00977			
				Home Stake Royalty Corp..00977			
William G. Seal .00072							
Emely Ann Edwards .00073							
Jean Anderson Simpson .00072							
Thomas B. Wilson .02170							
				Paul M. Phillips ETZ Oil Properties Ltd. .01100	None	Gulf Oil Corporation 57.14%	.607838
				Pierre D. Phillips .01100		Atlantic Richfield Company 28.57%	
				Raymond W. Randolph .06510		Getty Oil Co. 14.29%	
				Jane D. Randolph .06510			
				Philip R. Snow .06510			
				Bill R. Snow .06510			
				Mary Elizabeth Roelke .13020			
				Wilma M. Phillips and Curtis Darling, Co-Personal Representatives of the Estate of Ross M. Phillips .01100			
				Toles Company .06510			
				Donald M. Phillips .01090			
				Christopher Dukinfield Jones .01042			

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TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	LEASE STATUS	BASIC ROYALTY		OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE	PARTICIPAL OF TRACT IN UNIT
				OWNER AND PERCENTAGE				
				Peter Francis Jones	.01042			
				Rachel B. Fardon	.01562			
				Irene Fardon Glaister	.01562			
				Renate Jones Dymesich, Guardian for Wendelin Elizabeth Jones				
				Boyd E. Penfield	.01042			
				Robert S. Light	.15625			
				Ethel Rushing Est.	.78125			
				Liston Archer	.78125			
				John W. Phillips	.01950			
				Anderson Carter	.01100			
				June D. Speight	.09765			
				Jessie B. Crump, David C. Belvins and The Fort Worth National Bank, Trustee of Joe and Jessie Crump Fund Acct. 2312	.39060			
				The First National Bank of Midland and Jessie Blevins Crump, Co-Trustees No. 1069	.19530			
				Helen Learmont Bedford	.19530			
				Phyllis C. Smythe	.12500			
				George H. Etz, Jr., Trustee	.06250			
				Grace Johnson	.39060			
				Elien Ann W. Williams	.15625			
				Onez Norman Rooney	.12500			
				Eva Payne Glass Est.	2.81250			
				Felmont Oil Corporation.	.02750			
				Elyse Saunders Patterson	.42120			
				Sue Saunders Graham	.06510			
				Munro L. Lyeth and Patricia D. Lyeth	.06510			
				The Pennsylvania Bank and Trust Co., Trustee of the Estate of Albert Walter Coal	2.81250			
				Mrs. Ernest Frances Bradfield	.05500			
				Powhatan Carter, Jr.	.01375			
				Superior Oil Company	.09765			
				Julian W. Glass, Jr.	.96880			
				Wanda Pruett Hess	.01375			
				Emma Liston Archer, Trustee of the Estate of O. L.	.15620			

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	LEASE STATUS	BASIC ROYALTY OWNER AND PERCENTAGE	OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE	PARTICIPY OF TRAC IN UNIT
100. Frona Leck (was Tract 99)	T21S-R36E, N.M., P.M., Sec. 14: NW 1/4, NE 1/4	40.00	HBP	Coleman .07810 Charles F. Bedford .12500 Henry De Graffenreid Bedford .12500 Rachel Bedford Bowen .12500 Mary Vern Ransom .09770 Superior Oil Company .96880 Julian W. Glass, Jr. .01375 Wanda Pruett Hess .15620 Emma Liston Archer, Trustee of the Estate of O. L. Coleman .07810 Charles F. Bedford .12500 Henry De Graffenreid Bedford .12500 Rachel Bedford Bowen .12500 Mary Vern Ransom .09770 Ellen Ann W. Williams .12500 Onez Norman Rooney 2.81250 Eva Payne Glass Est. .02750 Felmont Oil Corporation .42120 Elyse Saunders Patterson .06510 Sue Saunders Graham .06510 Munro L. Lyeth and Patricia D. Lyeth 2.81250 The Pennsylvania Bank and Trust Co., Trustee of the Estate of Albert Walter Goal .05500 Jacques Peter Adoue, Thomas J. Kelly, W. W. Bland and Texas Commerce Bank, N.A., Trustees u/w of F. D. Jones .06250 Mrs. Ernest Frances Bradfield .01375 Powhatan Carter, Jr. .09765 Anderson Carter .09765 June D. Speight .39060 Jessie B. Crump, David C. Blevins and the Fort Worth National Bank, Trustees of the Joe and Jessie Crump Fund Acct. #2312 .19530 RepublicBank First Nat'l	None	Gulf Oil Corporation 57.14% Atlantic Richfield Company 28.57% Getty Oil Co. 14.29%	.093085

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	LEASE STATUS	BASIC ROYALTY OWNER AND PERCENTAGE		OVERRIDING ROYALTY OWNER AND PERCENTAGE	WORKING INTEREST OWNER AND PERCENTAGE	PARTICIPAL OF TRACT IN UNIT
101. McQuarters (was Tract 115)	T21S-R36E, N.M.P.M. N3NE4	80.00	HBP	Midland and Jessie Blevins Crump, Co-Trustees Trust No. 1069	.19530			
				Helen Learmont Bedford	.12500			
				Phyllis C. Smythe	.06250			
				George H. Etz, Jr., Trustee				
				Grace Johnson	.39060			
				Donald M. Phillips	.15625			
				Boyed E. Penfield	.01100			
				Robert S. Light	.15625			
				Ethel Rushing	.78125			
				Liston Archer	.78125			
				John W. Phillips	.01950			
				Paul M. Phillips	.01100			
				ETZ Oil Properties, Ltd.	.01100			
				Pierre D. Phillips	.39060			
				Raymond W. Randolph	.01100			
				Jane D. Randolph	.06510			
				Philip R. Snow	.06510			
				Bill R. Snow	.06510			
				Mary Elizabeth Roelke	.06510			
				Wilma M. Phillips and Curtis Darling, Co-Personal Representatives of the Estate of Ross M. Phillips	.13020			
				Toles Company	.01090			
					.06510			
				Alan J. Antweil		None	Amoco Production Company	.228542
				E. Doyle Berryman	.78125			
				Bradley Resources Corporation	.78125			
				Manufacturers Hanover Trust Co. Agent for William H. Fleischmann, Jr.; Constance Von Gontard, and Fredricka Agins	1.17188			
				Fluor Oil and Gas Corporation	.78125			
				First National Bank in Dallas and Vena H. Long Independent Executors of the Estate of Frank O. Long	3.12500			
				Nancy Elizabeth Penson	.00224			
				Mrs. Exor Megan, Guardian of the Estate of Maude Eagle Pfouts	2.29225			
					.00113			

TRACT NO. AND TRACT NAME	DESCRIPTION OF LAND	ACRES	LEASE STATUS	BASIC ROYALTY OWNER AND PERCENTAGE		UNIT	AREA	OVERRIDING ROYALTY OWNER AND PERCENTAGE		WORKING INTEREST OWNER AND PERCENTAGE		PARTICIPANT OF TRACT IN UNIT																																																																																																			
23	PATENTED TRACTS	TOTALING 3,180.28	ACRES	OR	22.41%	OF	Nora Walker	.02804	.00113																																																																																																						
													Tortuga Oil & Gas, Inc.	.03253	Georgia Ann Stieren, Independent Executrix of the Estate of Jack Stieren	1.95312	Southland Royalty Company	.78125	John E. Sedlmayr	.76392	Penn Brothers, Inc.	.00376	Jack L. Hart																																																																																								

EXHIBIT 12

UNIT OPERATING AGREEMENT EUNICE MONUMENT SOUTH UNIT LEA COUNTY, NEW MEXICO

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Case No. 8397
November 7, 1984

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UNIT OPERATING AGREEMENT
EUNICE MONUMENT SOUTH UNIT
LEA COUNTY, NEW MEXICO

THIS AGREEMENT, entered into as of the 22nd day of June, 1984, by the parties who have signed the original of this instrument, a counterpart thereof or other instrument agreeing to be bound by the provisions hereof;

W I T N E S S E T H:

WHEREAS, the parties hereto, as Working Interest Owners have executed that certain agreement entitled "Unit Agreement, Eunice Monument South Unit, Lea County, New Mexico" hereinafter referred to as "Unit Agreement", and which, among other things, provides for a separate agreement to be made and entered into by and between Working Interest Owners to provide for Unit Operations therein defined:

NOW, THEREFORE, in consideration of the mutual agreements herein set forth, it is agreed as follows:

ARTICLE 1

CONFIRMATION OF UNIT AGREEMENT

1.1 Confirmation of Unit Agreement. The Unit Agreement is hereby confirmed and incorporated herein by reference and made a part of this Agreement. The definitions in the Unit Agreement are adopted for all purposes of this Agreement. In the event of any conflict between the Unit Agreement and this Agreement, the Unit Agreement shall prevail.

ARTICLE 2

EXHIBITS

2.1 Exhibits. The following exhibits are incorporated herein by reference or attachment:

2.1.1 Exhibits "A" and "B" of the Unit Agreement.

2.1.2 Exhibit "C", attached hereto, is a summary showing each Working Interest Owner's

Working Interest in each Tract, the percentage

of total Unit Participation attributable to each such interest, and the total Unit Participation of each Working Interest Owner.

2.1.3 Exhibit "D", attached hereto, contains insurance provisions applicable to Unit Operations.

2.1.4 Exhibit "E", attached hereto, is the Accounting Procedure applicable to Unit Operations. In the event of conflict between this agreement and Exhibit "E", this agreement shall prevail.

2.1.5 Exhibit "F", attached hereto, contains Certificate of Compliance provisions provided for in Article 21.

2.1.6 Exhibit "G", attached hereto, is the Gas Balancing Agreement applicable to Unit Operations.

2.2 Revision of Exhibits. Whenever Exhibit A or B are revised, Exhibit C shall be revised accordingly and be effective as of the same date. Unit Operator shall also revise Exhibit C from time to time as required to conform to changes in ownership of which Unit Operator has been notified as provided in the Unit Agreement.

2.3 Reference to Exhibits. When reference is made herein to an exhibit, it is to the exhibit as originally attached or, if revised, to the last revision.

ARTICLE 3

SUPERVISION OF OPERATIONS BY WORKING INTEREST OWNERS

3.1 Overall Supervision. Subject to the other terms and provisions of this agreement and of the Unit Agreement, Working Interest Owners shall exercise overall supervision and control of all matters pertaining to the Unit Operations pursuant to this Agreement and the Unit Agreement. In the exercise of such power, each Working Interest Owner shall act solely in its own behalf in

the capacity of an individual owner and not on behalf of the owners as an entirety.

3.2 Particular Powers and Duties. The Working Interest Owners, using the voting procedures given in Article 4.3, unless otherwise specifically provided in this Agreement, shall decide matters pertaining to Unit Operations which include, but are not limited to the following:

3.2.1 Method of Operation. The kind, character and method of operation, including any type of pressure maintenance, secondary recovery or other enhanced recovery program to be employed.

3.2.2 Drilling of Wells. The drilling, deepening, or sidetracking of any well within the Unit Area for the production of Unitized Substances; and the drilling of any well for injection, salt water disposal or for any other Unit purpose.

3.2.3 Well Workovers and Change of Status. The reworking, recompleting or repairing of any well for the purpose of production of Unitized Substances reasonably estimated to require an expenditure in excess of the expenditure limitation specified in Section 3.2.4 hereinbelow; and the abandonment or change of status of any well in the Unit, or the use of any such well for injection or other purposes.

3.2.4 Expenditures. Making of any single expenditure in excess of thirty-five thousand dollars (\$35,000.00), except as provided in Section 7.9 hereof; provided that approval by Working Interest Owners for the drilling,

sidetracking, reworking, drilling deeper or plugging back of any well shall include approval of all necessary expenditures required therefor and for completing, testing and equipping the same, including necessary flow lines, separators and lease tankage.

3.2.5 Amendment of Overhead Rates. The amendment of the overhead rates provided for in Section III of Exhibit "E" if, as set forth in Section III.3 of Exhibit "E", such rates are found to be insufficient or excessive.

3.2.6 Disposition of Surplus Facilities. Selling or otherwise disposing of any major item of surplus unit material or equipment, the current list price of new equipment similar thereto being fifteen thousand dollars (\$15,000.00) or more.

3.2.7 Appearance Before a Court or Regulatory Body. The designating of a representative to appear before any court or regulatory body in matters pertaining to unit operations; provided, however, that the authorization by Working Interest Owners of the designation of any such representatives shall not prevent any Working Interest Owner from appearing in person or from designating another representative in its own behalf.

3.2.8 Audit Exceptions. Any unresolved audit exceptions relating to audits as provided for in Exhibit "E".

3.2.9 Assignments to Committees. The appointment or designation of committees or subcommittees necessary for the study of any problem in connection with Unit Operations.

3.2.10 The selection of a successor to the Unit Operator.

3.2.11 The enlargement of the Unit Area.

3.2.12 The adjustment and readjustment of investments.

3.2.13 Acquisition of Wells for Unit Operations.

3.2.14 The termination of the Unit Agreement.

ARTICLE 4

MANNER OF EXERCISING SUPERVISION

4.1 Designation of Representatives. Each Working Interest Owner shall advise Unit Operator in writing the names and addresses of its representative and alternate who are authorized to represent and bind it in respect to any matter pertaining to the development and operation of the Unit Area. Such representative or alternate may be changed from time to time by written notice to Unit Operator.

4.2 Meetings. All meetings of Working Interest Owners for the purpose of considering and acting upon any matter pertaining to the development and operation of the Unit Area shall be called by Unit Operator upon its own motion or at the request of two or more Working Interest Owners having a total Unit Participation of not less than ten (10%) percent. No meeting shall be called on less than fourteen (14) days' advance written notice, with agenda for the meeting attached. The Working Interest Owners attending such meeting shall not be prevented from amending items included in the agenda or from deciding such amended item or from deciding other items presented at such meeting. The representative of Unit Operator shall be Chairman of each meeting.

4.3 Voting Procedure. Working Interest Owners shall act upon and determine all matters coming before them, as follows:

4.3.1 Voting Interest. Each Working Interest Owner shall have a voting interest equal to its Unit Participation in effect at the time of the vote.

4.3.2 Vote Required. Unless otherwise provided herein or in the Unit Agreement, Working Interest Owners shall determine all matters by the affirmative vote of four or more Working Interest Owners having a combined voting interest of at least sixty-five percent (65%); however, should any one Working Interest Owner have more than thirty percent (30%) voting interest, its negative vote or failure to vote shall not defeat a motion and such motion shall pass if approved by Working Interest Owners having a majority voting interest, unless two or more additional Working Interest Owners having a combined voting interest of at least five percent (5%) likewise vote against the motion or fail to vote.

4.3.3 Vote at Meeting by Non-Attending Working Interest Owners. Any Working Interest Owner not represented at a meeting may vote on any item included in the agenda of the meeting by letter or telegram addressed to the Chairman of the meeting, provided such vote is received prior to the submission of such item to vote. Such vote shall not be counted with respect to any item on the agenda which is amended at the meeting.

4.3.4 Poll Votes. Working Interest Owners may decide any matter by vote taken by letter or telegram, provided the matter is first submitted in writing to each Working Interest Owner and no meeting on the matter is called, as provided in Paragraph 4.2, within fourteen (14) days after such proposal is dispatched to Working Interest

Owners. Such vote will be final and Unit Operator will give prompt notice of the results of such voting to all Working Interest Owners.

ARTICLE 5

INDIVIDUAL RIGHTS AND PRIVILEGES OF WORKING INTEREST OWNERS

5.1 Reservation of Rights. Working Interest Owners severally reserve to themselves all their rights, powers, authority and privileges, except as expressly otherwise provided in this Agreement and in the Unit Agreement.

5.2 Specific Rights. Each Working Interest Owner shall have, among others, the following specific rights and privileges:

5.2.1 Access to Unit Area. Access to the Unit Area, at all reasonable times, to inspect the operations hereunder and all wells and records and data pertaining thereto.

5.2.2 Reports by Request. The right to receive from Unit Operator, upon written request, copies of all reports to any governmental agency, reports of crude oil runs and stocks, inventory reports and all other data pertaining to Unit Operations. The cost of gathering and furnishing data not ordinarily furnished by Unit Operator to all Working Interest Owners shall be charged solely to Working Interest Owners requesting the same.

5.2.3 Audits. The right to audit the accounts of Unit Operator according to the provisions of Exhibit "E".

ARTICLE 6

UNIT OPERATOR

6.1 Unit Operator. Gulf Oil Corporation is hereby designated as the initial Unit Operator.

6.2 Resignation or Removal. Unit Operator may resign at any time. Unit Operator may be removed at any time by the

affirmative vote of Working Interest Owners having eighty percent (80 %) or more of the voting interest remaining after excluding the voting interest of Unit Operator. Such resignation or removal shall not become effective for a period of six (6) months after the resignation or removal, unless a successor Unit Operator has taken over Unit Operations prior to the expiration of such period.

6.3 Selection of Successor. Upon the resignation or removal of Unit Operator, a successor Unit Operator shall be selected by Working Interest Owners as provided in Section 8 of the Unit Agreement.

6.4 Records and Information. The Unit Operator resigning or being removed shall give complete cooperation to the new Unit Operator and shall deliver to its successor all records and information necessary to the discharge of the new Unit Operator's duties and obligations.

ARTICLE 7

POWERS AND DUTIES OF UNIT OPERATOR

7.1 Exclusive Rights to Operate Unit. Subject to the other provisions of this Agreement, and to the orders, directions and limitations rightfully given or imposed by Working Interest Owners, Unit Operator shall have the exclusive right and be obligated to conduct Unit Operations.

7.2 Workmanlike Conduct. Unit Operator shall conduct all operations hereunder in a good and workmanlike manner and, in the absence of specific instructions from Working Interest Owners, shall have the right and duty to conduct such operations in the same manner as would a prudent operator under the same or in similar circumstances. Unit Operator shall freely consult with Working Interest Owners and keep them advised of all matters arising

exercise of its best judgment, considers important. Unit Operator shall not be liable to Working Interest Owners for damages, unless such damages result from the gross negligence or willful misconduct of Unit Operator.

7.3 Liens and Encumbrances. Unit Operator shall endeavor to keep the land and leases in the Unit Area free from all liens and encumbrances occasioned by its operations hereunder, except the lien of Unit Operator granted hereunder.

7.4 Employees. The number of employees used by Unit Operator in conducting operations hereunder, the selection of such employees, the hours of labor and the compensation for services to be paid any and all such employees shall be determined by Unit Operator. Such employees shall be employed by Unit Operator.

7.5 Records. Unit Operator shall keep true and correct books, accounts and records of its operations hereunder.

7.6 Reports to Working Interest Owners. Unit Operator shall furnish to each Working Interest Owner periodic reports of the development and operation of the Unit Area.

7.7 Reports to Governmental Authorities. Unit Operator shall make all reports to governmental authorities that it has the duty to make as Unit Operator.

7.8 Engineering and Geological Information. Unit Operator shall furnish to each Working Interest Owner, upon written request, a copy of the log of, and copies of engineering and geological data pertaining to, wells drilled by Unit Operator.

7.9 Expenditures. Unit Operator is authorized to make single expenditures not in excess of thirty-five thousand dollars (\$35,000.00) without prior approval of Working Interest Owners. If an emergency occurs, Unit Operator may immediately make or incur such expenditures as in its opinion are required to deal with the emergency. Unit Operator shall report to Working Interest Owner, as promptly as possible, the nature of the emergency and the action taken.

7.10 Wells Drilled by Unit Operator. All wells drilled by Unit Operator shall be at the usual rates prevailing in the area. Unit Operator may employ its own tools and equipment, but

the charge therefor shall not exceed the prevailing rate in the area, and the work shall be performed by Unit Operator under the same terms and conditions as are usual in the area in contracts of independent contractors doing work of a similar nature.

7.11 Border Agreements. Unit Operator may, after approval by Working Interest Owners, enter into border agreements with respect to lands adjacent to the Unit Area for the purpose of coordinating operations.

ARTICLE 8

TAXES

8.1 Ad Valorem Taxes. Beginning with the first calendar year after the Effective Date hereof, Unit Operator shall make and file all necessary property tax renditions, whether on real or personal property and returns with the proper taxing authorities with respect to all property of each Working Interest Owner used or held by Unit Operator for Unit Operations. Unit Operator shall settle assessments arising therefrom. All such property taxes shall be paid by Unit Operator and charged to the joint account; however, if the interest of a Working Interest Owner is subject to a separately assessed overriding royalty interest production payment or other interest in excess of a one-eighth (1/8) royalty, such Working Interest Owner shall notify Unit Operator of such interest prior to the rendition date and shall be given credit for the reduction in taxes paid resulting therefrom. Any Working Interest Owner dissatisfied with any assessment of its interest in real or personal property shall have the right, at its own expense, and after due notice to the Unit Operator, to protest and resist any such assessment,

8.2 Taxes and Assessments. Each Working Interest Owner shall pay or cause to be paid all production, severance, gathering, windfall profits tax and other taxes and assessments imposed upon or on account of the production or handling of its share of Unitized Substances.

8.3 Income Tax Election. Notwithstanding any provisions herein that the rights and liabilities hereunder are several and not joint or collective, or that this Agreement and operations

hereunder shall not constitute a partnership, if for Federal income tax purposes this Agreement and the operations hereunder are regarded as a partnership, then each of the Parties hereto elects to be excluded from the application of all of the provisions of Subchapter K, Chapter 1, Subtitle A, of the Internal Revenue Code of 1954, as permitted and authorized by Section 761 of the Code and the regulations promulgated thereunder. Unit Operator is authorized and directed to execute on behalf of each of the Parties hereto such evidence of this election as may be required by the Secretary of the Treasury of the United States or the Federal Internal Revenue Service, including specifically, but not by way of limitation, all of the returns, statements, and the data required by Federal Regulations 1.761-1(a). Should there be any requirement that each Party hereto give further evidence of this election, each such Party shall execute such documents and furnish such other evidence as may be required by the Federal Internal Revenue Service or as may be necessary to evidence this election. Each party hereto further agrees not to give any notices or take any other action inconsistent with the election made hereby. If any present or future income tax laws of the state in which the Unit Area is located or any future income tax law of the United States contain provisions similar to those in Subchapter K, Chapter 1, Subtitle A, of the Internal Revenue Code of 1954, under which an election similar to that provided by Section 761 of the Code is permitted, each of the Parties hereto agrees to make such election as may be permitted or required by such laws. In making the foregoing election, each of the Parties states that the income derived by such Party from the operations under this Agreement can be adequately determined without the computation of partnership taxable income.

ARTICLE 9

INSURANCE

9.1 Insurance. Unit Operator, with respect to Unit Operations, shall:

- (b) carry Employer's Liability and other insurance required by the laws of the State, and
- (c) provide other insurance as set forth in Exhibit D.

ARTICLE 10

ADJUSTMENT OF INVESTMENTS

10.1 Personal Property Taken Over. Upon the effective date hereof, Working Interest Owners shall deliver to Unit Operator possession of:

10.1.1 Wells and Well Equipment. All usable wellbores as defined in Article 11.3, together with the casing, tubing, and downhole equipment up to and including the christmas tree.

10.1.2 Lease and Operating Equipment. All lease and operating equipment, salt water disposal wells and facility systems related to the unitized formation which Working Interest Owners determine to be necessary or desirable for conducting Unit Operations.

10.1.3 Records. A copy of all production and well records pertaining to any well which has historically or is currently producing from the Unitized Formation.

10.2 Inventory and Evaluation of Personal Property. Working Interest Owners shall appoint an inventory committee which shall, as of the Effective Date hereof, or as soon thereafter as feasible, cause to be taken, under the supervision of the Unit Operator and at Unit Expense, joint physical inventories of lease and well equipment within the Unit Area, which inventories shall be used as a basis for determining the controllable items of equipment to be taken over by the Unit Operator hereunder. The Unit Operator shall notify each Working Interest Owner within each separate Tract at least five (5) days prior to the taking of the inventory with respect to said Tract, so that each of said Working Interest Owners may make arrangements to be represented at the taking of the inventory. Such inventories shall exclude all items not of use and value to the Unit and not necessary to Unit Operations. Such

inventories shall include and be limited to those items of equipment normally considered controllable as recommended in the material classification manual in Bulletin No. 6 dated May, 1971, or any amendments thereto, published by the Petroleum Accountants Society of North America, except that certain items normally considered noncontrollable, such as sucker rods and other items as agreed upon by the Working Interest Owners may be included in the inventories in order to insure a more equitable adjustment of investments. Immediately following completion, such inventories shall be priced in accordance with the provision of Exhibit "E", Accounting Procedure, attached hereto and made a part hereof; such pricing shall be performed under the supervision of, by the personnel of and in the offices of the Unit Operator, with Working Interest Owners furnishing such additional pricing help as may be available and necessary. It is specifically provided that with respect to each well taken over for Unit Operations, no value shall be assigned to intangible drilling costs of such well or to the down-hole casing therein.

10.3 Inventory and Valuations. After completion of the inventory and evaluation of property in accordance with the provisions of Section 10.2, Unit Operator shall submit to each Working Interest Owner a copy of the inventory and valuations thereon together with a letter ballot for approval of such inventory and valuations. Within sixty (60) days after receipt of such inventory and valuations each Working Interest Owner shall return such letter ballot to Unit Operator indicating its approval or disapproval thereof. It is agreed that such inventory and valuations shall be binding upon all parties if approved by Working Interest Owners owning as much as sixty-five percent (65%) of the Working Interest in the Unit Area.

10.4 Investment Adjustment. As soon as practicable after approval by Working Interest Owners of the inventory and valuations as provided in Section 10.3, each Working Interest Owner shall be credited with the value of its interest in all personal property so taken over by Unit Operator under Sections 10.1.1 and 10.1.2, and charged with an amount equal to that obtained by multiplying the total value of all such personal property so taken over by Unit Operator under Sections 10.1.1 and 10.1.2 by such Working Interest Owner's Unit Participation, as shown on Exhibit

"C", attached hereto. If the charge against any Working Interest Owner is greater than the amount credited to such Working Interest Owner, the resulting net charge shall be paid and in all other respects be treated as any other item of Unit Expense chargeable against such Working Interest Owner. If the credit to any Working Interest Owner is greater than the amount charged against such Working Interest Owner, the resulting net credit shall be paid to such Working Interest Owner by Unit Operator out of funds received by it in settlement of the net charges described above.

10.5 General Facilities. The acquisition of warehouses, warehouse stocks, lease houses, camps, facilities systems, and office building necessary for Unit Operations shall be by negotiation by and between the owners thereof and Unit Operator, subject to the approval of Working Interest Owners.

10.6 Ownership of Personal Property and Facilities. Each Working Interest Owner, individually, shall, by virtue hereof, own an undivided interest in all personal property and facilities taken over or otherwise acquired by Unit Operator pursuant to this agreement equal to its Unit Participation, shown on Exhibit "C", attached hereto.

ARTICLE 11

WELLBORES

11.1 Demand Wells. Upon the Effective Date of Unitization, or thereafter as demanded by the Unit Operator pursuant to the Unit plan of operations, Working Interest Owners will provide a useable wellbore, as defined in Article 11.3, on each forty acres which would constitute a proration unit within the Unit Area. If any such forty acres is not provided with a useable wellbore upon demand, the owner or owners contributing the forty acre location shall have the option for ninety (90) days to provide a useable wellbore. If a useable wellbore is not provided within the ninety day period, the owner or owners contributing the forty acre location shall within 10 days of the end of such ninety (90) day period remit the sum of one hundred thousand dollars (\$100,000) to the Unit Operator to be applied toward the cost of drilling, completing, and equipping a well on the deficient forty acre location. All costs of drilling, completing, and equipping the well in excess of the \$100,000 shall be charged to the joint account to be

shared by all owners in proportion to their respective Unit Participation percentage. In the event that an owner or owners fail to provide a required useable wellbore, and fail to pay the assessed \$100,000 for each wellbore deficient location within the required time period, such owner or owners shall be in default of payment, and action shall be initiated in accordance with provisions of Article 12.5 of this Agreement.

11.2 Exception to Demand Well Requirement. Any forty acre proration unit which has not contributed oil production from the Unitized Formation for purposes of the Tract Participation formula of Section 13 of the Unit Agreement will not be subject to the requirements of Article 11.1, above.

11.3 Useable Wellbore Definition. A "Useable Wellbore" shall be defined as a wellbore which is (1) suitable for unit operations which shall include being adequately cased to the satisfaction of the Working Interest Owners, down to the top of, or into the Unitized Formation, or through the Unitized Formation but plugged back to a depth no deeper than the base of the Unitized Formation, and (2) clear and free of obstructions from the surface to either the base of the Unitized Formation or to total depth, whichever is shallower, and (3) squeezed off at all non-unitized intervals.

11.3.1 Wellbores Made Useable. After the Effective Date of Unitization, any wellbore demanded by the Unit which requires remedial work to be made "Useable" may be worked over by the well owners, but such work may be witnessed by a representative of Unit Operator. The Working Interest Owners will not be liable for any cost or expense when work is performed by wellbore owners. Wellbore owners may request that remedial work required to make a wellbore "Useable" be performed by the Unit Operator. Following any such written request, Unit Operator will review wellbore records to determine appropriate procedures and cost estimates. If the Unit Operator determines that the required remedial work is technically feasible and can be performed on

a timely basis, Unit Operator at its sole discretion may agree to perform the required work. The wellbore owners shall bear the sole cost, risk, and expense of such remedial work up to a maximum amount of one hundred thousand dollars (\$100,000). If Unit Operator estimates that such remedial work will cost in excess of \$100,000, an AFE for the amount in excess of \$100,000 will be submitted to Working Interest Owners prior to the start of work and such excess shall be charged to the joint account.

11.3.2 Wellbores Accepted as "Useable Wellbores". Notwithstanding paragraph 11.3, any well actively producing as a single completion from the Unitized Formation for at least six (6) consecutive months prior to the Effective Date of unitization shall be accepted as a "Useable Wellbore." Any well which has not actively produced as a single completion from the Unitized Formation for six (6) consecutive months prior to the Effective Date of unitization shall not be accepted as a "Useable Wellbore" until it can be entered by the Unit Operator and assessed pursuant to Article 11.3. Any well not so assessed within two years following the effective date of unitization shall then be deemed a "Useable Wellbore."

ARTICLE 12

DEVELOPMENT AND OPERATING COSTS

12.1 Basis of Charge to Working Interest Owners. Subject to the provisions of Section 12.2 hereof, Unit Operator initially shall pay all Unit Expense. Each Working Interest Owner shall reimburse Unit Operator for its share of Unit Expenses. All charges, credits, and accounting for Unit Expense shall be in accordance with Exhibit "E" attached hereto. Each Working Interest Owner's share of such charges shall be the same as its Unit Participation.

12.2 Advance Billings. Unit Operator shall have the right, at its option, to require other Working Interest Owners to advance their respective proportions of estimated development and operating costs and expenses by submitting to such other Working Interest Owners, on or before the 15th day of any month, an itemized estimate of such costs and expenses for the succeeding month with a request for payment in advance. Within thirty (30) days thereafter, each such other Working Interest Owner shall pay to Unit Operator its proportionate part of such estimate. Adjustment between estimates and the actual costs shall be made by Unit Operator at the close of each calendar month, and the accounts of the Working Interest Owners shall be adjusted accordingly.

12.3 Commingling of Funds. Funds received by Unit Operator under this agreement need not be segregated by Unit Operator or maintained by it as a separate fund, but may be commingled with its own funds.

12.4 Lien and Security Interest of Unit Operator and Working Interest Owners. Each Working Interest Owner grants to Unit Operator a lien upon its Oil and Gas Rights in each Tract, and a security interest in its share of Unitized Substances when extracted and its interest in all Unit Equipment, to secure payment of its share of Unit Expense, together with interest thereon at the Prime rate set by Bank of America for the same period +2% per annum. To the extent that Unit Operator has a security interest under the Uniform Commercial Code of the State, Unit Operator shall be entitled to exercise the rights and remedies of a secured party under the Code. The bringing of a suit and the obtaining of judgment by Unit Operator for the secured indebtedness shall not be deemed an election of remedies or otherwise affect the lien rights or security interest as security for the payment thereof. In addition, upon default by any Working Interest Owner in the payment of its share of Unit Expense, Unit Operator shall have the right, without prejudice to other rights or remedies, to collect from the purchaser the proceeds from the sale of such Working Interest Owner's share of Unitized Substances until the amount owed by such Working Interest Owner, plus interest has been paid. Each purchaser shall be entitled to rely upon Unit Operator's written statement concerning the amount of any default. Unit Operator

grants a like lien and security interest to the Working Interest Owners.

12.5 Unpaid Unit Expense. If any Working Interest Owner fails to pay its share of Unit Expense within sixty (60) days after rendition of a statement therefor by Unit Operator, the non-defaulting Working Interest Owners shall, upon request by Unit Operator, pay the unpaid amount as if it were Unit Expense in the proportion that the Unit Participation of each such Working Interest Owner bears to the Unit Participation of all such Working Interest Owners. Each Working Interest Owner so paying its share of the unpaid amount shall, to obtain reimbursement thereof, be subrogated to the security rights described in Section 12.4 of this agreement.

12.6 Carved-Out Interest. If any Working Interest Owner shall, after executing this agreement, create an overriding royalty, production payment, net proceeds interest, carried interest, or any other interest out of its Working Interest, such carved-out interest shall be subject to the terms and provisions of this agreement, specifically including, but without limitation, Section 12.4 hereof entitled "Lien and Security Interest of Unit Operator and Working Interest Owners." If the Working Interest Owner creating such carved-out interest (a) fails to pay any Unit Expense chargeable to such Working Interest Owner under this agreement, and the production of Unitized Substances accruing to the credit of such Working Interest Owner is insufficient for that purpose, or (b) withdraws from this agreement under the terms and provisions of Article 17 hereof, the carved-out interest shall be chargeable with a pro rata portion of all Unit Expense incurred hereunder, the same as though carved-out interest were a Working Interest, and Unit Operator shall have the right to enforce against such carved-out interest the lien and all other rights granted in Section 12.4 for the purpose of collecting the Unit Expense chargeable to the carved-out interest.

12.7 Rentals. The Working Interest Owners in each Tract shall pay all rentals, minimum royalty, advance rentals or delay rentals due under the lease thereon and shall concurrently submit to the Unit Operator evidence of payment.

12.8 Budgets. Before or as soon as practical after the Effective Date, Unit Operator shall prepare a budget of estimated Unit Expense for the remainder of the calendar year, and, on or before the first day of each August thereafter, shall prepare a budget for the ensuing calendar year. A budget shall set forth the estimated Unit Expense by quarterly periods. Budgets shall be estimates only, and shall be adjusted or corrected by Working Interest Owners and Unit Operator whenever an adjustment or correction is proper. A copy of each budget and adjusted budget shall be furnished promptly to each Working Interest Owner.

ARTICLE 13

NON-UNITIZED FORMATIONS

13.1 Right to Operate. Any Working Interest Owner that now has or hereafter acquires the right to drill for and produce oil, gas, or other minerals from a formation underlying the Unit Area other than the Unitized Formation, shall have the right to do so notwithstanding this Agreement or the Unit Agreement. In exercising the right, however, the Working Interest Owner shall exercise care to prevent unreasonable interference with Unit Operations. No Working Interest Owner other than Unit Operator shall produce Unitized Substances through any well drilled or operated by it. If any Working Interest Owner drills any well into or through the Unitized Formation, the Unitized Formation shall be protected in a manner satisfactory to other Unit Working Interest Owners so

that production of Unitized Substances will not be adversely affected.

13.2 Multiple Completions. No well now or hereafter completed in the Unitized Formation shall ever be completed as a multiple completion with the Unitized Formation unless such multiple completion and subsequent handling of the multiple completion is approved by Working Interest Owners in accordance with the voting procedure described in Article 4.3 of this Agreement.

ARTICLE 14

TITLES

14.1 Warranty and Indemnity. Each Working Interest Owner represents and warrants that it is the owner of the respective Working Interest as shown to be owned by it on appropriate Exhibits to this Agreement and hereby indemnifies and holds the other Working Interest Owners harmless from any loss due to the failure, in whole or in part, of its title to any such interest, except failure of title arising out of operations hereunder; provided, however, that such indemnity and any liability for breach of warranty shall be limited to an amount equal to the net value that had been received from the sale of Unitized Substances attributed hereunder to the interest as to which title failed. Each failure of title will be effective, insofar as this Agreement is concerned, as of the first day of the calendar month in which such failure is finally determined and there shall be no retroactive adjustment of Unit Expense or retroactive allocation of Unitized Substances or the proceeds therefrom as a result of title failure.

14.2 Failure of Title Because of Unit Operations. The failure of title to any Working Interest in any Tract because of Unit Operations, including nonproduction from such Tract, shall not change the Unit Participation of the Working Interest Owner

whose title failed in relation to the Unit Participations of the other Working Interest Owners at the time of the title failure.

ARTICLE 15

LIABILITY, CLAIMS AND SUITS

15.1 Individual Liability. The duties, obligations, and liabilities of Working Interest Owners shall be several and not joint or collective; and nothing contained herein shall ever be construed as creating a partnership of any kind, joint venture or an association or trust between or among Working Interest Owners.

15.2 Settlements. Unit Operator may settle any single damage claim or suit involving Unit Operations if the expenditure does not exceed ten thousand dollars (\$10,000) and if the payment is in complete settlement of such claim or suit. If the amount required for settlement exceeds the above amount, Working Interest Owners shall determine the further handling of the claim or suit, unless such authority is delegated to Unit Operator. All costs and expense of handling, settling, or otherwise discharging such claim or suit shall be an item of Unit Expense, subject to such limitation as is set forth in Exhibit "E". If a claim is made against any Working Interest Owner or if any Working Interest Owner is sued on account of any matter arising from Unit Operations over which such Working Interest Owner individually has no control because of the rights given Working Interest Owners and Unit Operator by this Agreement and the Unit Agreement, the Working Interest Owner shall immediately notify Unit Operator, and the claim or suit shall be treated as any other claim or suit involving Unit Operations.

ARTICLE 16

NOTICES

16.1 Notices. All notices required hereunder shall be in writing and shall be deemed to have been properly served when sent by mail or telegram to the address of the representative of each Working Interest Owner as furnished to Unit Operator in accordance with Article 4 hereof.

ARTICLE 17WITHDRAWAL OF WORKING INTEREST OWNER

17.1 Withdrawal. A Working Interest Owner may withdraw from this Agreement by transferring, without warranty of title either express or implied, to the Working Interest Owners who do not desire to withdraw all its Oil and Gas Rights, exclusive of Royalty Interests, together with its interest in all Unit Equipment and in all wells used in Unit Operations, provided that such transfer shall not relieve such Working Interest Owner from any obligation or liability incurred prior to the first day of the month following receipt by Unit Operator of such transfer. The delivery of the transfer shall be made to Unit Operator for the transferees. The transferred interest shall be owned by the transferees in proportion to their respective Unit Participations. The transferees, in proportion to the respective interests so acquired, shall pay the transferor for its interest in Unit Equipment, the salvage value thereof less its share of the estimated cost of salvaging same and of plugging and abandoning all wells then being used or held for Unit Operations, as determined by Working Interest Owners. In the event such withdrawing owner's interest in the aforesaid salvage value is less than such owner's share of such estimated costs, the withdrawing owner, as a condition precedent to withdrawal, shall pay the Unit Operator, for the benefit of Working Interest Owners succeeding to its interest, a sum equal to the deficiency. Within sixty (60) days after receiving delivery of the transfer, Unit Operator shall render a final statement to the withdrawing owner for its share of Unit Expense, including any deficiency in salvage value, as determined by Working Interest Owners, incurred as of the first day of the month following the date of receipt of the transfer. Provided all Unit Expense, including any deficiency hereunder, due from the withdrawing owner has been paid in full within thirty (30) days after the rendering of such final statement by the Unit Operator, the transfer shall be effective the first day of the month following its receipt by Unit Operator and, as of such effective date, withdrawing owner shall be relieved from all further obligations and liabilities

hereunder and under the Unit Agreement, and the rights of the withdrawing Working Interest Owner hereunder and under the Unit Agreement shall cease insofar as they existed by virtue of the interest transferred.

17.2 Limitation on Withdrawal. Notwithstanding anything set forth in Article 17.1, Working Interest Owners may refuse to permit the withdrawal of a Working Interest Owner if its Working Interest is burdened by any royalties, overriding royalties, production payments, net proceeds interest, carried interest, or any other interest created out of the Working Interest in excess of one-eighth (1/8th) lessor's royalty, unless the other Working Interest Owners willing to accept the assignment agree to accept the Working Interest subject to such burdens.

ARTICLE 18

ABANDONMENT OF WELLS

18.1 Rights of Former Owners. If Working Interest Owners decide to permanently abandon any well completed in the Unitized Formation within the Unit Area prior to termination of the Unit Agreement, Unit Operator shall give written notice of such fact to the Working Interest Owners of the Tract on which such well is located and said Working Interest Owners shall have the right and option for a period of sixty (60) days after receipt of such notice to notify Unit Operator of their election to take over and own said well and to deepen or plug back said well to a formation other than the Unitized Formation. Within sixty (60) days after said Working Interest Owners have so notified Unit Operator of their desire to take over such well, they shall pay the Unit Operator, for credit to the joint account of the Working Interest Owners, the amount as estimated and fixed by Working Interest Owners to be the net salvage value of the equipment in and on said well, except casing and other equipment originally contributed at no cost. The Working Interest Owners of the Tract, by taking over the well, agree to seal off the Unitized Formation in a manner satisfactory to Working Interest Owners, and upon abandonment to plug the well in compliance with all applicable laws and regulations.

18.2 Plugging. In the event the Working Interest Owners of a Tract do not elect to take over a well located thereon which is proposed for abandonment, Unit Operator shall plug and abandon the well in accordance with applicable laws, and regulations.

ARTICLE 19

EFFECTIVE DATE AND TERM

19.1 Effective Date. This Agreement shall become effective on the date and at the time the Unit Agreement becomes effective.

19.2 Term. This Agreement shall continue in full force and effect so long as the Unit Agreement remains in force and effect and thereafter until (a) all Unit wells have been abandoned and plugged or turned over to Working Interest Owners in accordance with Article 20 hereof, (b) all personal and real property acquired for the Joint Account of Working Interest Owners have been disposed of by Unit Operator in accordance with instructions of Working Interest Owners, and (c) there has been a final accounting.

ARTICLE 20

ABANDONMENT OF OPERATIONS

20.1 Termination. Upon termination of the Unit Agreement, the following will occur:

20.1.1 Oil and Gas Rights. Oil and Gas Rights in and to each separate Tract shall no longer be affected by this Agreement, and thereafter the parties shall be governed by the terms and provisions of the leases, contracts, and other instruments affecting the separate Tracts.

20.1.2 Right to Operate. Working Interest Owners of any Tract desiring to take over

and continue to operate a well or wells located thereon may do so by paying Unit Operator, for the credit of the joint account, the net salvage value, as determined by the Working Interest Owners, of the equipment in and on the well, except casing and other equipment originally contributed at no cost, and by agreeing to properly plug the well at such time as it is abandoned.

20.1.3 Salvaging Wells. Unit Operator shall salvage as much of the casing and equipment in or on wells not taken over by Working Interest Owners of separate Tracts as can economically and reasonably be salvaged, and shall cause the wells to be plugged and abandoned in compliance with applicable laws and regulations.

20.1.4 Cost of Abandonment. The cost of abandonment of Unit Operations shall be Unit Expense.

20.1.5 Distribution of Assets. Working Interest Owners shall share in the distribution of Unit Equipment, or the proceeds thereof, in proportion to their Unit Participations.

ARTICLE 21

LAWS, REGULATIONS AND CERTIFICATE OF COMPLIANCE

21.1 Laws and Regulations. This Agreement and operations hereunder are subject to all valid laws and valid rules, regulations and orders of all regulatory bodies having jurisdiction and to all other applicable federal, state, and local laws, ordinances, rules, regulations and orders; and any provision of this Agreement found to be contrary to or inconsistent with any such law, ordinance, rule, regulation or order shall be deemed modified accordingly.

21.2 Certificate of Compliance. In the performance of work under this Agreement, the parties agree to comply and Unit Operator shall require each independent contractor to comply with the provisions of Exhibit "F".

ARTICLE 22EXCISE TAX PROVISIONS

22.1 Crude Oil Excise Tax. For the period during which excise taxes are payable under the Crude Oil Windfall Profit Tax Act of 1980 on any party's Unitized Substances, the first crude oil allocated to any Tract after distribution of any incremental tertiary crude as hereinafter provided shall be the tax tier type of crude oil actually produced or considered to have been produced from such Tract during the base period under I.R.C. regulations but not to exceed its Tract Participation share or the amount of such tax tier type of crude oil currently available. Any excess of a tax tier type of crude oil existing after the foregoing specific identification allocation shall be allocated to the remaining Tracts in the Unit which have an underallocation of crude oil in proportion to the amount of their relative underallocations of crude oil. Anything hereinabove notwithstanding, any incremental tertiary oil as defined under I.R.C. Section 4993 shall be allocated to each Tract in accordance with its Tract Participation prior to any other allocation of tax tier type of crude oil under this Article 22.1. In no case shall the sum of the different tax tier types of crude oil allocated to any Tract exceed the total amount of crude oil allocable under its Tract Participation.

22.2 Amendment By Working Interest Owners. This Article 22 may be amended or deleted by vote of the Working Interest Owners using the voting procedure set out in Article 4.3 of this Operating Agreement if in the opinion of the Working Interest Owners (a) application of Article 22 as written becomes unworkable or inequitable as a result of changes in laws or regulations of any governmental agency, or (b) amendment or deletion of this Article 22 is necessary to comply with applicable laws, rules, regulations or orders of any governmental agency having jurisdiction.

ARTICLE 23GOVERNMENTAL REGULATIONS

23.1 Governmental Regulations. Working Interest Owners agree to release Unit Operator from any and all losses, damages,

injuries, claims and causes of action arising out of, incident to or resulting directly or indirectly from Unit Operator's interpretation or application of rules, rulings, regulations or orders of any governmental agency or predecessor agencies to the extent Unit Operator's interpretation or application of such rules, rulings, regulations or orders were made in good faith. Working Interest Owners further agree to reimburse Unit Operator for their proportionate share of any amounts Unit Operator may be required to refund, rebate or pay as a result of an incorrect interpretation or application of the above noted rules, rulings, regulations or orders, together with their proportionate part of interest and penalties owing by Unit Operator as a result of such incorrect interpretation or application of such rules, rulings, regulations or orders.

ARTICLE 24

COUNTERPART EXECUTION

24.1 Counterpart Execution. This Agreement may be executed in any number of counterparts, no one of which needs to be executed by all parties and may be ratified or consented to by separate instrument in writing specifically referring hereto, and shall be binding upon all those parties who have executed such a counterpart, ratification or consent hereto with the same force and effect as if all parties had signed the same document, and regardless of whether or not it is executed by all other parties owning or claiming an interest in the land within the above described Unit Area. Furthermore, this Agreement shall extend to and be binding on the parties hereto, their successors, heirs and assigns.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement upon the respective dates indicated opposite their respective signatures.

GULF OIL CORPORATION *KTB*

By 
Attorney-in-Fact

COUNTY OF MIDLAND §

My Commission Expires:

7-30-88

Carolyn D. Larson

EXHIBIT C
WORKING INTEREST OWNER SUMMARY
EUNICE MONUMENT SOUTH UNIT
LEA COUNTY, NEW MEXICO

WORKING INTEREST OWNER	OLD TRACT	NEW TRACT	PERCENT UNIT OWNERSHIP
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AMERADA HESS CORPORATION	008	077	0.148770
	055	084	1.153271

----- AMERADA HESS CORPORATION			----- 1.302041
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AMOCO PRODUCTION COMPANY	081	001	2.077190
	082	002	0.230352
	097	003	0.161889
	116	004	0.017721
	080	005	0.063690
	087	006	0.080786
	048	007	1.666127
	059	008	2.264863
	065	009	0.331526
	003	010	0.584461
	004	011	0.027077
	114	058	0.031885
	104	061	0.199372
	105	076	0.074180
	115	101	0.228542

----- AMOCO PRODUCTION COMPANY			----- 8.039661
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APOLLO OIL COMPANY	052	081	0.108986
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ATLANTIC RICHFIELD COMPANY	081	001	2.077190
	082	002	0.230352
	097	003	0.161889
	116	004	0.017721
	080	005	0.063690
	087	006	0.080786
	048	007	1.666127
	059	008	2.264863
	065	009	0.331526
	043	027	2.680609
	042	028	0.934498
	046	043	0.634662
	049	044	0.063394
	028	045	0.238845
	072	046	0.135395
	106	047	0.132934
	062	049	0.751002
	023	050	0.050367
	019	059	0.882435
	036A	062	0.158116
	036B	064	0.067881
	002	066	0.512798
	026	068	0.220246
	045	075	0.693134
	105	076	0.087493
	009	078	0.055491
	053	082	0.250057
	054	083	0.192757
	066	087	3.457004
	077	092	0.050573
	084	096	0.363610
	098	099	0.173659
	099	100	0.026594

----- ATLANTIC RICHFIELD COMPANY			----- 19.708098
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BOSS, KENNETH R.	052	081	0.217972
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BRADY PRODUCTION	068	089	0.211657
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BRUNO, EARL	079	094	0.153687
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EXHIBIT C
WORKING INTEREST OWNER SUMMARY
EUNICE MONUMENT SOUTH UNIT
LEA COUNTY, NEW MEXICO

WORKING INTEREST OWNER	OLD TRACT	NEW TRACT	PERCENT UNIT OWNERSHIP
CATRON W.I. ACCT.	049	044	0.063394
	028	045	0.238845
	072	046	0.135395
	106	047	0.132934
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CATRON W.I. ACCT.			0.570568
CATRON, J. S. & T. B. CATRON III	050	048	0.018148
CATRON, THOMAS B. III, TRUSTEE	050	048	0.018148
CHEVRON, U.S.A., INC.	081	001	2.077190
	082	002	0.230352
	097	003	0.161889
	116	004	0.017721
	080	005	0.063690
	087	006	0.080786
	048	007	1.666127
	059	008	2.264863
	065	009	0.331526
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CHEVRON, U.S.A., INC.			6.894144
CITIES SERVICE COMPANY	013	039	0.244360
	091	041	0.751093
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CITIES SERVICE COMPANY			0.995453
CONOCO INC.	081	001	2.077190
	082	002	0.230352
	097	003	0.161889
	116	004	0.017721
	080	005	0.063690
	087	006	0.080786
	048	007	1.666127
	059	008	2.264863
	065	009	0.331526
	075	025	0.474353
	096	026	1.957890
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CONOCO INC.			9.326387
CRILE, HERMAN R.	073	072	0.013744
	074	091	0.026231
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CRILE, HERMAN R.			0.039975
DENNIS, ETHEL	031	055	0.013819
ELLISON, T. W.	031	055	0.013819
EXXON COMPANY U.S.A.	006	012	0.151224
	021	037	1.962315
	067	088	0.931331
	068	089	0.211657
	069	090	1.604876
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EXXON COMPANY U.S.A.			4.861403
FIELDS, BERT JR.	024	063	0.058119

EXHIBIT C
WORKING INTEREST OWNER SUMMARY
EUNICE MONUMENT SOUTH UNIT
LEA COUNTY, NEW MEXICO

WORKING INTEREST OWNER	OLD TRACT	NEW TRACT	PERCENT UNIT OWNERSHIP
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GETTY OIL COMPANY	092	023	0.918559
	103	024	0.277424
	088	030	1.328423
	117	031	0.137520
	001	032	0.427150
	089	033	0.169794
	060	038	0.442503
	046	043	0.634662
	090	056	0.186322
	093	060	0.559636
	025	065	0.009005
	012	073	0.081241
	053	082	0.250057
	063	095	0.375553
	085	097	1.415360
	098	099	0.086860
	099	100	0.013302

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GETTY OIL COMPANY			7.313371

GULF OIL CORPORATION	095	013	1.055350
	102	014	2.739613
	017	015	3.195507
	035	016	0.682139
	038	017	3.726787
	047	018	1.459570
	063	019	0.426101
	064	020	0.796347
	071	021	0.355963
	094	022	2.683321
	010	029	0.405359
	020	034	3.559765
	034	035	1.701394
	040	036	0.361025
	060	038	0.885006
	039	051	2.723870
	037	057	0.520475
	107	071	0.825987
	005	079	0.714308
	056	085	0.185457
057	086	0.649681	
098	099	0.347319	
099	100	0.053189	

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GULF OIL CORPORATION			30.053533

HARTMAN, DOYLE	070	040	0.051033
	113	042	0.032484

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HARTMAN, DOYLE			0.083517

HEDDLEY, KENNETH	074	091	0.026231
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HENDRIX, JOHN H.	031	055	0.066329
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HUDSON, E.R.	024	063	0.004359
	118	063	0.000000
	007	074	0.004353

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HUDSON, E.R.			0.008712

HUDSON, E.R. & W.A.	024	063	0.024701
	118	063	0.000000
	007	074	0.024664

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HUDSON, E.R. & W.A.			0.049365

EXHIBIT C
WORKING INTEREST OWNER SUMMARY
EUNICE MONUMENT SOUTH UNIT
LEA COUNTY, NEW MEXICO

4

WORKING INTEREST OWNER	OLD TRACT	NEW TRACT	PERCENT UNIT OWNERSHIP
KLEIN, M.	031	055	0.031783
KLEIN, S. H.	031	055	0.031783
KOCH EXPLORATION COMPANY	044	069	0.326589
LANDRETH PRODUCTION COMPANY	104	061	0.92552
	105	076	0.071642
-----			-----
LANDRETH PRODUCTION COMPANY			0.264194
ME-TEX COMPANIES	050	048	0.254073
PERDEW, W. L. EST.	064	069	0.017189
PFLUGER, CARL	070	040	0.025516
	113	042	0.032484
-----			-----
PFLUGER, CARL			0.058000
S & S ENGINEERING	052	081	0.108986
SHELEY, JEANNE FIELDS	024	063	0.058119
SHELL WESTERN E & P, INC.	033	052	0.237670
	018	053	5.112412
	032	054	0.485839
	027	070	0.287522
	086	098	0.572268
-----			-----
SHELL WESTERN E & P, INC.			6.695711
SJN OIL COMPANY	060	038	0.442503
	051	080	0.498853
	078	093	0.055857
-----			-----
SJN OIL COMPANY			0.997213
TEXACO INC.	022	067	0.635532
TURNER, F.W. JR. EST.	024	063	0.087179
	118	063	0.000000
-----			-----
TURNER, F.W. JR. EST.			0.087179
TWO STATES OIL COMPANY	073	072	0.059555
	074	091	0.052462
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TWO STATES OIL COMPANY			0.112017
WILBANKS, BRUCE	031	055	0.063565
WISER OIL COMPANY	074	091	0.104924
			=====
			100.000000

EXHIBIT "D"

EUNICE MONUMENT SOUTH UNIT
LEA COUNTY, NEW MEXICO

INSURANCE COVERAGE

- (a) Workmen's Compensation Insurance and Employers' Liability Insurance in accordance with the laws of the state in which the Contract Area is situated;

and,

- (b) Comprehensive General Public Liability in the following amounts:

Bodily Injury: \$150,000.00 each occurrence
 \$300,000.00 aggregate

Property Damage: \$100,000.00 each occurrence,
 with the exception of the
 first \$5,000.00 loss which
 is self-insured
 \$200,000.00 aggregate

The \$5,000.00 self-insured property damage loss incident to each accident shall be charged to the Joint Account.

KCS 601. BOX 800
TULSA OK 74101

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EXHIBIT " E "

EUNICE MONUMENT SOUTH UNIT
LEA COUNTY, NEW MEXICOACCOUNTING PROCEDURE
JOINT OPERATIONS

I. GENERAL PROVISIONS

1. Definitions

"Joint Property" shall mean the real and personal property subject to the agreement to which this Accounting Procedure is attached.

"Joint Operations" shall mean all operations necessary or proper for the development, operation, protection and maintenance of the Joint Property.

"Joint Account" shall mean the account showing the charges paid and credits received in the conduct of the Joint Operations and which are to be shared by the Parties.

"Operator" shall mean the party designated to conduct the Joint Operations.

"Non-Operators" shall mean the parties to this agreement other than the Operator.

"Parties" shall mean Operator and Non-Operators.

"First Level Supervisors" shall mean those employees whose primary function in Joint Operations is the direct supervision of other employees and/or contract labor directly employed on the Joint Property in a field operating capacity.

"Technical Employees" shall mean those employees having special and specific engineering, geological or other professional skills, and whose primary function in Joint Operations is the handling of specific operating conditions and problems for the benefit of the Joint Property.

"Personal Expenses" shall mean travel and other reasonable reimbursable expenses of Operator's employees.

"Material" shall mean personal property, equipment or supplies acquired or held for use on the Joint Property.

"Controllable Material" shall mean Material which at the time is so classified in the Material Classification Manual as most recently recommended by the Council of Petroleum Accountants Societies of North America.

2. Statement and Billings

Operator shall bill Non-Operators on or before the last day of each month for their proportionate share of the Joint Account for the preceding month. Such bills will be accompanied by statements which identify the authority for expenditure, lease or facility, and all charges and credits, summarized by appropriate classifications of investment and expense except that items of Controllable Material and unusual charges and credits shall be separately identified and fully described in detail.

3. Advances and Payments by Non-Operators

Unless otherwise provided for in the agreement, the Operator may require the Non-Operators to advance their share of estimated cash outlay for the succeeding month's operation. Operator shall adjust each monthly billing to reflect advances received from the Non-Operators.

Each Non-Operator shall pay its proportion of all bills within ^{thirty (30)} ~~fifteen (15)~~ days after receipt. If payment is not made within such time, the unpaid balance shall bear interest monthly at the rate of twelve percent (12%) per annum or the maximum contract rate permitted by the applicable usury laws in the state in which the Joint Property is located, whichever is the lesser, plus attorney's fees, court costs, and other costs in connection with the collection of unpaid amounts.

4. Adjustments

Payment of any such bills shall not prejudice the right of any Non-Operator to protest or question the correctness thereof; provided, however, all bills and statements rendered to Non-Operators by Operator during any calendar year shall conclusively be presumed to be true and correct after twenty-four (24) months following the end of any such calendar year, unless within the said twenty-four (24) month period a Non-Operator takes written exception thereto and makes claim on Operator for adjustment. No adjustment favorable to Operator shall be made unless it is made within the same prescribed period. The provisions of this paragraph shall not prevent adjustments resulting from a physical inventory of Controllable Material as provided for in Section V.

5. Audits

A. Non-Operator, upon notice in writing to Operator and all other Non-Operators, shall have the right to audit Operator's accounts and records relating to the Joint Account for any calendar year within the twenty-four (24) month period following the end of such calendar year; provided, however, the making of an audit shall not extend the time for the taking of written exception to and the adjustments of accounts as provided for in Paragraph 4 of this Section I. Where there are two or more Non-Operators, the Non-Operators shall make every reasonable effort to conduct joint or simultaneous audits in a manner which will result in a minimum of inconvenience to the Operator. Operator shall bear no portion of the Non-Operators' audit cost incurred under this paragraph unless agreed to by the Operator.

6. Approval by Non-Operators

Where an approval or other agreement of the Parties or Non-Operators is expressly required under other sections of this Accounting Procedure and if the agreement to which this Accounting Procedure is attached contains no contrary provisions in regard thereto, Operator shall notify all Non-Operators of the Operator's proposal, and the agreement or approval of a majority in interest of the Non-Operators shall be controlling on all Non-Operators.

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II. DIRECT CHARGES

Operator shall charge the Joint Account with the following items:

1. Rentals and Royalties

Lease rentals and royalties paid by Operator for the Joint Operations.

2. Labor

A. (1) Salaries and wages of Operator's field employees directly employed on the Joint Property in the conduct of Joint Operations.

(2) Salaries of first level Supervisors in the field.

(3) Salaries and wages of Technical Employees directly employed on the Joint Property if such charges are excluded from the Overhead rates.

B. Operator's cost of holiday, vacation, sickness and disability benefits and other customary allowances paid to employees whose salaries and wages are chargeable to the Joint Account under Paragraph 2A of this Section II. Such costs under this Paragraph 2B may be charged on a "when and as paid basis" or by "percentage assessment" on the amount of salaries and wages chargeable to the Joint Account under Paragraph 2A of this Section II. If percentage assessment is used, the rate shall be based on the Operator's cost experience.

C. Expenditures or contributions made pursuant to assessments imposed by governmental authority which are applicable to Operator's costs chargeable to the Joint Account under Paragraphs 2A and 2B of this Section II.

D. Personal Expenses of those employees whose salaries and wages are chargeable to the Joint Account under Paragraph 2A of this Section II.

3. Employee Benefits

Operator's current costs of established plans for employees' group life insurance, hospitalization, pension, retirement, stock purchase, thrift, bonus, and other benefit plans of a like nature, applicable to Operator's labor cost chargeable to the Joint Account under Paragraphs 2A and 2B of this Section II shall be Operator's actual cost not to exceed the percent most recently recommended by the Council of Petroleum Accounts Societies of North America.

4. Material

Material purchased or furnished by Operator for use on the Joint Property as provided under Section IV. Only such Material shall be purchased for or transferred to the Joint Property as may be required for immediate use and is reasonably practical and consistent with efficient and economical operations. The accumulation of surplus stocks shall be avoided.

5. Transportation

Transportation of employees and Material necessary for the Joint Operations but subject to the following limitations:

A. If Material is moved to the Joint Property from the Operator's warehouse or other properties, no charge shall be made to the Joint Account for a distance greater than the distance from the nearest reliable supply store, recognized barge terminal, or railway receiving point where like material is normally available, unless agreed to by the Parties.

B. If surplus Material is moved to Operator's warehouse or other storage point, no charge shall be made to the Joint Account for a distance greater than the distance to the nearest reliable supply store, recognized barge terminal, or railway receiving point unless agreed to by the Parties. No charge shall be made to the Joint Account for moving Material to other properties belonging to Operator, unless agreed to by the Parties.

C. In the application of Subparagraphs A and B above, there shall be no equalization of actual gross trucking cost of \$400 or less excluding accessorial charges.

6. Services

The cost of contract services, equipment and utilities provided by outside sources, except services excluded by Paragraph 9 of Section II and Paragraph 1. ii of Section III. The cost of professional consultant services and contract services of technical personnel directly engaged on the Joint Property if such charges are excluded from the Overhead rates. The cost of professional consultant services or contract services of technical personnel not directly engaged on the Joint Property shall not be charged to the Joint Account unless previously agreed to by the Parties.

7. Equipment and Facilities Furnished by Operator

A. Operator shall charge the Joint Account for use of Operator owned equipment and facilities at rates commensurate with costs of ownership and operation. Such rates shall include costs of maintenance, repairs, other operating expense, insurance, taxes, depreciation, and interest on investment not to exceed eight per cent (8%) per annum. Such rates shall not exceed average commercial rates currently prevailing in the immediate area of the Joint Property.

B. In lieu of charges in Paragraph 7A above, Operator may elect to use average commercial rates prevailing in the immediate area of the Joint Property less 20%. For automotive equipment, Operator may elect to use rates published by the Petroleum Motor Transport Association.

8. Damages and Losses to Joint Property

All costs or expenses necessary for the repair or replacement of Joint Property made necessary because of damages or losses incurred by fire, flood, storm, theft, accident, or other cause, except those resulting from Operator's gross negligence or willful misconduct. Operator shall furnish Non-Operator written notice of damages or losses incurred as soon as practicable after a report thereof has been received by Operator.

9. Legal Expense

Expense of handling, investigating and settling litigation or claims, discharging of liens, payment of judgments and amounts paid for settlement of claims incurred in or resulting from operations under the agreement or necessary to protect or recover the Joint Property, except that no charge for services of Operator's legal staff or fees or expense of outside attorneys shall be made unless previously agreed to by the Parties. All other legal expense is considered to be covered by the overhead provisions of Section III unless otherwise agreed to by the Parties, except as provided in Section I, Paragraph 3.

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10. Taxes

All taxes of every kind and nature assessed or levied upon or in connection with the Joint Property, the operation thereof, or the production therefrom, and which taxes have been paid by the Operator for the benefit of the Parties.

11. Insurance

Net premiums paid for insurance required to be carried for the Joint Operations for the protection of the Parties. In the event Joint Operations are conducted in a state in which Operator may act as self-insurer for Workmen's Compensation and/or Employers Liability under the respective state's laws, Operator may, at its election, include the risk under its self-insurance program and in that event, Operator shall include a charge at Operator's cost not to exceed manual rates.

12. Other Expenditures

Any other expenditure not covered or dealt with in the foregoing provisions of this Section II, or in Section III, and which is incurred by the Operator in the necessary and proper conduct of the Joint Operations.

III. OVERHEAD**1. Overhead - Drilling and Producing Operations**

- i. As compensation for administrative, supervision, office services and warehousing costs, Operator shall charge drilling and producing operations on either:

- (☒) Fixed Rate Basis, Paragraph 1A, or
() Percentage Basis, Paragraph 1B.

Unless otherwise agreed to by the Parties, such charge shall be in lieu of costs and expenses of all offices and salaries or wages plus applicable burdens and expenses of all personnel, except those directly chargeable under Paragraph 2A, Section II. The cost and expense of services from outside sources in connection with matters of taxation, traffic, accounting or matters before or involving governmental agencies shall be considered as included in the Overhead rates provided for in the above selected Paragraph of this Section III unless such cost and expense are agreed to by the Parties as a direct charge to the Joint Account.

- ii. The salaries, wages and Personal Expenses of Technical Employees and/or the cost of professional consultant services and contract services of technical personnel directly employed on the Joint Property shall () shall not (☒) be covered by the Overhead rates.

A. Overhead - Fixed Rate Basis

- (1) Operator shall charge the Joint Account at the following rates per well per month:

Drilling Well Rate \$ 4,960.00
Producing Well Rate \$ 496.00

- (2) Application of Overhead - Fixed Rate Basis shall be as follows:

(a) Drilling Well Rate

- [1] Charges for onshore drilling wells shall begin on the date the well is spudded and terminate on the date the drilling or completion rig is released, whichever is later, except that no charge shall be made during suspension of drilling operations for fifteen (15) or more consecutive days.
- [2] Charges for offshore drilling wells shall begin on the date when drilling or completion equipment arrives on location and terminate on the date the drilling or completion equipment moves off location or rig is released, whichever occurs first, except that no charge shall be made during suspension of drilling operations for fifteen (15) or more consecutive days.
- [3] Charges for wells undergoing any type of workover or recompletion for a period of five (5) consecutive days or more shall be made at the drilling well rate. Such charges shall be applied for the period from date workover operations, with rig, commence through date of rig release, except that no charge shall be made during suspension of operations for fifteen (15) or more consecutive days.

(b) Producing Well Rates

- [1] An active well either produced or injected into for any portion of the month shall be considered as a one-well charge for the entire month.
- [2] Each active completion in a multi-completed well in which production is not commingled down hole shall be considered as a one-well charge providing each completion is considered a separate well by the governing regulatory authority.
- [3] An inactive gas well shut in because of overproduction or failure of purchaser to take the production shall be considered as a one-well charge providing the gas well is directly connected to a permanent sales outlet.
- [4] A one-well charge may be made for the month in which plugging and abandonment operations are completed on any well.
- [5] All other inactive wells (including but not limited to inactive wells covered by unit allowable, lease allowable, transferred allowable, etc.) shall not qualify for an overhead charge.

- (3) The well rates shall be adjusted as of the first day of April each year following the effective date of the agreement to which this Accounting Procedure is attached. The adjustment shall be computed by multiplying the rate currently in use by the percentage increase or decrease in the average weekly earnings of Crude Petroleum and Gas Production Workers for the last calendar year compared to the calendar year preceding as shown by the index of average weekly earnings of Crude Petroleum and Gas Fields Production Workers as published by the United States Department of Labor, Bureau of Labor Statistics, or the equivalent Canadian index as published by Statistics Canada, as applicable. The adjusted rates shall be the rates currently in use, plus or minus the computed adjustment.

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B. Overhead - Percentage Basis

(1) Operator shall charge the Joint Account at the following rates:

(a) Development

_____ Percent (%) of the cost of Development of the Joint Property exclusive of costs provided under Paragraph 9 of Section II and all salvage credits.

(b) Operating

_____ Percent (%) of the cost of Operating the Joint Property exclusive of costs provided under Paragraphs 1 and 9 of Section II, all salvage credits, the value of injected substances purchased for secondary recovery and all taxes and assessments which are levied, assessed and paid upon the mineral interest in and to the Joint Property.

(2) Application of Overhead - Percentage Basis shall be as follows:

For the purpose of determining charges on a percentage basis under Paragraph 1B of this Section III, development shall include all costs in connection with drilling, redrilling, deepening or any remedial operations on any or all wells involving the use of drilling crew and equipment; also, preliminary expenditures necessary in preparation for drilling and expenditures incurred in abandoning when the well is not completed as a producer, and original cost of construction or installation of fixed assets, the expansion of fixed assets and any other project clearly discernible as a fixed asset, except Major Construction as defined in Paragraph 2 of this Section III. All other costs shall be considered as Operating.

2. Overhead - Major Construction

To compensate Operator for overhead costs incurred in the construction and installation of fixed assets, the expansion of fixed assets, and any other project clearly discernible as a fixed asset required for the development and operation of the Joint Property, Operator shall either negotiate a rate prior to the beginning of construction, or shall charge the Joint Account for Overhead based on the following rates for any Major Construction project in excess of \$25,000 :

- A. _____ 5 % of total costs if such costs are more than \$25,000 but less than \$100,000 ; plus
 B. _____ 3 % of total costs in excess of \$100,000 but less than \$1,000,000; plus
 C. _____ 2 % of total costs in excess of \$1,000,000.

Total cost shall mean the gross cost of any one project. For the purpose of this paragraph, the component parts of a single project shall not be treated separately and the cost of drilling and workover wells shall be excluded.

3. Amendment of Rates

The Overhead rates provided for in this Section III may be amended from time to time only by mutual agreement between the Parties hereto if, in practice, the rates are found to be insufficient or excessive.

IV. PRICING OF JOINT ACCOUNT MATERIAL PURCHASES, TRANSFERS AND DISPOSITIONS

Operator is responsible for Joint Account Material and shall make proper and timely charges and credits for all material movements affecting the Joint Property. Operator shall provide all Material for use on the Joint Property; however, at Operator's option, such Material may be supplied by the Non-Operator. Operator shall make timely disposition of idle and/or surplus Material, such disposal being made either through sale to Operator or Non-Operator, division in kind, or sale to outsiders. Operator may purchase, but shall be under no obligation to purchase, interest of Non-Operators in surplus condition A or B Material. The disposal of surplus Controllable Material not purchased by the Operator shall be agreed to by the Parties.

1. Purchases

Material purchased shall be charged at the price paid by Operator after deduction of all discounts received. In case of Material found to be defective or returned to vendor for any other reason, credit shall be passed to the Joint Account when adjustment has been received by the Operator.

2. Transfers and Dispositions

Material furnished to the Joint Property and Material transferred from the Joint Property or disposed of by the Operator, unless otherwise agreed to by the Parties, shall be priced on the following bases exclusive of cash discounts:

A. New Material (Condition A)

- (1) Tubular goods, except line pipe, shall be priced at the current new price in effect on date of movement on a maximum carload or barge load weight basis, regardless of quantity transferred, equalized to the lowest published price f.o.b. railway receiving point or recognized barge terminal nearest the Joint Property where such Material is normally available.
- (2) Line Pipe
 - (a) Movement of less than 30,000 pounds shall be priced at the current new price, in effect at date of movement, as listed by a reliable supply store nearest the Joint Property where such Material is normally available.
 - (b) Movement of 30,000 pounds or more shall be priced under provisions of tubular goods pricing in Paragraph 2A (1) of this Section IV.
- (3) Other Material shall be priced at the current new price, in effect at date of movement, as listed by a reliable supply store or f.o.b. railway receiving point nearest the Joint Property where such Material is normally available.

B. Good Used Material (Condition B)

Material in sound and serviceable condition and suitable for reuse without reconditioning:

- (1) Material moved to the Joint Property
 - (a) At seventy-five percent (75%) of current new price, as determined by Paragraph 2A of this Section IV.
- (2) Material moved from the Joint Property
 - (a) At seventy-five percent (75%) of current new price, as determined by Paragraph 2A of this Section IV, if Material was originally charged to the Joint Account as new Material, or

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- (b) at sixty-five percent (65%) of current new price, as determined by Paragraph 2A of this Section IV, if Material was originally charged to the Joint Account as good used Material at seventy-five percent (75%) of current new price.

The cost of reconditioning, if any, shall be absorbed by the transferring property.

C. Other Used Material (Condition C and D)

(1) Condition C

Material which is not in sound and serviceable condition and not suitable for its original function until after reconditioning shall be priced at fifty percent (50%) of current new price as determined by Paragraph 2A of this Section IV. The cost of reconditioning shall be charged to the receiving property, provided Condition C value plus cost of reconditioning does not exceed Condition B value.

(2) Condition D

All other Material, including junk, shall be priced at a value commensurate with its use or at prevailing prices. Material no longer suitable for its original purpose but usable for some other purpose, shall be priced on a basis comparable with that of items normally used for such other purpose. Operator may dispose of Condition D Material under procedures normally utilized by the Operator without prior approval of Non-Operators.

D. Obsolete Material

Material which is serviceable and usable for its original function but condition and/or value of such Material is not equivalent to that which would justify a price as provided above may be specially priced as agreed to by the Parties. Such price should result in the Joint Account being charged with the value of the service rendered by such Material.

E. Pricing Conditions

- (1) Loading and unloading costs may be charged to the Joint Account at the rate of ~~fifteen~~ ^{twenty-five} cents (25¢) per hundred weight on all tubular goods movements, in lieu of loading and unloading costs sustained, when actual hauling cost of such tubular goods are equalized under provisions of Paragraph 5 of Section II.
- (2) Material involving erection costs shall be charged at applicable percentage of the current knocked-down price of new Material.

3. Premium Prices

Whenever Material is not readily obtainable at published or listed prices because of national emergencies, strikes or other unusual causes over which the Operator has no control, the Operator may charge the Joint Account for the required Material at the Operator's actual cost incurred in providing such Material, in making it suitable for use, and in moving it to the Joint Property; provided notice in writing is furnished to Non-Operators of the proposed charge prior to billing Non-Operators for such Material. Each Non-Operator shall have the right, by so electing and notifying Operator within ten days after receiving notice from Operator, to furnish in kind all or part of his share of such Material suitable for use and acceptable to Operator.

4. Warranty of Material Furnished by Operator

Operator does not warrant the Material furnished. In case of defective Material, credit shall not be passed to the Joint Account until adjustment has been received by Operator from the manufacturers or their agents.

V. INVENTORIES

The Operator shall maintain detailed records of Controllable Material.

1. Periodic Inventories, Notice and Representation

At reasonable intervals, Inventories shall be taken by Operator of the Joint Account Controllable Material. Written notice of intention to take inventory shall be given by Operator at least thirty (30) days before any inventory is to begin so that Non-Operators may be represented when any inventory is taken. Failure of Non-Operators to be represented at an inventory shall bind Non-Operators to accept the inventory taken by Operator.

2. Reconciliation and Adjustment of Inventories

Reconciliation of a physical inventory with the Joint Account shall be made, and a list of overages and shortages shall be furnished to the Non-Operators within six months following the taking of the inventory. Inventory adjustments shall be made by Operator with the Joint Account for overages and shortages, but Operator shall be held accountable only for shortages due to lack of reasonable diligence.

3. Special Inventories

Special Inventories may be taken whenever there is any sale or change of interest in the Joint Property. It shall be the duty of the party selling to notify all other Parties as quickly as possible after the transfer of interest takes place. In such cases, both the seller and the purchaser shall be governed by such inventory.

4. Expense of Conducting Periodic Inventories

The expense of conducting periodic Inventories shall not be charged to the Joint Account unless agreed to by the Parties.

EXHIBIT "F"

EUNICE MONUMENT SOUTH UNIT
LEA COUNTY, NEW MEXICO

CERTIFICATE OF COMPLIANCE

Contractor agrees that, as to all current contracts and purchase orders, as defined below, heretofore issued or entered into by Gulf, as purchaser, for the furnishing of supplies or services by Contractor, and as to each such contract and purchase order, which may hereafter be issued or entered into by Gulf in favor of the Contractor during one year from the date of execution of this Certificate, the Contractor will comply with the Federal Government's Requirements as identified below, and agrees that without further reference thereto the provisions contained in this Certificate shall be a part of each such contract and purchase order.

For the purpose of this Certificate, the words "contract" and "purchase order" shall mean any nonexempt agreement or arrangement between Gulf and the Contractor for the furnishing of supplies or services or for the use of real or personal property, including lease arrangements which, in whole or in part, are necessary to the performance of any one or more contracts between Gulf and the United States of America or under which any portion of the Gulf's obligation under any one or more such contracts is performed, undertaken, or assumed.

Gulf understands and agrees that Contractor's assent to the incorporation of the provisions in this Certificate into every nonexempt contract and purchase order between Gulf and Contractor during the periods specified herein is intended to satisfy Gulf's requirements under the governing executive orders and statutes (reference to which includes amendments and orders superseding in whole or in part) and the rules and regulations issued thereunder. Gulf further understands and agrees that this Certification is not meant to create, nor shall it be construed as creating, any enforceable rights hereunder for any firm, organization or individual who is not a party to any such contract or purchase order between Gulf and Contractor.

NONSEGREGATED FACILITIES

The undersigned bidder, offerer, applicant, seller, contractor, or subcontractor, hereinafter referred to as Contractor, certifies to Gulf and the Federal Government agencies with which it contracts that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise.

EMPLOYMENT OF THE HANDICAPPED

Applicable to all contracts and purchase orders exceeding \$2,500, not otherwise exempted: Contractor agrees to comply with Rehabilitation Act of 1973 and all orders, rules, and regulations issued thereunder and amendments thereto.

EQUAL OPPORTUNITY,
VETERANS, AND MINORITY BUSINESS ENTERPRISES

Applicable to all contracts and purchase orders exceeding \$10,000, not otherwise exempted: Contractor agrees to comply with Executive Order 11246 regarding

Equal Opportunity and all orders, rules and regulations issued thereunder or amendments thereto. Contractor agrees to comply with Executive Order 11701 and Vietnam Veteran's Readjustment Act of 1974 and orders, rules, and regulations issued thereunder or amendments thereto. Contractor agrees to comply with Executive Orders 11458 and 11625 regarding Minority Business Enterprises and all orders, rules, and regulations issued thereunder or amendments thereto.

MINORITY BUSINESS ENTERPRISES AND
UTILIZATION OF SMALL BUSINESS CONCERNS
AND SMALL BUSINESS CONCERNS OWNED AND CONTROLLED
BY SOCIALLY AND ECONOMICALLY DISADVANTAGED INDIVIDUALS

Contractor agrees to comply with Executive Order 11625 regarding Minority Business Enterprises and all orders, rules and regulations issued thereunder or amendments thereto.

Applicable to all contracts of over \$10,000 not otherwise exempted:

(A) It is the policy of the United States that small business concerns and small business concerns owned and controlled by socially and economically disadvantaged individuals shall have the maximum practicable opportunity to participate in the performance of contracts let by any Federal agency.

(B) The Contractor hereby agrees to carry out this policy in the awarding of subcontracts to the fullest extent consistent with the efficient performance of this contract. The Contractor further agrees to cooperate in any studies or surveys that may be conducted by the Small Business Administration or the contracting agency which may be necessary to determine the extent of the Contractor's compliance with this clause.

(C) (1) The terms "small business concern" shall mean a small business as defined pursuant to Section 3 of the Small Business Act and in relevant regulations promulgated pursuant thereto.

(2) The term "small business concern owned and controlled by socially and economically disadvantaged individuals" shall mean a small business concern--

(i) which is at least 51 per centum owned by one or more socially and economically disadvantaged individuals; or in the case of any publicly owned business, at least 51 per centum of the stock of which is owned by one or more socially and economically disadvantaged individuals; and

(ii) whose management and daily business operations are controlled by one or more of such individuals.

The contractor shall presume that socially and economically disadvantaged individuals include Black Americans, Hispanic Americans, Native Americans, Asian Pacific Americans, and other minorities, or any other individual found to be disadvantaged by the Small Business Administration pursuant to section 8(a) of the Small Business Act.

(D) Contractors acting in good faith may rely on written representations by their subcontractors as either a small business concern or a small business concern owned and controlled by socially and economically disadvantaged individuals.

SMALL BUSINESS AND SMALL DISADVANTAGED
BUSINESS SUBCONTRACTING (OVER \$500,000 OR
\$1,000,000 FOR CONSTRUCTION OF ANY PUBLIC FACILITY)

Applicable to all contracts over \$500,000 or \$1,000,000 for construction of any public facility not otherwise exempted:

Pursuant to Temporary Regulation 50, Supplement 2(c) where applicable the contractor agrees to negotiate detailed subcontracting plan.

UTILIZATION OF WOMEN-OWNED BUSINESS CONCERNS

Applicable to all contracts over \$10,000 not otherwise exempted:

(A) It is the policy of the United States Government that women-owned businesses shall have the maximum practicable opportunity to participate in the

performance of contracts awarded by any Federal agency.

(B) The Contractor agrees to use his best efforts to carry out this policy in the award of subcontracts to the fullest extent consistent with the efficient performance of this contract. As used in this contract, a "woman-owned business" concern means a business that is at least 51% owned by a woman or women who also control and operate it. "Control" in this context means exercising the power to make policy decisions. "Operate" in this context means being actively involved in the day-to-day management. "Women" mean all women business owners.

WOMEN-OWNED BUSINESS CONCERNS SUBCONTRACTING PROGRAM

Applicable to all contracts over \$500,000 or \$1,000,000 for construction of any public facility not otherwise exempted:

(A) The Contractor agrees to establish and conduct a program which will enable women-owned business concerns to be considered fairly as subcontractors and suppliers under this contract. In this connection, the contractor shall:

1. Designate a liaison officer who will administer the Contractor's "Women-Owned Business Concerns Program".
2. Provide adequate and timely consideration of the potentialities of known women-owned business concerns in all "make-or-buy" decisions.
3. Develop a list of qualified bidders that are women-owned businesses and assure that known women-owned business concerns have an equitable opportunity to compete for subcontracts, particularly by making information on forthcoming opportunities available by arranging solicitations, time for preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation of women-owned business concerns.
4. Maintain records showing (i) procedures which have been adopted to comply with the policies set forth in this clause, including the establishment of a source list of women-owned business concerns; (ii) awards to women-owned businesses on the source list by minority and non-minority women-owned business concerns; and (iii) specific efforts to identify and award contracts to women-owned business concerns.
5. Include the "Utilization of Women-Owned Business Concerns" clause in subcontracts which offer substantial subcontracting opportunities.
6. Cooperate in any studies and surveys of the Contractor's women-owned business concerns procedures and practices that the Contracting Officer may from time-to-time conduct.
7. Submit periodic reports of subcontracting to women-owned business concerns with respect to the records referred to in subparagraph 4 above, in such form and manner and at such time (not more often than quarterly) as the Contracting Officer may prescribe.

(B) The Contractor further agrees to insert, in any subcontract hereunder which may exceed \$500,000 or \$1,000,000 in the case of contracts for the construction of any public facility and which offers substantial subcontracting possibilities, provisions which shall conform substantially to the language of this clause, including this paragraph B and to notify the Contracting Officer of the names of such subcontractors.

(C) The Contractor further agrees to require written certification by its subcontractors that they are bona fide women-owned and controlled business concerns in accordance with the definition of a women-owned business concern as set forth in the Utilization Clause 1(b) above at the time of submission of bids or proposals.

The aforementioned Contractor agrees that the provisions of this Certificate of Compliance are hereby incorporated in every nonexempt contract or purchase order between us currently in force or that may be issued during one year from the date of execution of the Operating Agreement.

EXHIBIT " G "

EUNICE MONUMENT SOUTH UNIT
LEA COUNTY, NEW MEXICOGAS STORAGE AND BALANCING AGREEMENT

The parties to the Operating Agreement to which this agreement is attached own the working interests underlying the Unit Area covered by such agreement in accordance with the percentages of participation as set forth in Exhibit "B" to the Operating Agreement.

In accordance with the terms of the Operating Agreement, each party thereto has the right, subject to existing contracts, to take its share of the casinghead gas produced from the Unit Area and market the same. Existing casinghead contracts for the individual tracts shall remain in place and shall be the basis for settlement between the purchasers and the individual parties to this agreement. Settlement volumes will be based on the volume delivered to a purchaser and will be apportioned to the parties in the ratio that a single tract's unit participation bears to the sum of the unit participations of all tracts which are dedicated to that purchaser. In the event any of the parties hereto is not at any time taking or marketing its share of gas or has contracted to sell its share of gas produced from the Unit Area to a purchaser which does not at any time while this agreement is in effect take the full share of gas attributable to the interest of such party, the terms of this agreement shall automatically become effective.

During the period or periods when any party hereto has no market or fails to take its share of gas produced from any tract within the Unit Area, or its purchaser does not take its full share of gas produced from such tract, the other parties shall be entitled to take each month one hundred percent (100%) of the gas production assigned to such tract and shall be entitled to deliver to its or their purchaser all of such gas production.

On a cumulative basis, each purchaser and each party not taking its full share of the gas produced shall be credited with gas in storage equal to its full share of the gas produced under this agreement, less its share of gas used in lease operations, vented or lost, and less that portion such purchaser and such party took. The Operator will maintain current accounts of the gas balances between the various purchasers and between the various parties hereto, and will furnish all purchasers and parties hereto monthly statements showing the total quantity of gas produced, the amount used in lease operations, vented or lost, and the monthly and cumulative over and under account of each purchaser and party hereto. The Operator will, from time to time, adjust the volumes delivered to each purchaser so as to minimize the relative over/short positions of all purchasers and parties.

At all times while gas is produced from the Unit Area, each party hereto will make settlement with the respective royalty owners to whom they are each accountable, just as if each party were taking or delivering to a purchaser its share, and its share only, of total gas production exclusive of gas used in lease operations, vented or lost. Each party hereto agrees to hold each other party harmless from any and all claims for royalty payments asserted by royalty owners to whom each party is accountable. The term "royalty owner" shall include owners of royalty, overriding royalties, production payments, and similar interests.

After notice to the Operator, any party at any time may begin taking or delivering to its purchaser its full share of the gas produced from a tract under which it has gas in storage less such party's share of gas used in operations, vented or lost. In addition to such share, including the Operator, until it has recovered its gas in storage and balanced the gas account as to its interest, shall

be entitled to take or deliver to its purchaser a share of gas determined by multiplying fifty percent (50%) of the interest in the current gas production of the party or parties without gas in storage by a fraction, the numerator of which is the interest in the tract or tracts of such party with gas in storage and the denominator of which is the total percentage interest in such tracts of all parties with gas in storage currently taking or delivering to a purchaser.

Each party taking or delivering gas to its purchaser shall pay any and all production taxes due on such gas.

Should production of gas from the Unit Area be permanently discontinued before the gas account is balanced, settlement will be made between the underproduced and overproduced parties. In making such settlement, the underproduced party or parties will be paid a sum of money, by the overproduced party or parties attributable to the overproduction which said overproduced party received, equal to the proceeds received less applicable taxes theretofore paid for the latest delivery of a volume of gas equal to that for which settlement is made.

Nothing herein shall change or affect each party's obligation to pay its proportionate share of all costs and liabilities incurred, as its share thereof is set forth in the Operating Agreement.

This agreement shall constitute a separate agreement as to each tract within the Unit Area and shall become effective in accordance with its terms and shall remain in force and effect as long as the Operating Agreement to which it is attached remains in effect, and shall inure to the benefit of and be binding upon the parties hereto, their successors, legal representatives and assigns.

EXHIBIT 13

SURFACE USE AND SALT WATER DISPOSAL AGREEMENT

THIS SURFACE USE AND SALT WATER DISPOSAL AGREEMENT (this "Agreement") is made and entered into effective as of the 20 day of Aug, 2020 (the "Effective Date"), by and between **MONTE GUY MORTON**, whose address is P.O. Box 917, Denton, Texas 76202, referred to herein as "**Lessor**", and **GOODNIGHT MIDSTREAM PERMIAN, LLC**, a Texas limited liability company, whose address is 5910 North Central Expressway, Suite 800, Dallas, Texas 75206, referred to herein as "**Lessee**". Lessor and Lessee may be referred to herein, individually, as a "**Party**" and, collectively, as the "**Parties**".

WHEREAS, Lessor represents and warrants that it is the record owner in fee simple, subject to oil and gas leases and mineral interests of record, easements, restrictions, reservations and other matters of record, if any, in and to the following described lands located in Lea County, New Mexico, as further described and depicted on Exhibit "A" attached hereto (the "**Leased Premises**");

NW/4 and SE/4 of Section 17, Township 21S, Range 36E.

WHEREAS, Lessor wishes to lease unto Lessee, and Lessee wishes to lease from Lessor, the Leased Premises to drill, construct and operate salt water disposal wells and related facilities on the Leased Premises for the purposes of the collection, injection and disposal of water, salt water, and other associated liquids produced from oil and gas wells, pursuant to the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the sum of Ten Dollars (\$10.00) and other good and valuable consideration paid by Lessee, as stated herein, the Parties hereby agree as follows:

1. **RIGHTS GRANTED.** Lessor hereby grants, demises, leases, and lets exclusively unto Lessee the Leased Premises for re-entering, drilling, deepening, or converting any number of wells thereon, and the continuing right to convert, maintain, equip, repair, and operate such wells for the collection, injection and disposal of water, salt water, and other associated liquids produced from oil and gas wells into the substrata of the Leased Premises, referred to herein as "**Disposed Water**." The specific quantity and locations of salt water disposal wells to be placed on the Leased Premises pursuant to this Agreement shall be determined by Lessee in its reasonable and sole discretion.

Lessee shall further have the right to construct, use, repair, maintain, replace and remove facilities and equipment, including, but not limited to, roads, pipelines, power lines, connection lines, fiber optics, well pads, pits, ponds, buildings, appurtenances, pumps, tanks, receptacles, and other structures as reasonably necessary in connection with the purposes and uses herein granted over, across and upon the Leased Premises or in connection with the gathering, storing and injection of the Disposed Water.

2. **COMPENSATION.** In consideration of the covenants, obligations, and rights granted herein, Lessee agrees to pay Lessor a one-time payment in the amount of [REDACTED] within ten (10) business days of the date this Agreement is executed by each of the Parties. Upon expiration of the Initial Term (as

defined below), Lessee shall pay Lessor a fee for each barrel of Disposed Water injected into the Leased Premises on which Lessee receives injection revenue (the "Disposal Fee"). The amount of such Disposal Fee shall be mutually agreed upon by the Parties based on then current market conditions, but in no event shall the Disposal Fee payable to Lessor during each month following the expiration of the Initial Term be less than [REDACTED] per month. The Disposal Fee shall be paid to Lessor on a monthly basis, within forty-five (45) days of the last day of the month in which the revenue is earned by Lessee.

3. TERM. This Agreement shall remain in force for an initial term of twenty (20) years from the Effective Date (the "**Initial Term**"), and so long thereafter as the Lessee (i) operates and maintains a disposal/injection well on the Leased Premises, or any portion thereof; or (ii) otherwise uses the Leased Premises or any portion thereof for the purposes contemplated by this Agreement, unless terminated for an uncured breach or terminated by Lessee, subject to Paragraph 15. In addition, Lessee shall have the right to unilaterally terminate this Agreement at any time during the term hereof by giving Lessor at least sixty (60) days advance written notice of such termination.
4. ENTIRE AGREEMENT. This Agreement constitutes the entire agreement between the Parties and supersedes all prior agreements, representations, and understandings of the Parties, written or oral.
5. INGRESS & EGRESS; FUTURE GRANTS OF ROW. In consideration of the compensation set forth in Paragraph 2 of this Agreement, Lessor grants Lessee the right of ingress and egress over the Leased Premises and from the Leased Premises, together with the right-of-way over and across and the right from time to time to lay, maintain, replace, repair, and remove any number of roads, pipelines, power lines, fiber optics, well pads, fences, and other appurtenances over, across and upon the Leased Premises for the purposes herein granted to Lessee. Each pipeline easement taken by Lessee hereunder shall be governed by the terms and conditions of the form of Pipeline Easement Agreement attached hereto as Exhibit "B". Lessee shall have the further right to fence the perimeter of any facility on the Leased Premises and sufficiently illuminate the site for the safety of operations, and employ such other use as is reasonably necessary for the operation of the disposal facilities.
6. OPERATING HOURS. Lessor acknowledges that Lessee intends to operate the Leased Premises on a continuous basis, 24 hours per day, 7 days per week, 365 days per year. For such purposes operations may include, but are not limited to, staffing the Leased Premises with personnel on 24 hours per day, 7 days per week, 365 days per year.
7. RIGHT TO INSPECT OPERATIONS. Lessor shall have access, at all reasonable times, and at Lessor's sole risk and expense, to inspect all operational areas around equipment and structures located on the Leased Premises. Lessor's access is subject to compliance with Lessee's safety policies and procedures, as determined by Lessee in its sole discretion. Lessor shall indemnify Lessee for any and all harm resulting in such inspection.
8. BURIAL OF PIPELINES. Water lines that Lessee may locate on the Leased Premises, shall be buried to a minimum depth of two (2) feet so as not to interfere with the normal

surface cultivation of any part of the Leased Premises which can otherwise be cultivated subject to Lessee's right to operate on the Leased Premises herein granted.

9. REMOVAL OF EQUIPMENT. Lessee shall have the right at any time within the term of this Agreement or within one hundred and eighty (180) days thereafter to remove any and all pipelines, machinery, structures, buildings, appurtenances and fixtures that it has placed on the Leased Premises, including casing in wells. The removal of all personal property, equipment, and fixtures of Lessee shall be completed within one hundred and eighty (180) days following the expiration or termination of this Agreement.
10. SURFACE RESTORATION AND REPARATION. Lessee agrees that the Leased Premises shall at all times be kept clear of debris, trash, weeds, and foreign or noxious vegetation. Upon termination of this Agreement, within one hundred and eighty (180) days the Leased Premises shall be restored as near to their pre-lease condition as possible. This restoration shall include the removal of all foreign substances and materials, and removal of debris incident to Lessee's operations.
11. RELEASE. Lessor acknowledges the sufficiency of all compensation paid by Lessee pursuant to this Agreement as full and complete settlement for and as release of all claims for loss, damage, or injury to the Leased Premises arising out of Lessee's normal operations related to the Leased Premises.
12. EXCLUSIVITY. During the term of this Agreement, Lessor agrees to refrain from entering into any sale, lease, or any other agreement with any third party for the disposal and/or injection of water into or on the Leased Premises. Lessee shall be the exclusive party with which Lessor enters into any agreement for the purposes of disposal and/or injection of water into or on the Leased Premises. Nothing contained in this Agreement shall be construed as an attempt by Lessee to develop, lease, or encumber the mineral estate of the Leased Premises. Lessor reserves any and all mineral rights relating to the Leased Premises and further retains the ability to enter into any exploration, sale, development, or other agreement regarding Lessor's mineral estate; provided, however, that such agreements shall not unreasonably interfere with Lessee's operations on the Leased Premises.
13. COMPLIANCE WITH REGULATIONS. The exercise of the rights and duties herein conveyed shall be in accordance with the rules and regulations prescribed by state, local or federal authority having jurisdiction on the Leased Premises. Lessee shall have the right but not the obligation to contest, by appropriate legal proceedings diligently conducted in good faith, in the name of the Lessee or Lessor (if legally required) or both (if legally required), without cost or expense to Lessor, the validity or application of any law, ordinance, requirement, order, directive, rule or regulation affecting Lessee's activities upon the Leased Premises. Lessor agrees to execute and deliver any appropriate documents which may be necessary or proper to permit Lessee to contest the validity or application of any such law, ordinance, requirement, order, directive, rule or regulation, and to fully cooperate with Lessee in such contest. Lessor shall cooperate with Lessee in seeking required governmental approvals by promptly signing any required landowner's consents for permit applications and other similar actions.

14. ASSIGNMENT. Lessee shall have the right to assign and transfer this Agreement upon the prior written consent of Lessor, which consent shall not be unreasonably withheld, conditioned, or delayed; *provided, however*, that any assignment to an affiliate of Lessee shall not require Lessor's prior written consent, but only to the extent such affiliate is under common control with Lessee and is of comparable financial strength. Lessor expressly agrees that if and when this Agreement is assigned by Lessee, all rights, obligations and liabilities of the Lessee hereunder shall immediately and forever cease and terminate for all purposes, and the assigned Lessee shall assume all the liability and obligation for the Agreement. All covenants and conditions herein shall be binding upon the Parties hereto and shall extend to their heirs, executors, administrators, personal representatives, successor-in-interest, and assigns. No change in ownership of the Leased Premises shall be binding upon the Lessee until the Lessee has received adequate evidence of ownership transfer. If the Leased Premises should at any time be subdivided into separate tracts by Lessor or Lessor's heirs, successors, administrator, or assigns, all monies due hereunder shall be payable solely to the owner/owners on whose property the well(s) and facilities are actually and physically located, and if Lessor owns less than the entire fee, Lessor shall be paid only his or her proportional share of any payment due, unless such payments are reserved by Lessor prior to such ownership transfer.
15. BREACH OF LEASE TERMS. If either Lessee or Lessor breaches any term or covenant, express or implied, in this Agreement, the non-breaching Party shall notify the breaching Party in writing of the breach. The breaching Party shall have forty-five (45) days from the date of its receipt of the written notice to remedy the breach. If the breaching Party fails to remedy the breach within the prescribed time period, the non-breaching Party may terminate this Agreement. No waiver by Lessee or Lessor of performance by the other Party shall be considered a continuing waiver or shall preclude Lessee or Lessor from exercising its rights in the event of a subsequent breach.
16. QUIET ENJOYMENT. Lessor warrants that it is the sole owner of the Leased Premises and has the legal right to grant the leasehold described herein and that Lessee, as well as Lessee's personal representatives, heirs, successors, and permitted assigns, shall have the quiet use and enjoyment of the Leased Premises in accordance with the terms and conditions of this Agreement.
17. NOTICE OF AGREEMENT. Upon execution of this Agreement by both Parties, Lessee may execute and place of record a memorandum of this Agreement in the office of the county clerk for the county in which the Leased Premises is situated.
18. RELATIONSHIP OF PARTIES. The relationship of the Parties in this Agreement is Lessor and Lessee. Lessor has no interest in Lessee's enterprise or business and this Agreement shall not be construed as a joint venture or partnership between the Parties, and Lessee shall not be deemed an agent or representative of Lessor.
19. CONSTRUCTION. Both Lessor and Lessee acknowledge and represent that this Agreement is a result of an arm's length negotiation and any ambiguity that may arise now or in the future shall not be construed against either Party.

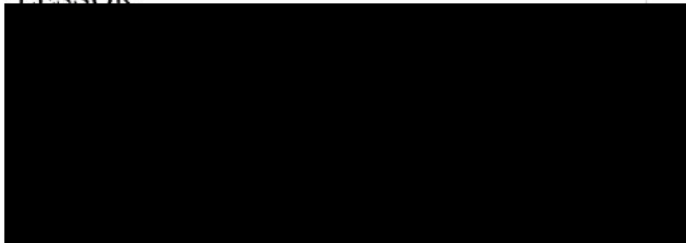
20. COUNTERPARTS. This Agreement may be executed in two or more original counterparts, all of which together shall constitute one and the same Agreement.
21. APPLICABLE LAWS. The Parties agree that this Agreement shall for all purposes be construed and interpreted according to the laws and regulations of the State of New Mexico and the Parties hereby submit to the jurisdiction of the courts of the State of New Mexico.
22. INDEMNIFICATION. LESSEE SHALL INDEMNIFY, DEFEND AND HOLD LESSOR AND ITS TRUSTEES, OFFICERS, EMPLOYEES AND AGENTS HARMLESS FROM AND AGAINST ANY AND ALL CLAIMS, DEMANDS, CAUSES OF ACTION, COSTS, EXPENSES, AND LIABILITY OF ANY NATURE WHATSOEVER, INCLUDING COURT COSTS, REASONABLE ATTORNEYS' FEES, AND ANY EXPENSES INCURRED, WHICH MAY DIRECTLY RESULT FROM OR ARISE OUT OF LESSEE'S OPERATIONS; PROVIDED, HOWEVER THAT NOTHING HEREIN SHALL BE CONSTRUED TO REQUIRE OR OBLIGATE LESSEE TO INDEMNIFY LESSOR AGAINST, OR HOLD LESSOR HARMLESS FROM, LESSOR'S OWN NEGLIGENT ACTS OR OMISSIONS OR THOSE OF ANY PARTY ACTING ON LESSOR'S BEHALF. FURTHER, LESSEE SHALL (SUBJECT TO LIMITATIONS SET FORTH IN THE PRECEDING SENTENCE) INDEMNIFY, DEFEND AND HOLD LESSOR AND ITS TRUSTEES, OFFICERS, EMPLOYEES AND AGENTS HARMLESS FROM ANY AND ALL DAMAGES, CLEANUP EXPENSES, FINES, OR PENALTIES, RESULTING FROM A FIRE OR ANY VIOLATION OF, OR NON-COMPLIANCE WITH, APPLICABLE LOCAL, STATE, OR FEDERAL LAWS AND REGULATIONS DIRECTLY RESULTING FROM LESSEE'S ACTIVITIES OR OPERATIONS ON THE LEASED PREMISES.
23. CALICHE AND FRESH WATER USE. Should Lessee desire to utilize Lessor's caliche or fresh water for the construction and/or operation of Lessee's disposal wells and related facilities located on the Leased Premises, such utilization shall be governed by a separate agreement between the Parties.
24. MONTHLY STATEMENTS. Lessee shall provide to Lessor a copy of the monthly operating statement declaring the number of barrels of Disposed Water injected into the Leased Premises.
25. TAXES. Lessor agrees to pay the ad valorem taxes on the Leased Premises, but Lessee shall pay all taxes assessed against any structure, material and equipment placed thereon by Lessee pursuant to this Agreement. To the extent that Lessee seeks to protest the valuation of any structure, material or equipment placed on the Leased Premises, Lessor shall, at Lessee's cost, reasonably cooperate with Lessee's reasonable requests for assistance related to such protest.

[Signatures on the Following Page]

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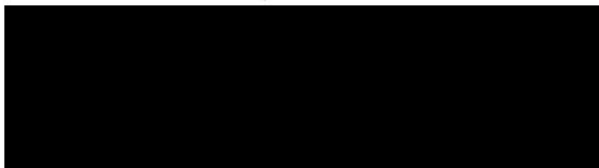
IN WITNESS WHEREOF, this Agreement is executed by the Parties as of the day and year set forth in their respective acknowledgements, but shall be effective for all purposes as of the Effective Date.

LESSOR:



LESSEE:

GOODNIGHT MIDSTREAM PERMIAN, LLC



[Acknowledgements on the Following Page]

STATE OF Texas)
) ss.
COUNTY OF Denton)

ACKNOWLEDGMENT, INDIVIDUAL

Before me, the undersigned, a Notary Public, in and for said County and State, on this 20 day of August 2020, personally appeared [REDACTED], to me known to be the identical person who subscribed the name of _____ to the foregoing instrument and acknowledged to me that he executed the same as his free and voluntary act and deed, for the uses and purposes therein set forth.

Given under my hand and seal of office the day and year last above written.



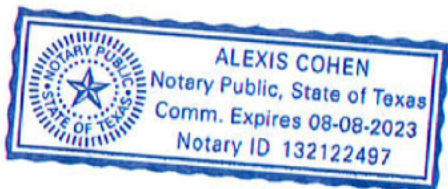
[Signature]
Notary Public

STATE OF Texas)
) ss.
COUNTY OF Dallas)

ACKNOWLEDGMENT, COMPANY

Before me, the undersigned, a Notary Public, in and for said County and State, on this 21 day of August 2020, personally appeared [REDACTED] to me known to be the identical person who subscribed the name of _____ to the foregoing instrument as its _____ and acknowledged to me that he executed the same as his free and voluntary act and deed and as the free and voluntary act and deed of such company, for the uses and purposes therein set forth.

Given under my hand and seal of office the day and year last above written.



[Signature]
Notary Public

EXHIBIT A

Description of Leased Premises

See attached.



EXHIBIT 14

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

APPLICATIONS OF GOODNIGHT MIDSTREAM
PERMIAN, LLC FOR APPROVAL OF SALTWATER
DISPOSAL WELLS LEA COUNTY, NEW MEXICO.

CASE NOS. 23614-23617

APPLICATION OF GOODNIGHT MIDSTREAM
PERMIAN LLC TO AMEND ORDER NO. R-
22026/SWD-2403 TO INCREASE THE APPROVED
INJECTION RATE IN ITS ANDRE DAWSON SWD #1,
LEA COUNTY, NEW MEXICO.

CASE NO. 23775

APPLICATIONS OF EMPIRE NEW MEXICO LLC TO
REVOKE INJECTION AUTHORITY,
LEA COUNTY, NEW MEXICO.

CASE NOS. 24018-24020, 24025

APPLICATION OF GOODNIGHT MIDSTREAM
PERMIAN, LLC FOR APPROVAL OF A SALTWATER
DISPOSAL WELL, LEA COUNTY, NEW MEXICO.

DIVISION CASE NO. 24123
ORDER NO. R-22869-A

GOODNIGHT'S EMERGENCY MOTION TO PARTIALLY STAY
COMMISSION ORDER NO. R-24004

Goodnight Midstream Permian, LLC (“Goodnight” or “GNM”) by and through its undersigned attorneys, respectfully submits to the Division Director (the “Director”) and the Oil Conservation Commission (“Commission”) this Emergency Motion to Partially Stay (“Motion”)¹ Order No. R-24004 (“Order”) pursuant to 19.15.4.23(B) NMAC and NMSA 1978, Section 70-2-11. Specifically, Goodnight respectfully requests the Director grant an immediate partial stay as to the Order’s command for Goodnight to suspend its permits and injection in its four existing disposal wells in the Eunice Monument South Unit (“EMSU”) pending Commission action on the Motion. Goodnight further requests that the Commission partially stay the Order as to the provisions suspending its permits and injection pending

¹ Goodnight expressly reserves the right to supplement or amend this Motion as appropriate.

final resolution of Goodnight's forthcoming Application for Rehearing and any subsequent appeals. The Order's other provisions, in particular the requirement for Empire to conduct a ROZ pilot project and return to the Commission within three years to present further data on the recoverability of the purported ROZ, should remain in effect.

The Order states that the Commission is temporarily suspending Goodnight's four injection permits within the EMSU, but delegates implementation of the suspension to the Oil Conservation Division. At the September 12, 2025 Special Hearing approving the Order, Goodnight's counsel, to confirm the Order's compliance timeframes, asked the Commission for guidance on whether the Order provides a "firm deadline" for when suspension of injection operations takes effect and was told only that the Order delegates implementation to the Division.² Following issuance of the Order, and in response to Goodnight's request for a meeting with the Division and Empire to discuss implementation of the Order and suspension of its permits, Empire informed the parties that it intended to file a motion for contempt of the Order for Goodnight's failure to immediately cease injection.³ Goodnight strongly disagrees that the Order mandates immediate suspension of injection and its permits. However, in light of Empire's position and to prevent immediate and irreparable harm to Goodnight, other affected parties, and the State of New Mexico, Goodnight respectfully requests the Director grant an immediate partial stay as to the Order's command for Goodnight to suspend injection in its four existing disposal wells in the EMSU pending Commission action on the Motion.

Failure to grant an immediate stay of the Order's suspension of Goodnight's permits and disposal operations at its EMSU injection wells will result in serious and irreparable harm to Goodnight, other affected parties, and the State of New Mexico. Specifically, if that aspect of the Order is not immediately stayed it will: (1) cause significant and substantial waste; (2) directly violate correlative rights; (3) impose

² <https://www.youtube.com/watch?v=Zc0BhNb67B4>.

³ A true and correct copy of the correspondence between Goodnight, the Division, and Empire is attached hereto as **Exhibit B**.

severe and unnecessary economic burdens on owners; (4) violate the New Mexico Constitution's designation that underground sources of "water" belong to the public; (5) violate the New Mexico Constitution's and United States Constitution's protections against the taking of property without just compensation; and (6) undermine the directives and environmental goals set forth in both the New Mexico Oil and Gas Act as well as the New Mexico Administrative Code, calling into question the stability and reliability of the Division's regulatory framework governing produced water disposal.

Pursuant to Section 70-2-11, the Division, "is empowered to make and enforce rules, regulations and orders, and to do whatever may be reasonably necessary to carry out the purpose of this act, whether or not indicated or specified in any section hereof." NMSA 1978, § 70-2-11 (emphasis added). Therefore, given the gravity of these adverse consequences—and the complex legal and technical issues at stake—Goodnight respectfully urges the Director, as the executive of the Division, to partially stay the Order commanding suspension of disposal before the Commission acts on this Motion. Further, the Commission should ultimately affirm a partial stay of the Order as to the provisions suspending Goodnight's permits and injection pending final resolution of Goodnight's Application for Rehearing⁴ and any subsequent appeals; however, the Order's other provisions, specifically the requirement for Empire to conduct a pilot project to develop a ROZ and report back to the Commission within three years, should remain in effect.

Rice Operating Company and Permian Line Service, LLC support the Motion. Counsel for Pilot Water Solutions SWD, LLC was unable to provide a position before the Motion was filed. Given the nature of the relief requested, Empire is presumed to oppose the Motion.

In support of its Motion, Goodnight states the following:

BACKGROUND

On August 14, 2025, the Commission previewed through an oral pronouncement a summary of its ruling in the above-captioned cases, stating that a written order would follow. The Commission approved

⁴ The deadline for Goodnight to file an Application for Rehearing pursuant to 19.15.4.23(A) NMAC is October 2, 2025. Goodnight will file an Application for Rehearing within the prescribed deadline.

and issued the written Order on September 12, 2025. Order No. R-24004. The Order provides that it suspends Goodnight's existing injection operations authorized in Case Nos. 24018, 24019, 24020, and 24025 for three years to provide Empire the opportunity to conduct a pilot project to determine whether the alleged ROZ in the EMSU is recoverable, but delegates implementation of the Order and suspension of Goodnight's permits and injection to the Division. Goodnight intends to file an Application for Rehearing pursuant to 19.15.4.25 NMAC within 20 days of the Order.

APPLICABLE LAW

When seeking to stay an administrative order during the pendency of an administrative appeal, the party seeking relief must first seek a stay from the issuing agency. *Tenneco Oil Co. v. N.M. Water Quality Control Comm'n.*, 1986-NMCA-033, ¶ 8. A party must seek a stay "from the Commission in the first instance before requesting one from [a court]." *City of Las Cruces v. N.M. Pub. Regulation Comm'n.*, 2020-NMSC-016, ¶ 22, 476 P.3d 880.

Under 19.15.4.23(B) NMAC, "the director may grant a stay pursuant to a motion for stay or upon the director's own initiative, after according parties who have appeared in the case notice and an opportunity to respond, if the stay is necessary to prevent waste, protect correlative rights, protect public health or the environment or prevent gross negative consequences to an affected party." 19.15.4.23(B) NMAC. Four conditions guide the Director in determining whether to exercise discretion to grant a stay: "(1) a likelihood that applicant will prevail on the merits of the appeal; (2) a showing of irreparable harm to applicant unless the stay is granted; (3) evidence that no substantial harm will result to other interested persons; and (4) a showing that no harm will ensue to the public interest." *Tenneco Oil Co.*, 1986-NMCA-033, ¶ 10. Goodnight meets each of the elements necessary to grant a stay under the *Tenneco* test and 19.15.4.23(B) NMAC. In addition, pursuant to Section 70-2-11, the Division "is empowered to make and enforce rules, regulations and orders, and to do whatever may be reasonably necessary to carry out the purpose of this act, whether or not indicated or specified in any section hereof." § 70-2-11. For the reasons stated below, the Director should issue an immediate partial stay and the Commission should enter a

further stay pending final resolution of Goodnight's Application for Rehearing and any subsequent appeals.

ARGUMENT

A. Goodnight is Likely to Prevail in Its Application for Rehearing.

Goodnight is likely to prevail on its Application for Rehearing because the Commission lacks jurisdiction to issue the Order. Goodnight is also likely to prevail because the Commission's Order applies an incorrect legal standard—erroneously adopted at Empire's urging—that improperly shifted the burden of proof from Empire to Goodnight and creates at least two Constitutional conflicts. Each provides an independent reason why Goodnight is likely to prevail in its Application for Rehearing.

1. The Commission Lacks Jurisdiction to Issue the Order.

The Commission lacks jurisdiction to order Goodnight to suspend its disposal operations without finding that such action is necessary to prevent waste or protect correlative rights. “[A]n order which failed to include a finding of the jurisdictional fact upon which its issuance is conditioned by the legislature” is fatally flawed. See *Cont'l Oil Co. v. Oil Conservation Comm'n*, 1962-NMSC-062, ¶ 16, 373 P.2d 809 (citing *Hunter v. Hussey*, 90 So.2d 429, 441 (La. App. 1956)). The Commission's authority is conveyed through statute and is equally bound by the contents of those same statutes. NMSA 1978, § 70-2-11; see *Cont'l Oil Co.*, 1962-NMSC-062, ¶ 11. In addition, “[t]he Commission cannot grant equitable remedies[.]” *AA Oilfield Serv. v. N.M. State Corp. Comm'n*, 1994-NMSC-085, ¶ 18, 881 P.2d 18. The Commission's legislative purpose is to prevent waste and protect correlative rights, but before that purpose can be fulfilled, there must be a showing of recoverability. NMSA 1978, § 70-2-3 (defining waste in relation to “the total quantity of crude petroleum oil or natural gas ultimately recovered.”). The Order is fatally flawed because it seeks to enjoin Goodnight's duly authorized injection without a requisite finding that doing so is necessary to prevent the waste of recoverable hydrocarbons.⁵ According to the Commission, Empire

⁵ This jurisdictional fact distinguishes Order No. R-24004 from the holding in *Grace v. Oil Conservation Comm'n of N.M.*, 1975-NMSC-001, ¶ 11, 531 P.2d 939 and *Cont'l Oil Co. v. Oil*

failed to prove that the hydrocarbons within the alleged ROZ are recoverable. Order at III(D). This finding alone is sufficient to render the Order void. *Cont'l Oil Co.*, 1962-NMSC-062, ¶ 16. The Order instead purports to protect against the “possibility” of future waste or impairment where there has not yet been a showing that the purported reserves to be protected are even recoverable, economic, or that injection from Goodnight’s disposal has or will impair recovery in either the Grayburg or San Andres. Order at III(C). The Commission found only that there was a “potential for FUTURE impairment or waste in the EMSU” but, as discussed below, that finding is premised on an invalid standard and improperly shifted the burden of proof to Goodnight. Order at III(B) (emphasis retained).

These compounded potentialities—contingent, first, on proof of recoverability and, second, on potential future impairment of the Grayburg and San Andres from Goodnight’s injection, which is itself contingent on proof of future loss of confinement of injection fluids from the disposal zone—make the Commission’s Order to suspend Goodnight’s permits and injection an ultra vires act, outside the Commission’s statutory jurisdiction to prevent waste and protect correlative rights and contrary to Commission’s governing authorities. At a minimum, this aspect of the Order is arbitrary and capricious and not in accordance with the law because the findings necessary to suspend and shut in Goodnight’s injection are completely lacking. See NMSA 1978, § 39-3-1.1.

2. The Order Applies the Wrong Test to Suspend Injection and Improperly Shifts the Burden of Proof.

Despite finding that Empire failed to meet its burden of proof regarding waste and impairment of correlative rights, the Commission concluded that Goodnight failed to refute the possibility of future waste or impairment by not proving the existence of a “continuous barrier” between the Grayburg and the San Andres. Order at III(B). The Commission’s analysis relies on the wrong test to suspend injection—erroneously adopting a standard urged upon it by Empire—and improperly shifts the burden of proof from

Conservation Comm’n, 1962-NMSC-062, ¶ 11, 373 P.2d 809 where there was no dispute as to the recoverability of the oil or gas at issue or the Commission’s jurisdictional authority to enter an order.

Empire to Goodnight before Empire met its initial burden to prove that Goodnight's injection fluids were are not being confined within the disposal interval. Empire FOF, ¶¶ 75, 81, 85(q), (r), L (3), (4); Order at III(B) ¶ 53.

It is well settled that agencies are bound by their own regulations. *Saenz v. N.M. Dep't of Human Servs., Income Support Div.*, 1982-NMCA-159, ¶ 14, 653 P.2d 181. Under the regulations governing injection of fluids into reservoirs, a movant seeking to revoke or suspend an existing permit must evidence a "failure to confine liquids to the authorized injection zone." NMAC 19.15.26.10(E) (emphasis added); *see also* NMSA 1978, § 70-2-12(B)(4) (granting the Division power to make rules and orders "to prevent the drowning by water" and "premature and irregular encroachment of water or any other kind of water encroachment that reduces or tends to reduce the total ultimate recovery" of oil and gas from any pool). Neither the legislature nor the Commission's regulations impose a requirement that an operator like Goodnight prove the existence of a "continuous barrier" between formations at any point in a UIC Class II permit review process, either at the initial permitting stage or in response to a challenge of an existing permit.⁶ For injection operations, the regulations require only that injection wells be operated "in such a manner as will confine the injected fluids to the interval or intervals approved and prevent surface damage or pollution resulting from leaks, breaks or spills." 19.15.26.10(B) NMAC. As to suspension of injection, the regulations provide that the Commission "may" shut in injections wells only after such wells "have exhibited failure to confine injected fluids to the authorized injection zone or zones[.]" 19.15.26.10(E) NMAC (emphasis added). Even if Empire had affirmatively shown the lack of a continuous barrier, and it did not, that evidence alone would not satisfy the confinement test for suspending an injection permit because the confinement test requires a showing of actual intrusion of fluids. *See* 19.15.26.10(E) NMAC. Likewise, the Commission's finding that Goodnight failed to show the existence of a continuous barrier does not justify suspending Goodnight's existing injection operations because that is not the test the

⁶ A search of the Division and Commission's hearing orders returned no hearing orders that have adopted a "continuous barrier" standard for Class II UIC injection.

Commission is required to apply when evaluating whether to suspend injection. *See id*; Order at III(B) ¶ 53. Under the governing regulations, proof that there is no continuous barrier is neither necessary nor sufficient to suspend an injection permit. Nor is it a proper basis to deny new injection applications.

The Commission's conclusion that Goodnight failed to refute the possibility of future waste or impairment by not proving the existence of a "continuous barrier" between the Grayburg and the San Andres is erroneous for another reason—it improperly shifts the burden of proof from Empire to Goodnight. As the applicant seeking to shut in Goodnight's injection, it was Empire's burden to prove Goodnight's injection wells "exhibited failure to confine injected fluids" to the San Andres; it was not Goodnight's burden to prove the existence of a "continuous barrier" as the permittee seeking to continue its existing and duly authorized injection—especially where there was a previous hearing determination that injection would be contained, as there was for each of Goodnight's four injection permits. *See Duke City Lumber Co. v. N.M. Env't'l Improvement Bd.*, 1980-NMCA-160, ¶ 4, 622 P.2d 709 (explaining the common-law rule that a moving party bears the burden of proof); *see also* Goodnight's Closing Legal Memorandum at Section Four, filed 7/3/2025 (addressing burdens of proof and requirements to overturn an adjudicatory order of an administrative agency).

The Commission's findings explicitly state that thus far, Empire has not provided evidence proving that Goodnight's activities in the San Andres have harmed or impaired Empire's rights within the Grayburg. Order at III(C). Stated another way, Empire has failed to prove that: (1) Goodnight's injection wells have exhibited failure to confine injected fluids to the San Andres and (2) Goodnight's injection has drowned out or reduced the ultimate recovery from the Grayburg. This evidentiary shortcoming alone establishes that Goodnight's activities do not meet the standards for shutting in injection under the Commission's own governing regulations. Having failed to establish its *prima facie* case, a requirement under the governing regulations, the evidentiary burden never shifted to Goodnight. There was nothing for Goodnight to refute. That Empire was unable to prove lack of confinement after more than six decades of continuous disposal injection into the San Andres in and around the EMSU is substantial evidence that

injection is, and continues to be, confined to the disposal zone. *See, e.g.*, Goodnight FOF 48-59, 74-75, 53, 68.

Furthermore, when the Division applied for, and was granted, primacy from the U.S. EPA for the Underground Injection Control (“UIC”) Class II injection program, it did so under the standards promulgated in the administrative code, including the standard adopted under 19.15.26.10(E) NMAC. Nothing under the promulgated regulations, or even Division guidance, establishes a basis for requiring a conclusive showing of a continuous barrier for issuance of a UIC Class II disposal permit or, as applicable here, to prevent suspension of previously approved injection operations. Indeed, nothing in the Division’s application for UIC Class II primacy supports imposition of such a standard. *See* New Mexico Energy and Minerals Department, Oil Conservation Division, Underground Injection Control Program, Class II Demonstration, Submitted to U.S. EPA, Sept. 15, 1981.⁷ The Commission’s implementation of a new “continuous barrier” standard contradicts the basis on which the Division was granted primacy to regulate UIC Class II injection and its current governing regulations. *See, e.g.*, 19.15.26.10(B) NMAC. Imposition of this new and unpromulgated standard, besides contravening the regulations and basis for primacy, establishes a precedent that will have far-reaching negative consequences on the Division’s administration of its UIC program, including existing and future disposal operations, putting at risk the stability and reliability of this critical permitting program in the state. **Exhibit A**, Self Affirmed Statement of Grant Adams, ¶ 10.

⁷ https://ocdimage.emnrd.nm.gov/Imaging/FileStore/santafeadmin/ao/77478/pcjc0919650740_2_ao.pdf (noting that the operating requirements for injection wells will require them to be “operated and maintained at all times in such manner as will confine the injected fluids to the interval or intervals approved and prevent surface damage or pollution resulting from leaks, breaks, or spills.”); *see also* 19.15.26.10(B) NMAC (“The operator of an injection project shall operate and maintain at all times the injection project, including injection wells, producing wells and related surface facilities, in such a manner as will confine the injected fluids to the interval or intervals approved and prevent surface damage or pollution resulting from leaks, breaks or spills.”) (emphasis added).

3. The Commission's Order Creates Constitutional Conflicts.

The Commission's Order creates a constitutional conflict in at least two ways. First, the Order finds that an ROZ exists in the Grayburg and San Andres and therefore, based on the 1984 Commission order creating the EMSU, Order No. R-7765, purports to grant Empire the exclusive rights to produce the ROZ in the EMSU. Order at II(A). As addressed in Section 4 below, that apparent grant of authority is invalid. However, the Order also finds that hydrocarbons within the ROZ have not been proven to be recoverable. Order at III(D). As a result, the Order effectively reaffirms and perpetuates the Commission's original erroneous unitization of the San Andres aquifer within the EMSU, notwithstanding the simultaneous finding that there are no proven recoverable hydrocarbons in that aquifer. Unitizing an aquifer that has no proven recoverable hydrocarbons not only contravenes the express provisions of Oil and Gas Act and the Statutory Unitization Act—both of which apply to and give the Commission authority to unitize only formations with recoverable hydrocarbons—but is also prohibited by the New Mexico Constitution, which declares all underground waters of the state to belong to the public and thus precluded from unitization under the Oil and Gas Act. N.M. Const. Art. XVI, § 2; *see also McBee v. Reynolds*, 1965-NMSC-007, ¶14, 399 P.2d 110 (confirming that “waters of underground streams, channels, artesian basins, reservoirs and lakes, the boundaries of which may be reasonably ascertained, are public” and “included within the term ‘water’ as used in Art. XVI, §§ 1-3, of our Constitution.”).

Second, and similar to improperly unitizing public waters, and as will be more thoroughly briefed in Goodnight's Application for Rehearing, until there is an actual finding that there are recoverable hydrocarbons in Goodnight's San Andres disposal zone and an exhibited failure to confine injected fluids, the Commission's pronouncement constitutes an impermissible regulatory taking of both Goodnight's property interest and the surface owners' property interest in and to the pore space underlying the EMSU without just compensation under both the New Mexico Constitution as well as the Fifth Amendment. *See* U.S.Const. amend. V.; N.M. Const., Art. II, § 20. A regulation which imposes a reasonable restriction on the use of private property will not constitute a “taking” of that property if the regulation is (1) reasonably

related to a proper purpose and (2) does not unreasonably deprive the property owner of all, or substantially all, of the beneficial use of his property.” *Temple Baptist Church, Inc. v. City of Albuquerque*, 1982-NMSC-055, ¶ 27, 646 P.2d 565. The Order does not satisfy either prong of the test articulated in *Temple*; the Order is void and not reasonably related to any proper purpose,⁸ and it deprives Goodnight of substantially all of the benefits of its validly executed lease agreements because those agreements were entered into for the purpose of utilizing the San Andres disposal zone. Adams, ¶ 12. Accordingly, the Order effects an improper regulatory taking.

4. The Order Violates the Statutory Unitization Act and UIC Permitting Requirements.

The Commission’s Order violates the Statutory Unitization Act and contravenes the Division’s UIC regulations and primacy authority granted by the U.S. EPA. In particular, the Commission’s conclusion that, “[b]ased on the 1984 Commission Order, Empire has the exclusive rights to decide how to best extract oil in the EMSU,” clearly exceeds the limited authority conveyed through Order No. R-7765, which unitized the EMSU under the Act only for purposes of secondary recovery through waterflood operations.

Under the Act, as a condition for unitization, an applicant must specify the type of operations the applicant will implement to explore and produce unitized substances. *See* NMSA § 70-7-5(C). Applicants must also establish that “the estimated additional costs, if any, of conducting such operations will not exceed the estimated value of the additional oil and gas so recovered plus a reasonable profit.” § 70-7-6(A)(3). Similarly, the Commission is required to find that the specified “unitized method of operations as applied” to the unitized “pool or portion thereof is feasible, will prevent waste and will result with reasonable probability in the increased recovery of substantially more oil and gas from the pool or unitized portion thereof than would otherwise be recovered.” § 70-7-6(A)(2).

⁸ *See supra*, §§ 1, 2.

In 1984, the Commission authorized Empire's predecessor "to institute a secondary recovery project for the recovery of oil and all associated and constituent liquid or liquified hydrocarbons within the unit area." Order No. R-7765 at decretal ¶ 4 (emphasis added). The Commission made numerous predicate findings necessary under the Act to authorize waterflood operations—and only waterflood operations—to be conducted within the EMSU. For example, the Commission found the proposed "'unitized formation' will include the entire oil column under the unit area permitting the efficient and effective recovery of secondary oil therefrom." Order No. R-7765 at ¶ 10 (emphasis added); *see also* ¶ 14 (finding unit operations are for purposes of instituting a "waterflood project for the secondary recovery of oil"). It found that the "unitized management, operation, and further development of the unit, as proposed, is reasonable and necessary to effectively and efficiently carry on secondary recovery operations and will substantially increase the ultimate recovery of oil and gas from the unitized formations." *Id.* at ¶ 18 (emphasis added). The Commission found "The proposed unitized method of operation applied to the Unit Area is feasible and will result with reasonable probability in the increased recovery of substantially more oil from the unitized portion of the pool than would otherwise be recovered without unitization." *Id.* at ¶ 19 (emphasis added). The Commission also determined the "estimated additional investment costs of the proposed operations," including capital costs necessary to institute the waterflood operations, will not exceed the value of the additional oil obtained plus a reasonable profit. *Id.* at ¶¶ 20-22 (emphasis added).

In issuing the Order, however, the Commission impermissibly expanded Empire's authority and erroneously determined that Empire has the exclusive right to decide how best to extract oil in the EMSU and to produce the alleged ROZ pursuant to Order No. R-7765. Order at II(A). Order No. R-7765 never authorized CO2 flood operations in the EMSU or any other type of enhanced oil recovery operation necessary to produce an ROZ—it was expressly limited to secondary recovery operations through waterflooding. Nor did the Commission make the necessary findings to authorize CO2 flood operations in the EMSU. The profitability of Empire's proposed San Andres CO2 flood—including capital costs—was never presented to the Commission—and still has not been presented—as required. *See* § 70-7-

6(A)(2)-(3). The Commission has never found that a San Andres CO2 flood would be profitable, as required. *See* Order No. R-7765, ¶ 22.⁹ The Commission therefore has erroneously expanded Empire's rights and authority regarding CO2 flood operations in the EMSU beyond the approved secondary recovery operations before the necessary showings have been made and before any such necessary authority has been issued under the requirements of the Act and the UIC permitting program. Accordingly, the Order is in direct contravention of the Act, the Division's UIC permitting requirements, U.S. EPA's primacy authority, and the Commission's own order, Order No. R-7765, which expressly limits approved operations to secondary recovery through waterflood operations.

B. Goodnight Has and Will Suffer Irreparable Harm Without a Stay.

A party seeking a stay must show "irreparable harm will result unless a stay . . . is granted." *Tenneco Oil Co.*, 1986-NMCA-033, ¶ 10. Here, if the Order is not stayed, especially if the Order requires immediate shut in of Goodnight's injection wells, Goodnight will suffer irreparable harm to its business operations that will have a negative cascading impact on its customers and, more broadly, the oil and gas industry in the area, as well as the public interest, for at least the following four reasons.

First, and foremost and as outlined above, the Order effects an improper regulatory taking under both the New Mexico Constitution as well as the Fifth Amendment. *See* U.S.Const. amend. V.; N.M. Const., Art. II, § 20.

Second, Goodnight's harm is most easily quantified through its direct tangible injuries, like money lost, capital costs to be incurred, and business opportunities taken away. Goodnight has invested millions of dollars in reliance on the authority of its duly authorized injection permits and the protection of the governing regulations. *Adams*, ¶ 10. Such injury manifests clear gross negative consequences. 19.15.4.23(B) NMAC. At the time of this Motion, Goodnight's injection capacity for the wells affected

⁹ Limiting finding of profitability to proposed waterflood operations. *See also* Ex. 1, OCC Case No. 8397-8399 Tr. 76:4-77:10, 105:11-107:5, 109:13-110:16 (outlining waterflood profitability analysis); *id.* at 224:22-25 (EMSU waterflood is limited to the Grayburg and Lower Penrose and excludes San Andres); *id.* at 214:23-215:1 (San Andres formation is a non-productive water source); Ex. 2 at 3; Ex. 3; Ex. 4.

by the Order is 105,000 barrels of produced water per day, meaning that Goodnight facilitates the production of approximately 34,000 barrels of crude oil per day through its four injection wells in the EMSU. Adams, ¶ 2. That is production that will be immediately and irreparably impacted. Goodnight's disposal operations are therefore critical to ongoing oil and gas development in the state of New Mexico. Goodnight is currently operating near maximum disposal capacity, and to secure third-party operations to offload this capacity for a period of just 6 months will cost Goodnight more than \$10 million. Adams, ¶ 5. This money will come directly out of Goodnight's pocket and cannot be recouped in any manner. If the stay is denied, it would be entirely cost prohibitive for Goodnight to simply defer injection operations at these four disposal wells or attempt to offload those impacted volumes onto third party operators; it will instead have to construct new facilities for replacement capacity. Adams, ¶ 6. These capital costs are expected to exceed \$40 million. *Id.*

Third, while these financial harms are measurable and substantial, much of Goodnight's harm is impossible to quantify and cannot be remedied through any monetary compensation. For example, upon the Commission's oral recitation of proposed order on August 14, 2025, Goodnight was forced to alert all of its customers in the affected area of the occurrence of a force majeure event, resulting in irreparable and continuing damage to existing customer relations and business reputation. Adams, ¶ 7. To date, Goodnight has already lost at least one previously negotiated disposal opportunity due to the imminent three-year suspension. Adams, ¶ 8. This loss of goodwill within the oil and gas industry is wholly irreparable and some of that damage has already occurred. In addition to gross negative consequences to its existing operations and infrastructure and loss of goodwill, Goodnight's ability to pursue growth projects is completely diminished without a stay of the Order. Adams, ¶ 8. Instead of being able to pursue new long-term contracts and promote the continued development of New Mexico's oil and gas resources through its established and existing disposal fields, Goodnight will have to utilize newly acquired pore space rights and build new facilities just to make up for these substantial regulatory curtailments. Adams, ¶ 9. Goodnight has continually advocated for the importance of in-state disposal into sustainable reservoirs

as the superior solution for produced water within the industry; however, this Order casts doubt on not only the assumptions underpinning deployment of any capital on injection infrastructure in the State of New Mexico, but also on the reliability of New Mexico's regulatory framework for disposal itself. Adams, ¶ 10. With the introduction of a new and contradictory unpromulgated standard for disposal, this Order calls into question the validity of injection permits previously granted, and Goodnight believes disposal operators will instead choose other locations for these services rather than expose tens of millions of dollars in capital to the increased risk of arbitrary adverse regulatory decisions that contravene existing standards. Adams, ¶ 11.

Finally, an immediate partial stay will prevent not just irreparable harm to Goodnight, but to the industry at large, and, ultimately, to the state and the public interest. On the whole, statewide injection alternatives are diminishing, and relocating Goodnight's current disposal capacity is not guaranteed. Adams, ¶ 13. Without an immediate partial stay, 8%-10% of Lea County's operable disposal capacity will be shut-in. Adams, ¶ 13. And if Goodnight's customers are unable to immediately find alternative disposal operators able to replace Goodnight's disposal capacity, it would result in a loss of 32 to 37 million barrels of oil production over this three-year shut-in period. Adams, ¶ 13. A stay is therefore necessary to prevent gross negative consequences to Goodnight and to the broader public, including waste and impairment of correlative rights relating to active and existing offsetting oil production, not to mention state coffers that directly benefit from Goodnight's disposal. Adams, ¶ 14.

C. Empire Has Not and Will Not Suffer Substantial Harm.

A stay will not cause Empire to suffer substantial harm. Granting an immediate partial stay would maintain the status quo, and the Commission found that the status quo does not harm Empire. *See* Order at III(C). According to the Commission, Empire did not prove that Goodnight's operations caused impairment to Empire's rights within the Grayburg. *Id.* at III(C)(54)-(56). The Commission also found that Empire failed to prove that hydrocarbons in the alleged ROZ are recoverable. Order at III(D). Empire also has not proven that the alleged ROZ, even if it is recoverable, is economic. It follows then that

granting Goodnight's Motion would have no impact on Empire. At a minimum, under the Commission's findings, Goodnight's injections will have no impact on Empire unless and until Empire actually undertakes a CO2 pilot project.¹⁰ *Id.* at II(B) ¶ 40. Moreover, an expert for Empire testified that there was not enough direct evidence to justify shutting in Goodnight's operations. Lindsey 2/24/25 Tr., 195:24-196:5. Based on the findings of the Commission, Empire would not suffer any harm until it proves (1) the ROZ is recoverable and (2) that Goodnight's activity in the San Andres impairs its rights within the ROZ. Given that the Commission has already found that the status quo has not harmed Empire, Empire will not suffer any harm, or substantial harm, by preserving the status quo until the Commission reviews Goodnight's Application for Rehearing and any appeals related appeals are fully and completely resolved.

D. A Stay Benefits Public Interest.

As discussed above and briefed more thoroughly in Goodnight's forthcoming Application for Rehearing, when balancing the interests of the parties in this matter, along with the interests of the community at large, a stay of the Order strongly benefits the public interest. While Empire's interest in exploring and theoretically producing the ROZ certainly benefits Empire, there is no demonstrative support that those endeavors will even yield Empire's desired result or otherwise benefit the public. Nor is there any guarantee or provisions in the Order to ensure Empire will even undertake any of the capital expenditures or activities necessary to attempt to prove the purported hydrocarbons in the ROZ are economically recoverable. In addition, no technical basis in the evidence or the Order's findings that supports concluding Empire cannot proceed with its ROZ assessment while Goodnight's disposal operations continue—at least to the point that a pilot project commences. Order at III(E). As a consequence, under the Order, with no requirements for intermittent reporting, status updates, or demonstration of incremental milestones, Empire can sit back and do nothing for three years to the severe detriment of Goodnight, offsetting producers, and the state.

¹⁰ Goodnight strenuously disagrees its injection will ever have any adverse effect on Empire's efforts to undertake a CO2 pilot project.

Goodnight's operations, on the other hand, provide a substantial present benefit that reaches far beyond its own gain. Goodnight provides critical operations for the continued development of the State's oil and gas resources. Adams, ¶¶ 2-3. At any given time, Goodnight is primarily responsible for safe and proper disposal of approximately 100,000 barrels of produced water per day and in 2023 alone disposed of 53.9 million barrels of produced water. Adams, ¶¶ 2, 4. More importantly, these disposal operations facilitate the production of roughly 19,000 barrels of oil per day, and in 2023 supported the successful production of 48.4 million barrels of oil and 110.7 billion cubic feet of gas. Adams, ¶ 4. Overall, Goodnight's wells have supported nearly \$5 billion in oil sales and are projected to support another \$20 billion over the next decade. Adams, ¶ 4. In contrast, Empire's EMSU currently produces only about 800 barrels of oil a day. Order at ¶ 54. Not only has Goodnight already provided a substantial and demonstrable benefit to the public, but operations of this volume and frequency cannot simply come to an immediate stop without causing delay and other harms to operators of oil and gas who rely on this disposal. The public benefits of allowing Goodnight's injection to continue far outweigh the potential, and unproven, future risk to Empire and the EMSU.

Moreover, as previously discussed, New Mexico water is constitutionally protected for public use and the "management of New Mexico's water is increasingly a matter of general public interest." NMSA § 72-12-1; *Aquifer Sci., LLC v. Verhines*, 2023-NMCA-020, ¶ 29, 527 P.3d 667. In fact, the State's interest in protecting the public interest in and to the use of such water warranted the legislative scheme by which the State Engineer weighs every application for use of water against the impact to public interest. NMSA 1978, § 72-12-3. The Commission's continued and improper unitization of the San Andres Aquifer runs afoul of the constitution and the State's interest in regulating the use of such public waters. Unless and until Empire proves the San Andres ROZ is actually recoverable and economical, it is still an aquifer subject to appropriation for beneficial use and therefore precluded from being included in the unitization of separate hydrocarbon bearing formations.

CONCLUSION

For the reasons stated, Goodnight respectfully requests the Director grant an immediate partial stay as to the Order's command for Goodnight to suspend injection in its four existing disposal wells in the EMSU pending Commission action on the Motion and enter the proposed order granting this Emergency Motion attached as Exhibit C. Goodnight further requests that the Commission ultimately stay the Order as to the provisions suspending its permits and injection pending final resolution of Goodnight's forthcoming Application for Rehearing and any subsequent appeals and enter the proposed order granting this Emergency Motion attached as Exhibit D. The Order's other provisions, in particular the requirement for Empire to conduct a ROZ pilot project and report back to the Commission within three years, should remain in effect.

Respectfully submitted,

HOLLAND & HART LLP

/s/ Adam G. Rankin

By: _____

Adam G. Rankin
Nathan R. Jurgensen
Paula M. Vance
Post Office Box 2208
Santa Fe, NM 87504
505-988-4421
505-983-6043 Facsimile
agrarkin@hollandhart.com
nrjurgensen@hollandhart.com
pmvance@hollandhart.com

**ATTORNEYS FOR GOODNIGHT MIDSTREAM PERMIAN,
LLC**

CERTIFICATE OF SERVICE

I hereby certify that on September 21, 2025, I served a copy of the foregoing document to the following counsel of record via Electronic Mail to:

Ernest L. Padilla
Padilla Law Firm, P.A.
Post Office Box 2523
Santa Fe, New Mexico 87504
(505) 988-7577
padillalawnm@outlook.com

Dana S. Hardy
Jaclyn M. McLean
HARDY MCLEAN LLC
125 Lincoln Ave., Suite 223
Santa Fe, NM 87505
(505) 230-4410
dhardy@hardymclean.com
jmclean@hardymclean.com

Sharon T. Shaheen
Spencer Fane LLP
Post Office Box 2307
Santa Fe, New Mexico 87504-2307
(505) 986-2678
sshhaheen@spencerfane.com
cc: dortiz@spencerfane.com

Corey F. Wehmeyer
SANTOYO WEHMEYER P.C.
IBC Highway 281 N. Centre Bldg.
12400 San Pedro Avenue, Suite 300
San Antonio, Texas 78216
cwehmeyer@swenergylaw.com

Attorneys for Empire New Mexico, LLC

Jesse Tremaine
Chris Moander
Assistant General Counsels
New Mexico Energy, Minerals, and
Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
(505) 741-1231
(505) 231-9312
jessek.tremaine@emnrd.nm.gov
chris.moander@emnrd.nm.gov

***Attorneys for New Mexico Oil Conservation
Division***

Matthew M. Beck
PEIFER, HANSON, MULLINS & BAKER,
P.A.
P.O. Box 25245
Albuquerque, NM 87125-5245
Tel: (505) 247-4800
mbeck@peiferlaw.com

***Attorneys for Rice Operating Company and
Permian Line Service, LLC***

Miguel A. Suazo
BEATTY & WOZNIAK, P.C.
500 Don Gaspar Ave.
Santa Fe, NM 87505
Tel: (505) 946-2090
msuazo@bwenergylaw.com

***Attorneys for Pilot Water Solutions SWD,
LLC***

Adam G. Rankin
Adam G. Rankin

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EXHIBIT A

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

**APPLICATIONS OF GOODNIGHT
MIDSTREAM PERMIAN, LLC FOR
APPROVAL OF SALTWATER DISPOSAL
WELLS LEA COUNTY, NEW MEXICO.**

CASE NOS. 23614-23617

**APPLICATION OF GOODNIGHT MIDSTREAM
PERMIAN LLC TO AMEND ORDER NO. R-
22026/SWD-2403 TO INCREASE THE
APPROVED INJECTION RATE IN ITS ANDRE
DAWSON SWD #1,
LEA COUNTY, NEW MEXICO.**

CASE NO. 23775

**APPLICATIONS OF EMPIRE NEW MEXICO
LLC TO REVOKE INJECTION AUTHORITY,
LEA COUNTY, NEW MEXICO.**

CASE NOS. 24018-24020, 24025

**APPLICATION OF GOODNIGHT MIDSTREAM
PERMIAN, LLC FOR APPROVAL OF A
SALTWATER DISPOSAL WELL, LEA
COUNTY, NEW MEXICO.**

**DIVISION CASE NO. 24123
ORDER NO. R-22869-A
ORDER NO. R-24004**

SELF AFFIRMED STATEMENT OF GRANT ADAMS

1. My name is Grant Adams. I work for Goodnight Midstream Permian LLC (“Goodnight”) as Chief Executive Officer (“CEO”). I have over 15 years of experience in the midstream sector.

2. Goodnight operates four existing water disposal wells within the EMSU that are the subject of Commission Order No. R-24004 (the “Order”). Between these four wells, Goodnight’s current injection capacity is approximately 105,000 barrels of produced water per

day, which directly supports the production of approximately 34,000 barrels of crude oil production per day.

3. Goodnight's disposal operations are critical to ongoing oil and gas development in the state of New Mexico and suspending these operations would be severely detrimental to both Goodnight and the operators it supports.

4. For example, in 2023 Goodnight disposed of 53.9 million barrels of produced water. Wells connected to Goodnight's Llano system produced 48.4 million barrels of oil and 110.7 billion cubic feet of gas. Overall, Goodnight's wells have supported over \$5 billion in oil sales and are projected to support another \$20 billion over the next decade.

5. Goodnight's Llano system is currently operating near maximum disposal capacity, and to secure third-party operations to offload this capacity for a near-term six-month period will cost Goodnight more than \$10 million. This is money that will come directly out of Goodnight's pocket and cannot be recouped in any manner.

6. If required to suspend operations for three years, it would be entirely cost prohibitive for Goodnight to defer injection operations at these four disposal wells by offloading onto third party operators. Goodnight will instead have to construct new facilities for replacement capacity. These capital costs are expected to be more than \$40 million.

7. Upon the issuance of the oral orders by the Commission, Goodnight was forced to notify its customers in the affected area of a force majeure event, resulting in irreparable and continuing damage to existing customer relationships and business reputation. A copy of the notice letter, with customer and personal identifying information redacted, is attached hereto as **Attachment 1**.

8. To date, one of Goodnight's producer customers has already terminated previously ongoing negotiations for a future disposal opportunity due to concern about the viability of New Mexico injection as a result of the imminent three-year suspension. Goodnight expects that if the three-year suspension moves forward, additional business opportunities will be impaired and the Company will suffer irrevocable impacts to its goodwill.

9. The three-year suspension will additionally require Goodnight's capital to be diverted from growth projects to instead construct replacement capacity. Instead of being able to pursue new long-term contracts and promote the continued development of New Mexico's oil and gas resources through its established and existing injection, Goodnight will have to build new facilities and use newly acquired pore space rights to make up for the suspension. Growth opportunities lost during this period of capital diversion cannot be recovered.

10. Goodnight has continually advocated for the importance of in-state disposal as the superior solution for produced water within the industry. Goodnight invested in excess of \$300 million on its Llano system and millions of dollars on its four EMSU disposal wells and facilities in reliance on the authority of its duly authorized injection permits and the protection of the governing regulations. However, this Order casts doubt on the stability of the regulatory framework currently in place in New Mexico for disposal itself, and permanently increases uncertainty for disposal operators who have previously relied upon validly-issued injection permits to invest significant sums of money.

11. With the implementation of a new and different standard for suspension of disposal wells than what the regulations provide for, the Order calls into question the validity of all injection permits previously granted, and Goodnight believes disposal operators will instead choose other locations, if available, for these services rather than subject tens of millions of dollars in capital to

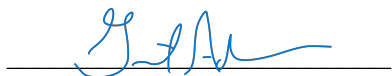
the increased risk of arbitrary adverse regulatory decisions. Operators such as Goodnight are less efficient without a dependable regulatory regime, and less efficient operations will diminish tax revenues for the State.

12. Moreover, implementation of a suspension with a requirement for Goodnight to shut-in its disposal operations without finding that there are recoverable and economic hydrocarbons in the San Andres disposal zone, and under a new and different standard that conflicts with existing rules, will improperly and substantially eliminate the value of Goodnight's pore space leasehold interests, which are directly tied to the San Andres disposal interval.

13. On the whole, statewide injection alternatives are diminishing, and relocating Goodnight's current disposal capacity is not guaranteed. Goodnight is diligently attempting to locate third-party offload capacity to mitigate the impending regulatory curtailment, however, we have been unable to identify alternative disposal capacity necessary to address an immediate suspension of operations. That means as much as 34,000 barrels of oil production per day will be immediately impacted upon effect of the Order until Goodnight is able to secure offload disposal capacity. If injection operations in the EMSU are suspended for three years, 8%-10% of Lea County's operable disposal capacity will be shut-in. If just Goodnight's customers are unable to find alternative disposal operators able to replace Goodnight's disposal capacity, it would result in a loss of 32 to 37 million barrels of oil production over this three-year shut-in period, resulting in a material reduction of tax revenues for the State.

14. The Order's three-year suspension would result in gross negative consequences to Goodnight and to the broader public, including active and existing offsetting oil production and state tax revenues that directly benefit from it.

15. I affirm under penalty of perjury under the laws of the State of New Mexico that the foregoing statements are true and correct. I understand that this self-affirmed statement will be used as written testimony in this case. This statement is made on the date next to my signature below.



Grant Adams

9/19/2025

Date

EXHIBIT 1



[REDACTED]
Midland, TX 79702
[REDACTED]

Via email and Certified Mail

August 15, 2025

NOTICE OF FORCE MAJEURE**Llano Pipeline System**

All:

Please be advised of a Force Majeure impairment to the Llano System. On August 14, 2025, the New Mexico Oilfield Conservation Commission ("OCC") issued an unfavorable ruling suspending injection at certain of Goodnight's Llano injection wells that will result in an immediate capacity loss on the Llano System. Goodnight disagrees with the ruling and will be appealing the decision and pursuing all available remedies available at law.

Goodnight has been actively working on expansion disposal infrastructure over the last several months. These developments are being accelerated as fast as possible. In addition, we are working to maximize existing and prospective third-party offloads for near-term replacement capacity.

Until Goodnight is able to offset the suspended capacity loss, aggregate volumes on the Llano System will be curtailed to balance available downhole capacity. We will update all customers on the Llano System with near-term and permanent capacity expectations as soon as possible. In the interim, please contact either commercial representative listed below for additional information.

Thank you for your cooperation in this matter. We are expeditiously working all available avenues to remedy this situation.

If you have any questions, please contact the following representatives:

Commercial Representative

Jared Perry
Robert Rubey

Telephone Number

Sincerely,

A handwritten signature in blue ink, appearing to read "Robert Rubey".

Robert Rubey



Chief Commercial Officer

EXHIBIT B

From: Dana S. Hardy <dhardy@hardymclean.com>
Sent: Thursday, September 18, 2025 11:08 AM
To: Moander, Chris, EMNRD; Adam Rankin; Tremaine, Jesse, EMNRD
Cc: Jaclyn M. McLean; Ernest Padilla; Matthew M. Beck; jparrot@bwenenergy.com; Shaheen, Sharon; Miguel Suazo; cwehmeyer; Nathan R. Jurgensen; Raylee Starnes; John C. Anderson; Jacqueline F. Hyatt; Dana S. Hardy
Subject: RE: [EXTERNAL] Goodnight / Empire - OCC Order No. R-24004

External Email

Dear Jesse and Chris,

We appreciate the Division's willingness to meet with Goodnight and Empire. However, Order No. R-24004 was issued on September 12, 2025 and states that the Commission:

"Suspends existing Goodnight's injection wells Case No. 24018 (Dawson), Case No. 24019 (Banks), Case No. 24020 (Sosa), Case No. 24025 (Ryno) in order to provide Empire with the opportunity to establish the CO2 EOR pilot project."

This language is clear and does not allow for interpretation, negotiation, or delay. The Order "suspends" Goodnight's permits, present tense. The Order does not suspend Goodnight's permits contingent on Empire initiating a CO2 EOR pilot project or allow Goodnight to continue injecting into these wells over some unspecified period of time. To the extent Goodnight is continuing to inject into these wells, it is violating the Commission's order.

Moreover, although the Commission issued the Order on September 12th, the Commission publicly announced its decision to suspend Goodnight's permits on August 14, 2025. Thus, Goodnight knew its permits would be suspended and apparently failed to take any action to comply.

The Commission's statement that "The Division will implement this Order" does not mean that Goodnight's permits are still in effect or may be revoked over time. Any such interpretation would contravene the plain language of the ordering paragraphs. Rather, implementation means the Division must ensure Goodnight complies with the requirements set out in the Division's regulations:

19.15.26.12 COMMENCEMENT, DISCONTINUANCE AND ABANDONMENT OF INJECTION OPERATIONS:

A. The following provisions apply to injection projects, storage projects, produced water disposal wells and special purpose injection wells.

B. Notice of commencement and discontinuance.

(1) Immediately upon the commencement of injection operations in a well, the operator shall notify the division of the date the operations began.

(2) Within 30 days after permanent cessation of gas or liquefied petroleum gas storage operations or within 30 days after discontinuance of injection operations into any other well, the

operator shall notify the division of the date of the discontinuance and the reasons for the discontinuance.

(3) Before temporarily abandoning or plugging an injection well, the operator shall obtain approval from the appropriate division district office in the same manner as when temporarily abandoning or plugging oil and gas wells or dry holes.

Based on the clear language of the Order and the Division's regulations, Goodnight must immediately cease injection into the Dawson, Banks, Sosa, and Ryno wells and file the paperwork required to do so. Empire will seek relief for Goodnight's contempt of the Order by Monday, September 22nd if Goodnight has not ceased injection.

Please let me know if you need any additional information.

Best,
Dana



Dana S. Hardy

Senior Managing Partner

Phone: 505-230-4426

Email: dhardy@hardymclean.com

Web www.hardymclean.com

125 Lincoln Avenue, Suite 223, Santa Fe, NM 87501



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From: Moander, Chris, EMNRD <Chris.Moander@emnrd.nm.gov>

Sent: Thursday, September 18, 2025 10:14 AM

To: Adam Rankin <AGRankin@hollandhart.com>; Tremaine, Jesse, EMNRD <JesseK.Tremaine@emnrd.nm.gov>

Cc: Dana S. Hardy <dhardy@hardymclean.com>; Jaclyn M. McLean <jmclean@hardymclean.com>; Ernest Padilla <PadillaLawNM@outlook.com>; Matthew M. Beck <mbeck@peiferlaw.com>; jparrot@bwenergylaw.com; Shaheen, Sharon <sshahen@spencerfane.com>; Miguel Suazo <msuazo@bwenergylaw.com>; cwehmeyer <cwehmeyer@swenergylaw.com>; Nathan R. Jurgensen <NRJurgensen@hollandhart.com>; Raylee Starnes <ARStarnes@hollandhart.com>; John C. Anderson <JCAnderson@hollandhart.com>; Jacqueline F. Hyatt <JFHyatt@hollandhart.com>

Subject: RE: [EXTERNAL] Goodnight / Empire - OCC Order No. R-24004

Mr. Rankin,

OCD is happy to meet with you and your client, per your request, and leave the door open for Empire or others to do the same. Unfortunately, due to scheduling issues, key staff will not be available to meet

until Thursday, September 25th from 10-12. OCD's position is that the key staff members are essential to a fruitful discussion with you and your client. Please confirm that works – we would need to host the meeting *via* Teams.

Insofar as the OCC Order, OCD is actively reviewing the order and evaluating its next steps. OCD's intention is to inform all parties to the underlying cases of its decisions once they are made so matters are clear for everyone. However, OCD cannot and will not make any guarantees or assurances as to how it will ultimately decide to implement the order, including timing and nature of actions OCD may require of either Goodnight or Empire.

Please let me know if the proposed meeting date and time work for you and your client.

Regards,
Chris

From: Adam Rankin <AGRankin@hollandhart.com>

Sent: Monday, September 15, 2025 4:35 PM

To: Tremaine, Jesse, EMNRD <JesseK.Tremaine@emnrd.nm.gov>; Moander, Chris, EMNRD <Chris.Moander@emnrd.nm.gov>

Cc: dhardy@hardymclean.com; Jaclyn M. McLean <jmclean@hardymclean.com>; Ernest Padilla <PadillaLawNM@outlook.com>; Matthew M. Beck <mbeck@peiferlaw.com>; jparrot@bwenergylaw.com; Shaheen, Sharon <sshaheen@spencerfane.com>; Miguel Suazo <msuazo@bwenergylaw.com>; Corey Wehmeyer <cwehmeyer@swenergylaw.com>; Nathan R. Jurgensen <NRJurgensen@hollandhart.com>; Raylee Starnes <ARStarnes@hollandhart.com>; John C. Anderson <JCAnderson@hollandhart.com>; Jacqueline F. Hyatt <JFHyatt@hollandhart.com>

Subject: [EXTERNAL] Goodnight / Empire - OCC Order No. R-24004

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Dear Jesse and Chris,

Pursuant to the Commission's Order and Commission counsel's response to my direct questions following adoption of the written order (see <https://www.youtube.com/watch?v=Zc0BhNb67B4>), Goodnight would like to schedule a meeting with the Division regarding the Commission's guidance for implementing the order, including when, how, and over what period of time Goodnight will be required to shut in its EMSU disposal wells, as well as the parameters and requirements for Empire to implement a pilot project, including what zones it is going to target, reporting requirements, and other considerations. As we understand the order, we see the two issues as being closely linked.

Please let us know if there is an opportunity for a conference on these points. Of course, we are open to additional considerations from the Division and anticipate an opportunity to respond to any of the Division's considerations or proposals for implementation.

Sincerely,
Adam



Adam Rankin

Partner

HOLLAND & HART LLP

110 North Guadalupe Street, Suite 1, Santa Fe, NM 87501

agrankin@hollandhart.com | **T:** (505) 954-7294 | **M:** (505) 570-0377

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EXHIBIT C

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

**APPLICATIONS OF GOODNIGHT
MIDSTREAM PERMIAN, LLC FOR
APPROVAL OF SALTWATER DISPOSAL
WELLS LEA COUNTY, NEW MEXICO.**

CASE NOS. 23614-23617

**APPLICATION OF GOODNIGHT MIDSTREAM
PERMIAN LLC TO AMEND ORDER NO. R-
22026/SWD-2403 TO INCREASE THE
APPROVED INJECTION RATE IN ITS ANDRE
DAWSON SWD #1,
LEA COUNTY, NEW MEXICO.**

CASE NO. 23775

**APPLICATIONS OF EMPIRE NEW MEXICO
LLC TO REVOKE INJECTION AUTHORITY,
LEA COUNTY, NEW MEXICO.**

CASE NOS. 24018-24020, 24025

**APPLICATION OF GOODNIGHT MIDSTREAM
PERMIAN, LLC FOR APPROVAL OF A
SALTWATER DISPOSAL WELL, LEA
COUNTY, NEW MEXICO.**

**DIVISION CASE NO. 24123
ORDER NO. R-22869-A**

**ORDER GRANTING GOODNIGHT'S EMERGENCY MOTION
TO PARTIALLY STAY ORDER-24004**

THIS MATTER came before the Oil Conservation Commission on the Emergency Motion to Partially Stay Order-24002 (the "Motion") filed on September 21, 2025, by Goodnight Midstream Permian, LLC. Having considered the matter, and being fully apprised, the Director finds that Order-24002, entered on September 12, 2025 should be partially stayed effective only until the Commission acts on the Motion.

THEREFORE, the Motion is granted, and Order-24002 is partially stayed as set out in the Motion effective only until the Commission acts on the Motion.

Albert Chang, Division Director

EXHIBIT D

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

**APPLICATIONS OF GOODNIGHT
MIDSTREAM PERMIAN, LLC FOR
APPROVAL OF SALTWATER DISPOSAL
WELLS LEA COUNTY, NEW MEXICO.**

CASE NOS. 23614-23617

**APPLICATION OF GOODNIGHT MIDSTREAM
PERMIAN LLC TO AMEND ORDER NO. R-
22026/SWD-2403 TO INCREASE THE
APPROVED INJECTION RATE IN ITS ANDRE
DAWSON SWD #1,
LEA COUNTY, NEW MEXICO.**

CASE NO. 23775

**APPLICATIONS OF EMPIRE NEW MEXICO
LLC TO REVOKE INJECTION AUTHORITY,
LEA COUNTY, NEW MEXICO.**

CASE NOS. 24018-24020, 24025

**APPLICATION OF GOODNIGHT MIDSTREAM
PERMIAN, LLC FOR APPROVAL OF A
SALTWATER DISPOSAL WELL, LEA
COUNTY, NEW MEXICO.**

**DIVISION CASE NO. 24123
ORDER NO. R-22869-A**

**ORDER GRANTING GOODNIGHT'S EMERGENCY MOTION TO
PARTIALLY STAY ORDER-24004**

THIS MATTER came before the Oil Conservation Commission on the Emergency Motion to Partially Stay Order-24002 (the "Motion") filed on September 21, 2025, by Goodnight Midstream Permian, LLC. Having considered the matter, and being fully apprised, the Commission finds that Order-24002, entered on September 12, 2025 should be partially stayed pending the full and final resolution of the issues raised on the Application for Rehearing and any subsequent appeals.

THEREFORE, the Motion is granted, and Order-24002 is partially stayed as set out in the Motion.

**STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION**

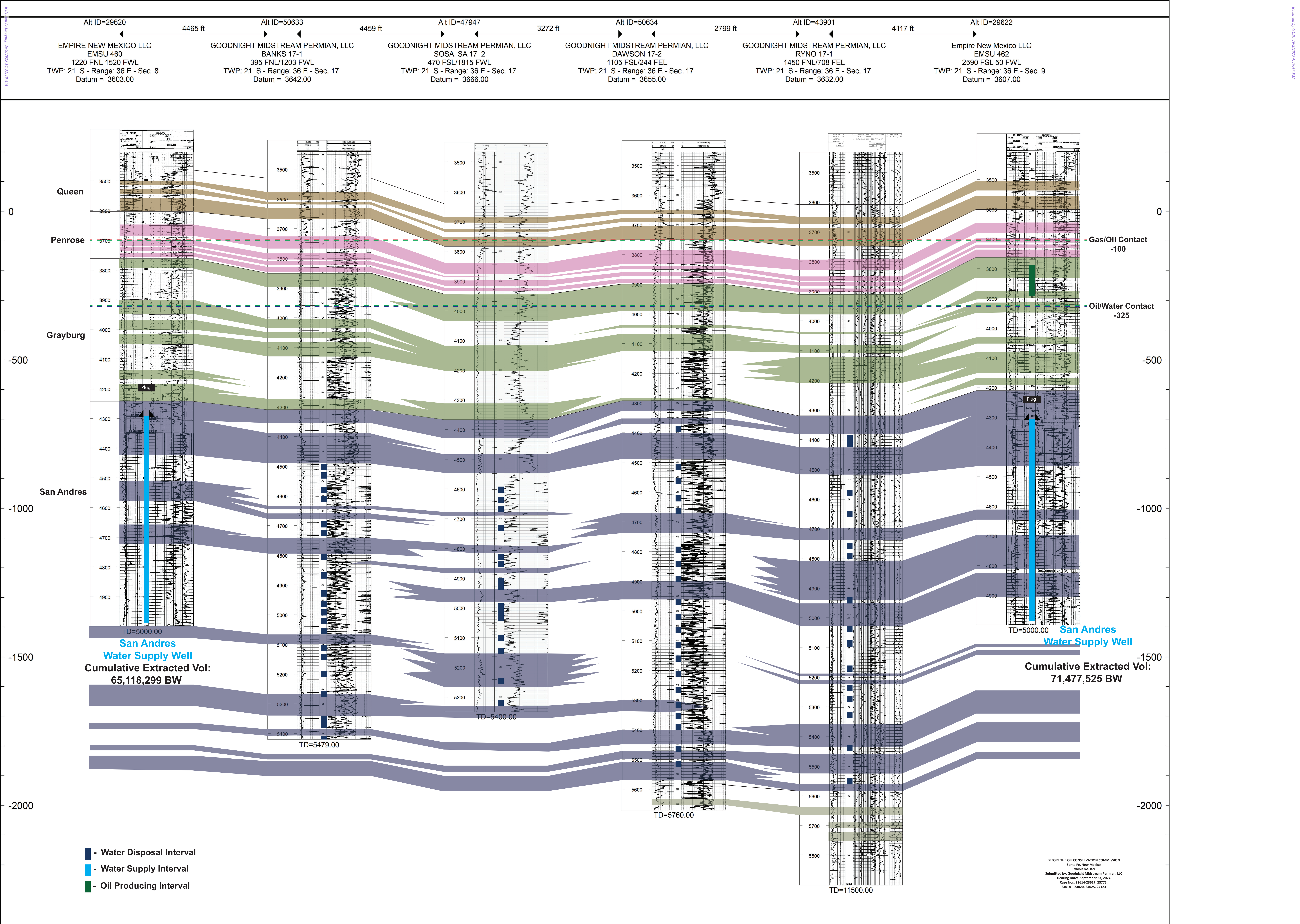


EXHIBIT 15