

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

**IN THE MATTER OF PENDING APPLICATIONS
CONCERNING INJECTION INTO THE SAN ANDRES
FORMATION IN AND NEAR THE EUNICE MONUMENT
SOUTH UNIT, LEA COUNTY, NEW MEXICO**

**Case Nos. 24491, 26255, 26264, 26267,
26269, 26273, 26274, 26275, 26277, 26278,
26279, 26280, 26281, 26284**

EMPIRE NEW MEXICO LLC'S RESPONSE TO ORDER TO SHOW CAUSE

Empire New Mexico LLC ("Empire") submits this response to the Oil Conservation Division's ("OCD" or "Division") Order to Show Cause ("OSC") issued on October 13, 2026. For the following reasons, the Division should not postpone adjudication of these pending cases until the district court rules in Case No. D-101-CV-2026-10177 (the "Appeals").

INTRODUCTION AND SUMMARY OF POSITION

Deferral is not neutral. While these cases wait, each saltwater disposal well ("SWD") at issue continues to inject into the San Andres formation, which Empire has the exclusive right to produce. The Division should refer to the Commission or promptly hear Empire's applications to revoke thirteen SWD permits held by Goodnight and other operators. Every day, these operators inject thousands of barrels of produced water into the San Andres formation in and around the Eunice Monument South Unit ("EMSU"), the Arrowhead Grayburg Unit ("AGU"), and lands leased by Empire. As the designated operator of the EMSU and AGU, only Empire is authorized to produce this acreage and control injection within it.

As discussed in the Self-Affirmed Statement of William West, attached as Exhibit A, this ongoing disposal harms Empire and the mineral interest owners by:

- Increasing San Andres reservoir pressure: there are clear indications of increasing pressure at the EMSU and AGU based on recent fluid level data. Increasing pressure has a negative impact upon the economics of a CO₂ pilot project.
- Causing fluid to migrate from the San Andres into the Grayburg producing interval, as evidenced by an open hole repeat formation test run in AGU-242 prior to the waterflood, and by the barium sulfate that resulted from mixing of San Andres water with Grayburg water prior to the waterflood.
- Damaging an oil resource of over 900 million barrels as determined by independent sources and oil saturations confirmed by core and log analysis, including Goodnight's consultants.
- Damaging the formation due to water incompatibility of the disposal water mixing with the formation water.

The pending appeals raise various legal issues regarding injection into the EMSU, but the Division must still examine the facts surrounding each permit. Accordingly, the cases should not be deferred; they should proceed promptly to stop the damage from continuing. The Self-Affirmed Statement of William West supports Empire's position and includes a table that provides case-specific responses to the OSC for each of the fourteen cases. *See* Exhibit A-2. That table identifies the relevant appellate issues, the facts the Division must decide independently, the harm Empire risks from delay, and any applicable deadlines. Empire's position differs by group:

- **Outside-EMSU Wells (Case Nos. 26255, 26264, 26269, 26275, 26277–26281, 26284).** These cases should proceed promptly. The impact of injection outside the EMSU has not been decided and is not the subject of the Appeals. The Division must examine how each well operates, where its injected water travels, and how that water threatens Empire's oil recovery. The Appeals will not answer those factual questions. The cases should be referred to the Commission to be heard with other pending outside-EMSU cases or proceed before the Division. The cases must move towards decision.
- **Inside-EMSU Wells (Case Nos. 26267, 26273, 26274).** These cases should proceed promptly. Amended Order No. R-24004-A is in effect and no party has obtained a stay.

Issues c-g in paragraph 3 of the OSC may be relevant in some aspects, but OCD can fairly decide each matter on its own facts without resolution of these issues.

- **Case No. 24491 (Goodnight's Rocket SWD No. 1).** This matter differs from the other matters. Goodnight is the applicant, the well has never been drilled, and the extension Goodnight requested—to March 2, 2025—expired more than nineteen months ago. Because Empire has filed an application to revoke this permit, which is pending before the Commission, the extension application should be referred to the Commission or stayed pending the Commission's decision on the permit.

Accordingly, the Division should refer Empire's thirteen applications to the Commission to be heard with the other pending cases or set them for hearing. An appeal concerning other wells should not prevent the Division from protecting New Mexico's oil resources today.

ARGUMENT

I. The Division should hear Empire's applications now rather than wait for the Appeals.

A. The Amended Order remains in force during the Appeals.

Commission orders are reviewed in district court under NMSA 1978, Section 70-2-25(B), which incorporates NMSA 1978, Section 39-3-1.1. Neither statute suspends a Commission order while an appeal is pending. A stay is available only "[u]pon motion," and only if the movant shows likely success on appeal, irreparable harm without a stay, and no substantial harm to others or the public interest. Rule 1-074(Q)(1) NMRA. Those are the same factors New Mexico courts apply to stays of administrative action generally. *Tenneco Oil Co. v. N.M. Water Quality Control Comm'n*, 1986-NMCA-033, ¶¶ 10-13, 105 N.M. 708 (requiring evidence of all four factors before staying an agency order). No party has sought, much less obtained, a stay of Order Nos. R-24004 or R-24004-A. The Commission orders therefore govern. The order on appeal addresses specific Goodnight wells and distinct questions of law; it does not address Empire's pending applications.

B. A blanket deferral would operate as an unearned stay.

Deferring final adjudication of every pending matter until the district court rules would give the appellants the practical benefit of a stay without the showing Rule 1-074(Q) requires. A stay “is not a matter of right,” it is “an intrusion into the ordinary processes of administration and judicial review,” and the party seeking it bears the burden. *Nken v. Holder*, 556 U.S. 418, 427, 433-34 (2009); *see also Clinton v. Jones*, 520 U.S. 681, 708 (1997) (proponent of a stay bears the burden of establishing its need). Where there is “even a fair possibility” that a stay will damage another party, its proponent “must make out a clear case of hardship or inequity in being required to go forward.” *Landis v. N. Am. Co.*, 299 U.S. 248, 255 (1936). A stay without a defined end is disfavored for the same reason. *Id.* at 257.

The Division applies the same logic. Its stay rule permits a stay only where “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. Here, deferral would not serve any of those purposes; it would work against them. A blanket deferral would also benefit operators who are not parties to the Appeals at all. If the Division delays these hearings, the operators will continue injecting wastewater into the San Andres, threatening Empire’s existing production, its proposed CO₂ recovery project, and its correlative rights. The Division can account for a later appellate ruling, but it cannot undo waste.

C. The Division’s statutory duties do not pause during the Appeals.

The Division has the “power and duty” to prevent waste and protect correlative rights. NMSA 1978, § 70-2-11(A). “[T]he prevention of waste is the paramount power,” and protecting correlative rights is a “necessary adjunct” to it. *Continental Oil Co. v. Oil Conservation Comm’n*, 1962-NMSC-062, ¶¶ 11, 27, 70 N.M. 310 (explaining that the Commission’s powers rest on its duty to prevent waste and protect correlative rights); *see Marbob Energy Corp. v. N.M. Oil*

Conservation Comm'n, 2009-NMSC-013, ¶ 2, 146 N.M. 24 (identifying those duties as the Commission's primary responsibilities).

Underground waste includes operating wells “in a manner to reduce or tend to reduce the total quantity of crude petroleum oil . . . ultimately recovered from any pool.” NMSA 1978, § 70-2-3(A). The Division is specifically charged to prevent “the drowning by water of any stratum” capable of producing oil, and to regulate disposal of produced water by injection, § 70-2-12(B)(14), (15). The Commission relied on those duties in denying Goodnight's applications for new wells within the EMSU. Order No. R-24004 ¶ 41. These duties apply with equal force here and must be applied to the pending cases—even while the Appeals proceed.

The thirteen revocation applications were filed after the Appeals; they are not before the district court, and deciding them will not alter the record or issues in the Appeals.

II. How Each Matter Relates to the Appellate Issues (¶ 10(a)).

A. Case-by-case summary.

Paragraph 10 of the OSC asks for a response as to each case in which Empire appears. Empire is the applicant in each of the thirteen revocation cases and a party in Case No. 24491, regarding the Rocket SWD extension. None of the pending revocation cases should be deferred, as the Division must determine whether each well's injected water causes waste or impairs Empire's correlative rights—a matter the Appeals will not resolve. A further description of Empire's position on each case is presented in Exhibit A-2.

B. Overlap with the OSC paragraph 3 issues.

The appellate issues overlap with these cases only in part. Most of the issues concern the Commission's legal conclusions on a 2024-2025 record of Goodnight's wells within the EMSU. The pending cases concern different wells, operators, and applications. The impact of injection

outside the EMSU has not been decided and is not the subject of the Appeals. Of the thirteen revocation applications, only three involve wells located within the EMSU. The issues on appeal do not address whether the disposal in the pending wells threatens Empire's producing Grayburg wells or mineral rights in the EMSU, AGU, or Empire's surrounding leased lands.

Whichever way the district court rules in the Appeals, the pending cases still require well-specific findings. If the Commission is affirmed, the Division must still determine each well's interval, injection levels, proximity, and effect on Empire's operations and correlative rights. If the Commission is reversed in part, that ruling would most directly affect the three inside-EMSU cases; it would not resolve the ten outside-EMSU cases, which depend on migration and on each operator's own application and operations. Second, the overlapping issues are ones on which the Commission has already ruled. The Division is bound by those rulings while they remain in effect, and any later change can be addressed by rehearing or a motion to reopen. Waiting gains little; it only postpones work the Division must do regardless of the outcome.

III. The Matters Can Be Fairly Decided on Their Own Facts (§ 10(b)).

A. Inside-EMSU cases.

The Commission has already resolved the framework questions for San Andres injection inside the EMSU. It found substantial evidence of a ROZ in the Grayburg and San Andres; found there is no continuous barrier between the intervals; and suspended injection to give Empire the opportunity to establish a CO₂ EOR pilot. Order No. R-24004 at 6, ¶ II.B; at 8, ¶ III.B; at 10, ¶ III.E. The Division owes those findings deference; they rest on technical expertise the Legislature placed in the Commission. *Santa Fe Expl. Co. v. Oil Conservation Comm'n*, 1992-NMSC-044, ¶ 37, 114 N.M. 103 (deferring to the Commission's technical judgment). But the district court will review the earlier Commission record, not determine whether the three EMSU-wells at issue here

increase pressure, allow water to reach producing zones, threaten waste, or impair correlative rights. *See Martinez v. N.M. State Eng'r Off.*, 2000-NMCA-074, ¶ 48, 129 N.M. 413. Those questions remain before the Division.

As discussed in Mr. West's Self-Affirmed Statement, Empire also has new evidence of rising San Andres pressure and water movement toward producing formations. Parker, Rice, and Owl will likely point to the Commission's statement that Empire had not shown its Grayburg rights were currently impaired, so that revocation of Goodnight's permits was premature. That statement addressed Goodnight's wells on the 2024–2025 record. It does not bar the Division from hearing new, well-specific evidence about the other operators' wells, including data gathered since the Commission ruled. And the Commission still suspended Goodnight's wells on a finding of possible future impairment and waste. At a minimum, the same relief is available here.

B. Outside-EMSU cases.

Each of these cases turns on facts the district court will not address: the well's distance from the EMSU, the AGU, and Empire's leased lands; the injection interval; the well's specific activities and their effect on surrounding mineral formations; and whether the operator's application accurately described the San Andres, the Eunice Monument Oil Pool, and water compatibility. The Commission itself separated the outside-EMSU wells from its 2025 evidentiary hearing because they raise different questions, and it stayed the related outside-EMSU applications pending resolution of the inside-EMSU cases. OSC ¶ 6. That condition has now been met: the inside-EMSU cases were resolved by Order Nos. R-24004 and R-24004-A. Nothing in the Commission's 2024 order tied the outside-EMSU cases to the outcome of judicial review. Those questions are ready to be decided.

If the Division concludes that these cases should be heard with Case Nos. 24021-24024, 24026, and 24027 to avoid inconsistent results, Empire would not object to referral to the Commission under 19.15.4.20(B) NMAC. Empire's motion asking the Commission to lift its stay of those cases is pending and set for hearing on November 12, 2026. Referral would place all outside-EMSU wells before one tribunal on one record—but such placement should be a path to decision, not a deferral pending resolution of the Appeals.

C. Case No. 24491 (Rocket SWD No. 1).

This case should be referred to the Commission for consideration in conjunction with Empire's application to revoke the underlying permit or stayed pending the Commission's decision on that application. If the Division decides to proceed, the matter can be decided on its own facts.

IV. Prejudice to Empire From Deferral (§ 10(c)).

A. Injection into the ROZ is irreversible.

As discussed in detail by Mr. West, every month of deferral adds produced water to the San Andres and Grayburg in and around the EMSU, AGU, and lands leased by Empire.¹ The Commission found that injection conflicts with Empire's exclusive rights because a CO₂ flood requires close monitoring and control of injected fluids, and that Goodnight's disposal wells cannot operate during an active CO₂ flood without adversely affecting its economics. Order No. R-24004 § 40. That is underground waste in the statutory sense: operation that tends to reduce the oil

¹ The saltwater disposal wells at issue have injected a combined 401 million barrels of water into the San Andres since January 1994 when OCD records begin. Rice Operating accounts for nearly three-quarters of that total (297.4 MMBW, 74.1%), followed by Goodnight (51.1 MMBW, 12.8%), Permian Line Service (47.2 MMBW, 11.8%) and Parker Energy (5.4 MMBW, 1.3%). Disposal into these wells averaged 75,948 BWPD during August 2026, led by Rice (30,224 BWPD, 39.8%), Permian Line Service (23,323 BWPD, 30.7%), and Goodnight (21,303 BWPD, 28.0%). Allowing the Rocket SWD #1 to be drilled would further increase these volumes. The maximum monthly average rates achieved from these wells over their lifetime total 182,008 BWPD. This indicates high injection capacity from this group of wells. See Exh. A, § 12.

ultimately recovered. § 70-2-3(A). Harm of this kind is irreparable. Like environmental injury, it “can seldom be adequately remedied by money damages and is often permanent or at least of long duration.” *Amoco Prod. Co. v. Village of Gambell*, 480 U.S. 531, 545 (1987). A later order cannot remove water already placed in the reservoir.

B. Deferral would compromise the Commission-ordered pilot.

The Commission suspended Goodnight’s four EMSU wells “in order to provide Empire with the opportunity to establish the CO₂ EOR pilot project” within three years, and the Division’s January 15, 2026 letter set additional parameters for that pilot. The three inside-EMSU wells here inject into the same unitized interval. If they keep injecting, the pilot will run in a reservoir still receiving third-party water, and its results will be harder to interpret. Deferral would undercut the very evidence-gathering the Commission ordered—evidence the Commission identified as necessary to resolve recoverability, and on which appellate issue (g) itself turns.

C. Deferral harms other owners and the public.

Correlative rights belong to every owner in the pool. *Continental Oil*, 1962-NMSC-062, ¶ 27. Most mineral interests in the EMSU and AGU belong to the State of New Mexico and the United States. Loss of recoverable oil is therefore a loss of public royalty revenue, not only a private injury to Empire.

D. No comparable prejudice arises in Case No. 24491.

No party is prejudiced by staying Case No. 24491—so long as holding it does not extend Goodnight’s authority. The Rocket SWD No. 1 has not been drilled and is not injecting, so the status quo already protects the San Andres and Grayburg formations. Empire’s concern is the opposite: Goodnight has stated that it “needs” the Rocket well’s capacity because its EMSU wells are suspended (despite continued injection into same), and it previously drilled the Verlander SWD

No. 1 while an application to revoke was pending. Any order holding the matter should make clear that Goodnight may not drill, complete, or inject into the Rocket SWD No. 1 in the interim.

E. Deferral prolongs ongoing operating harm in the Grayburg.

The harm is not only to future ROZ recovery. As discussed by Mr. West, water is moving from the San Andres into the Grayburg, which damages the formation due to scale, increases pressure, harms Grayburg production, harms the San Andres and Grayburg ROZ, and impairs Empire's ability to conduct a tertiary recovery project. *See* Exhibit A at ¶¶ 14-31. Water entering the Grayburg increases the volumes Empire must lift, separate, and handle from its existing producing wells and tends to reduce the oil those wells ultimately recover. Each month of continued third-party injection adds to that burden, and no later ruling can restore the production lost in the interim.

V. Regulatory and Statutory Deadlines (¶ 10(d)).

Order R-24004 provides "Empire with the opportunity to establish a CO₂ EOR pilot project within a period of 3 years to ascertain the recoverability of the ROZ." Order R-24004 at ¶ 61. As discussed above, continued injection causes irreparable harm to Empire and the mineral interest owners, interferes with the ability to conduct a pilot project, and should cease.

CONCLUSION

Empire asks the Division to refer the above-captioned cases to the Commission or proceed to hear the revocation applications now. Regarding the Rocket SWD extension, Empire requests that the Division defer the case to the Commission or stay the case pending the Commission's decision on the underlying permit. The Appeals will not determine whether the challenged wells send water into producing formations, threaten existing oil recovery, or interfere with the CO₂ pilot. Those issues should be decided now.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing was served upon the following counsel/parties of record by electronic mail on October 26, 2026.

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SELF-AFFIRMED STATEMENT OF WILLIAM WEST

1. I am over the age of 18. I am a Petroleum Engineer employed as Senior Vice President of Operations for Empire Petroleum Corporation (“Empire”). I have personal knowledge of the matters stated herein and am competent to provide this Self-Affirmed Statement. I have previously testified before the New Mexico Oil Conservation Commission (“OCC” or “Commission”), which accepted my credentials as an expert in petroleum engineering. I graduated from Marietta College with a Bachelor of Science Degree in Petroleum Engineering in May 1999. I began my career with Marathon Oil Company and have been employed in the oil and gas industry since graduation. Since May 2023, I have served as Senior Vice President of Operations for Empire Petroleum Corporation. I am a Licensed Professional Engineer in the State of Wyoming, license No. 12599. I have over 25 years of oil and gas experience and have worked in most of the major oil and gas producing basins and states, including New Mexico, during my career. **Exhibit A-1** is a true and correct copy of my current résumé.

2. My area of responsibility for Empire includes Lea County, New Mexico. I manage secondary waterflood operations in the Eunice Monument South Unit (“EMSU”) and Arrowhead Grayburg Unit (“AGU”). Waterflooding uses injected water to move oil toward producing wells. I am also developing Empire’s carbon dioxide enhanced oil recovery (“CO₂-EOR”) project there.

EXHIBIT A

3. I submit this statement to support Empire's Response to the New Mexico Oil Conservation Division's ("OCD") Order to Show Cause ("Show Cause Order") dated October 13, 2026. Attached as **Exhibit A-2** is a chart that provides: case-specific information regarding the pending OCD cases (including location, operator, and permit authority); the issues identified in paragraph 3 of the Show Cause Order; whether OCD can decide the pending well matters without resolution of the pending appeal; any prejudice caused by delay in deciding these pending well matters; and any applicable statutory or regulatory deadlines.

4. The 14,189.84-acre EMSU was formed December 27, 1984, and water injection began in November 1986. Empire acquired the EMSU in March 2021 from XTO because of its significant CO₂-EOR potential. That potential includes the San Andres residual oil zone ("ROZ") and the Grayburg Main Pay Zone. A true and correct copy of the order approving the EMSU is attached as **Exhibit A-3**.

5. The EMSU's unitized interval extends from 100 feet below sea level or the top of the Grayburg formation, whichever is shallower, to the bottom of the San Andres formation ("EMSU Unitized Interval"). Its vertical limits match those of the Eunice Monument Grayburg-San Andres Pool, which covers both formations.

6. Empire operates the EMSU as a water flood project recovering hydrocarbons from the Grayburg formation. The EMSU waterflood currently produces approximately 593 BOPD; 51,688 BWPD; 358 MCFPD and injects approximately 53,400 BWPD into the EMSU Unitized Interval. Empire plans to further develop the EMSU through CO₂ injection to enhance recovery in the EMSU Unitized Interval, including the recovery of oil within residual oil zones ("ROZ") in the San Andres formation. By CO₂ flooding this San Andres ROZ formation, Empire estimates

that 270 million barrels or more of this residual oil can be recovered, in addition to an estimated 300 million barrels of tertiary oil recovered from the Grayburg formation.

7. The 5,922.26-acre AGU was formed April 8, 1991, and water injection began in September 1992. Empire acquired the AGU at same time as the EMSU. The AGU's unitized interval extends from 150 feet below sea level or the top of Grayburg formation, whichever is shallower, to a depth of 1,500 feet below sea level ("AGU Unitized Interval"). A true and correct copy of the order approving the AGU is attached as **Exhibit A-4**.

8. Empire operates the AGU as a water flood project recovering hydrocarbons from the Grayburg formation. The AGU waterflood currently produces approximately 137 BOPD, 25,983 BWPD, 181 MCFPD and injects approximately 25,983 BWPD into the AGU Unitized Interval. In addition to operating the EMSU and AGU, Empire holds oil and gas interests outside of, but in proximity to, the EMSU and AGU.

9. In Orders R-24004 and R-24004-A, the New Mexico Oil Conservation Commission ("OCC" or "Commission") denied Goodnight Midstream Permian LLC's ("Goodnight") applications for new disposal wells in Case Nos. 24123 (Piazza SWD), 23614 (Gooden SWD), 23615 (Hernandez SWD), 23616 (Hodges SWD), and 23617 (Seaver SWD). It also denied Goodnight's application to increase injection into the Dawson SWD in Case No. 23775. The Commission suspended injection authority for Goodnight's wells in Case Nos. 24018 (Dawson SWD), 24019 (Banks SWD), 24020 (Sosa SWD), and 24025 (Ryno SWD).

10. Additionally, Goodnight operates six disposal wells within two miles of the EMSU and AGU: Ted 28 SWD No. 1, Yaz 28 SWD No. 1, Scully State SWD No. 1, Nolan Ryan SWD #001, Penroc State E Tr 27 SWD No. 2, and Pedro SWD #001. Increasing disposal pressure affects the San Andres and threatens oil recovery from the Grayburg and San Andres in this area. Empire's

reservoir model supports my opinion that Goodnight's disposal water is reaching the EMSU and AGU properties. Goodnight has also drilled the Verlander SWD #001 approximately 0.5 miles east of the EMSU. The Rocket SWD is permitted but requires the extension requested in Case No. 24491 to commence injection.

11. The above-captioned cases involve injection wells owned by various operators (Goodnight, Rice Operating Company, Permian Line Service, LLC, Parker Energy Support Services Inc., and Owl SWD Operating, LLC) that are injecting into the San Andres formation. Three of the wells (P 15 #001, EME SWD #021, and N 11 #001) are within the EMSU, one well (Blincbry Drinkard #018) is within the AGU and has disposed of over 115 million barrels of water, and the remaining wells are in close proximity to the EMSU and AGU and Empire's leases. **Exhibit A-2** provides additional information regarding these wells and operators.

12. The 14 saltwater disposal wells at issue in these proceedings have injected a combined 401 million barrels of water into the San Andres since January 1994 when OCD records begin. Rice Operating accounts for nearly three-quarters of that total (297.4 MMBW, 74.1%), followed by Goodnight (51.1 MMBW, 12.8%), Permian Line Service (47.2 MMBW, 11.8%) and Parker Energy (5.4 MMBW, 1.3%). Disposal into these wells averaged 75,948 BWPD during August 2026, led by Rice (30,224 BWPD, 39.8%), Permian Line Service (23,323 BWPD, 30.7%), and Goodnight (21,303 BWPD, 28.0%). Allowing the Rocket SWD #1 to be drilled would further increase these volumes. The maximum monthly average rates achieved from these wells over their lifetime total 182,008 BWPD. This indicates high injection capacity from this group of wells.

Exhibit A-5: SWD Wells in and around the EMSU and AGU

13. A true and correct copy of my presentation is attached hereto as Exhibit A-5 and incorporated herein by reference.

Slides 1 & 2 of Exhibit A-5

14. Slides 1 and 2 identify the wells at issue in the above-captioned proceedings both by operator and by location in proximity to the EMSU and AGU. Empire's leases are shown in yellow. Slide 2 shows that Permian Line Service's EME SWD #21 and N-11 SWD #1 and Pilot/Owl's P-15 SWD #1 inject into the San Andres inside the EMSU Unitized Interval, and that Rice's Blinbry Drinkard SWD #18, which is open-hole from 3,900 to 4,998 feet (469 to 1,567 feet below sea level), injects into the AGU Unitized Interval. Rice's EME SWD #33-M is only about 165 feet off the EMSU boundary, Rice's Blinbry Drinkard SWD #20 is about 660 feet off the AGU boundary, and all of the SWD wells are within two miles of the EMSU or AGU.

Slides 3 & 4 of Exhibit A-5

15. Slide 3 compares historical water production as of 1/1/1986 with the Grayburg structure in the EMSU. Three wells near the highest part of the formation—EMSU-239, EMSU-262, and EMSU-362—produced unusually large volumes of water before the waterflood. About 86% of the 266 wells shown produced less than 500,000 barrels of water before the waterflood. The six highest-volume wells each produced over one million barrels more than the highest-volume well outside that group. The Grayburg's limited natural water flow from the formation's edges may explain water production in wells lower on the formation's slope, like EMSU-144, EMSU-251, and EMSU-368 but, in my opinion, it does not explain the high-water production near the crest. That pattern supports influx from the underlying San Andres into the Grayburg.

16. Slide 4 shows repeat formation tester ("RFT") pressure profiles from EMSU-225 WI (June 1986) and EMSU-211 WI (April 1986), both measured before the waterflood began. In my opinion, the pressures measured in the lower Grayburg and the San Andres show that those two formations were in communication before the waterflood.

Slides 5-7 of Exhibit A-5

17. Slides 5-7 of Exhibit A-5 address the barium sulfate scale and other water-compatibility issues that have impacted oil production and workover operations at the EMSU and AGU. As shown in Slide 5, at least 28 wells within the EMSU and AGU have experienced barium sulfate scale issues. Field-wide scale problems occurred when San Andres water was used for make-up water for the Grayburg waterfloods which started injection in 1986 at EMSU and 1992 at EMSU-B and AGU.

18. Barium sulfate scale also formed in Grayburg producers before the waterflood, when San Andres water entered the Grayburg through natural fractures and/or low-permeability rock. While records are limited on which wells encountered problems prior to the waterflood, EMSU-433 (850' from Pilot/Owl's P-15 #1 SWD) is documented as having severe barium sulfate issues in 1981. Slide 6 contains excerpts from wellbore diagrams submitted for unitization and waterflood for EMSU-433 and identifies the barium sulfate scale issues encountered.

19. Slide 7 provides Empire's water-compatibility analysis using ScaleSoftPitzer SSP2020 software. The analysis models mixtures of disposal water from Goodnight's Wrigley SWD facility and Empire's EMSU-440 formation water. At the modeled conditions of 2,000 psi and 100°F, there is a high risk of calcite formation with a mixture containing 30% Goodnight water and 70% Empire water. The table uses an assumed disposal rate of 70,000 BWPD. A true and correct copy of the Coastal Chemical modeling report is attached as **Exhibit A-6**.

20. Calcite is calcium carbonate, which forms solid deposits that restrict flow through the rock and build up in wells and facilities. The compatibility results show that mixing Goodnight's disposal water with Empire's formation water can cause calcite scaling and formation

damage. This damage would impair Empire's ability to conduct a tertiary recovery project within the EMSU.

Slides 8 & 9 of Exhibit A-5

21. Slide 8 presents information regarding fluid-level and pressure within the San Andres. Over the period shown (March 2025 to May 2026), fluid levels rose 506 feet in the tubing string of EMSU-459 and 893 feet in AGU-600. These changes indicate pressure increases of approximately 235 pounds per square inch ("psi") at EMSU-459 and 378 psi at AGU-600. A pressure gauge lowered into the inactive EMSU #1 San Andres SWD measured 1,850.5 psi at 4,743 feet. A true and correct copy of the pressure survey report is attached as **Exhibit A-7**. That well had been shut in since March 2025 prior to the pressure measurement. Adjusted to a depth of 4,595 feet, or 1,000 feet below sea level, the pressure is approximately 1,789 psi. The estimated original reservoir pressure at the same datum was 1,772 psi. The current pressure therefore exceeds estimated original pressure and is increasing due to Goodnight, Rice, Permian Line Service, Owl/Pilot, and Parker Energy's injection. As shown by Exhibit I-30 from the OCC hearing (a true and correct copy of which is attached hereto as **Exhibit A-8**), increases in reservoir pressure require that more CO₂ be purchased to process the same reservoir volume due to the compressibility of the CO₂, therefore negatively impacting economics.

22. Slide 9 compares historical measured and estimated pressures with projected San Andres pressures at the same reference depth. The historical pressure decline occurred before the San Andres water-supply wells began producing, supporting communication with the Grayburg. Those water-supply wells have since produced approximately 357 million barrels of water from the EMSU and 105 million barrels from the AGU. The graph also shows pressure increasing above its estimated original level. At disposal rates of approximately 200,000 barrels of water per day

(“BWPD”), I estimate continued pressure increases of at least 50 psi per year near the EMSU and AGU based on pressure measurements made in the Goodnight SWD wells and Empire’s wells. The future portion of the graph represents a projection based on that estimate.

Slide 10 of Exhibit A-5

23. Slide 10 presents a simplified model of underground water movement that uses a tracer in the simulator to track and depict disposal-water movement. It compares a September 1, 2026 scenario with a January 1, 2035 projection that includes Goodnight’s proposed Rocket SWD. The model includes Goodnight’s disposal wells and the EME-21 disposal well operated by Permian Line Service and assumes a 1,000-foot gross interval (total rock thickness), a 500-foot net interval (the thickness assumed to transmit water), and 10% porosity. The projection illustrates how Rocket SWD injection would increase water movement toward the EMSU and raise reservoir pressure. The model does not account for flow concentrated within thinner, higher permeability intervals where the water would have a tendency to flow. These pathways could allow water to travel farther than the model depicts. Even so, the model shows disposal water reaching EMSU tracts.

24. Based on this data, no effective barrier separates the Grayburg and San Andres within the EMSU, AGU, or the surrounding area that includes the Rocket SWD. Highly saline disposal water can move through the San Andres and enter the Grayburg through fractures or other permeable pathways. That migration threatens production from Empire’s oil wells and San Andres water-supply wells in the EMSU and AGU. It can also increase well and facility failures and make Empire’s producing wells uneconomic sooner by increasing water production.

Slide 11 of Exhibit A-5

25. Slide 11 shows daily wellhead injection pressures and injection rates at EMSU-380 during 2025 and 2026, which demonstrate the pressure increase that began in 2026. Slide 11 compares EMSU-380's daily pressure with Goodnight's Ryno SWD #1's monthly average disposal rates. This operating data, together with the cross-section, shows that Ryno disposal increases pressure near EMSU-380. This demonstrates communication through fractures or other permeable pathways and migration beyond Ryno's injection interval into the Grayburg.

Slide 12 of Exhibit A-5

26. Slide 12 shows the pressures measured by an RFT run in AGU-242 in September 1991, about a year before water injection began in the AGU. The test measured a bottomhole pressure of approximately 250 psi in the upper San Andres, which had been depleted to a pressure at or near that of the Grayburg, which was also below 250 psi. In my opinion, this shows that the upper portion of the San Andres is in communication with the Grayburg. The Blinbry Drinkard SWD #18, located less than 1,000 feet from AGU-242, had been disposing into this same San Andres interval since 1978, about 13 years before this test. Despite that injection, the upper San Andres at AGU-242 remained depleted to a pressure at or near that of the Grayburg. If the San Andres were isolated from the Grayburg, 13 years of disposal would have raised San Andres pressure well above Grayburg pressure. In my opinion, the depleted San Andres pressure shows that the disposal water did not remain in the San Andres but moved into the lower-pressure Grayburg. The RFT also recorded higher pressures in several high-permeability San Andres intervals, which is consistent with disposal water from the Blinbry Drinkard SWD #18 moving preferentially through those intervals.

Slides 13 & 14 of Exhibit A-5

27. Slide 13 illustrates where Rice's Blinebry Drinkard SWD #18 is located within the AGU. The Blinebry Drinkard SWD #18 is disposing into the top of the San Andres, where the AGU-242 RFT measured communication with the Grayburg in September 1991. It appears to be impacting AGU-408 production as offset injectors do not inject sufficient volumes to maintain its high-water production rate.

28. Slide 14 compares the cumulative water produced by AGU-408, a Grayburg high-water producer, with the water injected into the two adjacent Empire injection wells, AGU-227 and AGU-235, from October 2005 through February 2026. AGU-408 produced approximately 31.9 million barrels of water over that period, while AGU-227 and AGU-235 together injected approximately 11.5 million barrels. Adjacent Empire injection therefore explains only about 36% of the water produced by AGU-408, leaving a voidage gap of approximately 20 million barrels, or about 64%, that needs another source. This is consistent with the Blinebry Drinkard SWD #18 disposal impacting AGU-408 production, as discussed above.

Slide 15 of Exhibit A-5

29. Slide 15 shows a well-log cross-section of Rice's Blinebry Drinkard SWD #18 (API 30-025-25616), AGU-242 (API 30-025-31329), and AGU-408 (API 30-025-37286). AGU-242, drilled in 1991, is a Grayburg injection well and shows that the San Andres had been depleted. Saltwater disposal into the Blinebry Drinkard SWD #18 began in 1978, and the well is completed open hole from 3,900 to 4,998 feet, which is in the depleted San Andres that is in communication with the Grayburg. AGU-408, drilled in 2005, is a Grayburg high-water producer. In my opinion, the Blinebry Drinkard SWD #18 has been injecting since 1978 into a San Andres interval that is in communication with the Grayburg, and the depleted San Andres pressure measured at AGU-

242 in 1991 shows that this disposal water has been moving into the Grayburg rather than remaining in the San Andres.

Slides 16 & 17 of Exhibit A-5

30. Slides 16 & 17 of Exhibit A-5 demonstrate how Goodnight's proposed Rocket SWD will impact Empire's leases outside the EMSU. Slide 16 shows that the proposed Rocket SWD #1 is located 6019' from the EMSU but is only 245' east of Empire's lease shown in yellow. Water disposal into the Rocket SWD will push water being injected into Goodnight's active Pedro, Ted, and Yaz wells onto Empire's undrilled leases to the east and west and into the EMSU & AGU residual oil column. The Pedro, Ted, and Yaz wells have already disposed of approximately 97.1 million barrels of water through August 2026 and injected a total of 63,957 BWPB during August 2026.

31. Slide 17 is a geologic cross-section near the proposed Rocket SWD location. It shows that there is no significant barrier along the Grayburg-San Andres boundary at the Ted 28 SWD #1, Pedro SWD #1, and Yaz 28 SWD #1, or at the proposed Rocket SWD #1 location. The Ted 28 SWD #1 (perforated 4,630-6,234 feet), the Pedro SWD #1 (perforated 4,440-6,100 feet), and the Yaz 28 SWD #1 (perforated 4,650-5,378 feet) are shown with the proposed Rocket SWD #1 (proposed perforations 4,380-5,750 feet), all injecting or proposed to inject into the San Andres below the Grayburg-San Andres boundary.

Slide 18 of Exhibit A-5

32. Slide 18 summarizes my conclusions. Disposal into Empire's EMSU and AGU Unitized Intervals threatens a 900 million barrel-plus CO₂-EOR resource. XTO and Exxon estimates presented at the Commission's 2025 hearing placed San Andres ROZ oil in place at approximately 912 to 965 million barrels. Core presented at that hearing showed oil in the San

Andres. Log analyses by Empire and Goodnight also showed high oil saturation. The San Andres lies within the Unitized Intervals of the EMSU and AGU, where Empire has the exclusive right to recover hydrocarbons. A ROZ also exists in the Grayburg. These figures estimate the oil present in the rock; recoverable volumes depend on reservoir performance and the recovery process. I expect additional captured CO₂ supplies and improvements in capture technology to improve supply and potential project economics. These factors support continued evaluation and protection of the ROZ for tertiary recovery. Empire, as the Unit Operator, should have control over disposal into the EMSU and AGU Unitized Intervals. Empire has attempted to regain control over these intervals by filing the above-captioned applications in an effort to halt rising reservoir pressures and mitigate the ongoing damage caused by incompatible disposal water injected in and around the EMSU and AGU. In my opinion, delaying action on these pending matters will cause additional harm within the Unitized Intervals and threatens ROZ recovery. For these reasons, the OCD should not stay the above-captioned matters.

33. I understand this Self-Affirmed Statement will be used as written testimony in this case. I affirm that my testimony above is true and correct and is made under penalty of perjury under the laws of the State of New Mexico. My testimony is made as of the date next to my electronic signature below.

/s/ William West
WILLIAM WEST

October 26, 2026
DATE

WILLIAM WEST

3510 Triple Crown Dr. • Richmond, TX, 77406 • 307-272-4624 • williamjwest@msn.com

PROFESSIONAL OVERVIEW

As a proven leader, William brings a wealth of knowledge and a proven track record of success, driven by his dedication and experience in Petroleum Engineering. His commitment to collaboration and continuous improvement has resulted in significant advancements in the companies he has served.

PROFESSIONAL EXPERIENCE

EMPIRE PETROLEUM CORPORATION | The Woodlands, TX

Senior Vice President of Operations

• Jun 2023 – Present

- Oversee the strategic and day-to-day direction of Divisional Logistics, Transport, Sales, Financial, and Field Operations.
- Responsible for P&L, including department budget and cost control.
- Carries out supervisory responsibilities in accordance with organizational policies and applicable laws.
- Collaborate with managers and staff members to formulate and implement policies, procedures, goals, and objectives.
- Understanding of all operating and financial systems current and future for the company and how to maximize use and return from each.
- Strategically manage the network and identify key initiatives to drive tear over year total cost improvements, using lean logistics principles and tools.
- Lead operations management, including oversight of maintenance operations, capital requirements, planning and administration, safety, and cost management.
- Remain current on industry trends and provide strategic recommendations to executive management that keep Empire on the “cutting edge”.
- Make technical and operational decisions for New Mexico, Texas, and North Dakota producing assets.
- Provided oversight in the preparation of engineering & geologic exhibits for NMOCC hearings during 2025 and testified as an expert witness.

TREADSTONE ENERGY PARTNERS LLC I, II, & III | Houston, TX

Vice President of Operations

• Feb 2014 – Jun 2023

TEP III (Dec 2021 – Jun 2023)

- Provided support for acquisition activities

TEP II (Sep 2015 – Dec 2021)

- Managed operations for 45,400 net acres in Milam, Burleson, and Robertson Counties, TX (165+ wells).
- Designed, operated, and managed increase of SWD system from 3,000 BWPD to 115,000 BWPD by adding 5 new SWD wells, facilities, and pipelines.
- Expanded electrical grid from 20 MW to 80 MW capacity by expanding trunklines and a \$3MM substation upgrade.
- Increased field production from 600 BOPD to 11,000+ BOPD through successful infill drilling program and facilities upgrade.
- Legacy (base) production increased from 600 BOPD to 1,100+ BOPD at sale 6 years later due to diligent production and artificial lift operations.

WILLIAM WEST

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TREADSTONE ENERGY PARTNERS LLC I, II, & III | Houston, TX

Vice President of Operations — continued

TEP I (Feb 2014 – Sep 2015)

- Managed operations for 12,000 net acres in Fort Trinidad field in Texas
- Increased field production from 3,000 BOPD to 10,000+ BOPD in 7 months through drilling and facilities upgrades
- Managed completion, facilities, and production activities for 3 rig drilling program
- Installed 2 SWD facilities and expanded SWD infrastructure.
- Managed operations for 5500 net acres in the Alabama Ferry field in Leon County, TX (80 BOPD, 24 wells including a waterflood pilot program).

SHERIDAN PRODUCTION COMPANY | Houston, TX

Exploration Engineer • Feb 2013 – Feb 2014

- Provided asset management and petroleum engineering support for Permian Basin properties in the Central Basin Platform.
- Managed waterflood assets in Grayburg, San Andres, Clearfork, and Tubb reservoirs.
- Exploited reserves through conformance and recompletion work.
- Performed recompletion and short-radius lateral work in the Wolfcamp & Bone Springs reservoirs.
- Installed and managed an openhole horizontal waterflood in the Powder River Basin.

EXARO ENERGY II & III LLC | Houston, TX

Petroleum Engineer

• Mar 2010 – Feb 2013

- Provided asset management and petroleum engineering support for South Texas properties.
- Designed LP gathering and fluid-handling system capable of handling 30 MMCFD and 15 MBPD at 6 psi.
- Provided onsite supervision for stimulation, including coil tubing controlled stimulation.
- Increased field production from 1.9 MMCFD to 25 MMCFD in 10 months.
- Reduced lifting cost from \$1.25/mcf to \$0.60/mcf before the drilling program began.
- Provided support in divestiture of South TX properties.
- Worked non-operated joint venture with EnCana under Exaro III for Wyoming Jonah properties.

CONTRACT CONSULTING | Cody, WY

Completions Engineer

• Nov 2009 – Mar 2010

- Contracted to Newfield Exploration in the Williston Basin.
- Provided onsite supervision, operational, and engineering support for multi-stage completion of Bakken & Three Forks wells and associated production facilities.

CONTRACT CONSULTING | Cody, WY

Production Engineer

• May 2009 – Nov 2009

- Contracted to Marathon Oil Company in the Big Horn and Oregon Basin fields.
- Responsible for field gas wells, horizontal Darwin Oil wells, field fracturing, drilling disposal wells, and stimulation treatments.
- Covered for workover foreman, prepared and implemented workover program.

WILLIAM WEST

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LEGEND NATURAL GAS I, II, & III | Katy, TX

Operations Manager

• May 2006 – May 2009

- Supervised 11 company field employees (2 Field Foreman, 1 Construction Foreman, 1 Completion Foreman, and 7 Lease Operators).
- Designed and installed a new-venture pipeline infrastructure and compression facilities for ongoing 100-well development program; ultimate design for 1,000+ wells.
- Managed operating expenses and expenditures, including over \$110MM of capital in 2008, resulting in \$130MM of net revenue.

LEGEND NATURAL GAS I, II, & III | Katy, TX

Production Engineer

• Mar 2004 – May 2006

- Directed five company employees and contract employees for natural gas production operations in South Texas; more than 200 wells and production in excess of 30 MMCFD.
- Designed facilities and pipelines for 16 well exploration programs with production of 30 MMCFD.
- Increased mature field’s oil production from 50 BOPD to 250 BOPD through design and implementation of new water-handling facilities; increased water-disposal capability from 5,000 BWPD to 25,000 BWPD.

VERNON E. FAULCONER INC. | Breaux Bridge, LA

Production Engineer / Area Manager

• Jul 2000 – Mar 2004

- Responsible for natural gas operations for over 100+ wells in five states exceeding 10 MMCFD.
- Areas of work: TX, LA, MS, AR, OK, KS, WY, and NM.
- Provided onsite supervision for facility installations, workovers, and operational troubleshooting.
- Managed daily operations, troubleshooting, and maintenance of 28 company-owned compressors (over 3500 HP) and an active purchase and rebuild program.

MARATHON OIL COMPANY | Lafayette, LA

Production Engineer & Reservoir Engineer, Gulf of Mexico

• May 1999 – Jun 2000

- Prepared workover, recompletion, and sidetrack AFE packages.
- Completed reservoir evaluation of a mature Gulf of Mexico field and proposed future projects.

EDUCATION & PROFESSIONAL CREDENTIALS

Professional Engineer

Petroleum Engineering — Wyoming, ID #12599

2009–Present

Marietta College

Bachelor of Science, Petroleum Engineering

May 1999

CASE-SPECIFIC RESPONSES TO ORDER TO SHOW CAUSE · OSC ¶ 10(a)-(d)

The table below addresses each of the fourteen pending cases and responds to the four questions in paragraph 10 of the Order to Show Cause. For each case, the chart identifies (1) the issues raised in the pending appeals (the “Appeals”) that may affect the proceeding; (2) the factual questions the Division can decide independently; (3) the prejudice Empire would suffer from delay; and (4) any applicable deadlines and the relief Empire requests.

Case / Operator / Well	Location / Injection Authority	Appellate Issues in OSC ¶ 3	Facts Division Must Decide	Prejudice from Delay	Regulatory or Statutory Deadline	Empire’s Requested Relief
1. 26255 Goodnight · Penroc State E Tr 27 #2	Outside EMSU & AGU Admin SWD-1263	The impact of injection outside the EMSU has not been decided and is not the subject of the appeal.	Whether disposal in the Well impairs the ability of Empire to recover hydrocarbons within the EMSU and AGU Unitized Intervals or within Empire’s leases and thereby adversely affects the correlative rights of Empire and other interest owners, resulting in waste.	Continuing disposal will result in waste of the San Andres and Grayburg ROZ, cause formation damage due to scale and water incompatibility, increase formation pressure, allow migration of fluid, and harm EMSU and AGU production and production from Empire’s leases.	Order R-24004 establishes a 3-year deadline for Empire to conduct a CO ₂ EOR pilot project.	Refer to Commission, or Hearing and Permit Revocation
2. 26264 Goodnight · Scully State #1	Outside EMSU & AGU R-20864	The impact of injection outside the EMSU has not been decided and is not the subject of the appeal.	Whether disposal in the Well impairs the ability of Empire to recover hydrocarbons within the EMSU and AGU Unitized Intervals or within Empire’s leases and thereby adversely affects the correlative rights of Empire and other interest owners, resulting in waste.	Continuing disposal will result in waste of the San Andres and Grayburg ROZ, cause formation damage due to scale and water incompatibility, increase formation pressure, allow migration of fluid, and harm EMSU and AGU production and production from Empire’s leases.	Order R-24004 establishes a 3-year deadline for Empire to conduct a CO ₂ EOR pilot project.	Refer to Commission, or Hearing and Permit Revocation
3. 26269 Parker · Parker SWD #5	Outside EMSU & AGU Admin SWD-1500	The impact of injection outside the EMSU has not been decided and is not the subject of the appeal.	Whether disposal in the Well impairs the ability of Empire to recover hydrocarbons within the EMSU and AGU Unitized Intervals or within Empire’s leases and thereby adversely affects the correlative rights of Empire and other interest owners, resulting in waste.	Continuing disposal will result in waste of the San Andres and Grayburg ROZ, cause formation damage due to scale and water incompatibility, increase formation pressure, allow migration of fluid, and harm EMSU and AGU production and production from Empire’s leases.	Order R-24004 establishes a 3-year deadline for Empire to conduct a CO ₂ EOR pilot project.	Refer to Commission, or Hearing and Permit Revocation
4. 26275 Rice · Blinebry Drinkard #18	Inside AGU Admin SWD-184	The impact of injection outside the EMSU has not been decided and is not the subject of the appeal.	Whether disposal in the Well impairs the ability of Empire to recover hydrocarbons within the AGU Unitized Interval and thereby adversely affects the correlative rights of Empire and other interest owners inside and outside the AGU, resulting in waste.	Continuing disposal will result in waste of the San Andres and Grayburg ROZ, cause formation damage due to scale and water incompatibility, increase formation pressure, allow migration of fluid, and harm production.	Order R-24004 establishes a 3-year deadline for Empire to conduct a CO ₂ EOR pilot project.	Refer to Commission, or Hearing and Permit Revocation
5. 26277 Rice · Blinebry Drinkard #32	Outside EMSU & AGU Admin SWD-1052	The impact of injection outside the EMSU has not been decided and is not the subject of the appeal.	Whether disposal in the Well impairs the ability of Empire to recover hydrocarbons within the EMSU and AGU Unitized Intervals or within Empire’s leases and thereby adversely affects the correlative rights of Empire and other interest owners, resulting in waste.	Continuing disposal will result in waste of the San Andres and Grayburg ROZ, cause formation damage due to scale and water incompatibility, increase formation pressure, allow migration of fluid, and harm EMSU and AGU production and production from Empire’s leases.	Order R-24004 establishes a 3-year deadline for Empire to conduct a CO ₂ EOR pilot project.	Refer to Commission, or Hearing and Permit Revocation
6. 26281 Rice · State E Tract 27 #1	Outside EMSU & AGU Admin SWD-985-A	The impact of injection outside the EMSU has not been decided and is not the subject of the appeal.	Whether disposal in the Well impairs the ability of Empire to recover hydrocarbons within the EMSU and AGU Unitized Intervals or within Empire’s leases and thereby adversely affects the correlative rights of Empire and other interest owners, resulting in waste.	Continuing disposal will result in waste of the San Andres and Grayburg ROZ, cause formation damage due to scale and water incompatibility, increase formation pressure, allow migration of fluid, and harm EMSU and AGU production and production from Empire’s leases.	Order R-24004 establishes a 3-year deadline for Empire to conduct a CO ₂ EOR pilot project.	Refer to Commission, or Hearing and Permit Revocation
7. 26284 Rice · Blinebry Drinkard #20	Outside AGU Admin SWD-965	The impact of injection outside the EMSU has not been decided and is not the subject of the appeal.	Whether disposal in the Well impairs the ability of Empire to recover hydrocarbons within the AGU Unitized Interval or within Empire’s leases and thereby adversely affects the correlative rights of Empire and other interest owners inside and outside the AGU, resulting in waste.	Continuing disposal will result in waste of the San Andres and Grayburg ROZ, cause formation damage due to scale and water incompatibility, increase formation pressure, allow migration of fluid, and harm production.	Order R-24004 establishes a 3-year deadline for Empire to conduct a CO ₂ EOR pilot project.	Refer to Commission, or Hearing and Permit Revocation

Case / Operator / Well	Location / Injection Authority	Appellate Issues in OSC ¶ 3	Facts Division Must Decide	Prejudice from Delay	Regulatory or Statutory Deadline	Empire's Requested Relief
8. 26267 Owl · P-15 #1	Inside EMSU Admin SWD-1750	Issues c – g are relevant, but OCD can fairly decide the matter on its own facts without resolution of these issues.	Whether disposal in the Well impairs the ability of Empire to recover hydrocarbons within the EMSU Unitized Interval and thereby adversely affects the correlative rights of Empire and other interest owners in the EMSU, resulting in waste.	Continuing disposal will result in waste of the San Andres and Grayburg ROZ, cause formation damage due to scale and water incompatibility, increase formation pressure, allow migration of fluid, harm Grayburg production, and impair Empire's correlative rights inside and outside the EMSU.	Order R-24004 establishes a 3-year deadline for Empire to conduct a CO ₂ EOR pilot project.	Refer to Commission, or Hearing and Permit Revocation
9. 26273 Rice / Permian Line Service · EME #21	Inside EMSU R-3102	Issues c – g are relevant, but OCD can fairly decide the matter on its own facts without resolution of these issues.	Whether disposal in the Well impairs the ability of Empire to recover hydrocarbons within the EMSU Unitized Interval and thereby adversely affects the correlative rights of Empire and other interest owners in the EMSU, resulting in waste.	Continuing disposal will result in waste of the San Andres and Grayburg ROZ, cause formation damage due to scale and water incompatibility, increase formation pressure, allow migration of fluid, harm Grayburg production, and impair Empire's correlative rights inside and outside the EMSU.	Order R-24004 establishes a 3-year deadline for Empire to conduct a CO ₂ EOR pilot project.	Refer to Commission, or Hearing and Permit Revocation
10. 26274 Permian Line Service · N-11 #1	Inside EMSU Admin SWD-1754	Issues c – g are relevant, but OCD can fairly decide the matter on its own facts without resolution of these issues.	Whether disposal in the Well impairs the ability of Empire to recover hydrocarbons within the EMSU Unitized Interval and thereby adversely affects the correlative rights of Empire and other interest owners in the EMSU, resulting in waste.	Continuing disposal will result in waste of the San Andres and Grayburg ROZ, cause formation damage due to scale and water incompatibility, increase formation pressure, allow migration of fluid, harm Grayburg production, and impair Empire's correlative rights inside and outside the EMSU.	Order R-24004 establishes a 3-year deadline for Empire to conduct a CO ₂ EOR pilot project.	Refer to Commission, or Hearing and Permit Revocation
11. 26278 Rice · EME #33M	Outside EMSU R-1647	The impact of injection outside the EMSU has not been decided and is not the subject of the appeal.	Whether disposal in the Well impairs the ability of Empire to recover hydrocarbons within the EMSU Unitized Interval, or within Empire's leases, and thereby adversely affects the correlative rights of Empire and other interest owners, resulting in waste.	Continuing disposal will result in waste of the San Andres and Grayburg ROZ, cause formation damage due to scale and water incompatibility, increase formation pressure, allow migration of fluid, harm Grayburg production, and impair Empire's correlative rights inside and outside the EMSU.	Order R-24004 establishes a 3-year deadline for Empire to conduct a CO ₂ EOR pilot project.	Refer to Commission, or Hearing and Permit Revocation
12. 26279 Rice · EME #20	Outside EMSU R-1348	The impact of injection outside the EMSU has not been decided and is not the subject of the appeal.	Whether disposal in the Well impairs the ability of Empire to recover hydrocarbons within the EMSU Unitized Interval, or within Empire's leases, and thereby adversely affects the correlative rights of Empire and other interest owners, resulting in waste.	Continuing disposal will result in waste of the San Andres and Grayburg ROZ, cause formation damage due to scale and water incompatibility, increase formation pressure, allow migration of fluid, harm Grayburg production, and impair Empire's correlative rights inside and outside the EMSU.	Order R-24004 establishes a 3-year deadline for Empire to conduct a CO ₂ EOR pilot project.	Refer to Commission, or Hearing and Permit Revocation
13. 26280 Rice · N-7 #1	Outside EMSU and AGU Admin SWD-1751	The impact of injection outside the EMSU has not been decided and is not the subject of the appeal.	Whether disposal in the Well impairs the ability of Empire to recover hydrocarbons within the EMSU and AGU Unitized Intervals, or within Empire's leases, and thereby adversely affects the correlative rights of Empire and other interest owners, resulting in waste.	Continuing disposal will result in waste of the San Andres and Grayburg ROZ, cause formation damage due to scale and water incompatibility, increase formation pressure, allow migration of fluid, harm Grayburg production, and impair Empire's correlative rights inside and outside the EMSU.	Order R-24004 establishes a 3-year deadline for Empire to conduct a CO ₂ EOR pilot project.	Refer to Commission, or Hearing and Permit Revocation
14. 24491 Goodnight · Rocket SWD #1	Outside EMSU and AGU R-22506 / SWD-2392	The impact of injection outside the EMSU has not been decided and is not the subject of the appeal.	Whether Goodnight can demonstrate good cause for an extension of time to commence drilling operations for a proposed well that will allow Goodnight to inject disposal water that will move over large distances, migrate into the Grayburg, and impair the ability of Empire to recover hydrocarbons within the EMSU or AGU Unitized Intervals, thereby adversely affecting the correlative rights of Empire and other interest owners in the EMSU, resulting in waste.	Stay preserves the status quo; granting extension risks new injection before the underlying permit challenge is heard.	The NMOCC will hear argument regarding the status of Empire's application regarding this permit on November 12, 2026. 19.15.26.12(C); original deadline	Stay pending OCC determination on underlying permit; deny application

Case / Operator / Well	Location / Injection Authority	Appellate Issues in OSC ¶ 3	Facts Division Must Decide	Prejudice from Delay	Regulatory or Statutory Deadline	Empire's Requested Relief
					3/2/24; requested extension through 3/2/25.	

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. 8397
Order No. R-7765

APPLICATION OF GULF OIL CORPORATION
FOR STATUTORY UNITIZATION, EUNICE
MONUMENT SOUTH UNIT, 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 27th 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 (hereinafter called Gulf), seeks the statutory unitization, pursuant to the "Statutory Unitization Act," Sections 70-7-1 through 70-7-21, NMSA-1978, of 14,189.84 acres, more or less, being a portion of the Eunice Monument Pool, Lea County, New Mexico, as more specifically defined in Commission Case 8397, said portion to be known as the Eunice Monument South Unit; that applicant further seeks approval of the Unit Agreement and the Unit Operating Agreement which were submitted in evidence as Gulf's Exhibits Nos. 3 and 4.

-2-

Case No. 8397

Order No. R-7765

(3) The proposed unit area should be designated the Eunice Monument South Unit Area, (hereinafter called unit) and the horizontal limits of said unit area should be comprised of the following described lands:

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

Section 4 through 11: All

Section 12: W/2 SW/4

Section 13: NW/4 NW/4

Section 14 through 18: All

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

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

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

(5) Said unit has been approved by the Bureau of Land Management and the Commissioner of Public Lands of the State of New Mexico subject to the approval of statutory unitization by the Oil Conservation Commission.

(6) No interested party has opposed the horizontal limits of the said unit.

(7) The horizontal limits of said unit are reasonably defined by development and have a reasonable geologic relationship to the proposed unitized formations.

(8) The vertical limits of said unit should comprise that interval underlying the unit area, the vertical limits of which extend from an upper limit described at 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

-3-

Case No. 8397
Order No. R-7765

having been previously found to occur at 3,666 feet and 5,283 feet, respectively, in Continental Oil Company's Meyer B-4 Well No. 23 (located at 660 feet from the South line and 1,980 feet from the East line of Section 4, Township 21 South, Range 36 East, Lea County, New Mexico) and 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.

(9) The establishment of said vertical limits requires the amendment of the vertical limits of the Eumont Gas Pool and the Eunice Monument Pool under the unit area as is the subject of Commission Case 8399 and Order No. R-7767.

(10) The "unitized formation" will include the entire oil column under the unit area permitting the efficient and effective recovery of secondary oil therefrom.

(11) No interested party has objected to the vertical interval proposed to be unitized.

(12) The unit area contains 101 separate tracts owned by 41 different working interests.

(13) As of the date of the hearing, over 90 percent of working interest owners and royalty interest owners were effectively committed to the unit.

(14) Gulf proposes to institute 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, all as shown in Commission Case 8398.

(15) A technical committee was formed by the owners within the proposed unit to evaluate aspects of unitization and operation of the proposed secondary recovery operation (waterflood).

(16) The technical committee concluded that the probable range of recovery from the proposed waterflood is from 25 percent to 100 percent of ultimate primary production.

(17) Said committee further concluded that based upon response to waterflooding in similar reservoirs, 48 percent of ultimate primary or 64.2 million barrels of additional (secondary) oil would be recovered by institution of the proposed waterflood.

-4-

Case No. 8397
Order No. R-7765

(18) 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.

(19) The proposed unitized method of operation as 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.

(20) The estimated additional investment costs of the proposed supplemental recovery operations are \$60.6 million.

(21) The additional recovery to be derived from the proposed supplemental recovery operations will have a resultant net profitability over the aforesaid additional costs and after taxes of \$1.186 billion with unitized water flooding versus \$226.7 million without unitized waterflooding.

(22) The estimated additional costs of the proposed operations (as described in Finding No. (18) above) will not exceed the estimated value of the additional oil and gas (as described in Finding No. (19) above) plus a reasonable profit.

(23) The applicant, the designated unit operator, pursuant to the Unit Agreement and the Unit Operating Agreement, has made a good faith effort to secure voluntary unitization within the unit area.

(24) Bruce Wilbanks and other interest owners in Unit Tract 55, have declined to voluntarily join the unit.

(25) Exxon Company, USA, (hereinafter "Exxon") has declined to voluntarily join the unit and has opposed the application of Gulf in this case on the basis that the participation formula contained in the Unit Agreement fails to give sufficient weight to the cumulative oil production and further that the method of providing a wellbore contribution incentive is not to Exxon's economic advantage.

(26) Exxon has a working interest of 4.86% of the unit which consists of 100% working interest in Unit Tracts 12, 37, 88, 90 and a 50% working interest in Unit Tract 89.

-5-

Case No. 8397

Order No. R-7765

(27) The participation formula proposed allocates unit production to the various tracts in accordance with the following:

$$\text{Tract Participation} = 50\% \text{ A/B} + 40\% \text{ C/D} + 10\% \text{ E/F}$$

Where:

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.

(28) The proposed formula does not take into account calculations of estimated secondary production from each tract in that insufficient cores, well logs, and reservoir data are not available to make such calculations.

(29) The proposed formula does give substantial weight to remaining primary reserves in that such reserves can be measured, that the owners of such reserves have agreed to the terms and conditions of the unit and will be deferring income therefrom to support the costs and risks of implementing secondary recovery operations in the unit.

(30) The proposed allocation formula does give owners without remaining primary reserves or with very low volumes of remaining primary reserves, such as Exxon, a disproportionately large share of the income from the production of remaining primary production during the early life of the project.

-6-

Case No. 8397

Order No. R-7765

(31) During unit negotiations, a cutoff date must be established in order to make necessary calculations of the allocation of unit costs and benefits.

(32) The adoption of the September 30, 1982, date in the subject case was necessary for such calculations and is not unreasonable.

(33) Giving consideration to the lack of technical data for estimates of secondary recovery, the reallocation of primary production in the early life of the unit, the greater risk being accepted by the owners of remaining primary reserves and the reasonableness of the September 30, 1982, cutoff date; the proposed participation formula will allocate unit production on a fair, reasonable, and equitable basis during the period that the estimated 64.2 million barrels of secondary oil is produced.

(34) During said period, it is expected that the unit operator will develop reservoir data from cores, well logs, tests and production which might be used to better allocate production to the unit during any period of recovery of secondary and tertiary oil in excess of 64.2 million barrels.

(35) The proposed formula should not apply to the allocation of secondary or tertiary oil production in excess of a total of 64.2 million barrels.

(36) Before distributing the proceeds from production of such oil in excess of 64.2 million barrels, the unit operator should be required to appear and demonstrate that the formula approved by this order continues to allocate proceeds from unit operations in a fair and equitable manner or, in the alternative, present a new allocation formula prepared on the basis of new and/or enhanced reservoir data which new formula better allocates said proceeds.

(37) Gulf proposed a Wellbore Assessment Method in the Unit Operating Agreement as an incentive to encourage the working interest owners in the unit to contribute the maximum number of existing useable wellbores to the unit.

(38) This assessment method, though not common, is used in other unit agreements.

(39) Any proration unit within the unit which is to participate in the proposed waterflood operation must have a wellbore useable for production or injection in the unitized interval.

-7-

Case No. 8397

Order No. R-7765

(40) It is not unreasonable to penalize the owners of proration units upon which there is no such wellbore and upon which the unit operator must drill a well.

(41) The proposed method of wellbore assessment is fair and reasonable.

(42) Exxon admits that each of its tracts is still reasonably profitable should the Commission approve the participation formula and the wellbore assessment method proposed by Gulf as unit operator.

(43) Unitization and the adoption of the proposed unitized method of operation will benefit the working interest owners and royalty owners of the oil and gas rights within the unit area.

(44) The Eunice Monument South Unit Agreement and Unit Operating Agreement provide for unitization and unit operation of the unit area upon terms and conditions that are fair, reasonable and equitable and which include:

(a) an allocation to the separately owned tracts in the unit area of all oil and gas that is produced from the unit area and which is saved, being the production that is not used in the conduct of unit operations or not unavoidably lost;

(b) a provision for the credits and charges to be made in the adjustment among the owners in the unit area for their respective investments in wells, tanks, pumps, machinery, materials and equipment contributed to the unit operations;

(c) a provision governing how the costs of unit operations, including capital investments, shall be determined and charged to the separately owned tracts and how said costs shall be paid, including a provision providing when, how, and by whom, the unit production allocated to an owner who does not pay his share of the costs of unit operations shall be charged to such owners, of the interest of such owners, and how his interest may be sold and the proceeds applied to the payment of his costs;

(d) a provision for carrying any working interest owner on a limited, carried or net-profits basis, payable out of production, upon such terms and conditions which are just and reasonable, and which allow an appropriate charge for interest for such service payable out of production, upon such terms and conditions

-8-

Case No. 8397
Order No. R-7765

determined by the Commission to be just and reasonable, and allowing an appropriate charge for interest for such service payable out of such owner's share of production, providing that any nonconsenting working interest owner being so carried shall be deemed to have relinquished to the unit operator all of his operating rights and working interests in and to the unit until his share of the costs, service charge and interest are repaid to the Unit Operator;

(e) a provision designating the unit operator and providing for the supervision and conduct of the unit operations, including the selection, removal or substitution of an operator from among the working interest owners to conduct the unit operations;

(f) a provision for a voting procedure for the decision of matters to be decided by the working interest owners in respect to which each working interest owner shall have a voting interest equal to his unit participation; and

(g) the time when the unit operation shall commence and the manner in which, and the circumstances under which, the operations shall terminate and for the settlement of accounts upon such termination;

(45) The statutory unitization of the Eunice Monument South Unit Area is in conformity with the above findings, and will prevent waste and protect the correlative rights of all owners of interest within the proposed unit area, and should be approved.

IT IS THEREFORE ORDERED THAT:

(1) The Eunice Monument South Unit Area, comprising 14, 189.84 acres, more or less, in the Eunice Monument Oil Pool, as amended by Order R-7767, Lea County, New Mexico, is hereby approved effective December 1, 1984, for statutory unitization pursuant to the Statutory Unitization Act, Sections 70-7-1 through 70-7-21 NMSA 1978.

(2) The lands included within the Eunice Monument South Unit Area shall comprise:

TOWNSHIP 20 SOUTH, RANGE 26 EAST, NMPM

Section 25: All
Section 36: All

-9-

Case No. 8397
Order No. R-7765

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
Section 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

and that the above described lands shall be designated as the Eunice Monument South Unit Area.

(3) The vertical limits of said unit shall comprise 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 3,666 feet and 5,283 feet, respectively, in Continental Oil Company's Meyer B-4 Well No. 23 (located at 660 feet from the South line and 1,980 feet from the East line of Section 4, Township 21 South, Range 36 East, Lea County, New Mexico) and 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.

(4) The applicant is hereby authorized to institute a secondary recovery project for the recovery of oil and all associated and constituent liquid or liquified hydrocarbons within the unit area, pursuant to the provisions set forth in Commission Order No. R-7766.

(5) The Eunice Monument South Unit Agreement and the Eunice Monument South Unit Operating Agreement presented by the applicant as Exhibits 3 and 4, respectively, in this case are hereby incorporated by reference into this order.

(6) The Eunice Monument South Unit Agreement and the Eunice Monument Unit Operating Agreement provide for

-10-

Case No. 8397

Order No. R-7765

unitization and unit operation of the subject portion of the Eunice Monument Pool upon terms and conditions that are fair, reasonable and equitable and include:

an allocation to the separately owned tracts in the unit area of all the oil and gas that is produced from the unit area and is saved, being the production that is not used in the conduct of operations on the unit area or not unavoidably lost;

a provision for the credits and charges to be made in the adjustment among the owners in the unit area for their respective investments in wells, tanks, pumps, machinery, materials and equipment contributed to the unit operations;

a provision for governing how the costs of unit operations including capital investments shall be determined and charged to the separately owned tracts and how said costs shall be paid including a provision providing when, how, and by whom the unit production allocated to an owner who does not pay the share of the costs of unit operations charged to such owner, or in the interest of such owner, may be sold and the proceeds applied to the payment of such costs;

a provision for carrying any working interest owner on a limited, carried or net-profits basis, payable out of production, upon such terms and conditions determined by the Commission to be just and reasonable, and allowing an appropriate charge for interest for such service payable out of such owner's share of production, provided that any non-consenting working interest owner being so carried shall be deemed to have relinquished to the unit operator all of its operating rights and working interest in and to the unit until his share of the costs, service charge and interest are repaid to the unit operator;

a provision designating the unit operator and providing for the supervision and conduct of the unit operations, including the selection, removal or substitution of an operator from among the working interest owners to conduct the unit operations;

a provision for voting procedure for the decision of matters to be decided by the working interest owners in respect to which each working interest owner shall have a voting interest equal to its unit participation; and

-11-

Case No. 8397

Order No. R-7765

the time when the unit operation shall commence and the manner in which, and the circumstances under which, the operations shall terminate and for the settlement of accounts upon such termination;

and are therefore hereby adopted.

(7) This order shall not become effective unless and until the appropriate ratification provisions of Section 70-7-8 NMSA, 1978 Compilation, are complied with.

(8) If the persons owning the required percentage of interest in the unit area as set out in Section 70-7-8 NMSA, 1978 Compilation, do not approve the plan for unit operations within a period of six months from the date of entry of this order, this order shall cease to be of further force and effect and shall be revoked by the Commission, unless the Commission shall extend the time for ratification for good cause shown.

(9) When the persons owning the required percentage of interest in the unit area have approved the plan for unit operations, the interests of all persons in the unit are unitized whether or not such persons have approved the plan of unitization in writing.

(10) Prior to distribution of the proceeds from secondary and tertiary production in excess of 64.2 million barrels, the operator shall appear at a hearing and demonstrate that the formula approved by this order continues to allocate the proceeds from unit production in a fair and equitable manner or, in the alternative, present for approval a new formula prepared on the basis of new or enhanced reservoir data which new formula better allocates said proceeds.

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

-12-
Case No. 8397
Order No. R-7765

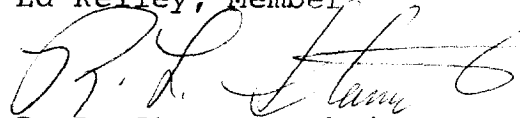
DONE at Santa Fe, New Mexico, on the day and year
hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Jim Baca, Member



Ed Kelley, Member



R. L. Stamets, Chairman
and Secretary

S E A L

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

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

CASE NO. 10259
ORDER NO. R-9482

APPLICATION OF CHEVRON U.S.A., INC.
FOR STATUTORY UNITIZATION, LEA COUNTY,
NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on March 7, 1991, at Santa Fe, New Mexico, before Examiner Jim Morrow.

NOW, on this 8th day of April, 1991, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

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

(2) Division Case Nos. 10259, 10260 and 10261 were consolidated at the time of the hearing for the purpose of testimony.

(3) The applicant, Chevron U.S.A., Inc., seeks the statutory unitization, pursuant to the "Statutory Unitization Act", Sections 70-7-1 through 70-7-21, N.M.S.A. (1978), of 5922.26 acres, more or less, being a portion of the Grayburg-

Case No. 10259
Order No. R-9482
Page 2

San Andres formation, Lea County, New Mexico, said portion to be known as the Arrowhead Grayburg Unit; the applicant further seeks approval of the Unit Agreement and the Unit Operating Agreement which were submitted in evidence as applicant's Exhibit Nos. 61 and 62 in this case.

(4) The horizontal limits of said unit area should be comprised of the following described Federal, State and Fee lands in Lea County, New Mexico:

Township 21 South, Range 36 East, NMPM

Section 25: All
Section 26: SE/4 SE/4
Section 35: E/2; E/2 SW/4; SW/4 SW/4; SE/4 NW/4
Section 36: All

Township 22 South, Range 36 East, NMPM

Section 1: All
Section 2: All
Section 11: NE/4 NW/4; NE/4; NE/4 SE/4
Section 12: All
Section 13: E/2; E/2 NW/4; NW/4 NW/4; NE/4 SW/4
Section 24: NE/4 NE/4

Township 22 South, Range 37 East, NMPM

Section 6: W/2 NW/4; SW/4
Section 7: W/2; S/2 SE/4; NW/4 SE/4
Section 18: All
Section 19: N/2 N/2

(5) The vertical limits of said unit area should comprise that interval which extends from an upper limit of 150 feet below sea level or the top of the Grayburg formation, whichever is shallower, to a lower limit of 1,500 feet below sea level; with the geologic marker for the top of the Grayburg formation being found to occur at 3,671 feet in the Chevron Harry Leonard (NCT-C) Well No. 20 (located 660 feet from the North line and 990 feet from the West line (Unit D) of Section 36, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico) as recorded by the Gearhart Compensated Neutron Log measured from the Kelly Drive Bushing elevation of 3,532 feet above sea level and dated February 25, 1985, save and except the following: in the SE/4 of Section 18, Township 22 South, Range 37 East, and N/2 N/2 of Section 19, Township 22 South, Range 37 East, NMPM, Lea County, New Mexico, the lower vertical limit shall be the top of the San

Case No. 10259
Order No. R-9482
Page 3

Andres Formation which occurs at 3,804 feet below the Kelly Drive Bushing on the Dresser Atlas Compensated Density Neutron Log dated August 16, 1978 on the Zia (Exxon) New Mexico "M" Well No. 49 which is located 2,610 feet from the South line and 2,310 feet from the East line (Unit J) of Section 18, Township 22 South, Range 37 East, NMPM, Lea County, New Mexico.

(6) The horizontal and vertical limits of said unit have been reasonably defined by development and should be known as the Arrowhead-Grayburg Pool.

(7) In order to provide a single pool designation for the Arrowhead Grayburg Unit, the horizontal/ vertical limits of the Arrowhead-Grayburg, Penrose-Skelly, Langlie-Mattix and Eumont Oil and Gas Pools should be extended/contracted as set forth in companion Case No. 10261.

(8) The establishment of a uniform depth limit to the unit serves the best interest of all parties because it includes a portion of the aquifer which may be productive of minor amounts of hydrocarbons and should be allocated to the unit if produced. Correspondingly, the amounts should be so small that no correlative rights are violated by its inclusion.

(9) The unit area contains 26 separate tracts of land owned by 48 different working interest owners.

(10) The applicant has made a good faith effort to secure voluntary unitization within the Unit Area and at the time of the hearing 87 percent of the working interest owners and approximately 82.5 percent of the royalty interest owners were effectively committed to the unit.

(11) The applicant proposes to institute a waterflood project for the secondary recovery of oil and associated gas, condensate, and all associated liquefiable hydrocarbons within and to be produced from the proposed unit area (being the subject of Division Case No. 10260).

(12) Arco Oil & Gas Company, as a proposed working interest owner in the unit, and some of the overriding royalty interest owners in Tract 20 appeared at the hearing but did not oppose the case.

(13) No working interest owner or royalty owner appeared in opposition to the case.

Case No. 10259
Order No. R-9482
Page 4

(14) The working interest owners in the proposed unit area formed a technical committee in May, 1988 which reached the following conclusions in September, 1989:

- a) that the proposed unit had sufficient secondary recovery potential to justify unitization estimating a 41.6% secondary to primary recovery ratio recovering an estimated 15 million barrels of additional oil; and
- b) that for an investment of approximately \$28.2 million dollars a rate of return of 20% with a 10% discount would result in a present worth profit of \$24.6 million dollars.

(15) The unit technical committee developed equity parameters for negotiation purposes which included cumulative oil production, remaining primary oil and gas reserves, ultimate primary oil reserves, current oil and gas production rates and gross acreage.

(16) Based upon those equity parameters 97.7712% of the unit working interest owners agreed upon a participation formula consisting of 57% cumulative oil plus 33% remaining oil reserves plus 10% current oil rates per tract as each tract's relative share of secondary oil recovery from the proposed unit.

(17) The working interest committee considered acreage as one of the factors in the participating formula, but ultimately agreed that a formula without an acreage factor was more equitable.

(18) The resulting participation of each unit tract using the proposed participation formula is set forth on applicant's Exhibit 20 which shows, with the exception of Tracts 18 and 20, that all tracts have a positive participation percentage.

(19) Tracts 18 and 20 have a "0" percent participation because no party has been able to establish production on those tracts despite wells being drilled and tested on those tracts in the unitized formation.

(20) Said Tracts 18 and 20 do not have contribution value and have been fairly treated under the proposed participation formula.

Case No. 10259
Order No. R-9482
Page 5

(21) Both Tracts 18 and 20 are necessary in order to provide an effective flood pattern for the unit and cannot be excluded from the unit area without the loss of substantial volumes of secondary oil.

(22) In order to accommodate the concerns expressed by certain overriding royalty owners in Tract 20, Chevron and those owners request the inclusion of a special provision in the statutory unitization order as follows:

Any ORRI owner in a unit tract which has a "0%" participation under the proposed participation formula for the unit, and who does not receive income from any other unit tract, shall be paid his/her proportionate share of the production from the "0%" tract as if that tract was not a part of the unit. The payment shall be made only if production is obtained from a producing unit well on the "0%" participation tract and the ORRI payment shall be charged as a unit expense against all the working interest owners of the unit. This provision shall apply only to the overriding working interest owner and not to the royalty or working interest owner for that tract, both of whom receive income from other unit tracts.

(23) The inclusion of the above special provision, while not required for approval of this unit, serves to resolve a potentially disputed issue which could delay institution of the waterflood and therefore is appropriate.

(24) The proposed secondary recovery operations should result in the additional recovery of approximately 15 million barrels of oil.

(25) The unitized management, operation and further development of the Arrowhead Grayburg Unit Area, as proposed, is reasonably necessary to effectively carry on secondary recovery operations and will substantially increase the ultimate recovery of oil and gas from the unitized portion of the pool.

(26) The proposed unitized method of operation as applied to the Arrowhead Grayburg Unit Area is feasible and should result with reasonable probability in the increased recovery of substantially more oil and gas from the unitized portion of the pool than would otherwise be recovered without unitization.

Case No. 10259
Order No. R-9482
Page 6

(27) The estimated additional costs of such operations will not exceed the estimated value of the additional oil so recovered plus a reasonable profit.

(28) Such unitization and adoption of applicant's proposed unitized method of operation will benefit the working interest owners and royalty owners of the oil and gas rights within the Arrowhead Grayburg Unit Area.

(29) The granting of the application in this case should have no adverse effect upon the Grayburg, San Andres or other formations located within or outside the proposed unit area.

(30) Chevron proposed a wellbore assessment method in the Unit Operating Agreement as an incentive to encourage the working interest owners in the Unit Area to contribute the maximum number of existing useable wellbores to the unit.

(31) This assessment method, though not common, is used in other unit agreements.

(32) A wellbore useable for production or injection in the unitized interval would be made available for any proration unit which currently has a well completed in the unitized interval within the Unit Area which is to participate in the proposed waterflood operation.

(33) It is not unreasonable to penalize the owners of such proration units if they do not dedicate that well to the unit.

(34) The proposed method of wellbore assessment is fair and reasonable.

(35) The applicant's Exhibit Nos. 61 and 62 in this case, being the Statutory Unit Agreement and the Unit Statutory Operating Agreement, respectively, should be incorporated by reference into this order.

(36) The Arrowhead Grayburg Unit Agreement and the Arrowhead Grayburg Unit Operating Agreement provide for unitization and unit operation of the Arrowhead Grayburg Unit Area upon terms and conditions that are fair, reasonable and equitable, and include:

- a) an allocation to the separately owned tracts in the unit area of all oil and gas that is produced from the unit area and which is saved, being the

Case No. 10259
Order No. R-9482
Page 7

production that is not used in the conduct of unit operations or not unavoidably lost;

- b) a provision for the credits and charges to be made in the adjustment among the owners in the unit area for their respective investments in wells, tanks, pumps, machinery, materials and equipment contributed to the unit operations;
- c) a provision governing how the costs of unit operations, including capital investments, shall be determined and charged to the separately owned tracts and how said costs shall be paid, including a provision providing when, how, and by whom, such costs shall be paid, including a provision providing when, how and by whom such costs shall be charged to each owner or the interest of such owner, and how his interest may be sold and the proceeds applied to the payment of his costs;
- d) a provision for carrying any working interest owner on a limited, carried or net-profits basis, payable out of production, upon terms and conditions which are just and reasonable, and which allow an appropriate charge for interest for such service payable out of production, upon such terms and conditions determined by the Division to be just and reasonable;
- e) a provision designating the Unit Operator and providing for supervision and conduct of the unit operations, including the selection, removal or substitution of an operator from among the working interest owners to conduct the unit operations;
- f) a provision for a voting procedure for decisions on matters to be decided by the working interest owners in respect to which each working interest owner shall have a voting interest equal to his unit participation; and,
- g) the time when the unit operations shall commence and the manner in which, and the circumstances under which, the operations shall terminate and

Case No. 10259
Order No. R-9482
Page 8

for the settlement of accounts upon such termination.

(37) At the time of the hearing, the applicant requested that no penalty be assessed against non-consenting working interest owners in said unit.

(38) The Bureau of Land Management and the commissioner of Public Lands of the State of New Mexico have granted preliminary approval of the proposed unit.

(39) The statutory unitization of the Arrowhead Grayburg Unit Area is in conformity with the above findings, and will prevent waste and protect correlative rights of all interest owners within the proposed unit area, and should be approved.

IT IS THEREFORE ORDERED:

(1) The application of Chevron U.S.A., Inc. for the Arrowhead Grayburg Unit Agreement covering 5922.26 acres, more or less, of Federal, State and Fee lands in the Arrowhead Grayburg Pool, Lea County, New Mexico, is hereby approved for statutory unitization pursuant to the "Statutory Unitization Act", Section 70-7-1 through 70-7-21, N.M.S.A. (1978).

(2) The lands covered by said Arrowhead Grayburg Unit Agreement shall be designated the Arrowhead Grayburg Unit Area and shall comprise the following described acreage in Lea County, New Mexico:

Township 21 South, Range 36 East, NMPM

Section 25: All
Section 26: SE/4 SE/4
Section 35: E/2; E/2 SW/4; SW/4 SW/4; and SE/4 NW/4
Section 36: All

Township 22 South, Range 36 East, NMPM

Section 1: All
Section 2: All
Section 11: NE/4 NW/4; NE/4; and NE/4 SE/4
Section 12: All

Case No. 10259
Order No. R-9482
Page 9

Section 13: E/2; E/2 NW/4; NW/4 NW/4; and NE/4 SW/4
Section 24: NE/4 NE/4

Township 22 South, Range 37 East, NMPM
Section 6: W/2 NW/4 and SW/4
Section 7: W/2; S/2 SE/4; and NW/4 SE/4
Section 18: All
Section 19: N/2 N/2

(3) The vertical limits of said unit area shall comprise that interval which extends from an upper limit of 150 feet below sea level or the top of the Grayburg formation, whichever is shallower, to a lower limit of 1,500 feet below sea level; the geologic marker for the top of the Grayburg formation being found to occur at 3,671 feet in the Chevron Harry Leonard (NCT-C) Well No. 20 (located 660 feet from the North line and 990 feet from the West line (Unit D) of Section 36, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico) as recorded by the Gearhart Compensated Neutron Log measured from the Kelly Drive Bushing elevation of 3,532 feet and dated February 25, 1985, save and except the following: in the SE/4 of Section 18, Township 22 South, Range 37 East, and the N/2 N/2 of Section 19, Township 22 South, Range 37 East, NMPM, Lea County, New Mexico, the lower vertical limit of the Arrowhead Grayburg Unit Area shall be the top of the San Andres Formation which occurs at 3,804 feet below the Kelly Drive Bushing on the Dresser Atlas Compensated Density Neutron Log dated August 16, 1978 on the Zia (Exxon) New Mexico "M" Well No. 49 which is located 2,610 feet from the South line and 2,310 feet from the East line (Unit J) of Section 18, Township 22 South, Range 37 East, NMPM, Lea County, New Mexico.

(4) The applicant shall institute a waterflood project for the secondary recovery of oil and associated gas, condensate and all associated liquefiable hydrocarbons within and produced from the unit area, and said waterflood project is the subject of Division Case No. 10260.

(5) The Arrowhead Grayburg Unit Agreement and the Arrowhead Grayburg Unit Operating Agreement, which were submitted to the Division at the time of the hearing as Exhibit Nos. 61 and 62, respectively, are hereby incorporated by reference into this order.

Case No. 10259
Order No. R-9482
Page 10

(6) The Arrowhead Grayburg Unit Agreement and the Arrowhead Grayburg Unit Operating Agreement shall be subject to the following additional special provision:

Any ORRI owner in a unit tract which has a "0%" participation under the proposed participation formula for the unit, and who does not receive income from any other unit tract, shall be paid his/her proportionate share of the production from the "0%" tract as if that tract was not a part of the unit. The payment shall be made only if production is obtained from a producing unit well on the "0%" participation tract and the ORRI payment shall be charged as a unit expense against all the working interest owners of the unit. This provision shall apply only to the overriding working interest owner and not to the royalty or working interest owner for that tract, both of whom receive income from other unit tracts.

(7) This order shall not become effective unless and until seventy-five percent of the working interest and seventy-five percent of the royalty interest owners in the Unit Area have approved the plan for unit operations as required by Section 70-7-8, N.M.S.A., 1978 Compilation.

(8) If the persons owning the required percentage of interest in the Unit Area as set out in Section 70-7-8, N.M.S.A., 1978 Compilation, do not approve the plan for unit operations within a period of six months from the date of entry of this order, this order shall cease to be of further force and effect and shall be revoked by the Division, unless the Division shall extend the time for ratification for good cause shown.

(9) When the persons owning the required percentage of interest in the Unit Area have approved the plan for unit operations, the interests of all persons in the Unit Area are unitized whether or not such persons have approved the plan or unitization in writing.

(10) Any working interest owner who has not agreed in writing to participate in the unit prior to the effective date of this order shall be deemed to have relinquished to the Unit Operator all of his operating rights and working interest in and to the unit until his share of the costs has been repaid. Such

Case No. 10259
Order No. R-9482
Page 11

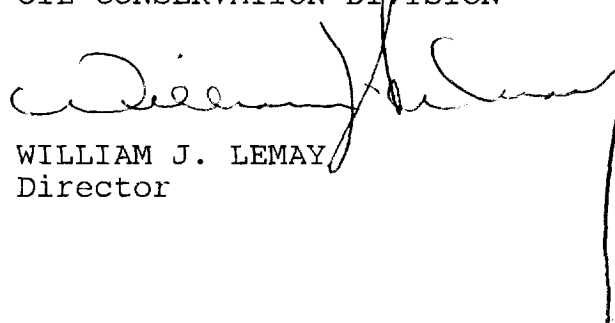
repayment shall not include a non-consent penalty (Section 70-7-7.F N.M.S.A. 1978).

(11) The applicant as Unit Operator shall notify in writing the Division Director of any removal or substitution of said Unit Operator by any other working interest owner within the area.

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

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

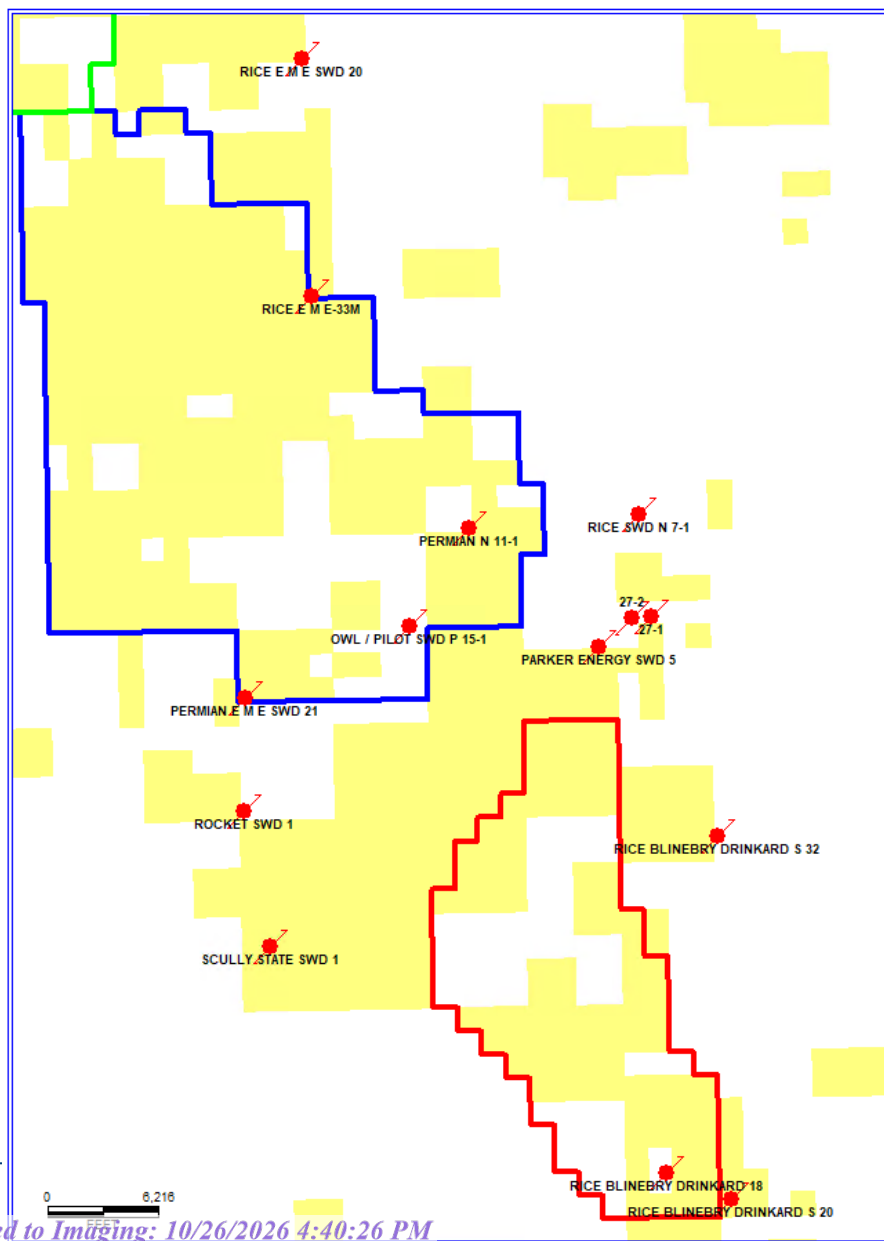
STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



WILLIAM J. LEMAY
Director

S E A L

SWD Wells – 13 Applications and Rocket SWD #1

**Goodnight Midstream Permian**

- 1) Scully State SWD #1
- 2) Penroc State E Tr 27 SWD #2
- 3) Rocket SWD #1

Rice Operating

- 4) EME SWD #20
- 5) EME SWD #33-M
- 6) N-7 SWD #1
- 7) State E Tr 27 SWD #1
- 8) Blinebry Drinkard SWD #18
- 9) Blinebry Drinkard SWD #20
- 10) Blinebry Drinkard SWD #32

Permian Line Service

- 11) EME SWD #21
- 12) N-11 SWD #1

Pilot / Owl Operating

- 13) P-15 SWD #1

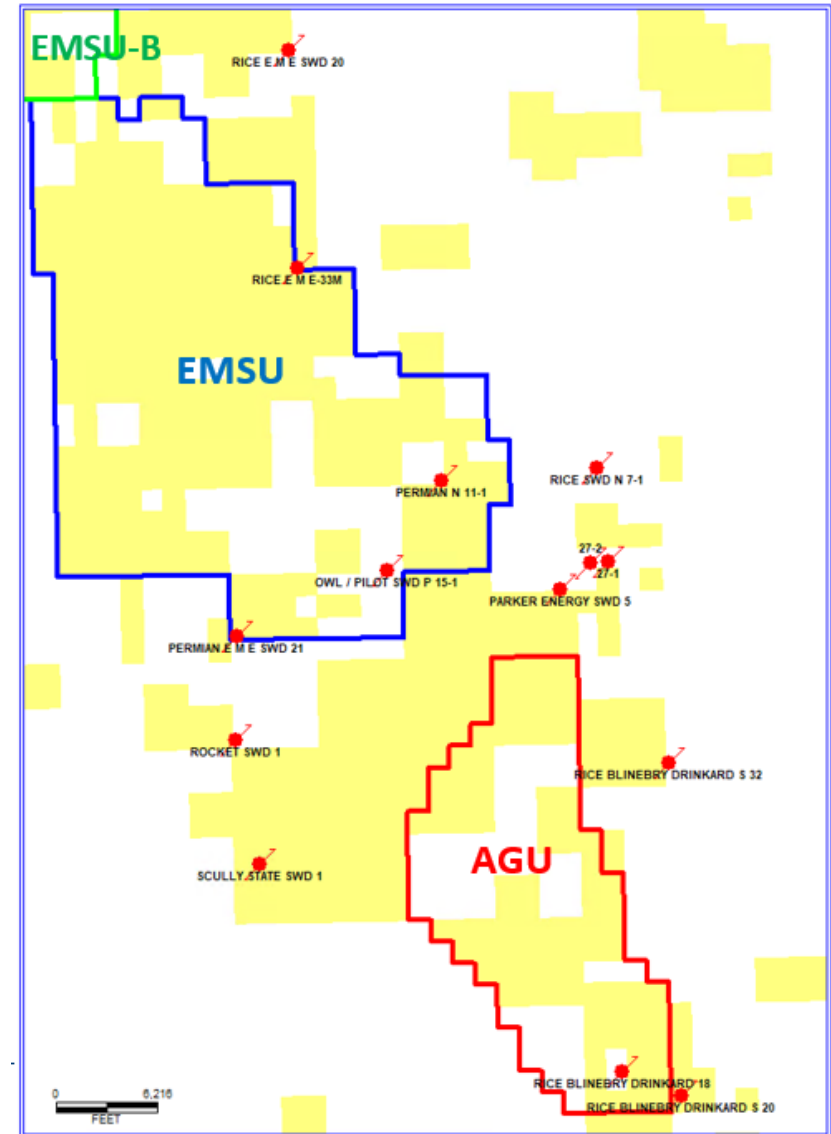
Parker Energy

- 14) Parker SWD #5

Disposal Into Empire's Unitized Intervals

EMSU & AGU Unit Operator should control injection:

- Permian Line Service EME SWD #21 & N-11 SWD #1 and Pilot / Owl's P-15 SWD #1 inject into the San Andres inside the EMSU unitized interval [top of Grayburg or -100 ft subsea (whichever is shallower) to the base of San Andres]
- Rice Blinebry Drinkard #18 open hole 3,900-4,998 ft (-469 to -1,567 ft subsea) injects into the AGU unitized interval [top of Grayburg or -100 ft subsea (whichever is shallower) to -1,500 ft subsea]
- Rice EME SWD #33-M is only 165' off the EMSU boundary and Blinebry Drinkard SWD #20 is approximately 660' off the AGU boundary.
- All SWD wells are within 2 miles of either EMSU or AGU.



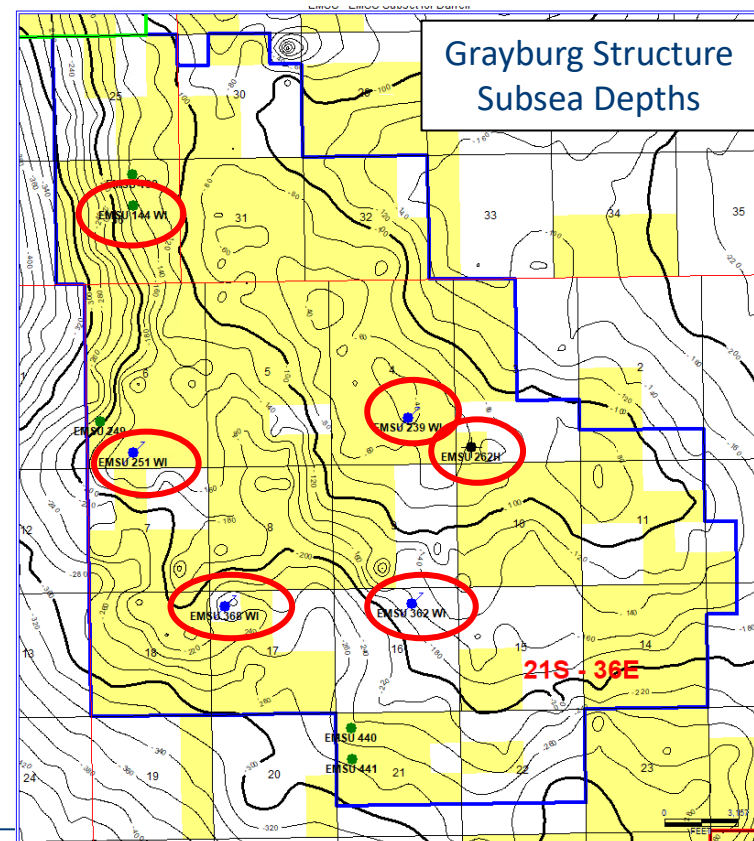
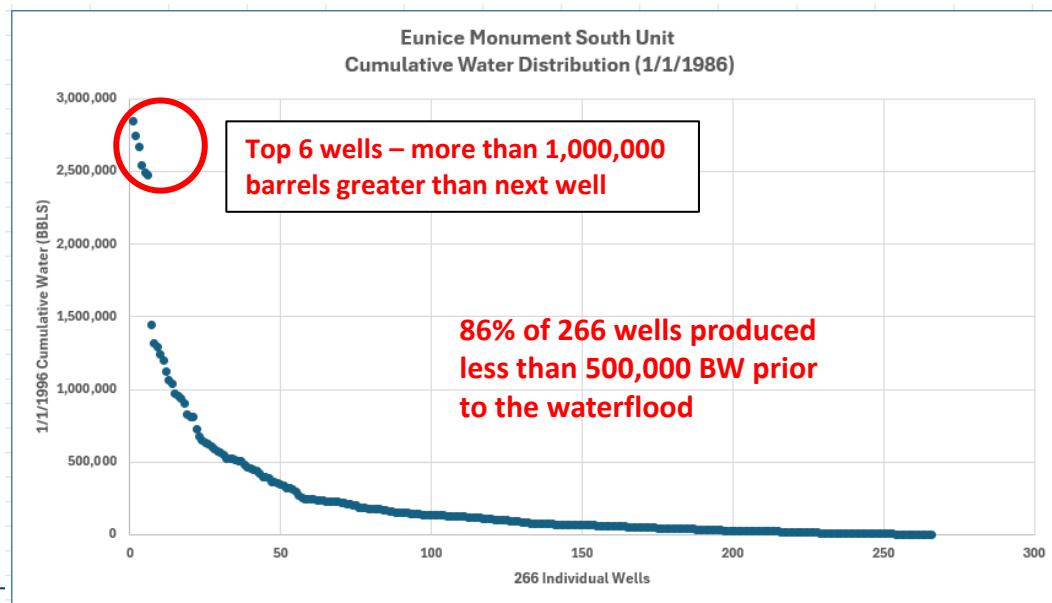
Evidence of San Andres and Grayburg Communication

Eunice Monument South Unit

Cumulative Water Production Prior to Waterflood for Top 10 Water Producers

Well	API #	Cumulative Water (BBLs) 1/1/1986
EMSU-251	30-025-04520	2,842,472
EMSU-362	30-025-04662	2,741,060
EMSU-144	30-025-12543	2,668,909
EMSU-239	30-025-04468	2,537,804
EMSU-262	30-025-04454	2,494,313
EMSU-368	30-025-04697	2,474,584
EMSU-139	30-025-12544	1,444,645
EMSU-441	30-025-04737	1,315,534
EMSU-249	30-025-04525	1,293,891
EMSU-440	30-025-04735	1,244,429

- Extremely high water production from 3 crestal wells (EMSU-239, EMSU-262, & EMSU-362) prior to the waterflood indicates that water from the San Andres must be entering the Grayburg interval
- Grayburg edge waterdrive was weak but may have impacted downdip producers EMSU-144, EMSU-251 and EMSU-368.

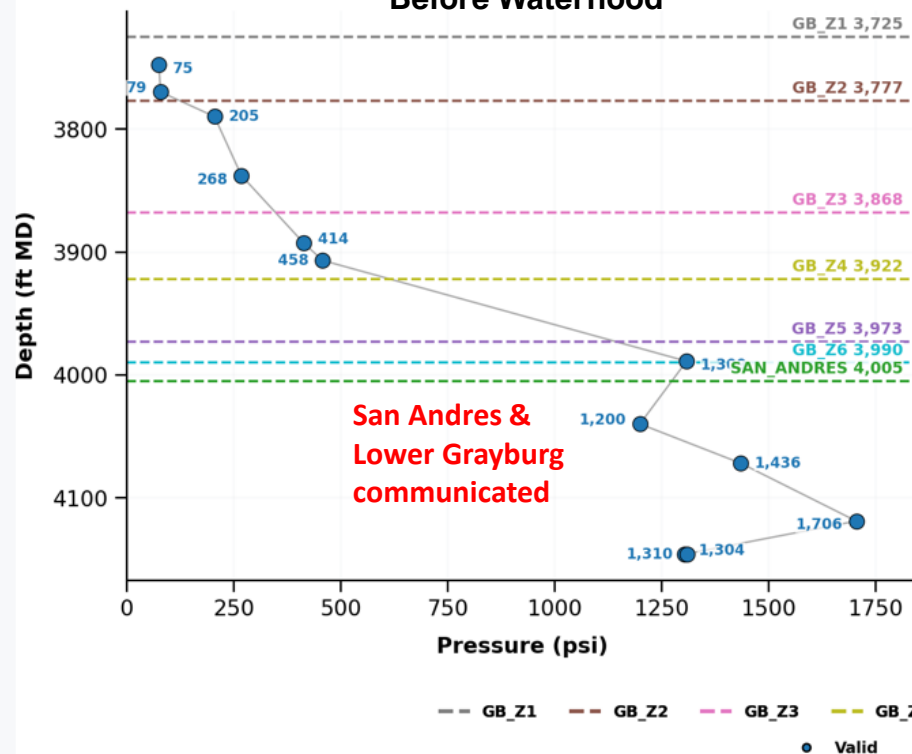


EMSU RFTs: San Andres and Grayburg Communicated Before Waterflood

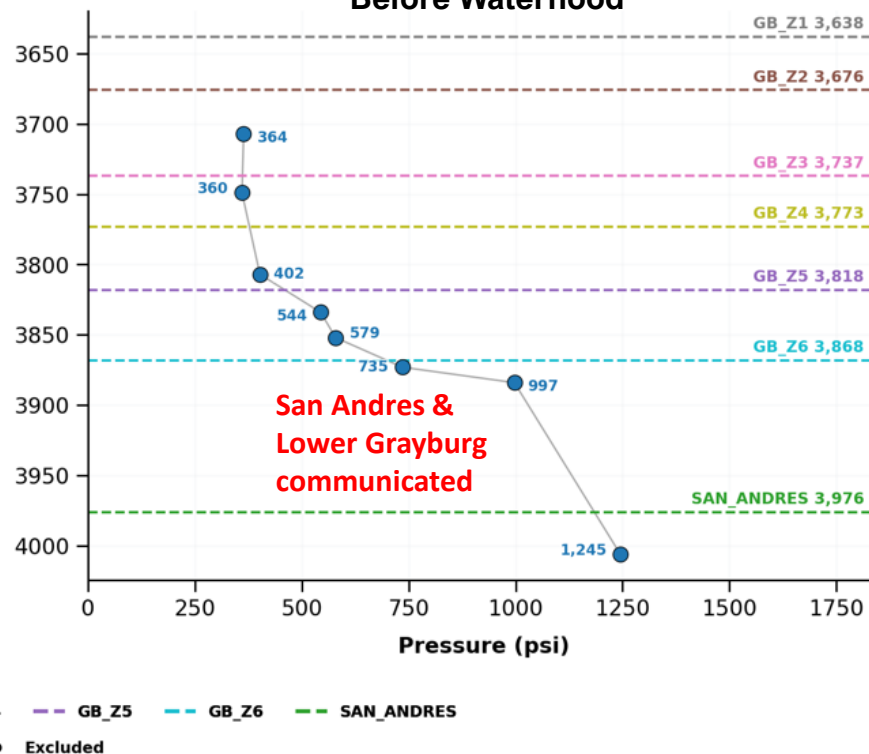
Pressure Profiles: EMSU 225 WI and EMSU 211 WI

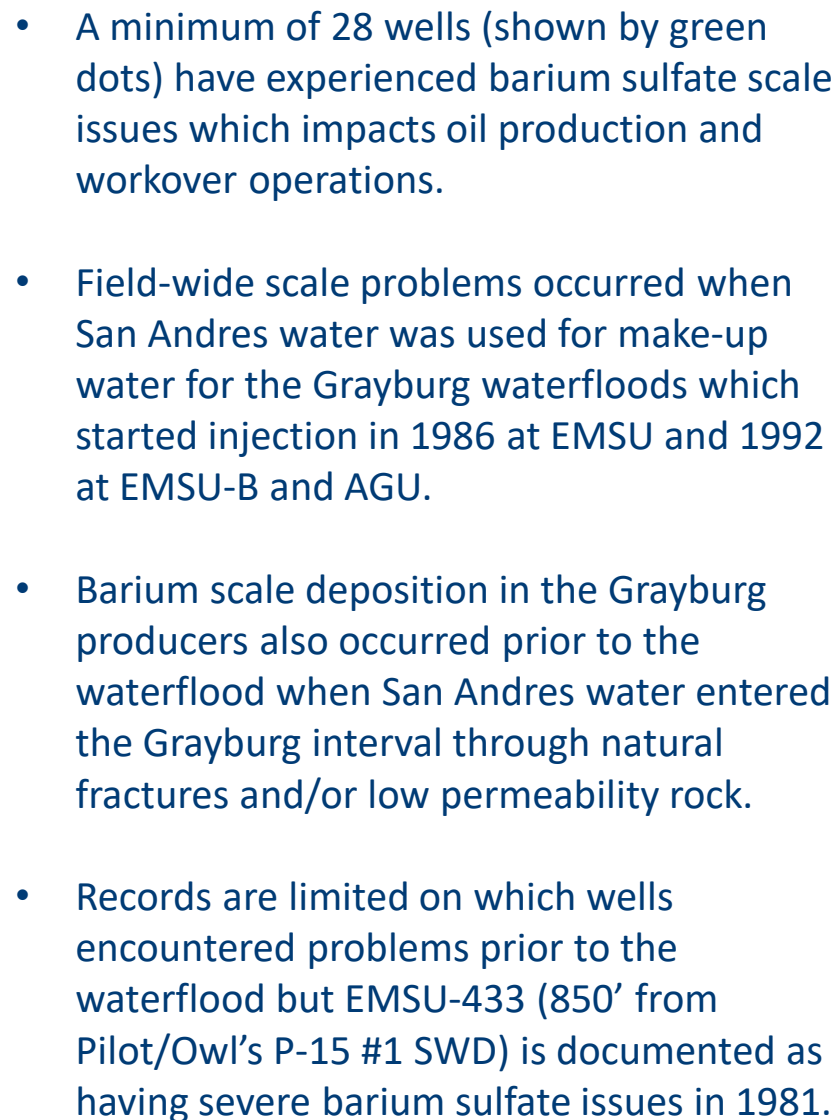
Grayburg and San Andres pressure versus measured depth

EMSU 225 WI
Jun 1986
Before Waterflood



EMSU 211 WI
Apr 1986
Before Waterflood





EMSU-433 Barium Scale Deposition Prior to Waterflood

From Wellbore Diagrams submitted for Unitization & Waterflood

Subsequent Workover or Reconditioning:

3-39 INSTALLED FLOW VALVES
 5-44 ACIDIZE W/1000 GALS
 4-49 ACIDIZE W/500 GALS
 9-52 INSTALLED PMRG UNIT
 1-62 ACIDZ OH (3805-3814) W/1000 GALS 15% NEA
 6-63 EQUIP LOST IN HOLE. STACK DUE TO SCALE
 3-71 ACIDZ OH W/500 GALS 15% NEA+TET SCALE
 3-72 ACIDZ OH W/500 GALS 15% NEA+TRI SCALE
 12-72 ACIDZ OH W/500 GALS 15% NEA+SCALE TRT
 12-73 ACIDZ OH W/500 GALS 15% NEA+SCALE TRT
 4-78 C/O 3842' STRIP PERF OH W/168-40gm
 CHARGES IN DRUMS @ 3774-3808' & 3744-54' ACIDZ
 W/3000 GALS 15% NEA
 10-80 ACIDZ W/1000 GALS 15% NEA+SCALE TRT
 4-81 PERF 3740-54'; 3760-64'; 3776-80'; 3786-94' &
 3802-10' W/4-5" HPF. FRAC. W/2000 GALS 15% NEPE,
 4000 GALS GEL, 55,000# 20/40 SAND & 2000# GRS.
 ATTEMPTING TO BRK UP BARIUM SULFATE. UNSUCCESSFUL
 WELL C.I.
 1-82 ACIDZ W/750 GALS 15% NEPE
 8-82 SCALE TRT.

EMSU #433
 SE & WELL NO. HARRY LEONARD (NCTA) #5 FIELD/POOL EVUNKE MONUMENT DATE 1-20-84
 ATION 1660 FEET FROM NORTH LINE AND 1660 FEET FROM EAST L: I
 TION UNIT A, SEC 22, T21S, R36E COUNTY LEA GULF CO.

Date Completed 3-20-37
 Initial Formation GRANITE
 From: 2825 to 3874 GOR 1449
 Initial Production PIF 828 bwpd
 Or: Injection ☐ bwpd @ psi
 Completion Data:
 NATURAL COMPLETION

13 3/8" OP Surface Pipe
 set @ 34 w/ 50 ex
 Cnt. Circulated? Yes Cnt.

7 5/8" OD 22 & 28 Thd
 GR. Csg.
 set @ 1430 w/ 1600 ex
 Cnt. Circulated? Yes Cnt.
 TOC @ 1430 by 15

Subsequent Workover or Reconditioning:

3-39 INSTALLED FLOW VALVES
 5-44 ACIDIZE W/1000 GALS
 4-49 ACIDIZE W/500 GALS
 9-52 INSTALLED PMRG UNIT
 1-62 ACIDZ OH (3805-3814) W/1000 GALS 15% NEA
 6-63 EQUIP LOST IN HOLE. STACK DUE TO SCALE
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 12-72 ACIDZ OH W/500 GALS 15% NEA+SCALE TRT
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 4-78 C/O 3842' STRIP PERF OH W/168-40gm
 CHARGES IN DRUMS @ 3774-3808' & 3744-54' ACIDZ
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 4-81 PERF 3740-54'; 3760-64'; 3776-80'; 3786-94' &
 3802-10' W/4-5" HPF. FRAC. W/2000 GALS 15% NEPE,
 4000 GALS GEL, 55,000# 20/40 SAND & 2000# GRS.
 ATTEMPTING TO BRK UP BARIUM SULFATE. UNSUCCESSFUL
 WELL C.I.
 1-82 ACIDZ W/750 GALS 15% NEPE
 8-82 SCALE TRT.

Present Inj. ☐ bwpd @ psi Date
 Present Prod. ☐ bwpd psi Date
 GAS MCFPD

Remarks Or Additional Data:

FISH IN HOLE CONSISTS OF: 2 1/2" TGS. CHOK. OUT
 @ 3842' (APPROX. 1'); 1-2" TGS. IN 1-2" TGS. PERFOR. NIP;
 AND 1-2" TGS. NIPPLE W/ PIN COLLAR ON BOTTOM.

EVUNKE
 MONUMENT

5 1/2" OD 17 & 10 Thd
 Gr. Csg.
 set @ 3738 w/ 150 ex
 Cnt. Circulated? Yes Cnt.
 TOC @ 1841 by CALL

Pore 3740-54' w/ 168-40gm

SWD Water is Incompatible With Empire Water

- Empire had compatibility tests run using ScaleSoftPitzer SSP2020 software to analyze the mixing of Goodnight's Wrigley SWD facility disposal water with Empire's San Andres / Grayburg water (EMSU-440).
- The results show that there is HIGH RISK for the formation of Calcite (calcium carbonate) when the two waters mix based on 70,000 BWPD disposal.
- This indicates HIGH RISK for calcite precipitation in the formation, wells, and facilities when the two incompatible waters come into contact with one another.

Calcite (CaCO ₃)			2,000 psi & 100°F			
Location	BWPD	Days to 100K BBLs	SI	ppt (PTB)	Risk Value	Risk Level
20/80 Goodnight:EMSU 440	70000	1.4	0.80	182.41	16	Moderate
30/70 Goodnight:EMSU 440	70000	1.4	0.84	181.74	24	High
40/60 Goodnight:EMSU 440	70000	1.4	0.88	177.49	24	High
50/50 Goodnight:EMSU 440	70000	1.4	0.92	170.77	24	High
60/40 Goodnight:EMSU 440	70000	1.4	0.97	162.24	24	High
70/30 Goodnight:EMSU 440	70000	1.4	1.01	152.31	32	High
80/20 Goodnight:EMSU 440	70000	1.4	1.06	141.29	32	High

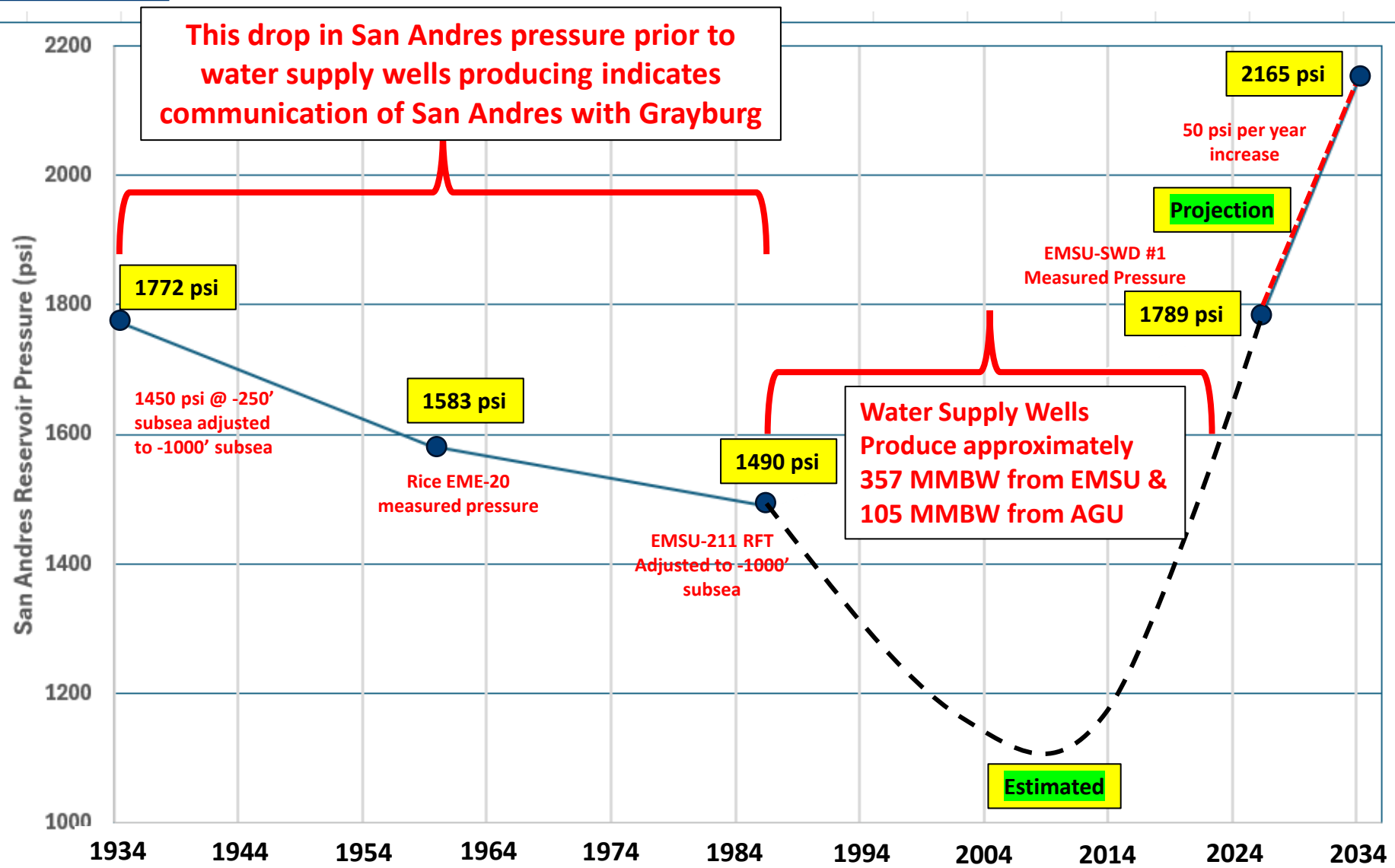
San Andres Reservoir Pressure Is Increasing

- Fluid level information obtained in the San Andres EMSU-459 and AGU-600 indicate that Goodnight water disposal has raised the reservoir pressure at these wells by as much as 235 psi at EMSU and 378 psi at AGU over the past year, with fluid level rising 506' in the tubing string of EMSU-459 and 893' in AGU-600.
- The pressure at EMSU was confirmed when a wireline BHP gauge run in EMSU #1 San Andres SWD (shut-in since March 2025) measured 1850.5 psi at 4743'. At 4595' (-1000' subsea) the pressure calculates 1789 psi. Original reservoir pressure is estimated to be 1772 psi at -1000' subsea, so pressure is now above original.
- At a minimum it appears that reservoir pressure is increasing 50 psi per year near EMSU & AGU based on 200,000 BWPD water disposal.

Liquid Gradient	Gas Gradient
0.43000	0.00000

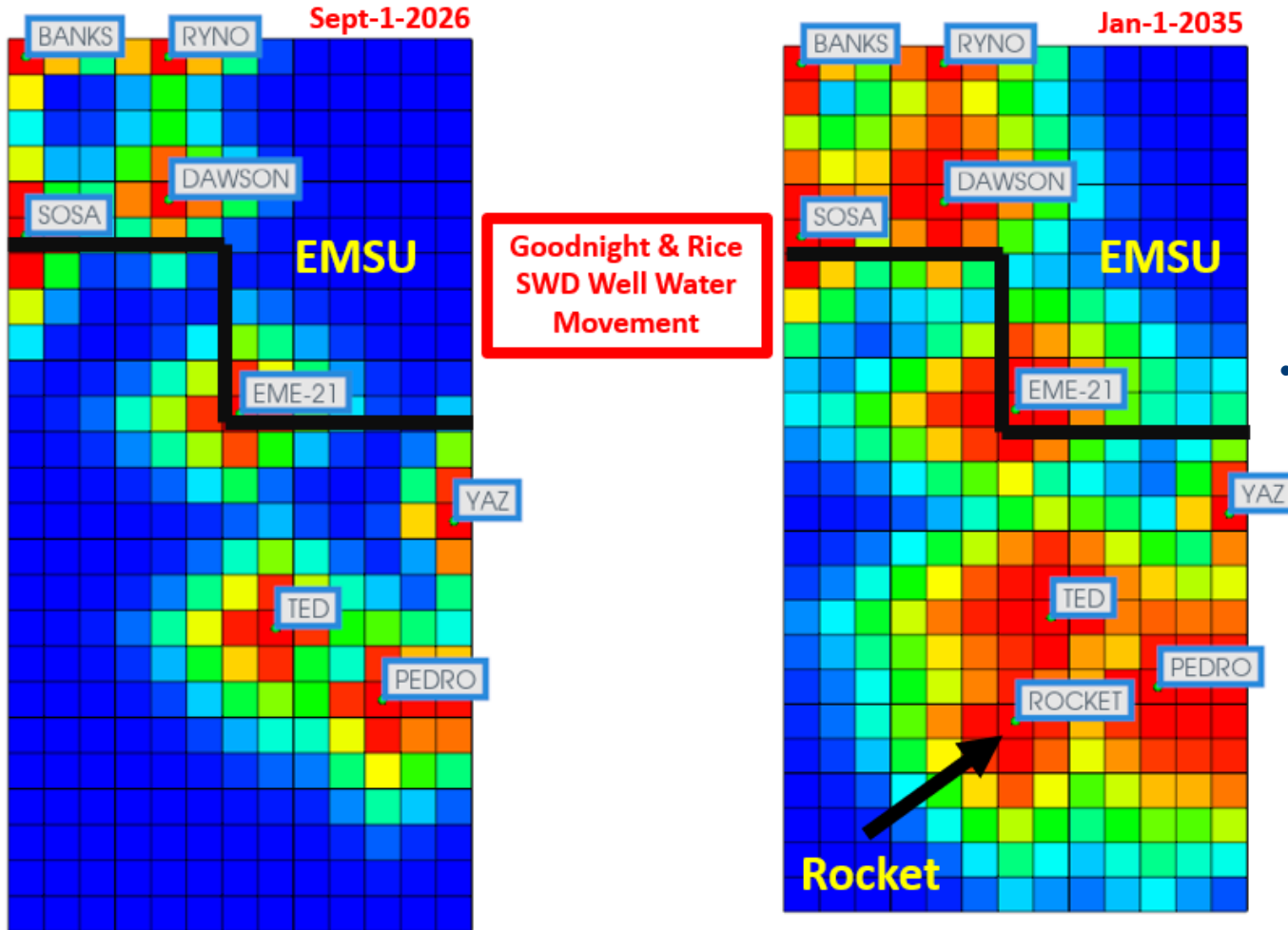
Well	KB	Date	Interval	SITP (psi)	Fluid Level from Surface (feet)	Mid Perf Depth (feet)	Mid Perf Depth (ft)	Mid Perf Pressure (psi)	-1000' Subsea Depth (ft)	-1000' Subsea Pressure (psi)
EMSU-459										
EMSU #459	3577	3/26/2025	San Andres	-12.9	973	4647	4647	1567	4577	1537
EMSU #459	3577	5/28/2026	San Andres	5	467	4647	4647	1802	4577	1772
AGU-600										
AGU #600	3571	3/26/2025	San Andres	34	1151	4647	4566	1502	4571	1505
AGU #600	3571	5/28/2026	San Andres	28	258	4647	4566	1880	4571	1883

San Andres Reservoir Pressure Is Increasing



Saltwater Disposal Movement Through San Andres

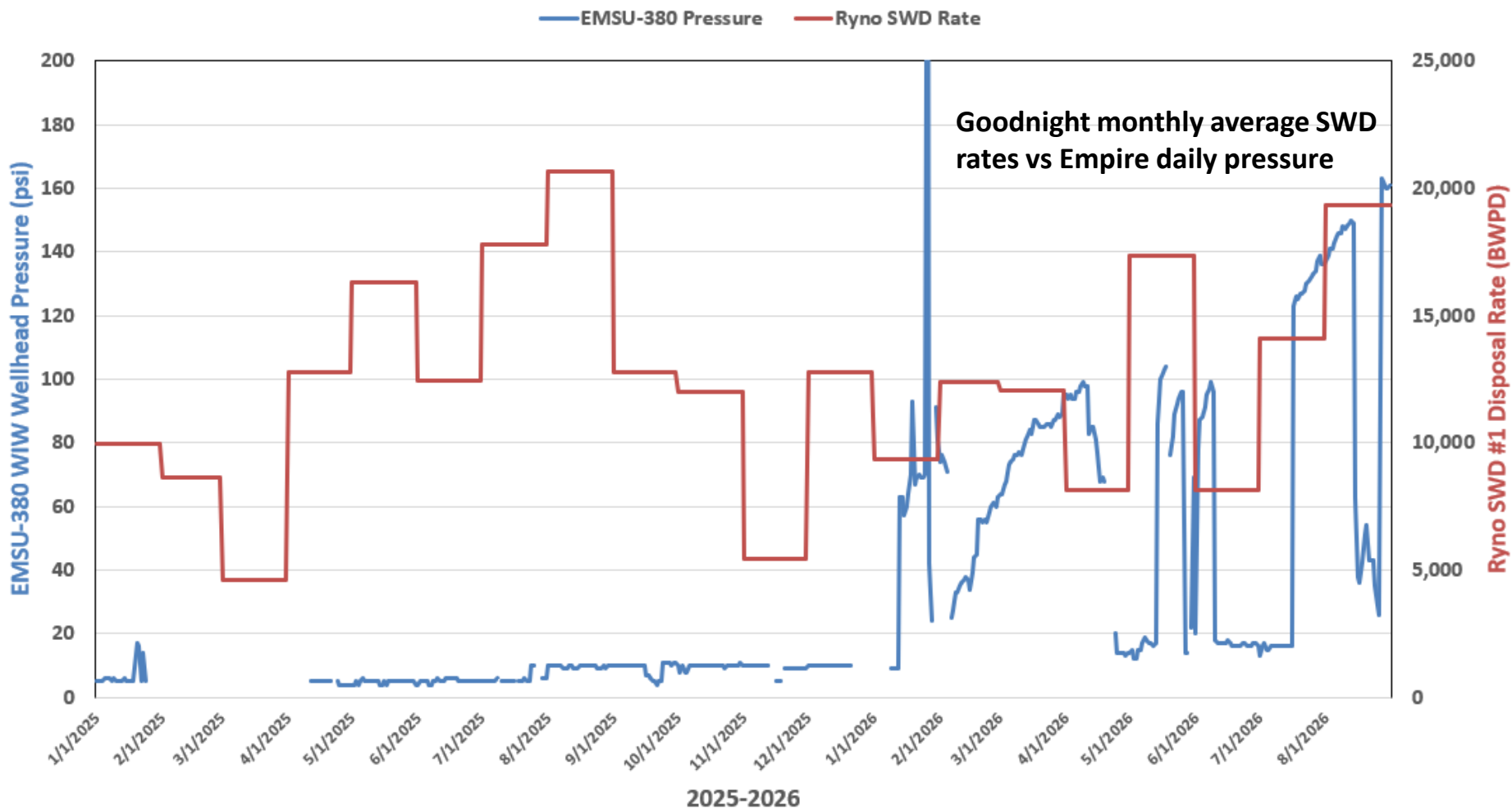
Model assumes 1000' gross interval (500' net) with 10% porosity. It does not take into account that water can move through smaller high permeability intervals and invade larger distances.



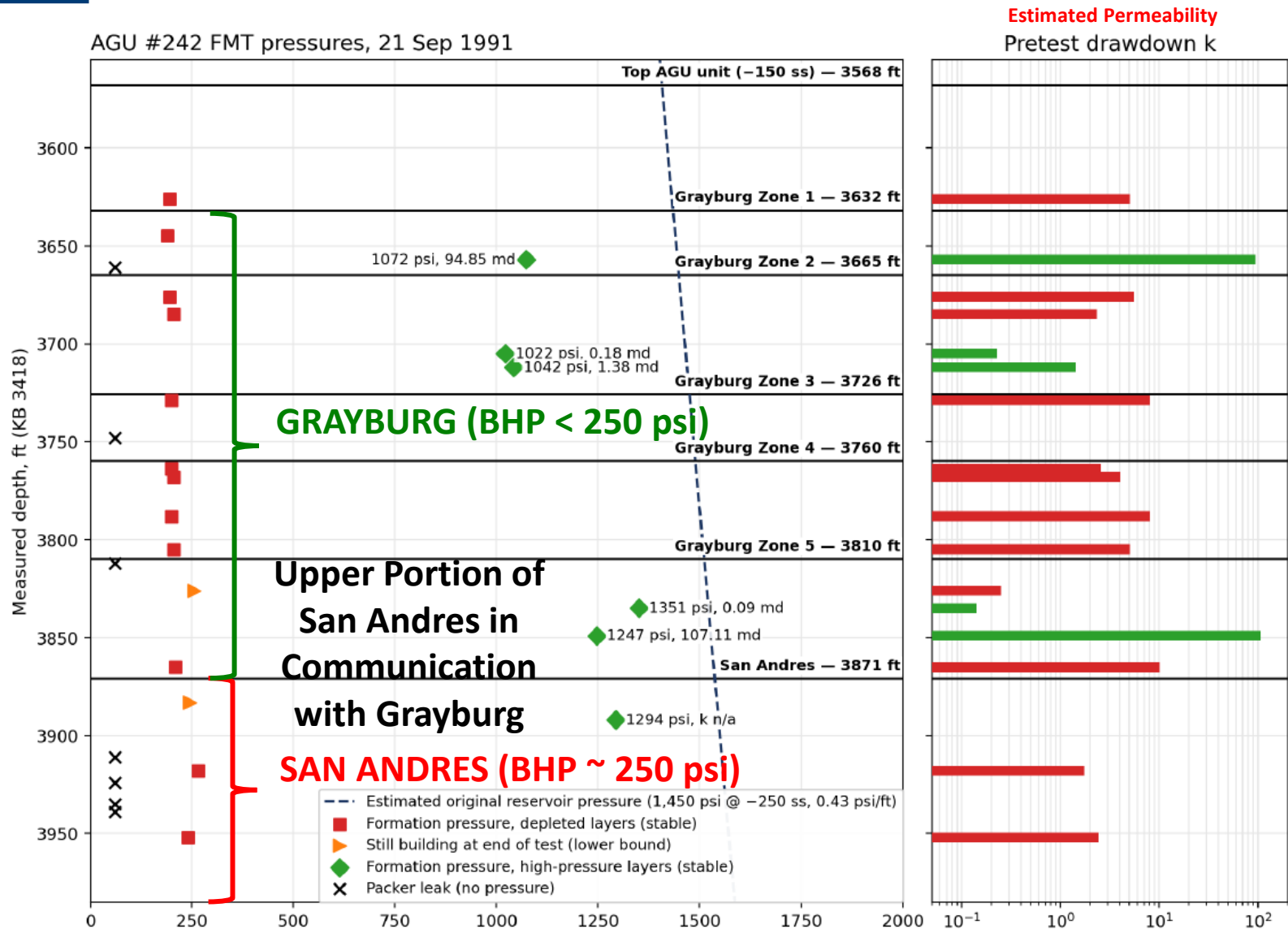
- Illustrative reservoir model using tracer in the water to show how EMSU and outlying areas have been impacted by Goodnight and Permian Line Service (EME-21) disposal.
- By allowing the Rocket SWD to be drilled more water will be pushed upon the EMSU tracts, raising reservoir pressure and allowing water to enter through the natural fractures into the overlying Grayburg formation

Ryno SWD #1 Impacting Empire's EMSU-380 WIW

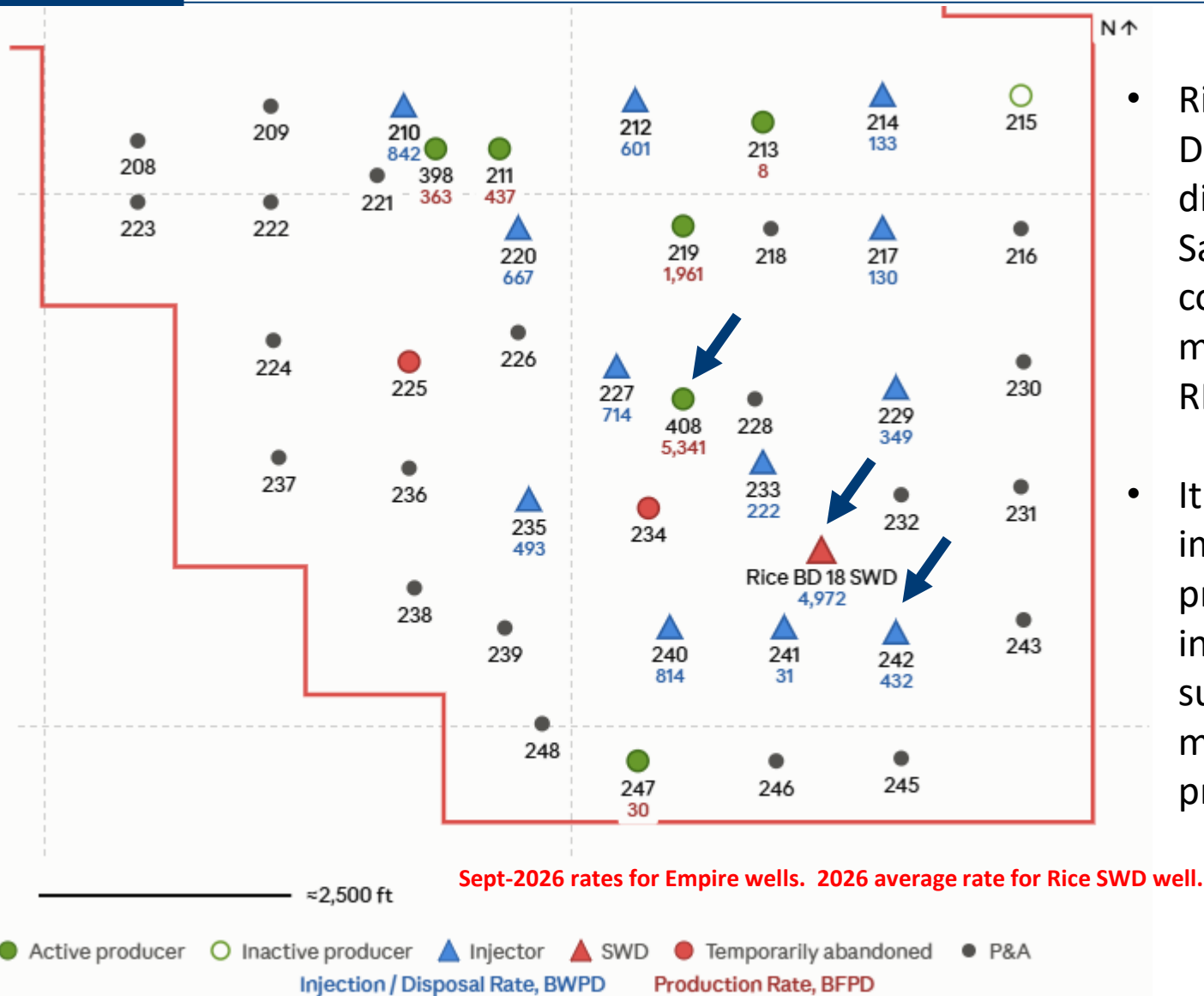
EMSU-380 WIW Pressure vs Ryno SWD #1 Rate



AGU-242 RFT (Sept-1991): Upper San Andres Depleted to ~250 psi



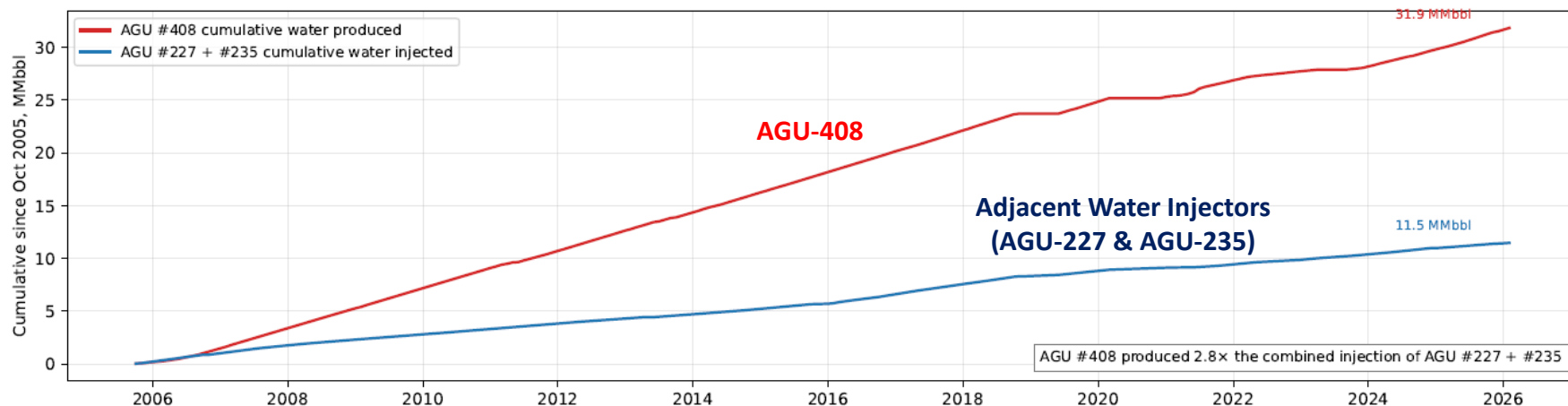
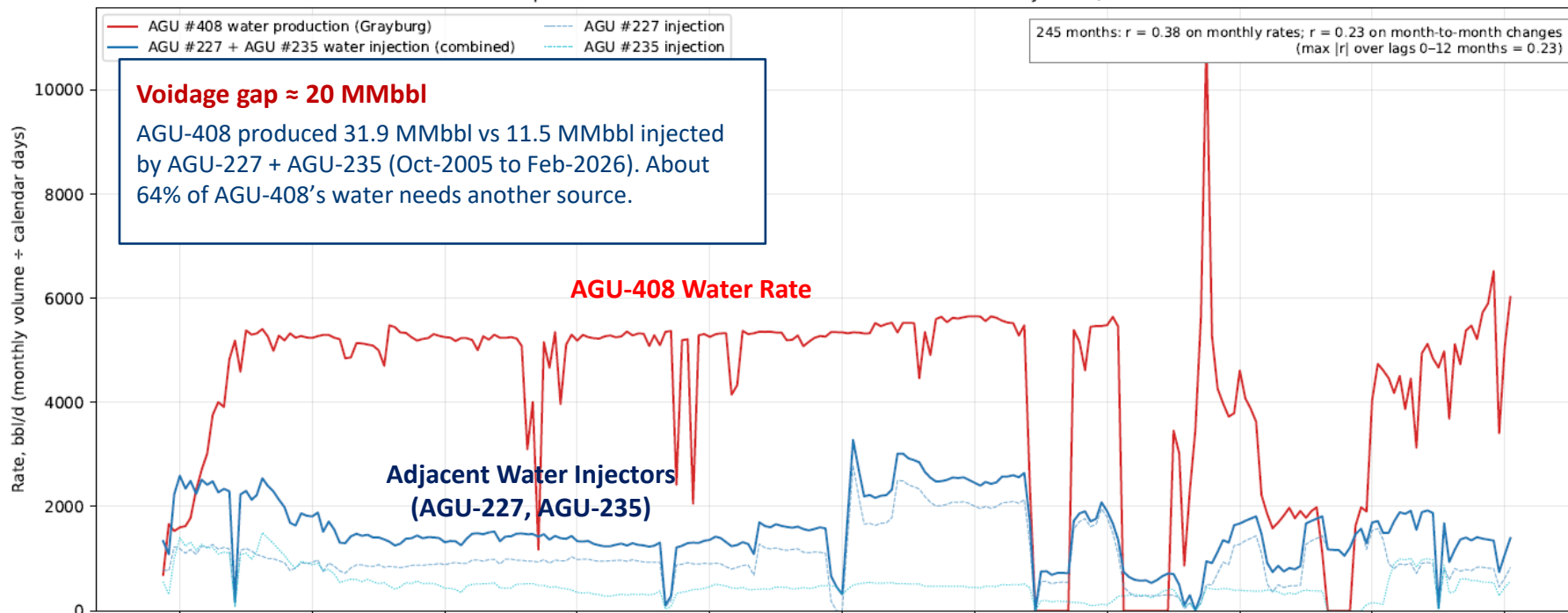
Rice BD #18 SWD Sits Between AGU-408 and AGU-242



- Rice's Blinbry Drinkard SWD #18 is disposing into top of San Andres where communication was measured by AGU-242 RFT in Sept-1991
- It also appears to be impacting AGU-408 production as offset injectors do not inject sufficient volumes to maintain its high-water production rate

Adjacent Empire Injection Explains Only ~36% of AGU-408 Water

AGU #408 water production vs AGU #227 + #235 combined water injection, Oct 2005 – Feb 2026

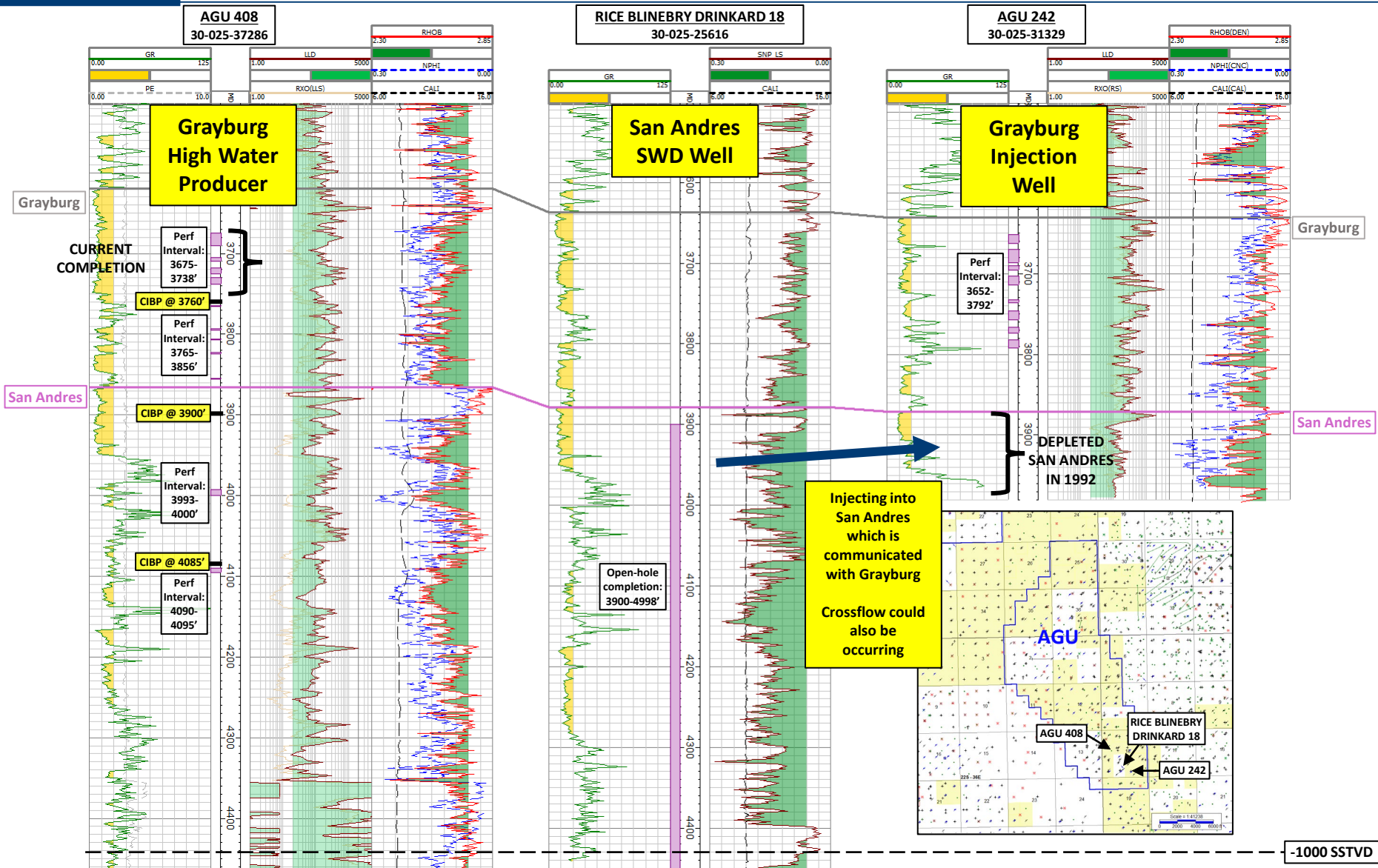


SWD Open Hole is in the Depleted, Communicating San Andres

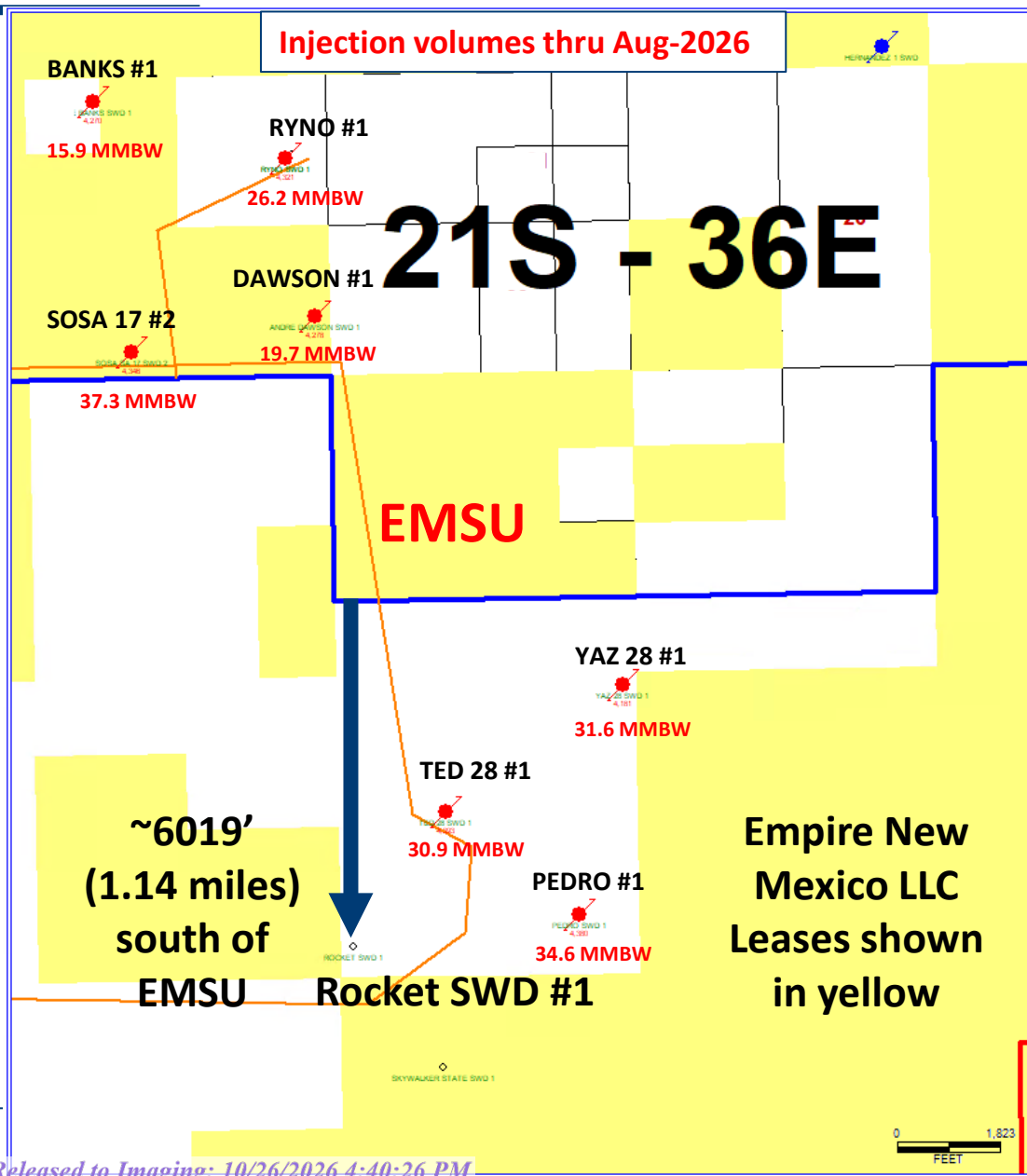
WELL DRILLED IN 2005

SALTWATER DISPOSAL BEGAN IN 1978

WELL DRILLED IN 1991

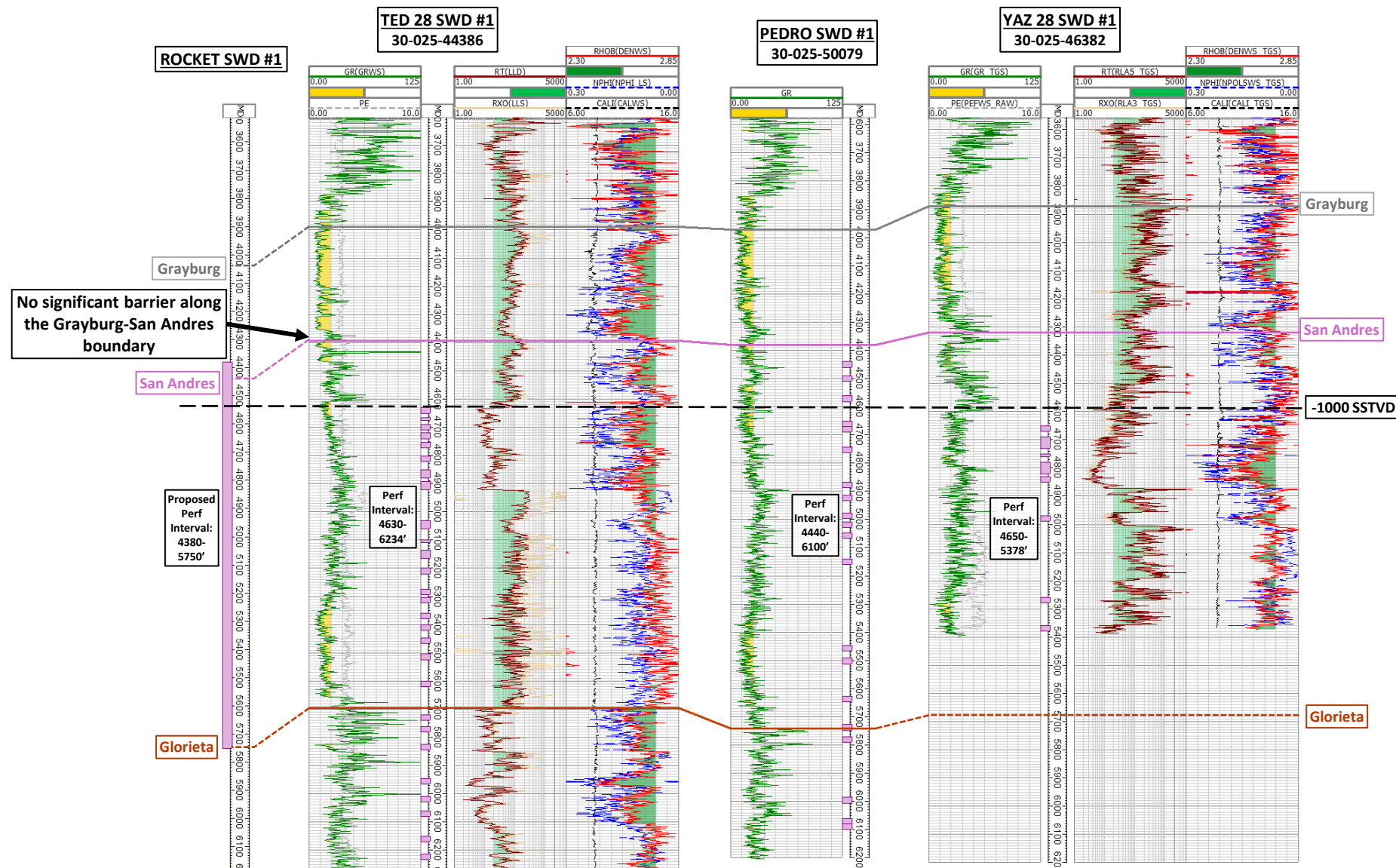


Rocket SWD Will Impact Empire's Leases Outside EMSU



- The proposed Rocket SWD #1 is located 6019' from the EMSU but is only 245' east of Empire's lease shown in yellow.
- Water disposal into the Rocket SWD #1 will push water being injected into the Pedro, Ted, and Yaz wells onto Empire's undrilled leases to the east and west and into the EMSU & AGU residual oil column.
- The Pedro, Ted, and Yaz have already disposed of 97.1 MMBW and injecting a total of 63,957 BWPD during Aug-2026.

Geologic Cross-section Near Rocket SWD #1 Location



Key Issues Before the Division

SUMMARY | KEY ISSUES

Disposal into Empire's unitized intervals threatens a 900+ million barrel CO₂-EOR resource

1

Disposal Into Empire's Unitized Intervals

Permian Line Service EME SWD #21 and N-11 SWD #1 inject inside the EMSU unitized interval, and Rice Blinbry Drinkard #18 inside the AGU unitized interval – intervals the unit operator should control

2

Rising San Andres Reservoir Pressure

Recent fluid levels show clear pressure increases at both EMSU and AGU; higher pressure requires more CO₂ and erodes CO₂-EOR economics

3

San Andres – Grayburg Communication

Pre-waterflood openhole RFT in AGU-242 shows communication, and barium sulfate scale shows San Andres water mixed with Grayburg water before the waterflood

4

Over 900 Million Barrels of Oil-in-Place Resource

Determined by independent sources, with oil saturations confirmed by core and log analysis – including Goodnight's consultants

5

Incompatible Disposal Water

San Andres disposal water is incompatible with Grayburg / San Andres water; the risk of formation damage grows with each day of disposal



Empire Petroleum Corporation

EMSU 440 & Goodnight Mixed Water Modeling

Background

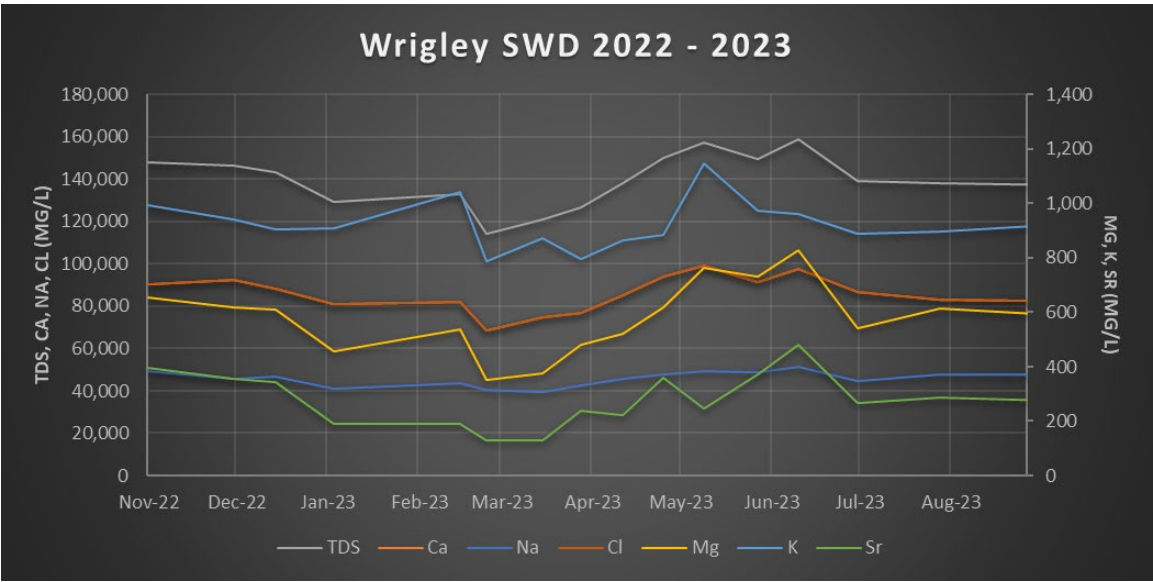
The Technical Services team was requested to run scale modeling to evaluate scaling risks of mixed waters from the Eunice Monument South Unit (EMSU) 440 and Goodnight waters. Scale risks were evaluated in ScaleSoftPitzer SSP2020. Mixing was evaluated at 2,000 psi with 100°F to simulate mixing in the formation.

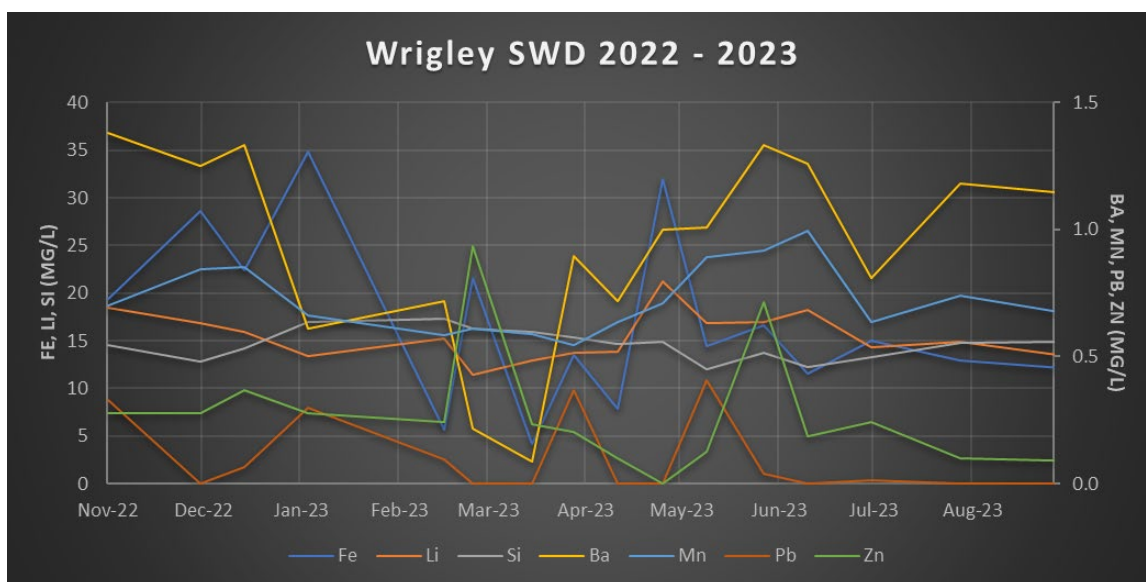
Historic Water Assessment

Wrigley SWD

Historic water analysis for the Wrigley SWD from 2022 – 2023 were used for the Goodnight water. Major cations and Chlorides from 2022 – 2023 were trended. Most ions were relatively stable over this period. While Iron and Barium show some decline in early- to mid-2023, late 2023 values are similar to late 2022. Zinc, Lead, Silica, Aluminum, and Borate were omitted as similar representative data was not available in the EMSU 440 historical data. Average values were used to generate the Goodnight water composition used for modeling.

	Density (g/cm ₃)	pH	TDS (mg/L)	HCO ₃ (mg/L)	SO ₄ (mg/L)	Cl (mg/L)	Diss H ₂ S (mg/L)	Diss CO ₂ (mg/L)	Fe (mg/L)	Mn (mg/L)	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Ba (mg/L)	Sr (mg/L)	Al (mg/L)	Li (mg/L)	Zn (mg/L)	Pb (mg/L)	H ₃ BO ₃ (mg/L)	Si (mg/L)
Min	1.075	5.83	114,012	231.8	340	68,400	0.00	80	4.18	0.0500	39,580	2,206	350.94	788.99	0.0872	128.47	0.0000	11.40	0.0000	0.0000	143.95	12.04
Max	1.104	7.10	158,711	1,293.2	1,591	99,400	59.50	812	34.87	0.9945	51,322	5,988	829.60	1,145.24	1.3820	480.69	0.5923	21.19	0.9340	0.4060	261.01	17.26
Median	1.091	6.64	139,171	793.0	680	86,900	5.10	290	14.95	0.7010	46,563	3,942	608.37	909.46	1.0000	268.27	0.0000	15.26	0.2347	0.0119	186.75	14.78
Average	1.092	6.60	139,668	739.2	820	85,910	13.78	308	17.02	0.6921	45,983	4,032	580.82	940.11	0.9353	282.19	0.0448	15.60	0.2519	0.1078	193.56	14.71
St. Dev.	0.008	0.30	12,589	297.8	329	8,391	16.64	152	9.30	0.2117	3,574	1,129	140.45	98.38	0.3864	102.79	0.1430	2.54	0.2442	0.1559	35.58	1.53

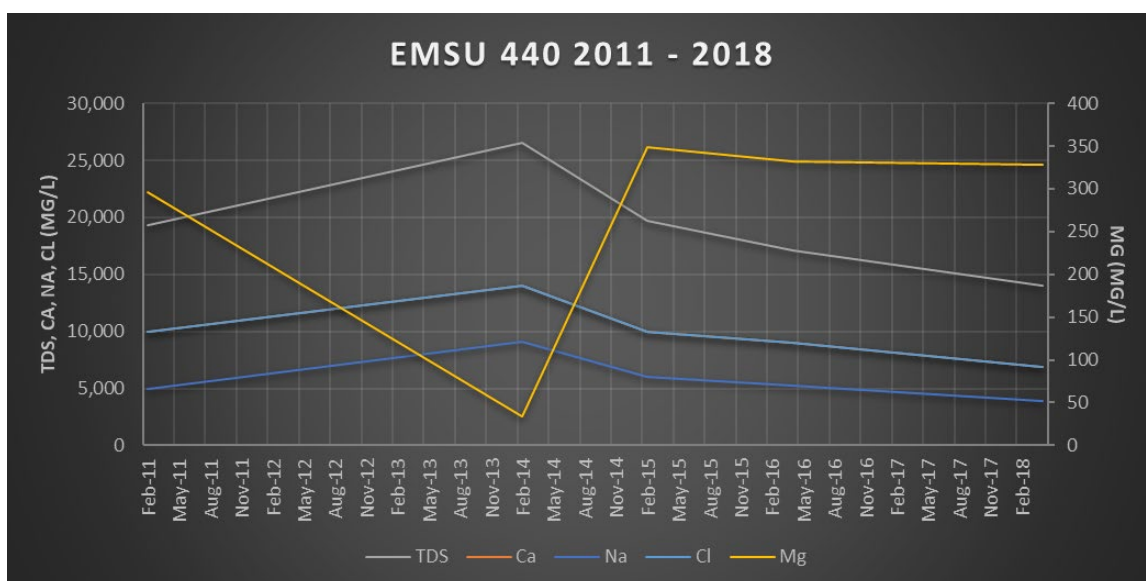


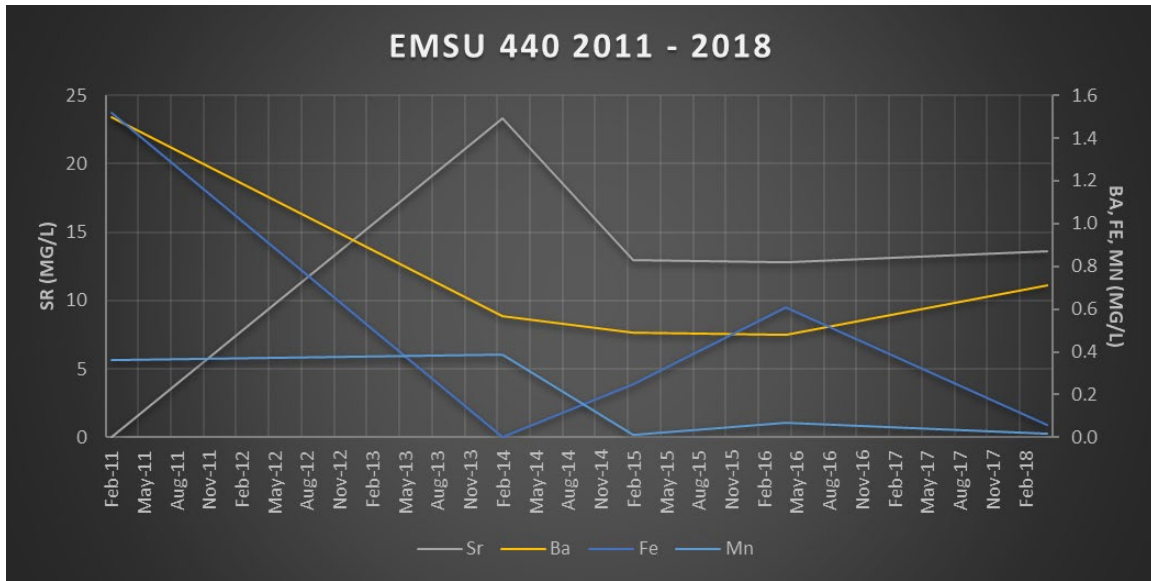


EMSU 440

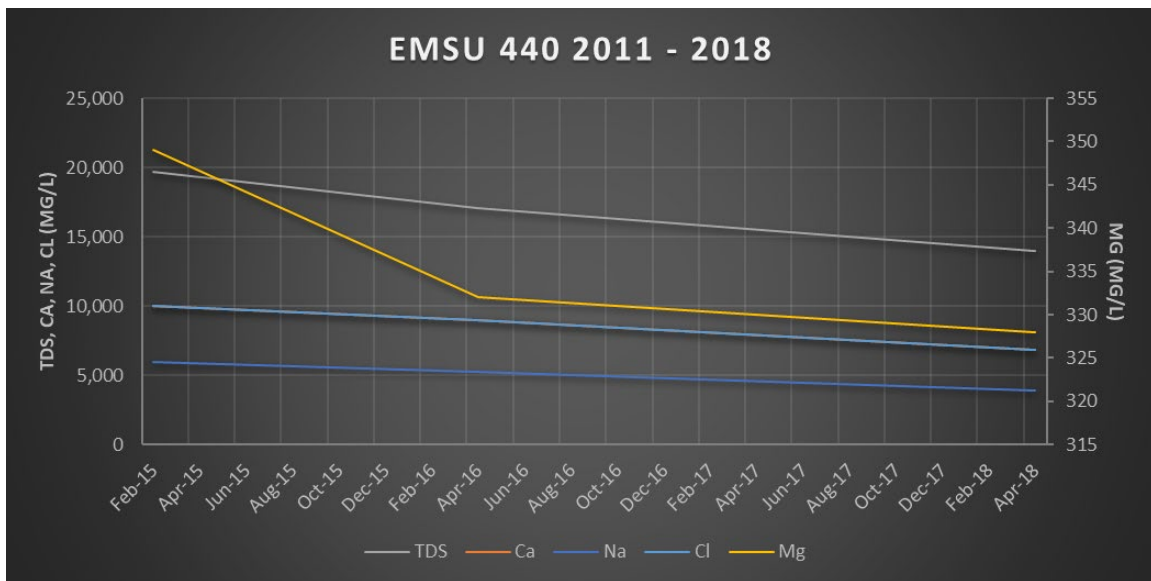
Historic water analysis from 2011 – 2018 was used for the EMSU 440 water. Major Cations and Chlorides from 2011 – 2018 were trended. All ions showed a deviation in the 2014 sample, some more significant than others. The 2011 sample also showed a major deviation for Iron, Magnesium, and Strontium. These samples were omitted from the modeled water composition (first table & graphs is all data, second set is with 2011 & 2014 samples omitted). Average values from the modified set were used to generate the EMSU 440 water composition for modeling.

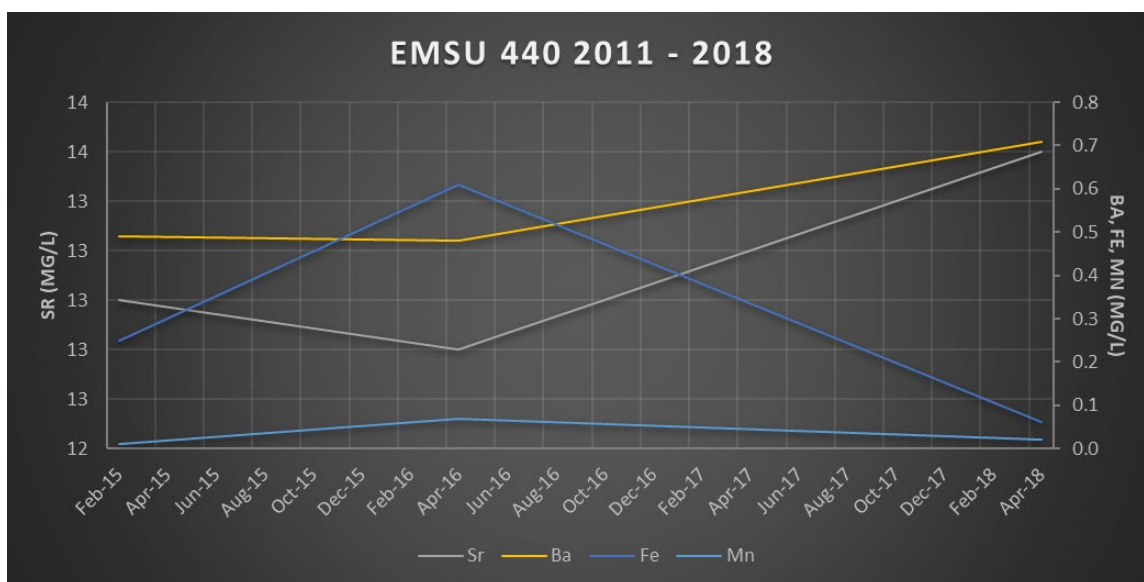
	Density (g/cm ₃)	pH	TDS (mg/L)	HCO ₃ (mg/L)	SO ₄ (mg/L)	Cl (mg/L)	Diss H ₂ S (mg/L)	Diss CO ₂ (mg/L)	Fe (mg/L)	Mn (mg/L)	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	Ba (mg/L)	Sr (mg/L)
Min	1.011	6.40	14,000	1,207.80	179.00	6,870	40.00	86.00	0.00	0.0100	3,910	616.00	34.40	0.48	0.00
Max	1.011	7.00	26,500	2,074.00	710.00	14,000	460.00	240.00	1.52	0.3900	9,140	1,510.00	349.00	1.50	23.30
Median	1.011	6.70	19,300	1,927.60	476.00	10,000	330.00	190.00	0.25	0.0700	5,270	649.00	328.00	0.57	13.00
Average	1.011	6.66	19,320	1,808.00	443.40	9,970	272.00	179.20	0.49	0.1700	5,848	815.00	267.88	0.75	12.54
St. Dev.	0.000	0.26	4,608	343.90	204.51	2,590	158.97	56.42	0.62	0.1888	1,984	388.79	131.92	0.43	8.28





	Density (g/cm ₃)	pH	TDS (mg/L)	HCO ₃ (mg/L)	SO ₄ (mg/L)	Cl (mg/L)	Diss H ₂ S (mg/L)	Diss CO ₂ (mg/L)	Fe (mg/L)	Mn (mg/L)	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	Ba (mg/L)	Sr (mg/L)
Min	1.011	6.40	14,000	1,207.80	315.00	6,870	40.00	86.00	0.06	0.0100	3,910	616.00	328.00	0.48	12.80
Max	1.011	6.80	19,700	2,074.00	710.00	10,000	460.00	240.00	0.61	0.0700	5,970	649.00	349.00	0.71	13.60
Median	1.011	6.70	17,100	1,866.60	476.00	8,980	330.00	190.00	0.25	0.0200	5,270	648.00	332.00	0.49	13.00
Average	1.011	6.63	16,933	1,716.13	500.33	8,617	276.67	172.00	0.31	0.0333	5,050	637.67	336.33	0.56	13.13
St. Dev.	0.000	0.21	2,854	452.28	198.62	1,596	215.02	78.56	0.28	0.0321	1,047	18.77	11.15	0.13	0.42





Input Details

Input compositions

Initial modelling input with respective compositions is shown below.

Sample ID	Select fluid by checking the box(es) in row 3.		
Date			
Operator		Goodnight	EMSU 440
Well Name		Average	Average
Location			
Field			
Na ⁺	(mg/L)	45,983.00	5,050.00
K ⁺ (if not known =0)	(mg/L)	940.11	0.00
Mg ²⁺	(mg/L)	580.82	336.33
Ca ²⁺	(mg/L)	4,032.00	637.67
Sr ²⁺	(mg/L)	282.19	13.13
Ba ²⁺	(mg/L)	0.94	0.56
Fe ²⁺	(mg/L)	17.02	0.31
Zn ²⁺	(mg/L)		
Pb ²⁺	(mg/L)		
Cl ⁻	(mg/L)	85,910.00	8,617.00
SO ₄ ²⁻	(mg/L)	820.00	500.33
F ⁻	(mg/L)		
Br ⁻	(mg/L)		
Silica	(mg/L as Si)		
Total Alkalinity	(mg/L as HCO ₃)	739.20	1,716.13
CO ₃ ²⁻ Alkalinity	(mg/L as CO ₃)		
Carboxylates	(mg/L as Acetate)		
Ammonia	(mg/L as NH ₃)		
Borate	(mg/L as B)	0.00	0.00
TDS (Measured)	(mg/l)	139,668.00	16,933.00
Calc. Density (STP)	(g/ml)	1.092	1.011
CO ₂ Gas Analysis	(%)		
Use H ₂ S Gas Analysis	1-Yes / 0-No	0	0
Gas H ₂ S% or H ₂ Saq	%H ₂ S; mg/L H ₂ S)		
pH, measured	pH	6.60	6.63



Modeling conditions

Water blending was performed at 20:80, 30:70, 40:60, 50:50, 60:40, 30:70, & 20:80 ratios of Goodnight : EMSU 440 waters using 70,000 BWPD for flow through the formation.

Modeling Results

A Reference table for evaluating Scaling Risk is shown to the right. Each evaluation factor is evaluated against a multiplier scale for the scaling species and assigned a 1 – 4 Risk Multiplier value: **Scaling Indices (SI)**, **Pounds Per Thousand Barrels (PTB)**, and **Days to 100K Barrels of Water**. These individual Risk Multipliers are multiplied together to give a composite **Risk Value** for each scale at each modeled scenario. These are then ranked using the **Low/Moderate/High** values shown in the smaller table to the far right.

Results of modeling scenarios and blends are shown below.

		Risk Multiplier					
Scale Type		1	2	3	4	0-10	Low
CaCO ₃	SI	<0.6	<0.8	<1.0	>1.0	10-20	Moderate
	PTB	<79	<184	<276	>276	>20	High
CaSO ₄	SI	<0.05	<0.1	<1.0	>1.0		
	PTB	<79	<184	<276	>276		
BaSO ₄	SI	0	<0.3	<0.8	>0.8		
	PTB	<7	<33	<79	>79		
SrSO ₄	SI	<0.3	<0.6	<0.7	>0.7		
	PTB	<26	<130	<200	>200		
FeCO ₃	SI	0	<0.3	<0.8	>0.8		
	PTB	<79	<105	<276	>276		
FeS	SI	0	<0.3	<0.8	>0.8		
	PTB	<7	<33	<79	>79		
Water Prod	Days Prod to 100,000 BBLs	=>180	90	60	=<30		

Calcite (CaCO ₃)			2,000 psi & 100°F			
Location	BWPD	Days to 100K BBLs	SI	ppt (PTB)	Risk Value	Risk Level
20/80 Goodnight:EMSU 440	70000	1.4	0.80	182.41	16	Moderate
30/70 Goodnight:EMSU 440	70000	1.4	0.84	181.74	24	High
40/60 Goodnight:EMSU 440	70000	1.4	0.88	177.49	24	High
50/50 Goodnight:EMSU 440	70000	1.4	0.92	170.77	24	High
60/40 Goodnight:EMSU 440	70000	1.4	0.97	162.24	24	High
70/30 Goodnight:EMSU 440	70000	1.4	1.01	152.31	32	High
80/20 Goodnight:EMSU 440	70000	1.4	1.06	141.29	32	High

Gypsum (CaSO ₄)			2,000 psi & 100°F			
Location	BWPD	Days to 100K BBLs	SI	ppt (PTB)	Risk Value	Risk Level
20/80 Goodnight:EMSU 440	70000	1.4	-0.90	0.00	4	Low
30/70 Goodnight:EMSU 440	70000	1.4	-0.86	0.00	4	Low
40/60 Goodnight:EMSU 440	70000	1.4	-0.81	0.00	4	Low
50/50 Goodnight:EMSU 440	70000	1.4	-0.77	0.00	4	Low
60/40 Goodnight:EMSU 440	70000	1.4	-0.73	0.00	4	Low
70/30 Goodnight:EMSU 440	70000	1.4	-0.68	0.00	4	Low
80/20 Goodnight:EMSU 440	70000	1.4	-0.63	0.00	4	Low



Celestite (SrSO ₄)			2,000 psi & 100°F			
Location	BWPD	Days to 100K BBLs	SI	ppt (PTB)	Risk Value	Risk Level
20/80 Goodnight:EMSU 440	70000	1.4	-0.55	0.00	4	Low
30/70 Goodnight:EMSU 440	70000	1.4	-0.46	0.00	4	Low
40/60 Goodnight:EMSU 440	70000	1.4	-0.38	0.00	4	Low
50/50 Goodnight:EMSU 440	70000	1.4	-0.31	0.00	4	Low
60/40 Goodnight:EMSU 440	70000	1.4	-0.25	0.00	4	Low
70/30 Goodnight:EMSU 440	70000	1.4	-0.18	0.00	4	Low
80/20 Goodnight:EMSU 440	70000	1.4	-0.12	0.00	4	Low

Barite (BaSO ₄)			2,000 psi & 100°F			
Location	BWPD	Days to 100K BBLs	SI	ppt (PTB)	Risk Value	Risk Level
20/80 Goodnight:EMSU 440	70000	1.4	0.31	0.19	12	Moderate
30/70 Goodnight:EMSU 440	70000	1.4	0.26	0.18	8	Low
40/60 Goodnight:EMSU 440	70000	1.4	0.24	0.18	8	Low
50/50 Goodnight:EMSU 440	70000	1.4	0.22	0.18	8	Low
60/40 Goodnight:EMSU 440	70000	1.4	0.22	0.19	8	Low
70/30 Goodnight:EMSU 440	70000	1.4	0.23	0.20	8	Low
80/20 Goodnight:EMSU 440	70000	1.4	0.24	0.21	8	Low

Discussion

Scale Risks

Calcite scale risks are increasing as the ratio of Goodnight to EMSU 440 water increases (↑ Goodnight, ↓ EMSU 440) due to increasing SI while the PTB is decreasing. While all negative SIs, the highest Celestite and Gypsum risks are at the highest ratio of Goodnight water, increasing as more Goodnight water is mixed. The negative SI would indicate that brine is undersaturated at these conditions and would potentially dissolve this scale if exposed to deposits. Conversely, the highest Barite risks are at the highest EMSU 440 ratios, decreasing as more Goodnight water is mixed.

Despite the higher Sulfate and Strontium levels in the Goodnight water, the much higher TDS of the Goodnight water helps reduce the likelihood of scaling ions interacting, resulting in lower SI and PTB in the final mixture compared to what those same levels of Sulfate and Strontium would produce in the much lower TDS of the EMSU 440 brine.

The major scaling concern with blending these waters at these conditions will be Calcite formation, increasing in severity but decreasing in total scale mass as more Goodnight water is introduced.



Continuous Improvement Program

The chemical program is designed with monitoring in mind to measure the effectiveness of the program. Leading and lagging indicators are utilized in the monitoring program. Lagging indicators include such things as failure analysis, deposit analysis, and other root cause investigations. Leading indicators are a proactive approach that are comprised of monitoring practices.

Safety and Environment

Coastal Chemical has a comprehensive safety compliance and training program. Coastal Chemical is registered with IS-Net World with a rating of "A". We have established comprehensive safety policies that meet or exceed OSHA 1910 General Industry Standards.

All of our employees are trained in the OSHA 29 CFR 1910 General Industry 10-hour Outreach Training Program and have received qualification cards from the United States Department of Labor, Occupational Safety and Health Administration.

All of our field employees have received training in Hydrogen Sulfide Safety. Coastal Chemical a designated HSE Coordinator that manages the following HSE functions:

- Reviews policies and procedures and updates as necessary.
- Performs monthly facility, fire extinguisher, H2S monitor, vehicle and equipment inspections.
- Maintains and updates Material Safety Data Sheet information.
- Coordinates all outside training (forklift, H2S, First Aid and CPR, Hazard Materials, DOT, etc.)

Corporate Responsibility & Reputation

Coastal Chemical is completely committed to coming through for its customers – no matter what it takes. We provide a full range of chemical solutions for production, stimulation and completion that are primarily focused on the production and maintenance of existing well bores.

At Coastal Chemical, we pride ourselves on getting the job done right the first time. We are able to do this because we invest in the best equipment in the industry and maintain it meticulously to ensure the highest performance. However, what sets us apart is our outstanding people. Our service teams bring extensive knowledge and experience to every job. Coastal Chemical employees receive ongoing training to deliver the highest level of expertise and safety. From the initial call, to long after the work is finished, we make a difference for our customers. We find immediate solutions to their needs, even if we have to go outside of our company to do it. Whatever it takes. That's Coastal Chemical's commitment.

Coastal Chemical Technical Support

Technical Support Team		
Nick Sadeghi	Flow Assurance Project Manager	713-829-3015
Raymond Still	Asset Integrity Innovation Manager	432-306-2243
Danny Cormier	Laboratories Manager	337-330-2926
Fred Ruiz	Technical Director	361-207-4053
Scot Bodner	R & D Director	832-350-0770
Olukunle Odubiyi	Permian Laboratory Manager	432-234-3938
Michael Gonser	Permian Technical Team Lead	432-701-1550
Marco Ortego	Technical Service Representative	432-238-0735
Trent Jackson	Technical Service Representative	432-557-1366



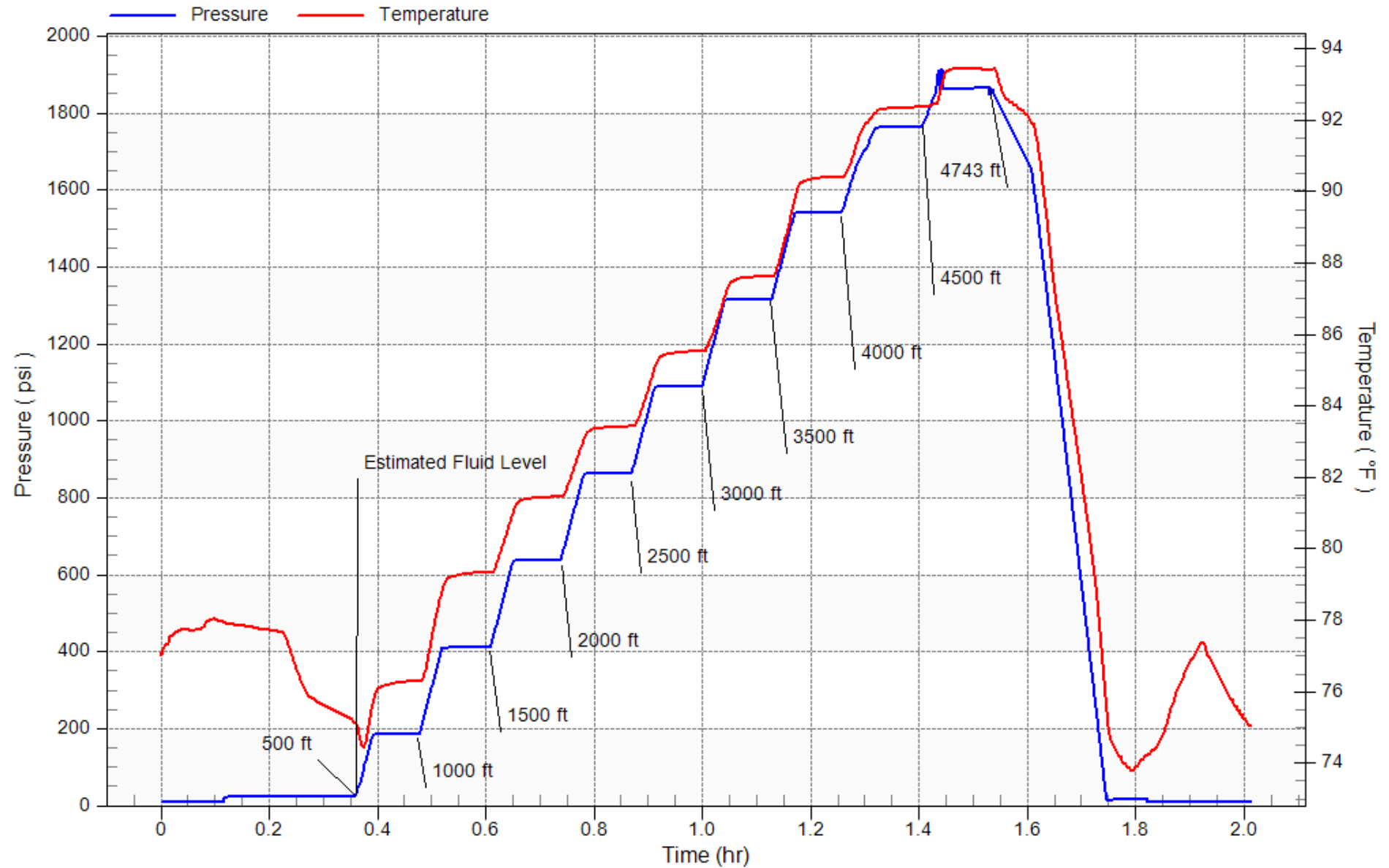
**Eunice Monument South Unit #001
Tuesday, June 30, 2026**

JOB INFORMATION SHEET

Company Information		
Company Name:	Empire Petro	
Well Information		
Well Name:	Eunice Monument South Unit #001	
Location:	Lea County, NM	
Field – Pool:	Eunice Monument South	
Status:	SWD	
Test Information		
Type of Test:	Pressure Survey	
Gauge Depth:	4743 ft	
Temperature @ Run Depth	93.47 degF	
Surface Temperature:	73.80 degF	
Gauge Information		
	Top Recorder	Bottom Recorder
Serial Number:	79873	
Calibration Date:	8/6/2025	
Pressure Range:	15000 psi	
Comments		
Pressure Survey 5 min stops every 500 ft from surface to 4500 ft 5 min at 4743 ft Estimated fluid level 500 ft		

Eunice Monument South Unit #001

Pressure Survey



Gradient Data Report

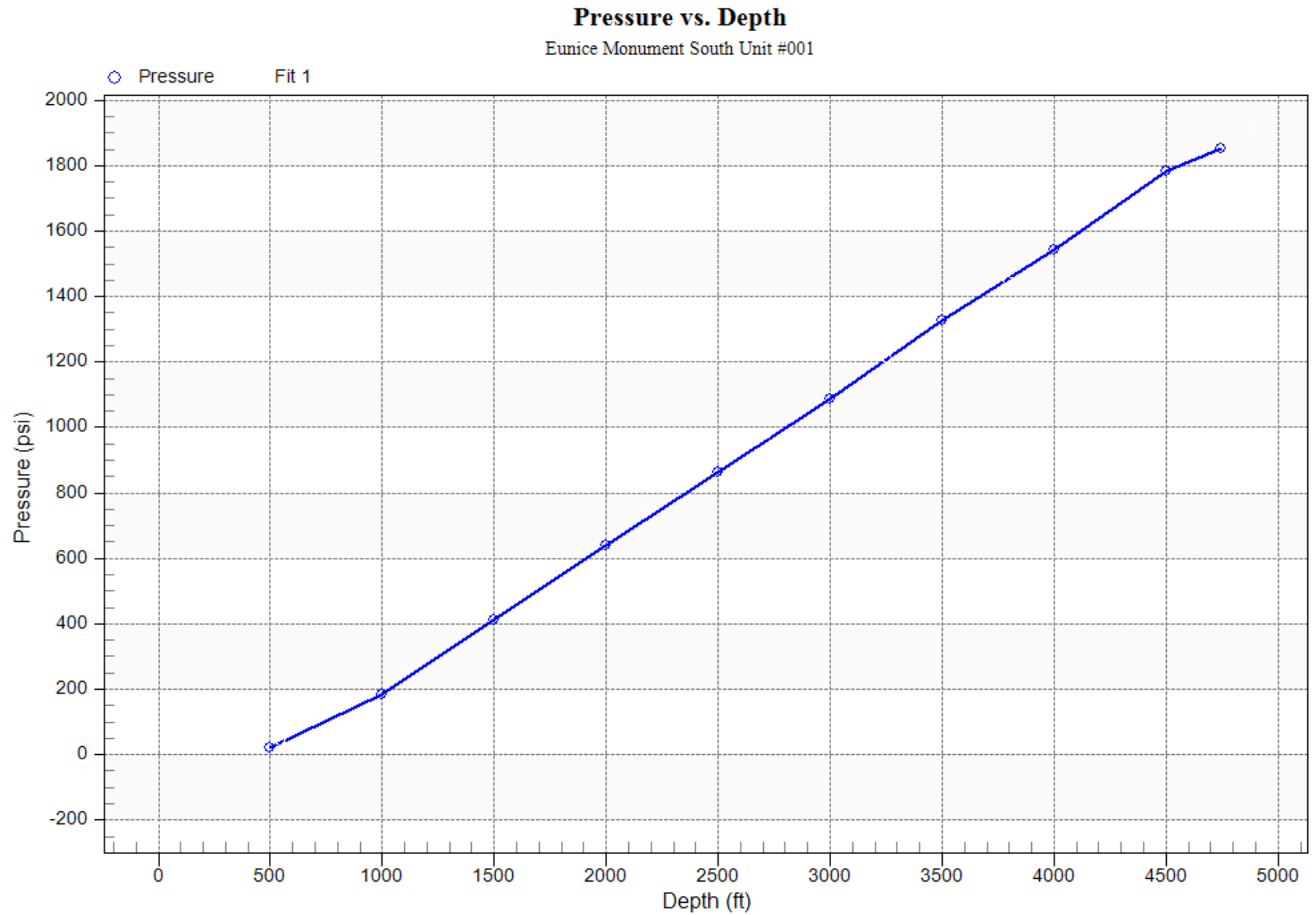
Eunice Monument South Unit #001

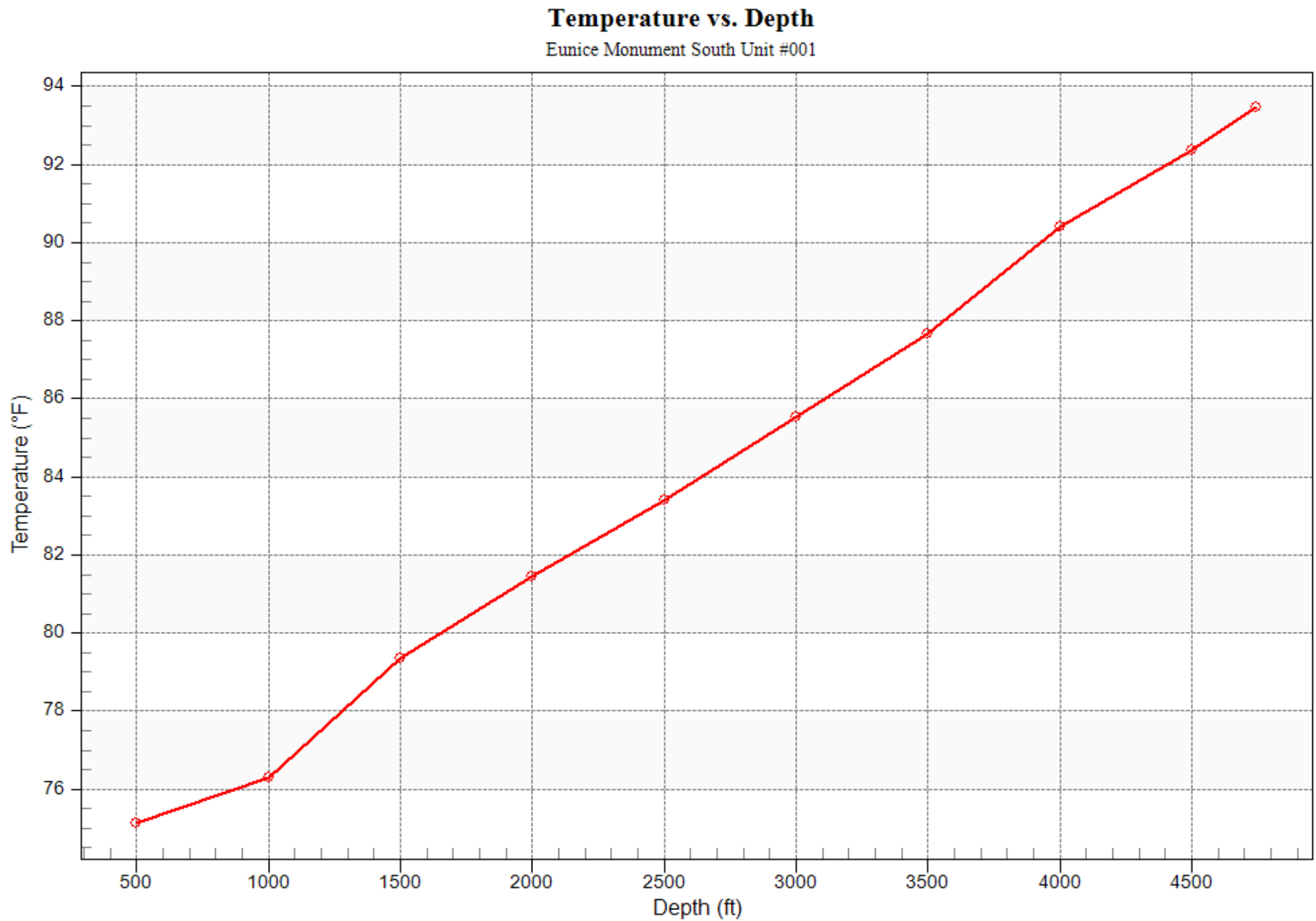
Gradient Data Table

Depth ft	Pressure psi	Temperature degF	Gradient psi/ft
500.00	22.23	75.14	0.0000
1000.00	184.43	76.30	0.3244
1500.00	409.86	79.35	0.4509
2000.00	638.04	81.46	0.4564
2500.00	862.03	83.42	0.4480
3000.00	1088.53	85.52	0.4530
3500.00	1326.63	87.65	0.4762
4000.00	1541.60	90.41	0.4299
4500.00	1782.76	92.38	0.4823
4743.00	1850.50	93.46	0.2788

Analysis Summary

Depth ft	Gradient psi/ft
0.00	
	0.4309
4743.00	





Impact of Increased Pressure on CO₂-EOR Design & Economics

KEY POINTS

- Raising San Andres reservoir pressure will result in more CO₂ purchase required to do the CO₂ flood.
- If CO₂ flood is conducted at 1500 psi, each pattern will require 7729 MMCF CO₂ to displace 1 HCPV
- If pressure is raised to 3000 psi, each pattern will require 9643 MMCF CO₂, a 25% increase.
- The higher pressure will also require that produced water be injected into another zone (i.e. Grayburg) to prevent over pressurization of San Andres and potential fracturing

Temperature	Pressure	Density	Compressibility	Viscosity		Factor	Factor	Factor	40-acre pattern =	3,723,600	RB
F	PSIA	LB/CF	FACTOR	cp	PHASE	CF/SCF	res bbl/Mcf	Mcf/res bbl			
100	1000	12.468	0.58769	0.019227	D	0.009305	1.657719	0.603			
100	1100	15.864	0.50808	0.021228	D	0.007313	1.302873	0.768			
100	1200	22.968	0.38283	0.02682	D	0.005051	0.899886	1.111			
100	1300	36.109	0.26381	0.042661	D	0.003213	0.572414	1.747			
100	1400	40.549	0.25299	0.050034	D	0.002861	0.509727	1.962			
100	1500	42.902	0.25619	0.054498	D	0.002704	0.481763	2.076	7,729	MMCF	
100	1600	44.535	0.26325	0.057864	D	0.002605	0.464099	2.155			
100	1700	45.802	0.27197	0.060647	D	0.002533	0.451268	2.216			
100	1800	46.845	0.28155	0.063062	D	0.002477	0.441210	2.266			
100	1900	47.737	0.29164	0.065222	D	0.00243	0.432968	2.310			
100	2000	48.519	0.30204	0.067191	D	0.002391	0.425988	2.347	8,741	MMCF	13.1%
100	2100	49.217	0.31265	0.069014	D	0.002357	0.419954	2.381			
100	2200	49.848	0.32339	0.070718	D	0.002327	0.414635	2.412			
100	2300	50.426	0.33422	0.072326	D	0.002301	0.409890	2.440			
100	2400	50.958	0.3451	0.073851	D	0.002277	0.405598	2.465			
100	2500	51.454	0.35602	0.075308	D	0.002255	0.401695	2.489	9,270	MMCF	19.9%
100	2600	51.917	0.36696	0.076705	D	0.002235	0.398114	2.512			
100	2700	52.352	0.3779	0.078049	D	0.002216	0.394799	2.533			
100	2800	52.763	0.38885	0.079348	D	0.002199	0.391730	2.553			
100	2900	53.153	0.39978	0.080606	D	0.002183	0.388853	2.572			
100	3000	53.523	0.4107	0.081828	D	0.002168	0.386159	2.590	9,643	MMCF	24.8%
100	3100	53.877	0.42161	0.083017	D	0.002153	0.383629	2.607			
100	3200	54.215	0.4325	0.084176	D	0.00214	0.381240	2.623			
100	3300	54.539	0.44336	0.085309	D	0.002127	0.378970	2.639			
100	3400	54.85	0.4542	0.086416	D	0.002115	0.376817	2.654			
100	3500	55.15	0.46502	0.087501	D	0.002104	0.374771	2.668			

OCC Record-07527

EXHIBIT A