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

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

CASE NOS. 23614-23617

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

CASE NO. 23775

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

CASE NOS. 24018-24020, 24025

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

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

GOODNIGHT'S MOTION FOR AN ORDER DIRECTING EMPIRE TO CEASE EMSU WATERFLOOD INJECTIONS ABOVE PERMITTED SURFACE INJECTION PRESSURES AND TO PROVIDE A VERIFIED ACCOUNTING OF WATERFLOOD INJECTION

Goodnight Midstream Permian, LLC ("Goodnight") respectfully files this motion for an order against Empire New Mexico, LLC ("Empire") requiring it to cease violating the surface injection pressure limits on the waterflood injection wells it operates in the Eunice Monument South Unit ("EMSU"), and to provide within 30 days of an order a verified accounting on all of

its EMSU waterflood injection wells for the previous twelve months and providing monthly accounting reports going forward until the start of the hearing in these matters on February 20, 2025. The verified accounting should include (1) daily injection volumes; (2) average daily surface injection pressures; (3) daily maximum surface injection pressures; and (4) confirmation that each waterflood well is equipped with a functioning pressure-limiting device set to prevent each well from exceeding its applicable surface injection pressure limit. In support, Goodnight states:

CONFERRAL AND SUPPORT

Counsel for Goodnight conferred with counsel for the New Mexico Oil Conservation Division ("OCD") and confirmed OCD approves of this motion to advance permissible and necessary discovery related to Empire's permit compliance. Intervenors Rice Operating Company and Permian Line Service, LLC join this motion. Intervenor Pilot Water Solutions SWD, LLC, does not oppose the motion. Given the nature of the motion, Empire is presumed to oppose.

INTRODUCTION

Empire's reported average monthly surface injection pressures for at least 44 of its permitted waterflood injection wells exceeded the maximum applicable permit limit at least 304 times since January 2022. *See* Affidavit of Preston McGuire, attached as **Exhibit A**. The frequency of exceedances has increased over the last twelve months:

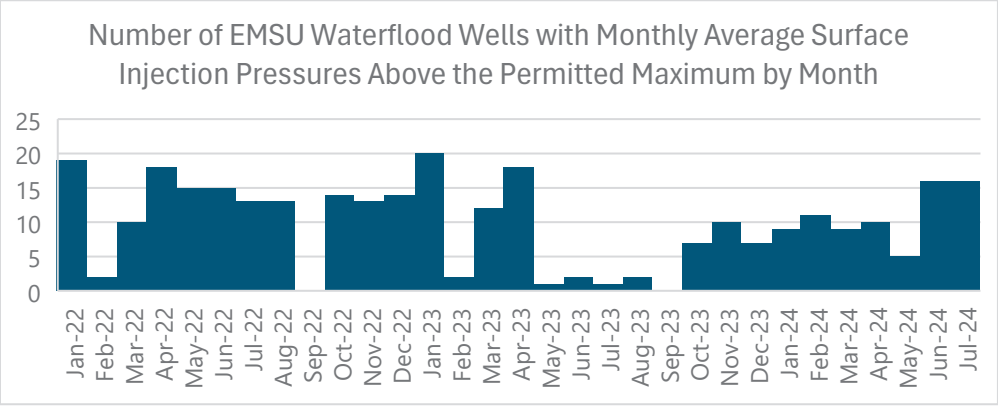

Figure 1. *See* Exhibit A-1, p. 8. In June and July 2024, OCD data shows at least 32 violations based

on the reported average monthly surface injection pressures.

Because Empire is not required to report daily surface injection pressures, the actual number of pressure-limit exceedances at each well is unknown. Exhibit A at ¶ 16. In this respect, the number of permit violations represented in Figure 1 is conservative because it tabulates only wells for which the average monthly surface injection pressure exceeds the authorized maximum. Exhibit A at ¶ 14. In other words, it represents the minimum possible number of actual permit exceedances in the review period. In a well with a monthly average surface injection pressure above the applicable limit, there are likely multiple days in that month when surface injection pressures exceeded the authorized maximum, resulting in numerous additional exceedances. Exhibit A at ¶ 16. The applicable orders that govern Empire's injection impose a maximum surface injection pressure. They do not impose a monthly average as a limit—that would allow Empire to exceed surface injection pressure limits on some days as long as the monthly average is below the limit—even though a monthly average is the reporting metric on the C-115s. Empire is not authorized to inject over the pressure limit at all.

Since Empire has demonstrated it routinely exceeds its permit limits—and any pressure-limiting devices in place are either not working or not set correctly—it is likely additional daily pressure limit exceedances have occurred, even in wells with monthly average injection pressures below the authorized limit. Exhibit A at ¶ 17. It is possible there are individual days when the surface injection pressure exceeded the permitted limit, but such exceedances were not large enough or frequent enough in the aggregate to put the monthly average over the limit. *Id.*

Empire's recurring permit violations give rise to a *per se* harm to each of the offsetting operators, not just Goodnight. As provided for in the orders that govern Empire's waterflood injection, injection above the surface injection pressure limits may be authorized only after a valid

step-rate test demonstrates the well can safely operate at higher injection pressures. *See* Exs. A-3 3 through A-12. While there have been instances where prior EMSU operators requested and obtained authority to inject at higher surface injection pressures, Empire has not done so.

The Commission can and should grant the relief requested, consistent with 19.15.4.23(B) NMAC, and consistent with the *Order on Empire's Expedited Motion to Stay or Suspend Goodnight Midstream Permian's Authorization to Inject and for Sanctions*, issued on August 20, 2024. There is no dispute that the Commission has authority to enforce permit requirements. *See Empire's Expedited Motion to Stay or Suspend Goodnight's Authorization to Inject and for Sanctions for Violation of SWD Orders*, dated July 1, 2024. Unlike Empire, Goodnight is not asking the Commission to enjoin all of Empire's permitted waterflood injection, currently. *Contra id.* Instead, Goodnight seeks very narrow and targeted relief.

Goodnight asks that the Commission prohibit Empire from continuing to violate its permit conditions. Goodnight also requests Empire provide a verified accounting of (1) daily injection volumes; (2) average daily surface injection pressures; (3) daily maximum surface injection pressures; and (4) confirmation that each EMSU waterflood well is equipped with a functioning pressure-limiting device that is set to prevent each well from exceeding its applicable surface injection pressure limit. This accounting is requested on all of Empire's EMSU waterflood injection wells for the previous twelve months and for monthly accounting reports going forward until the start of the hearing in these matters on February 20, 2025.

While it is apparent Empire exceeded the maximum surface injection pressures on at least 44 of its permitted waterflood injection wells at least 304 times since January 2022, without the requested accounting, the New Mexico Oil Conservation Division, Goodnight, and other offsetting operators cannot determine the magnitude of those violations, or the actual number of days Empire

has exceeded permit pressure maximums on each of its waterflood injection wells. A full accounting is necessary to understand the extent of Empire's violations and to avoid continued violations and harm to offsetting operators, including Goodnight.

Empire did not violate its permit limits just a few times or in just a few wells a long time ago. The data shows, instead, that Empire's permit violations have been occurring on an ongoing basis for as far back as Goodnight has reviewed the data, on numerous wells, and in almost every month Empire has operated the EMSU. *See* Exs. A and A-1 through A-2a, generally. The Commission should immediately order Empire to stop its over-pressure injection and to provide the data necessary to properly assess the magnitude and frequency of the violations.

UNDISPUTED MATERIAL FACTS

For purposes of the pending motion, Goodnight sets forth as "Undisputed Material Facts" the factual allegations, as numbered, and exhibits, as identified, attached to the Affidavit of Preston McGuire, attached hereto as Exhibit A, and incorporated herein. *See* NMRA 1-010(C).

LEGAL ARGUMENT

An Order to Stop Injecting Above Permitted Pressure Limits and to Provide a Verified Accounting of Injection Pressures and Pressure-Limiting Devices Is Merited to Enforce Compliance and Maintain the Status Quo.

Goodnight briefly points to the bases for its requested relief: an order requiring Empire to account for its past and future injection activities, to provide evidence of properly functioning pressure-limiting devices on each of its EMSU injection wells, and to immediately cease over-pressure injections. Each element that ought to be considered supports such an order. *See Labalbo v. Hymes*, 1993-NMCA-010, ¶ 11, 850 P.2d 1017; *and see* Order No. R-14300-A ¶ 5 (quoting and adopting the standard for an administrative stay in *Tenneco Oil Co. v. N.M. Water Quality Control Comm'n*, 1986-NMCA-033, ¶ 10).

1. *Goodnight Will Likely Succeed Because Empire is Required to Comply with the Governing Permit Conditions.*

Goodnight is likely to prevail in a claim seeking to limit Empire's waterflood injection to the permitted pressure limits. Goodnight's instant motion is supported by admissible evidence that shows the requested order "is necessary to prevent waste, protect correlative rights, protect public health or the environment or prevent gross negative consequences to an affected party." 19.15.4.23(B) NMAC (emphasis added). Indeed, that evidence is based on Empire's own C-115 form submissions to the OCD. As such, the facts on which this motion is based are uncontroverted. The bottom-line is that Empire is unlikely to show that it has not violated its applicable surface injection pressure limits or that it can continue to violate the permit conditions set forth in the orders that govern Empire's injection. *See* Ex. A. Goodnight is therefore likely to prevail on a claim seeking to prevent Empire from injecting at surface pressures above its permitted limits.

2. *Enjoining Empire's Over-Pressure Injection Avoids Irreparable Harm to Offsetting Operators and is Supported by the Public Interest.*

Pressure limits are put into place by the OCD for many good reasons—and Goodnight is entitled to ask that the Commission enforce them pending resolution of these cases because doing so is, *per se*, "necessary to … protect the environment or prevent gross negative consequences to an affected party." 19.15.4.23(B) NMAC (emphasis added). Goodnight is an offsetting operator and other than OCD, so are the other parties to these proceedings. Indeed, numerous other non-parties are affected by Empire's Grayburg operations in the EMSU, including operators of wells in shallower formations. As the evidence submitted with this motion plainly demonstrates, Empire is in violation of its governing orders and at risk of violating 19.15.26.10(B) NMAC. *See* Ex. A.

The Commission is authorized "to require wells to be drilled, operated and produced in such manner as to prevent injury to neighboring leases or properties . . .." NMSA 1978, § 70-2-12.

As such, the Legislature has stated the public interest supports requiring operators to follow permit conditions and has empowered the Commission to effect that policy. *See also* 19.15.4.23(B) NMAC. Regardless, the Division has already determined that failure of an EMSU operator to conduct operations consistent with the requirements of injection order is sufficient to justify terminating injection authority. *See, e.g.,* WFX-785, attached as Exhibit A-6.

3. *Enjoining Empire's Over-Pressure Injection Causes Empire No Harm.*

Empire's authority to operate its the waterflood injection wells is constrained by the pressure limits set forth in the permitting orders. *See* Ex. A, ¶ 12; *and see* Exs. A-3 through A-12. There is, thus, no undue prejudice to Empire, if it is required to comply with its permit conditions.

Neither is an order to provide the requested accounting prejudicial to Empire. Neither is the requirement to show functioning pressure limiting devices on each of Empire's EMSU injection wells. The proposed accounting simply requires Empire to demonstrate it is doing what it is required to do under the governing orders. *Id.* The benefit of the proposed accounting to the Commission, OCD, and to offsetting operators – ensuring Empire's compliance with its permit conditions going forward – serves the public interest and far outweighs any burden on Empire to provide such an accounting. The Commission already balanced such a cost and required an accounting from Goodnight related to its injection activity, even though no evidence of permit violations was even proffered by Empire. *See Order on Empire's Motion to Stay*. Since substantial evidence establishes that Empire has, indeed, violated its permits and continues to do so, even in the last two reported months of injection activity, the proposed accounting is merited.

CONCLUSION

Goodnight attaches a copy of a proposed order as **Exhibit B**. *See* NMAC 19.15.4.23(B). For the above reasons, Goodnight requests the Commission grant this motion and issue an order:

1. Finding that during the preceding twelve months Empire has exceeded its permitted surface injection pressure limits in its waterflood injection wells within the Eunice Monument South Unit ("EMSU") on multiple occasions and in multiple waterflood injection wells;

2. Ordering Empire to immediately cease injecting into the EMSU at surface injection pressures greater than its EMSU permitted limits;

3. Ordering Empire to submit, within 30 days, a verified accounting for the preceding twelve months and going forward verified accountings on a monthly basis until the start of the hearing in these matters on February 20, 2025, on all of its EMSU waterflood injection wells, which shall provide for each well: (1) daily injection volumes; (2) average daily surface injection pressures; and (3) daily maximum surface injection pressures;

4. Ordering Empire to confirm the type, nature, pressure-limit settings, and functionality of pressure-limiting devices on each of Empire's EMSU waterflood injection wells;

5. Ordering Empire to provide to the Oil Conservation Division, the parties and intervenors to this proceeding, and affected parties within a one-half mile radius of the EMSU the verified and monthly accountings; and

6. Ordering such other and additional relief that the Commission has jurisdiction to provide, and that it deems necessary and/or appropriate to grant against Empire.

DATED: October 8, 2024

Respectfully submitted,

HOLLAND & HART LLP

/s/ Nathan R. Jurgensen
By: _____

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CERTIFICATE OF SERVICE

I hereby certify that on October 8, 2024, I served a copy of the foregoing document to the following counsel of record via Electronic Mail to:

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

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

SELF-AFFIRMED STATEMENT OF PRESTON MCGUIRE

1. I am Preston McGuire. I work for Goodnight Midstream Permian, LLC ("Goodnight") as the Geology and Reservoir Engineering Manager.

2. I am familiar with the applications and motions filed by Goodnight Midstream and Empire in these cases, and I am familiar with the status of the lands and geology in the subject area. I have conducted a study and review of the reservoirs and geology in the area of the proposed and active injection wells and of the San Andres formation, which is the saline aquifer that is the

EXHIBIT - A

disposal zone for Goodnight's existing and proposed injection. I have personal knowledge of the matters stated herein.

3. I have attached my curriculum vitae as Exhibit 1. I believe my credentials qualify me to testify as an expert in petroleum geology and reservoir engineering in these matters.

4. Attached as Exhibit 2 is a spreadsheet of data compiled under my direction and supervision from Empire's C-115 forms for the period from January 2022 through July 2024, filed with the New Mexico Oil Conservation Division ("OCD") regarding multiple waterflood injection wells operated by Empire within the Eunice Monument South Unit (EMSU).

5. Empire became operator of the EMSU and its waterflood injection wells effective on July 23, 2021, when OCD approved the Change of Operator form C-145. For simplicity, we conducted our review of Empire's operations of its waterflood injection starting in January 2022.

6. Empire operates more than 100 waterflood injection wells within the EMSU, including the 44 wells with API numbers and names shown in Exhibit 2.

7. Empire is required to provide the average monthly injection pressure for each of Empire's waterflood injection wells within the EMSU as part of the C-115 reports it submits to the OCD every month.

8. The C-115 forms filed by Empire are publicly available on the OCD's website. The 44 waterflood injection wells included in Exhibit 2 are subject to the orders attached as Exhibits 3-12.

9. All the governing orders require the EMSU waterflood injection wells to be equipped with pressure-limiting devices to prevent surface injection pressures from exceeding the permitted maximum.

10. Columns A-E on Exhibit 2 include data pulled from the C-115s. Column A is the API for the respective well. Column B is the well name. Column C is the C-115 reporting month. Column D is the monthly injected volume reported on the C-115 for that well. Column E is the reported average monthly injection pressure for that well.

11. Column F is the depth of the uppermost perforation in the well based on the OCD well file that was aggregated by S&P Energy (formerly HIS) or as specified in the governing order.

12. Column G includes the surface injection pressure limits applicable to each well based on the governing orders in Exhibits 3-12, which are true and correct copies of orders issued by the OCD that govern each of Empire's respective waterflood injection wells listed in Exhibit 2. Each order is maintained by the OCD and is publicly available on the OCD's website.

13. The surface injection pressure limits in Column G are the calculated the maximum permitted surface injection pressures for each well based on the depth to the top perforation in each well and the appropriate psi/foot provided in the applicable order.

14. Exhibit 2 shows that there were 304 instances when Empire's average monthly surface injection pressures reported in the C-115s for a given well exceeded the maximum permitted injection pressure for that well.

15. That means Empire has violated its EMSU permit conditions at least 304 times since the beginning of 2022. That is a conservative estimate because Exhibit 2 represents a tabulation of permit violations based on only the monthly average surface injection pressures.

16. Because the C-115s include only the average monthly surface injection pressures for each well, it is impossible to determine from public data alone how many days Empire's waterflood injection wells actually exceeded the pressure limits in each well. It is likely that for

any month with an average monthly surface injection pressure above the maximum limit listed in Exhibit 2 there will be multiple days that have surface injection pressures above the limit.

17. It is also impossible to determine just based on publicly available data and the C-115s whether any of Empire's operations in its numerous other waterflood injection wells in the EMSU not listed in Exhibit 2 exceeded surface pressure injection limits on any given day. Even if the monthly average surface injection pressure for a well did not exceed the limit, it is possible there may be numerous days within such months when the pressure limits were exceeded on a daily basis but were not high enough in the aggregate for the average over the entire month to exceed the limit.

18. Exhibit 2a is a tabulation of the number of instances (months) each well listed in Exhibit 2 exceeded its applicable surface injection pressure limit based on the average monthly surface injection pressure reported by Empire.

19. Exhibit 2b is a histogram tabulating the number of permit limit exceedances using the average monthly surface injection pressure reported by Empire in each month from January 2022 through July 2024.

20. The number and frequency of Empire's exceedances strongly suggests that Empire's waterflood injection wells do not have functioning pressure-limiting devices, or the pressure-limiting devices installed are not operating properly or are not set to the correct limit.

21. To the best of my knowledge and belief, Exhibit 2 is an accurate collection and summary of the data reported by Empire to the OCD in each of its monthly C-115 forms from January 2022 through July 2024 for each well and each month.

22. And, to the best of my knowledge and belief, the permitted pressure maximums in Column G were calculated correctly and accurately based on publicly available information and the information provided in Exhibits 3-12.

23. To the best of my knowledge and belief, Exhibits 2a and 2b are a true and accurate representation of the data compiled in Exhibit 2.

24. I affirm under penalty of perjury under the laws of the State of New Mexico that the foregoing statements are true and correct to the best of my knowledge and belief. This statement is made on the date next to my signature

Preston McGuire 10-4-24

Preston McGuire Date

Preston McGuire

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Fort Worth, TX 76114
Pmcg1992@yahoo.com / (575) 937-5351
linkedin.com/in/preston-mcguire-382771129/

Summary of Skills:

As a geologist currently specializing in saltwater disposal wells and underground storage reservoirs. I have a proven track record of using my skills in geology, reservoir engineering, and operational management to contribute to the successful development of permanent, large-volume disposal reservoirs. These skills are also applicable to CO2 sequestration and gas storage. My work involves analyzing geological data to identify and evaluate suitable reservoirs for disposal and managing the drilling and completion of disposal wells. I am skilled in monitoring and managing reservoir performance, including pressure and flow rate, and using this information to optimize disposal operations (i.e. pipeline balancing/optimization). In addition, I have experience developing plans for induced seismicity mitigation to ensure safe disposal operations.

Work Experience:

Goodnight Midstream, Geology and Reservoir Engineering Manager, September 2023-Present
Responsible for various aspects of the company's operations, involving the evaluation and troubleshooting of existing produced water injection wells and the selection of new disposal sites/zones to meet specific reservoir capacity and economic development criteria. Worked in close collaboration with the Business Development/Finance, Land, Regulatory, and Engineering groups to achieve common business goals. Served as regulatory lead in New Mexico, Texas, and North Dakota for all SWD regulatory filings.
Duties: Managed the Geology and Reservoir Engineering personnel. Provide geologic and reservoir analysis to support project decision making. Analyze SWD performance metrics, including flow rate vs. pressure, Fall-off tests, and step-rate tests to assess reservoir performance and well life. Perform analysis to understand and mitigate induced seismicity risk for injection wells. Provide mechanical and operation enhancement recommendations for existing assets. Serve as technical representative for company in meetings and conferences.

-Senior Geologist, May 2021-September 2023
Worked as a subsurface team lead for Texas assets with a team of geologists and engineers conducting geological assessments for saltwater disposal sites, resulting in optimized injection well placements and increased disposal capacity. Assisted finance team in evaluating oil & gas production of current and potential clients to underwrite gathering contracts.
Duties: Prepare comprehensive technical reports and presentations summarizing geological findings, reservoir analyses, and disposal system performance for management and stakeholders. Identify and address operational challenges, proposing and implementing innovative solutions to enhance injection efficiency and reduce costs. Monitored injection data to analyze well health and current injection capacity and optimize pipeline balancing. Performed oil and gas production analysis of potential customer leaseholds to forecast and underwrite cashflows. Served as company representative on multiple industry groups that advises regulators in developing regulations that are needed and operationally feasible.

EXHIBIT - A-1

-Geologist, May 2017- May 2021
Worked as a geologist on a multidisciplinary team to locate, drill, complete, and monitor saltwater disposal wells in Texas, New Mexico, and North Dakota.
Duties: Perform detailed geological mapping and interpretation using industry-standard software to identify optimal locations for saltwater disposal wells (structure contour, isopachs, net pay, pore volume). Analyze well logs and interpret subsurface data to evaluate reservoir characteristics and optimize reservoir utilization. Developed structural analyses and stratigraphic framework of multiple geologic horizons and conducted petrophysical analyses to identify reservoirs with suitable characteristics to support SWD viability and longevity. Involved in SWD permitting process in New Mexico and Texas working with regulators to achieve approved injection permits.

Antero Resources, Geologic Intern summers of 2015 & 2016
Skills learned: Working within a multidisciplinary team for an E&P company to achieve a common goal and becoming familiar with the E&P process from prospect to market.
Duties: Mapping project of Upper Devonian shales in eastern Kentucky and western West Virginia. Project included structure contour maps and pay zone isopach maps produced in Petra.

Paragon Geophysical Services, Geotechnical Intern summer of 2014
Skills learned: Designing spreads of seismic shoots as well as working with the seismic data files.
Duties: Assisted in designing the spread and layout of extensive seismic surveys in the U.S. and Canada using Mesa and DeLorme XMap 8. Gathered and uploaded raw seismic data from crews for the client's geoscientist.

Western State Colorado University, Research Assistant to Dr. Allen Stork, 2013-2015
Skills learned: GIS experience and lab techniques.
Duties: Digitized geologic quadrangles for use in GIS and completed general petrographic work.

Education:

Texas Christian University
M.S. in Geology
Thesis: U-Pb detrital zircon signature of the Ouachita Orogenic Belt, Advisor: Xangyang Xie
May 2017. GPA: 3.8/4.0

Western State Colorado University
B.S. in Geology with an emphasis in Petroleum Geology, minors in Mathematics and Psychology
December 2014. GPA: 3.3/4.0; Geology 3.6/4.0

Accomplishments & Memberships:

NMOGA Company Representative 2019-Present
- Served on NMOGA Delaware Mountain Group Capacity Technical Team
- Served on NMOGA Deep Disposal & Seismicity Technical Team

TXRRC SRA Company Representative
TXOGA Company Representative 2019-Present
Imperial Barrel Award team member, TCU 2016
Fort Worth Geological Scholarship, Fort Worth Geological Society 2016-2017
Petroleum Geology Award/Scholarship, Roswell Geologic Society, 2011-2017
AAPG Student Chapter Member 2012-2017, Treasurer 2013-2014
Mountaineer Award/Scholarship, Western State Colorado University, 2010-2014

API	Well Name	C-115 Report Month	C-115 Monthly Injected Volume	C-115 Reported Average Inj. Pressure	Top Perf	Permit Max	Requested Increase	Confirm Permit/ Increased Pressure Max	Avg. Monthly PSI over Permit Max	Injection Pressure Gradient
30-025-04330	EUNICE MONUMENT SOUTH UNIT #108	3/1/22	2849	752	3730	746		R-7766 0.2 PSI/foot	6	0.667
30-025-04330	EUNICE MONUMENT SOUTH UNIT #108	4/1/22	2701	787	3730	746		R-7766 0.2 PSI/foot	41	0.676
30-025-04330	EUNICE MONUMENT SOUTH UNIT #108	5/1/22	2772	784	3730	746		R-7766 0.2 PSI/foot	38	0.675
30-025-04330	EUNICE MONUMENT SOUTH UNIT #108	3/1/23	2849	752	3730	746		R-7766 0.2 PSI/foot	6	0.667
30-025-04330	EUNICE MONUMENT SOUTH UNIT #108	4/1/23	2701	787	3730	746		R-7766 0.2 PSI/foot	41	0.676
30-025-06283	EUNICE MONUMENT SOUTH UNIT #111	4/1/24	8028	755	3727	745		WFX-893 / R-7766 0.2 PSI/foot	10	0.668
30-025-06283	EUNICE MONUMENT SOUTH UNIT #111	6/1/2024	7852	757	3727	745		WFX-893 / R-7766 0.2 PSI/foot	12	0.668
30-025-06283	EUNICE MONUMENT SOUTH UNIT #111	7/1/2024	7852	757	3727	745		WFX-893 / R-7766 0.2 PSI/foot	12	0.668
30-025-06290	EUNICE MONUMENT SOUTH UNIT #116	3/1/22	35846	785	3712	742		R-7766 0.2 PSI/foot	43	0.676
30-025-06290	EUNICE MONUMENT SOUTH UNIT #116	4/1/22	35286	791	3712	742		R-7766 0.2 PSI/foot	49	0.678
30-025-06290	EUNICE MONUMENT SOUTH UNIT #116	5/1/22	36607	792	3712	742		R-7766 0.2 PSI/foot	50	0.678
30-025-06290	EUNICE MONUMENT SOUTH UNIT #116	6/1/22	28939	795	3712	742		R-7766 0.2 PSI/foot	53	0.679
30-025-06290	EUNICE MONUMENT SOUTH UNIT #116	7/1/22	35598	799	3712	742		R-7766 0.2 PSI/foot	57	0.680
30-025-06290	EUNICE MONUMENT SOUTH UNIT #116	8/1/22	33502	809	3712	742		R-7766 0.2 PSI/foot	67	0.683
30-025-06290	EUNICE MONUMENT SOUTH UNIT #116	10/1/22	35413	787	3712	742		R-7766 0.2 PSI/foot	45	0.677
30-025-06290	EUNICE MONUMENT SOUTH UNIT #116	3/1/23	35846	785	3712	742		R-7766 0.2 PSI/foot	43	0.676
30-025-06290	EUNICE MONUMENT SOUTH UNIT #116	4/1/23	35286	791	3712	742		R-7766 0.2 PSI/foot	49	0.678
30-025-29598	EUNICE MONUMENT SOUTH UNIT #118	4/1/22	4938	846	3834	767		R-7766 0.2 PSI/foot	79	0.686
30-025-29598	EUNICE MONUMENT SOUTH UNIT #118	5/1/22	5257	843	3834	767		R-7766 0.2 PSI/foot	76	0.685
30-025-29598	EUNICE MONUMENT SOUTH UNIT #118	6/1/22	5065	840	3834	767		R-7766 0.2 PSI/foot	73	0.684
30-025-29598	EUNICE MONUMENT SOUTH UNIT #118	7/1/22	5195	853	3834	767		R-7766 0.2 PSI/foot	86	0.687
30-025-29598	EUNICE MONUMENT SOUTH UNIT #118	8/1/22	1982	854	3834	767		R-7766 0.2 PSI/foot	87	0.688
30-025-29598	EUNICE MONUMENT SOUTH UNIT #118	10/1/22	1093	809	3834	767		R-7766 0.2 PSI/foot	42	0.676
30-025-29598	EUNICE MONUMENT SOUTH UNIT #118	11/1/22	5071	878	3834	767		R-7766 0.2 PSI/foot	111	0.694
30-025-29598	EUNICE MONUMENT SOUTH UNIT #118	12/1/22	4990	888	3834	767		R-7766 0.2 PSI/foot	121	0.697
30-025-29598	EUNICE MONUMENT SOUTH UNIT #118	4/1/23	4938	846	3834	767		R-7766 0.2 PSI/foot	79	0.686
30-025-29598	EUNICE MONUMENT SOUTH UNIT #118	1/1/24	5315	775	3834	767		R-7766 0.2 PSI/foot	8	0.667
30-025-29598	EUNICE MONUMENT SOUTH UNIT #118	2/1/24	4978	780	3834	767		R-7766 0.2 PSI/foot	13	0.668
30-025-06306	EUNICE MONUMENT SOUTH UNIT #134	1/1/22	3171	856	3732	746		R-7766 0.2 PSI/foot	110	0.694
30-025-06306	EUNICE MONUMENT SOUTH UNIT #134	2/1/22	3197	767	3732	746		R-7766 0.2 PSI/foot	21	0.671
30-025-06306	EUNICE MONUMENT SOUTH UNIT #134	3/1/22	3008	770	3732	746		R-7766 0.2 PSI/foot	24	0.671
30-025-06306	EUNICE MONUMENT SOUTH UNIT #134	4/1/22	3064	775	3732	746		R-7766 0.2 PSI/foot	29	0.673
30-025-06306	EUNICE MONUMENT SOUTH UNIT #134	5/1/22	3588	770	3732	746		R-7766 0.2 PSI/foot	24	0.671
30-025-06306	EUNICE MONUMENT SOUTH UNIT #134	6/1/22	2581	756	3732	746		R-7766 0.2 PSI/foot	10	0.668
30-025-06306	EUNICE MONUMENT SOUTH UNIT #134	8/1/22	3136	777	3732	746		R-7766 0.2 PSI/foot	31	0.673
30-025-06306	EUNICE MONUMENT SOUTH UNIT #134	10/1/22	3085	778	3732	746		R-7766 0.2 PSI/foot	32	0.673
30-025-06306	EUNICE MONUMENT SOUTH UNIT #134	11/1/22	3028	781	3732	746		R-7766 0.2 PSI/foot	35	0.674
30-025-06306	EUNICE MONUMENT SOUTH UNIT #134	12/1/22	3294	786	3732	746		R-7766 0.2 PSI/foot	40	0.676
30-025-06306	EUNICE MONUMENT SOUTH UNIT #134	1/1/23	3171	856	3732	746		R-7766 0.2 PSI/foot	110	0.694
30-025-06306	EUNICE MONUMENT SOUTH UNIT #134	2/1/23	3197	767	3732	746		R-7766 0.2 PSI/foot	21	0.671
30-025-06306	EUNICE MONUMENT SOUTH UNIT #134	3/1/23	3008	770	3732	746		R-7766 0.2 PSI/foot	24	0.671
30-025-06306	EUNICE MONUMENT SOUTH UNIT #134	4/1/23	3064	775	3732	746		R-7766 0.2 PSI/foot	29	0.673
30-025-04425	EUNICE MONUMENT SOUTH UNIT #140	11/1/23	6654	742	3703	741		R-7766 0.2 PSI/foot	1	0.665
30-025-04425	EUNICE MONUMENT SOUTH UNIT #140	12/1/23	6716	745	3703	741		R-7766 0.2 PSI/foot	4	0.666
30-025-04425	EUNICE MONUMENT SOUTH UNIT #140	2/1/24	6105	749	3703	741		R-7766 0.2 PSI/foot	8	0.667
30-025-04425	EUNICE MONUMENT SOUTH UNIT #140	6/1/2024	6183	749	3703	741		R-7766 0.2 PSI/foot	8	0.667
30-025-04425	EUNICE MONUMENT SOUTH UNIT #140	7/1/2024	6183	749	3703	741		R-7766 0.2 PSI/foot	8	0.667
30-025-12543	EUNICE MONUMENT SOUTH UNIT #144	1/1/22	17238	758	3700	740		R-7766 0.2 PSI/foot	18	0.670
30-025-12543	EUNICE MONUMENT SOUTH UNIT #144	1/1/23	17238	758	3700	740		R-7766 0.2 PSI/foot	18	0.670
30-025-06304	EUNICE MONUMENT SOUTH UNIT #146	11/1/23	32325	750	3734	747		R-7766 0.2 PSI/foot	3	0.666
30-025-04419	EUNICE MONUMENT SOUTH UNIT #162	10/1/22	4114	761	3725	745		R-7766 0.2 PSI/foot	16	0.669
30-025-04493	EUNICE MONUMENT SOUTH UNIT #183	6/1/2024	10070	745	3610	722		R-7766 0.2 PSI/foot	23	0.671

EXHIBIT - A-2

API	Well Name	C-115 Report Month	C-115 Monthly Injected Volume	C-115 Reported Average Inj. Pressure	Top Perf	Permit Max	Requested Increase	Confirm Permit/ Increased Pressure Max	Avg. Monthly PSI over Permit Max	Injection Pressure Gradient
30-025-04493	EUNICE MONUMENT SOUTH UNIT #183	7/1/2024	10070	745	3610	722		R-7766 0.2 PSI/foot	**23**	0.671
30-025-04532	EUNICE MONUMENT SOUTH UNIT #195	11/1/22	13455	753	3753	751		R-7766 0.2 PSI/foot	**2**	0.666
30-025-04532	EUNICE MONUMENT SOUTH UNIT #195	12/1/22	13273	761	3753	751		R-7766 0.2 PSI/foot	**10**	0.668
30-025-04532	EUNICE MONUMENT SOUTH UNIT #195	2/1/24	12017	755	3753	751		R-7766 0.2 PSI/foot	**4**	0.666
30-025-04532	EUNICE MONUMENT SOUTH UNIT #195	3/1/24	12904	753	3753	751		R-7766 0.2 PSI/foot	**2**	0.666
30-025-04532	EUNICE MONUMENT SOUTH UNIT #195	4/1/24	12449	762	3753	751		R-7766 0.2 PSI/foot	**11**	0.668
30-025-04472	EUNICE MONUMENT SOUTH UNIT #201	1/1/22	3909	811	3746	749		R-7766 0.2 PSI/foot	**62**	0.681
30-025-04472	EUNICE MONUMENT SOUTH UNIT #201	3/1/22	5621	778	3746	749		R-7766 0.2 PSI/foot	**29**	0.673
30-025-04472	EUNICE MONUMENT SOUTH UNIT #201	4/1/22	10379	806	3746	749		R-7766 0.2 PSI/foot	**57**	0.680
30-025-04472	EUNICE MONUMENT SOUTH UNIT #201	1/1/23	3909	811	3746	749		R-7766 0.2 PSI/foot	**62**	0.681
30-025-04472	EUNICE MONUMENT SOUTH UNIT #201	3/1/23	5621	778	3746	749		R-7766 0.2 PSI/foot	**29**	0.673
30-025-04472	EUNICE MONUMENT SOUTH UNIT #201	4/1/23	10379	806	3746	749		R-7766 0.2 PSI/foot	**57**	0.680
30-025-04469	EUNICE MONUMENT SOUTH UNIT #210	4/1/22	10589	753	3749	750	736	R-7766-B 0.2/PSI/foot / Authority Revoked through order R-7766-C / Regranted through WFX-848 (736	**17**	0.666
30-025-04469	EUNICE MONUMENT SOUTH UNIT #210	5/1/22	10239	770	3749	750	736	R-7766-B 0.2/PSI/foot / Authority Revoked through order R-7766-C / Regranted through WFX-848 (736	**34**	0.670
30-025-04469	EUNICE MONUMENT SOUTH UNIT #210	6/1/22	9112	779	3749	750	736	R-7766-B 0.2/PSI/foot / Authority Revoked through order R-7766-C / Regranted through WFX-848 (736	**43**	0.673
30-025-04469	EUNICE MONUMENT SOUTH UNIT #210	4/1/23	10589	753	3749	750	736	R-7766-B 0.2/PSI/foot / Authority Revoked through order R-7766-C / Regranted through WFX-848 (736	**17**	0.666
30-025-04469	EUNICE MONUMENT SOUTH UNIT #210	11/1/23	5919	753	3749	750	736	R-7766-B 0.2/PSI/foot / Authority Revoked through order R-7766-C / Regranted through WFX-848 (736	**17**	0.666
30-025-04469	EUNICE MONUMENT SOUTH UNIT #210	1/1/24	5883	755	3749	750	736	R-7766-B 0.2/PSI/foot / Authority Revoked through order R-7766-C / Regranted through WFX-848 (736	**19**	0.666
30-025-04469	EUNICE MONUMENT SOUTH UNIT #210	2/1/24	5367	768	3749	750	736	R-7766-B 0.2/PSI/foot / Authority Revoked through order R-7766-C / Regranted through WFX-848 (736	**32**	0.670
30-025-29615	EUNICE MONUMENT SOUTH UNIT #211	1/1/22	9511	784	3698	740		R-7766 0.2 PSI/foot	**44**	0.677
30-025-29615	EUNICE MONUMENT SOUTH UNIT #211	5/1/22	23428	746	3698	740		R-7766 0.2 PSI/foot	**6**	0.667
30-025-29615	EUNICE MONUMENT SOUTH UNIT #211	6/1/22	22221	744	3698	740		R-7766 0.2 PSI/foot	**4**	0.666
30-025-29615	EUNICE MONUMENT SOUTH UNIT #211	7/1/22	22993	742	3698	740		R-7766 0.2 PSI/foot	**2**	0.666
30-025-29615	EUNICE MONUMENT SOUTH UNIT #211	8/1/22	22246	749	3698	740		R-7766 0.2 PSI/foot	**9**	0.668
30-025-29615	EUNICE MONUMENT SOUTH UNIT #211	10/1/22	20694	750	3698	740		R-7766 0.2 PSI/foot	**10**	0.668
30-025-29615	EUNICE MONUMENT SOUTH UNIT #211	11/1/22	19956	750	3698	740		R-7766 0.2 PSI/foot	**10**	0.668
30-025-29615	EUNICE MONUMENT SOUTH UNIT #211	12/1/22	19544	750	3698	740		R-7766 0.2 PSI/foot	**10**	0.668
30-025-29615	EUNICE MONUMENT SOUTH UNIT #211	1/1/23	9511	784	3698	740		R-7766 0.2 PSI/foot	**44**	0.677
30-025-29615	EUNICE MONUMENT SOUTH UNIT #211	7/1/23	18286	746	3698	740		R-7766 0.2 PSI/foot	**6**	0.667
30-025-29615	EUNICE MONUMENT SOUTH UNIT #211	8/1/23	17821	742	3698	740		R-7766 0.2 PSI/foot	**2**	0.666
30-025-29615	EUNICE MONUMENT SOUTH UNIT #211	10/1/23	18321	750	3698	740		R-7766 0.2 PSI/foot	**10**	0.668
30-025-29615	EUNICE MONUMENT SOUTH UNIT #211	11/1/23	17103	750	3698	740		R-7766 0.2 PSI/foot	**10**	0.668
30-025-29615	EUNICE MONUMENT SOUTH UNIT #211	12/1/23	17492	749	3698	740		R-7766 0.2 PSI/foot	**9**	0.668
30-025-29615	EUNICE MONUMENT SOUTH UNIT #211	1/1/24	17254	750	3698	740		R-7766 0.2 PSI/foot	**10**	0.668
30-025-29615	EUNICE MONUMENT SOUTH UNIT #211	2/1/24	16011	750	3698	740		R-7766 0.2 PSI/foot	**10**	0.668
30-025-29615	EUNICE MONUMENT SOUTH UNIT #211	3/1/24	16935	748	3698	740		R-7766 0.2 PSI/foot	**8**	0.667
30-025-29615	EUNICE MONUMENT SOUTH UNIT #211	4/1/24	16214	751	3698	740		R-7766 0.2 PSI/foot	**11**	0.668
30-025-29615	EUNICE MONUMENT SOUTH UNIT #211	5/1/24	16466	748	3698	740		R-7766 0.2 PSI/foot	**8**	0.667

API	Well Name	C-115 Report Month	C-115 Monthly Injected Volume	C-115 Reported Average Inj. Pressure	Top Perf	Permit Max	Requested Increase	Confirm Permit/ Increased Pressure Max	Avg. Monthly PSI over Permit Max	Injection Pressure Gradient
30-025-29615	EUNICE MONUMENT SOUTH UNIT #211	6/1/2024	15860	750	3698	740		R-7766 0.2 PSI/foot	**10**	0.668
30-025-29615	EUNICE MONUMENT SOUTH UNIT #211	7/1/2024	15860	750	3698	740		R-7766 0.2 PSI/foot	**10**	0.668
30-025-04503	EUNICE MONUMENT SOUTH UNIT #213	1/1/22	21888	844	3796	759		R-7766 0.2 PSI/foot	**85**	0.687
30-025-04503	EUNICE MONUMENT SOUTH UNIT #213	3/1/22	21035	818	3796	759		R-7766 0.2 PSI/foot	**59**	0.680
30-025-04503	EUNICE MONUMENT SOUTH UNIT #213	4/1/22	21002	843	3796	759		R-7766 0.2 PSI/foot	**84**	0.687
30-025-04503	EUNICE MONUMENT SOUTH UNIT #213	5/1/22	21748	840	3796	759		R-7766 0.2 PSI/foot	**81**	0.686
30-025-04503	EUNICE MONUMENT SOUTH UNIT #213	6/1/22	20534	835	3796	759		R-7766 0.2 PSI/foot	**76**	0.685
30-025-04503	EUNICE MONUMENT SOUTH UNIT #213	7/1/22	20765	838	3796	759		R-7766 0.2 PSI/foot	**79**	0.686
30-025-04503	EUNICE MONUMENT SOUTH UNIT #213	1/1/23	21888	844	3796	759		R-7766 0.2 PSI/foot	**85**	0.687
30-025-04503	EUNICE MONUMENT SOUTH UNIT #213	3/1/23	21035	818	3796	759		R-7766 0.2 PSI/foot	**59**	0.680
30-025-04503	EUNICE MONUMENT SOUTH UNIT #213	4/1/23	21002	843	3796	759		R-7766 0.2 PSI/foot	**84**	0.687
30-025-04508	EUNICE MONUMENT SOUTH UNIT #215	6/1/2024	10981	751	3722	744		R-7766 0.2 PSI/foot	**7**	0.667
30-025-04508	EUNICE MONUMENT SOUTH UNIT #215	7/1/2024	10981	751	3722	744		R-7766 0.2 PSI/foot	**7**	0.667
30-025-04464	EUNICE MONUMENT SOUTH UNIT #231	1/1/24	5520	756	3768	754		R-7766 0.2 PSI/foot	**2**	0.666
30-025-04464	EUNICE MONUMENT SOUTH UNIT #231	2/1/24	5161	758	3768	754		R-7766 0.2 PSI/foot	**4**	0.666
30-025-04464	EUNICE MONUMENT SOUTH UNIT #231	3/1/24	5375	756	3768	754		R-7766 0.2 PSI/foot	**2**	0.666
30-025-04464	EUNICE MONUMENT SOUTH UNIT #231	4/1/24	5361	762	3768	754		R-7766 0.2 PSI/foot	**8**	0.667
30-025-29867	EUNICE MONUMENT SOUTH UNIT #240	1/1/22	7595	786	3682	736		WFX-618 736 PSIG	**50**	0.678
30-025-29867	EUNICE MONUMENT SOUTH UNIT #240	3/1/22	7464	752	3682	736		WFX-618 736 PSIG	**16**	0.669
30-025-29867	EUNICE MONUMENT SOUTH UNIT #240	4/1/22	7516	774	3682	736		WFX-618 736 PSIG	**38**	0.675
30-025-29867	EUNICE MONUMENT SOUTH UNIT #240	1/1/23	7595	786	3682	736		WFX-618 736 PSIG	**50**	0.678
30-025-29867	EUNICE MONUMENT SOUTH UNIT #240	3/1/23	7464	752	3682	736		WFX-618 736 PSIG	**16**	0.669
30-025-29867	EUNICE MONUMENT SOUTH UNIT #240	4/1/23	7516	774	3682	736		WFX-618 736 PSIG	**38**	0.675
30-025-04489	EUNICE MONUMENT SOUTH UNIT #241	6/1/2024	10975	751	3660	732		R-7766 0.2 PSI/foot	**19**	0.670
30-025-04489	EUNICE MONUMENT SOUTH UNIT #241	7/1/2024	10975	751	3660	732		R-7766 0.2 PSI/foot	**19**	0.670
30-025-04518	EUNICE MONUMENT SOUTH UNIT #243	1/1/22	4367	750	3713	743		R-7766 0.2 PSI/foot	**7**	0.667
30-025-04518	EUNICE MONUMENT SOUTH UNIT #243	4/1/22	4297	748	3713	743		R-7766 0.2 PSI/foot	**5**	0.666
30-025-04518	EUNICE MONUMENT SOUTH UNIT #243	5/1/22	4669	745	3713	743		R-7766 0.2 PSI/foot	**2**	0.666
30-025-04518	EUNICE MONUMENT SOUTH UNIT #243	6/1/22	4599	744	3713	743		R-7766 0.2 PSI/foot	**1**	0.665
30-025-04518	EUNICE MONUMENT SOUTH UNIT #243	8/1/22	5151	751	3713	743		R-7766 0.2 PSI/foot	**8**	0.667
30-025-04518	EUNICE MONUMENT SOUTH UNIT #243	10/1/22	5089	750	3713	743		R-7766 0.2 PSI/foot	**7**	0.667
30-025-04518	EUNICE MONUMENT SOUTH UNIT #243	11/1/22	3897	751	3713	743		R-7766 0.2 PSI/foot	**8**	0.667
30-025-04518	EUNICE MONUMENT SOUTH UNIT #243	12/1/22	232	876	3713	743		R-7766 0.2 PSI/foot	**133**	0.701
30-025-04518	EUNICE MONUMENT SOUTH UNIT #243	1/1/23	4367	750	3713	743		R-7766 0.2 PSI/foot	**7**	0.667
30-025-04518	EUNICE MONUMENT SOUTH UNIT #243	4/1/23	4297	748	3713	743		R-7766 0.2 PSI/foot	**5**	0.666
30-025-04518	EUNICE MONUMENT SOUTH UNIT #243	1/1/24	4616	748	3713	743		R-7766 0.2 PSI/foot	**5**	0.666
30-025-04518	EUNICE MONUMENT SOUTH UNIT #243	2/1/24	4390	750	3713	743		R-7766 0.2 PSI/foot	**7**	0.667
30-025-04518	EUNICE MONUMENT SOUTH UNIT #243	3/1/24	4703	748	3713	743		R-7766 0.2 PSI/foot	**5**	0.666
30-025-04518	EUNICE MONUMENT SOUTH UNIT #243	4/1/24	4566	751	3713	743		R-7766 0.2 PSI/foot	**8**	0.667
30-025-04518	EUNICE MONUMENT SOUTH UNIT #243	5/1/24	4997	748	3713	743		R-7766 0.2 PSI/foot	**5**	0.666
30-025-04518	EUNICE MONUMENT SOUTH UNIT #243	6/1/2024	5115	751	3713	743		R-7766 0.2 PSI/foot	**8**	0.667
30-025-04518	EUNICE MONUMENT SOUTH UNIT #243	7/1/2024	5115	751	3713	743		R-7766 0.2 PSI/foot	**8**	0.667
30-025-29575	EUNICE MONUMENT SOUTH UNIT #247	1/1/22	14970	780	3700	740		R-7766 0.2 PSI/foot	**40**	0.676
30-025-29575	EUNICE MONUMENT SOUTH UNIT #247	3/1/22	13904	747	3700	740		R-7766 0.2 PSI/foot	**7**	0.667
30-025-29575	EUNICE MONUMENT SOUTH UNIT #247	4/1/22	9732	763	3700	740		R-7766 0.2 PSI/foot	**23**	0.671
30-025-29575	EUNICE MONUMENT SOUTH UNIT #247	5/1/22	16783	776	3700	740		R-7766 0.2 PSI/foot	**36**	0.675
30-025-29575	EUNICE MONUMENT SOUTH UNIT #247	6/1/22	16311	772	3700	740		R-7766 0.2 PSI/foot	**32**	0.674
30-025-29575	EUNICE MONUMENT SOUTH UNIT #247	7/1/22	16615	783	3700	740		R-7766 0.2 PSI/foot	**43**	0.677
30-025-29575	EUNICE MONUMENT SOUTH UNIT #247	8/1/22	16520	791	3700	740		R-7766 0.2 PSI/foot	**51**	0.679
30-025-29575	EUNICE MONUMENT SOUTH UNIT #247	10/1/22	16016	815	3700	740		R-7766 0.2 PSI/foot	**75**	0.685
30-025-29575	EUNICE MONUMENT SOUTH UNIT #247	11/1/22	15555	830	3700	740		R-7766 0.2 PSI/foot	**90**	0.689
30-025-29575	EUNICE MONUMENT SOUTH UNIT #247	12/1/22	15884	833	3700	740		R-7766 0.2 PSI/foot	**93**	0.690

API	Well Name	C-115 Report Month	C-115 Monthly Injected Volume	C-115 Reported Average Inj. Pressure	Top Perf	Permit Max	Requested Increase	Confirm Permit/ Increased Pressure Max	Avg. Monthly PSI over Permit Max	Injection Pressure Gradient
30-025-29575	EUNICE MONUMENT SOUTH UNIT #247	1/1/23	14970	780	3700	740		R-7766 0.2 PSI/foot	**40**	0.676
30-025-29575	EUNICE MONUMENT SOUTH UNIT #247	3/1/23	13904	747	3700	740		R-7766 0.2 PSI/foot	**7**	0.667
30-025-29575	EUNICE MONUMENT SOUTH UNIT #247	4/1/23	9732	763	3700	740		R-7766 0.2 PSI/foot	**23**	0.671
30-025-29575	EUNICE MONUMENT SOUTH UNIT #247	12/1/23	14824	743	3700	740		R-7766 0.2 PSI/foot	**3**	0.666
30-025-29575	EUNICE MONUMENT SOUTH UNIT #247	1/1/24	14521	745	3700	740		R-7766 0.2 PSI/foot	**5**	0.666
30-025-29575	EUNICE MONUMENT SOUTH UNIT #247	2/1/24	13829	745	3700	740		R-7766 0.2 PSI/foot	**5**	0.666
30-025-29575	EUNICE MONUMENT SOUTH UNIT #247	3/1/24	14910	741	3700	740		R-7766 0.2 PSI/foot	**1**	0.665
30-025-29575	EUNICE MONUMENT SOUTH UNIT #247	4/1/24	9258	812	3700	740		R-7766 0.2 PSI/foot	**72**	0.684
30-025-29575	EUNICE MONUMENT SOUTH UNIT #247	5/1/24	15751	741	3700	740		R-7766 0.2 PSI/foot	**1**	0.665
30-025-29575	EUNICE MONUMENT SOUTH UNIT #247	6/1/2024	16093	750	3700	740		R-7766 0.2 PSI/foot	**10**	0.668
30-025-29575	EUNICE MONUMENT SOUTH UNIT #247	7/1/2024	16093	750	3700	740		R-7766 0.2 PSI/foot	**10**	0.668
30-025-08702	EUNICE MONUMENT SOUTH UNIT #253	1/1/22	26516	771	3761	752		R-7766 0.2 PSI/foot	**19**	0.670
30-025-08702	EUNICE MONUMENT SOUTH UNIT #253	8/1/22	10575	768	3761	752		R-7766 0.2 PSI/foot	**16**	0.669
30-025-08702	EUNICE MONUMENT SOUTH UNIT #253	10/1/22	25782	782	3761	752		R-7766 0.2 PSI/foot	**30**	0.673
30-025-08702	EUNICE MONUMENT SOUTH UNIT #253	11/1/22	25032	786	3761	752		R-7766 0.2 PSI/foot	**34**	0.674
30-025-08702	EUNICE MONUMENT SOUTH UNIT #253	12/1/22	259456	790	3761	752		R-7766 0.2 PSI/foot	**38**	0.675
30-025-08702	EUNICE MONUMENT SOUTH UNIT #253	1/1/23	26516	771	3761	752		R-7766 0.2 PSI/foot	**19**	0.670
30-025-08702	EUNICE MONUMENT SOUTH UNIT #253	6/1/23	23843	758	3761	752		R-7766 0.2 PSI/foot	**6**	0.667
30-025-04496	EUNICE MONUMENT SOUTH UNIT #257	10/1/23	25110	756	3774	755		R-7766 0.2 PSI/foot	**1**	0.665
30-025-04471	EUNICE MONUMENT SOUTH UNIT #261	1/1/22	0	794	3795	759		R-7766 0.2 PSI/foot	**35**	0.674
30-025-04471	EUNICE MONUMENT SOUTH UNIT #261	3/1/22	0	796	3795	759		R-7766 0.2 PSI/foot	**37**	0.675
30-025-04471	EUNICE MONUMENT SOUTH UNIT #261	4/1/22	0	805	3795	759		R-7766 0.2 PSI/foot	**46**	0.677
30-025-04471	EUNICE MONUMENT SOUTH UNIT #261	5/1/22	0	793	3795	759		R-7766 0.2 PSI/foot	**34**	0.674
30-025-04471	EUNICE MONUMENT SOUTH UNIT #261	6/1/22	0	779	3795	759		R-7766 0.2 PSI/foot	**20**	0.670
30-025-04471	EUNICE MONUMENT SOUTH UNIT #261	7/1/22	0	785	3795	759		R-7766 0.2 PSI/foot	**26**	0.672
30-025-04471	EUNICE MONUMENT SOUTH UNIT #261	8/1/22	1072	796	3795	759		R-7766 0.2 PSI/foot	**37**	0.675
30-025-04471	EUNICE MONUMENT SOUTH UNIT #261	1/1/23	0	794	3795	759		R-7766 0.2 PSI/foot	**35**	0.674
30-025-04471	EUNICE MONUMENT SOUTH UNIT #261	3/1/23	0	796	3795	759		R-7766 0.2 PSI/foot	**37**	0.675
30-025-04471	EUNICE MONUMENT SOUTH UNIT #261	4/1/23	0	805	3795	759		R-7766 0.2 PSI/foot	**46**	0.677
30-025-04471	EUNICE MONUMENT SOUTH UNIT #261	11/1/23	12192	769	3795	759		R-7766 0.2 PSI/foot	**10**	0.668
30-025-04598	EUNICE MONUMENT SOUTH UNIT #275	5/1/22	5346	832	3741	748		R-7766 0.2 PSI/foot	**84**	0.687
30-025-04598	EUNICE MONUMENT SOUTH UNIT #275	6/1/22	0	850	3741	748		R-7766 0.2 PSI/foot	**102**	0.692
30-025-04598	EUNICE MONUMENT SOUTH UNIT #275	7/1/22	6	839	3741	748		R-7766 0.2 PSI/foot	**91**	0.689
30-025-04598	EUNICE MONUMENT SOUTH UNIT #275	8/1/22	12	838	3741	748		R-7766 0.2 PSI/foot	**90**	0.689
30-025-04598	EUNICE MONUMENT SOUTH UNIT #275	10/1/22	3555	817	3741	748		R-7766 0.2 PSI/foot	**69**	0.683
30-025-04598	EUNICE MONUMENT SOUTH UNIT #275	11/1/22	3555	817	3741	748		R-7766 0.2 PSI/foot	**69**	0.683
30-025-04598	EUNICE MONUMENT SOUTH UNIT #275	12/1/22	18243	750	3741	748		R-7766 0.2 PSI/foot	**2**	0.665
30-025-04598	EUNICE MONUMENT SOUTH UNIT #275	2/1/24	819	750	3741	748		R-7766 0.2 PSI/foot	**2**	0.665
30-025-04598	EUNICE MONUMENT SOUTH UNIT #275	3/1/24	10281	754	3741	748		R-7766 0.2 PSI/foot	**6**	0.667
30-025-04598	EUNICE MONUMENT SOUTH UNIT #275	4/1/24	5901	778	3741	748		R-7766 0.2 PSI/foot	**30**	0.673
30-025-04539	EUNICE MONUMENT SOUTH UNIT #293	1/1/22	0	769	3745	749		R-7766 0.2 PSI/foot	**20**	0.670
30-025-04539	EUNICE MONUMENT SOUTH UNIT #293	4/1/22	0	792	3745	749		R-7766 0.2 PSI/foot	**43**	0.676
30-025-04539	EUNICE MONUMENT SOUTH UNIT #293	1/1/23	0	769	3745	749		R-7766 0.2 PSI/foot	**20**	0.670
30-025-04539	EUNICE MONUMENT SOUTH UNIT #293	4/1/23	0	792	3745	749		R-7766 0.2 PSI/foot	**43**	0.676
30-025-04568	EUNICE MONUMENT SOUTH UNIT #297	4/1/22	42015	747	3720	744		R-7766 0.2 PSI/foot	**3**	0.666
30-025-04568	EUNICE MONUMENT SOUTH UNIT #297	4/1/23	42015	747	3720	744		R-7766 0.2 PSI/foot	**3**	0.666
30-025-04568	EUNICE MONUMENT SOUTH UNIT #297	10/1/23	42258	751	3720	744		R-7766 0.2 PSI/foot	**7**	0.667
30-025-04571	EUNICE MONUMENT SOUTH UNIT #299	1/1/22	4194	793	3675	735		R-7766 0.2 PSI/foot	**58**	0.681
30-025-04571	EUNICE MONUMENT SOUTH UNIT #299	1/1/23	4194	793	3675	735		R-7766 0.2 PSI/foot	**58**	0.681
30-025-04571	EUNICE MONUMENT SOUTH UNIT #299	5/1/24	11985	741	3675	735		R-7766 0.2 PSI/foot	**6**	0.667
30-025-04571	EUNICE MONUMENT SOUTH UNIT #299	6/1/2024	10730	754	3675	735		R-7766 0.2 PSI/foot	**19**	0.670
30-025-04571	EUNICE MONUMENT SOUTH UNIT #299	7/1/2024	10730	754	3675	735		R-7766 0.2 PSI/foot	**19**	0.670

API	Well Name	C-115 Report Month	C-115 Monthly Injected Volume	C-115 Reported Average Inj. Pressure	Top Perf	Permit Max	Requested Increase	Confirm Permit/ Increased Pressure Max	Avg. Monthly PSI over Permit Max	Injection Pressure Gradient
30-025-04605	EUNICE MONUMENT SOUTH UNIT #314	5/1/23	0	791	3787	757		R-7766 0.2 PSI/foot	**34**	0.674
30-025-04554	EUNICE MONUMENT SOUTH UNIT #324	1/1/22	2339	889	3720	744	875	875 (IPI-183)(R-7766)	**14**	0.704
30-025-04554	EUNICE MONUMENT SOUTH UNIT #324	1/1/23	2339	889	3720	744	875	875 (IPI-183)(R-7766)	**14**	0.704
30-025-04554	EUNICE MONUMENT SOUTH UNIT #324	6/1/2024	4183	748	3720	744		876 (IPI-183)(R-7766)	**4**	0.666
30-025-04554	EUNICE MONUMENT SOUTH UNIT #324	7/1/2024	4183	748	3720	744		877 (IPI-183)(R-7766)	**4**	0.666
30-025-04583	EUNICE MONUMENT SOUTH UNIT #342	6/1/22	12490	758	3760	752		R-7766 0.2 PSI/foot	**6**	0.667
30-025-04583	EUNICE MONUMENT SOUTH UNIT #342	7/1/22	13392	754	3760	752		R-7766 0.2 PSI/foot	**2**	0.666
30-025-04583	EUNICE MONUMENT SOUTH UNIT #342	8/1/22	14456	765	3760	752		R-7766 0.2 PSI/foot	**13**	0.668
30-025-04583	EUNICE MONUMENT SOUTH UNIT #342	10/1/22	13879	759	3760	752		R-7766 0.2 PSI/foot	**7**	0.667
30-025-04583	EUNICE MONUMENT SOUTH UNIT #342	11/1/22	10598	760	3760	752		R-7766 0.2 PSI/foot	**8**	0.667
30-025-04583	EUNICE MONUMENT SOUTH UNIT #342	12/1/22	10721	765	3760	752		R-7766 0.2 PSI/foot	**13**	0.668
30-025-04592	EUNICE MONUMENT SOUTH UNIT #344	1/1/22	13117	761	3771	754		R-7766 0.2 PSI/foot	**7**	0.667
30-025-04592	EUNICE MONUMENT SOUTH UNIT #344	1/1/23	13117	761	3771	754		R-7766 0.2 PSI/foot	**7**	0.667
30-025-04592	EUNICE MONUMENT SOUTH UNIT #344	11/1/23	7692	768	3771	754		R-7766 0.2 PSI/foot	**14**	0.669
30-025-04592	EUNICE MONUMENT SOUTH UNIT #344	12/1/23	13317	760	3771	754		R-7766 0.2 PSI/foot	**6**	0.667
30-025-04614	EUNICE MONUMENT SOUTH UNIT #350	6/1/2024	17150	728	3620	724		R-7766 0.2 PSI/foot	**4**	0.666
30-025-04614	EUNICE MONUMENT SOUTH UNIT #350	7/1/2024	17150	728	3620	724		R-7766 0.2 PSI/foot	**4**	0.666
30-025-04640	EUNICE MONUMENT SOUTH UNIT #354	4/1/22	5494	764	3718	744	744	744 (IPI-183)(R-7766)	**20**	0.670
30-025-04640	EUNICE MONUMENT SOUTH UNIT #354	5/1/22	8141	778	3718	744	744	744 (IPI-183)(R-7766)	**34**	0.674
30-025-04640	EUNICE MONUMENT SOUTH UNIT #354	6/1/22	9281	775	3718	744	744	744 (IPI-183)(R-7766)	**31**	0.673
30-025-04640	EUNICE MONUMENT SOUTH UNIT #354	7/1/22	9502	778	3718	744	744	744 (IPI-183)(R-7766)	**34**	0.674
30-025-04640	EUNICE MONUMENT SOUTH UNIT #354	8/1/22	8988	782	3718	744	744	744 (IPI-183)(R-7766)	**38**	0.675
30-025-04640	EUNICE MONUMENT SOUTH UNIT #354	10/1/22	1241	786	3718	744	744	744 (IPI-183)(R-7766)	**42**	0.676
30-025-04640	EUNICE MONUMENT SOUTH UNIT #354	11/1/22	8533	787	3718	744	744	744 (IPI-183)(R-7766)	**43**	0.677
30-025-04640	EUNICE MONUMENT SOUTH UNIT #354	12/1/22	8921	789	3718	744	744	744 (IPI-183)(R-7766)	**45**	0.677
30-025-04640	EUNICE MONUMENT SOUTH UNIT #354	1/1/23	0	748	3718	744	744	744 (IPI-183)(R-7766)	**4**	0.666
30-025-04640	EUNICE MONUMENT SOUTH UNIT #354	4/1/23	5494	764	3718	744	744	744 (IPI-183)(R-7766)	**20**	0.670
30-025-04629	EUNICE MONUMENT SOUTH UNIT #356	5/1/22	23575	837	3645	729		R-7766 0.2 PSI/foot	**108**	0.695
30-025-04629	EUNICE MONUMENT SOUTH UNIT #356	6/1/22	22604	776	3645	729		R-7766 0.2 PSI/foot	**47**	0.678
30-025-04629	EUNICE MONUMENT SOUTH UNIT #356	7/1/22	22857	755	3645	729		R-7766 0.2 PSI/foot	**26**	0.672
30-025-04629	EUNICE MONUMENT SOUTH UNIT #356	8/1/22	22930	763	3645	729		R-7766 0.2 PSI/foot	**34**	0.674
30-025-04629	EUNICE MONUMENT SOUTH UNIT #356	10/1/22	23610	777	3645	729		R-7766 0.2 PSI/foot	**48**	0.678
30-025-04629	EUNICE MONUMENT SOUTH UNIT #356	11/1/22	23051	783	3645	729		R-7766 0.2 PSI/foot	**54**	0.680
30-025-04629	EUNICE MONUMENT SOUTH UNIT #356	12/1/22	23276	788	3645	729		R-7766 0.2 PSI/foot	**59**	0.681
30-025-04643	EUNICE MONUMENT SOUTH UNIT #357	1/1/22	10543	761	3684	737		WFX-785 741 PSI (0.2 psi/foot)	**20**	0.672
30-025-04643	EUNICE MONUMENT SOUTH UNIT #357	3/1/22	10250	756	3684	737		WFX-785 741 PSI (0.2 psi/foot)	**15**	0.670
30-025-04643	EUNICE MONUMENT SOUTH UNIT #357	4/1/22	10523	765	3684	737		WFX-785 741 PSI (0.2 psi/foot)	**24**	0.673
30-025-04643	EUNICE MONUMENT SOUTH UNIT #357	5/1/22	11170	760	3684	737		WFX-785 741 PSI (0.2 psi/foot)	**19**	0.671
30-025-04643	EUNICE MONUMENT SOUTH UNIT #357	6/1/22	10720	752	3684	737		WFX-785 741 PSI (0.2 psi/foot)	**11**	0.669
30-025-04643	EUNICE MONUMENT SOUTH UNIT #357	7/1/22	11165	748	3684	737		WFX-785 741 PSI (0.2 psi/foot)	**7**	0.668
30-025-04643	EUNICE MONUMENT SOUTH UNIT #357	10/1/22	11057	755	3684	737		WFX-785 741 PSI (0.2 psi/foot)	**14**	0.670
30-025-04643	EUNICE MONUMENT SOUTH UNIT #357	11/1/22	10780	759	3684	737		WFX-785 741 PSI (0.2 psi/foot)	**18**	0.671
30-025-04643	EUNICE MONUMENT SOUTH UNIT #357	12/1/22	10923	765	3684	737		WFX-785 741 PSI (0.2 psi/foot)	**24**	0.673
30-025-04643	EUNICE MONUMENT SOUTH UNIT #357	1/1/23	10543	761	3684	737		WFX-785 741 PSI (0.2 psi/foot)	**20**	0.672
30-025-04643	EUNICE MONUMENT SOUTH UNIT #357	3/1/23	10250	756	3684	737		WFX-785 741 PSI (0.2 psi/foot)	**15**	0.670
30-025-04643	EUNICE MONUMENT SOUTH UNIT #357	4/1/23	10523	765	3684	737		WFX-785 741 PSI (0.2 psi/foot)	**24**	0.673
30-025-04643	EUNICE MONUMENT SOUTH UNIT #357	10/1/23	12356	793	3684	737		WFX-785 741 PSI (0.2 psi/foot)	**52**	0.680
30-025-04643	EUNICE MONUMENT SOUTH UNIT #357	11/1/23	11576	764	3684	737		WFX-785 741 PSI (0.2 psi/foot)	**23**	0.672
30-025-04643	EUNICE MONUMENT SOUTH UNIT #357	12/1/23	12014	762	3684	737		WFX-785 741 PSI (0.2 psi/foot)	**21**	0.672
30-025-04643	EUNICE MONUMENT SOUTH UNIT #357	1/1/24	12376	791	3684	737		WFX-785 741 PSI (0.2 psi/foot)	**50**	0.680
30-025-04643	EUNICE MONUMENT SOUTH UNIT #357	6/1/2024	10733	747	3684	737		WFX-785 741 PSI (0.2 psi/foot)	**10**	0.668
30-025-04643	EUNICE MONUMENT SOUTH UNIT #357	7/1/2024	10733	747	3684	737		WFX-785 741 PSI (0.2 psi/foot)	**10**	0.668

API	Well Name	C-115 Report Month	C-115 Monthly Injected Volume	C-115 Reported Average Inj. Pressure	Top Perf	Permit Max	Requested Increase	Confirm Permit/ Increased Pressure Max	Avg. Monthly PSI over Permit Max	Injection Pressure Gradient
30-025-04642	EUNICE MONUMENT SOUTH UNIT #358	3/1/24	8864	778	3691	738		R-7766 0.2 PSI/foot	**40**	0.676
30-025-04642	EUNICE MONUMENT SOUTH UNIT #358	4/1/24	7350	870	3691	738		R-7766 0.2 PSI/foot	**132**	0.701
30-025-04697	EUNICE MONUMENT SOUTH UNIT #368	1/1/22	0	759	3726	745		R-7766 0.2 PSI/foot	**14**	0.669
30-025-04697	EUNICE MONUMENT SOUTH UNIT #368	7/1/22	0	747	3726	745		R-7766 0.2 PSI/foot	**2**	0.665
30-025-04697	EUNICE MONUMENT SOUTH UNIT #368	1/1/23	0	759	3726	745		R-7766 0.2 PSI/foot	**14**	0.669
30-025-04641	EUNICE MONUMENT SOUTH UNIT #388	1/1/22	0	785	3693	739		R-7766 0.2 PSI/foot	**46**	0.678
30-025-04641	EUNICE MONUMENT SOUTH UNIT #388	4/1/22	14569	782	3693	739		R-7766 0.2 PSI/foot	**43**	0.677
30-025-04641	EUNICE MONUMENT SOUTH UNIT #388	1/1/23	0	785	3693	739		R-7766 0.2 PSI/foot	**46**	0.678
30-025-04641	EUNICE MONUMENT SOUTH UNIT #388	3/1/23	0	786	3693	739		R-7766 0.2 PSI/foot	**47**	0.678
30-025-04641	EUNICE MONUMENT SOUTH UNIT #388	4/1/23	14569	782	3693	739		R-7766 0.2 PSI/foot	**43**	0.677
30-025-04641	EUNICE MONUMENT SOUTH UNIT #388	10/1/23	27285	745	3693	739		R-7766 0.2 PSI/foot	**6**	0.667
30-025-04641	EUNICE MONUMENT SOUTH UNIT #388	11/1/23	26565	745	3693	739		R-7766 0.2 PSI/foot	**6**	0.667
30-025-04641	EUNICE MONUMENT SOUTH UNIT #388	12/1/23	18257	747	3693	739		R-7766 0.2 PSI/foot	**8**	0.667
30-025-04641	EUNICE MONUMENT SOUTH UNIT #388	1/1/24	1	748	3693	739		R-7766 0.2 PSI/foot	**9**	0.668
30-025-04641	EUNICE MONUMENT SOUTH UNIT #388	2/1/24	19932	757	3693	739		R-7766 0.2 PSI/foot	**18**	0.670
30-025-04641	EUNICE MONUMENT SOUTH UNIT #388	3/1/24	26487	761	3693	739		R-7766 0.2 PSI/foot	**22**	0.671
30-025-04641	EUNICE MONUMENT SOUTH UNIT #388	4/1/24	24932	779	3693	739		R-7766 0.2 PSI/foot	**40**	0.676
30-025-04633	EUNICE MONUMENT SOUTH UNIT #396	1/1/22	3249	818	3676	735		R-7766 0.2 PSI/foot	**83**	0.688
30-025-04633	EUNICE MONUMENT SOUTH UNIT #396	2/1/22	1386	737	3676	735		R-7766 0.2 PSI/foot	**2**	0.665
30-025-04633	EUNICE MONUMENT SOUTH UNIT #396	3/1/22	2562	808	3676	735		R-7766 0.2 PSI/foot	**73**	0.685
30-025-04633	EUNICE MONUMENT SOUTH UNIT #396	4/1/22	3454	804	3676	735		R-7766 0.2 PSI/foot	**69**	0.684
30-025-04633	EUNICE MONUMENT SOUTH UNIT #396	5/1/22	3418	799	3676	735		R-7766 0.2 PSI/foot	**64**	0.682
30-025-04633	EUNICE MONUMENT SOUTH UNIT #396	6/1/22	2284	799	3676	735		R-7766 0.2 PSI/foot	**64**	0.682
30-025-04633	EUNICE MONUMENT SOUTH UNIT #396	7/1/22	3969	796	3676	735		R-7766 0.2 PSI/foot	**61**	0.682
30-025-04633	EUNICE MONUMENT SOUTH UNIT #396	8/1/22	3760	796	3676	735		R-7766 0.2 PSI/foot	**61**	0.682
30-025-04633	EUNICE MONUMENT SOUTH UNIT #396	10/1/22	3684	785	3676	735		R-7766 0.2 PSI/foot	**50**	0.679

Row Labels	Count of PSI over Permit Max
30-025-04330	5
30-025-04332	2
30-025-04419	1
30-025-04425	5
30-025-04464	4
30-025-04467	2
30-025-04469	7
30-025-04471	11
30-025-04472	6
30-025-04489	2
30-025-04493	2
30-025-04496	1
30-025-04503	9
30-025-04508	2
30-025-04518	17
30-025-04532	5
30-025-04539	4
30-025-04554	4
30-025-04568	3
30-025-04571	5
30-025-04583	6
30-025-04592	4
30-025-04598	10
30-025-04605	1
30-025-04614	2
30-025-04629	7
30-025-04633	26
30-025-04640	10
30-025-04641	12
30-025-04642	2
30-025-04643	18
30-025-04647	9
30-025-04697	3
30-025-06283	3
30-025-06290	9
30-025-06304	1
30-025-06306	14
30-025-08702	7
30-025-12543	2
30-025-29575	21
30-025-29598	11
30-025-29615	21
30-025-29867	6
30-025-34137	2
Grand Total	**304**

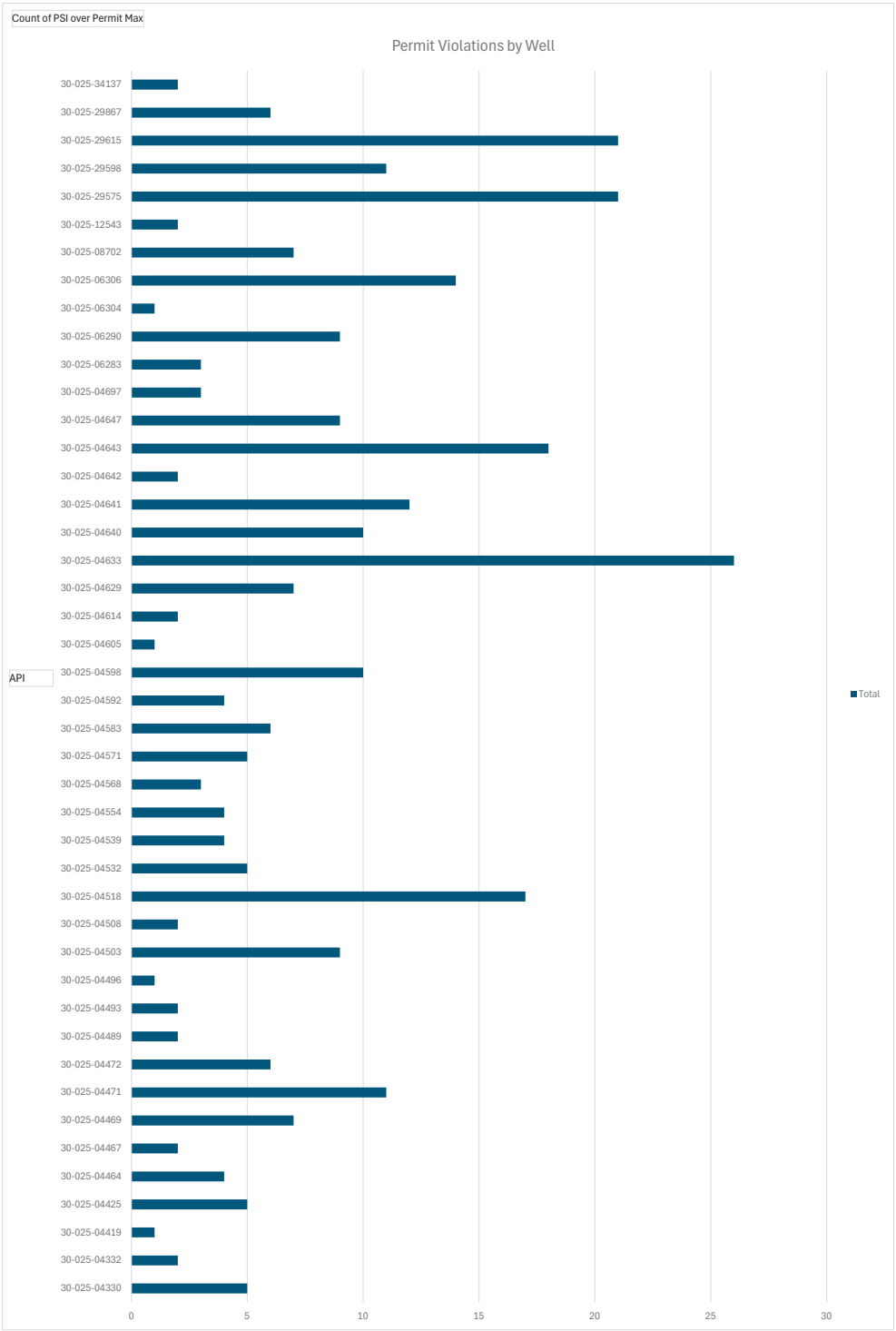


EXHIBIT - A-2a

Date	Number of Violations
Jan-22	19
Feb-22	2
Mar-22	10
Apr-22	18
May-22	15
Jun-22	15
Jul-22	13
Aug-22	13
Sep-22	0
Oct-22	14
Nov-22	13
Dec-22	14
Jan-23	20
Feb-23	2
Mar-23	12
Apr-23	18
May-23	1
Jun-23	2
Jul-23	1
Aug-23	2
Sep-23	0
Oct-23	7
Nov-23	10
Dec-23	7
Jan-24	9
Feb-24	11
Mar-24	9
Apr-24	10
May-24	5
Jun-24	16
Jul-24	16

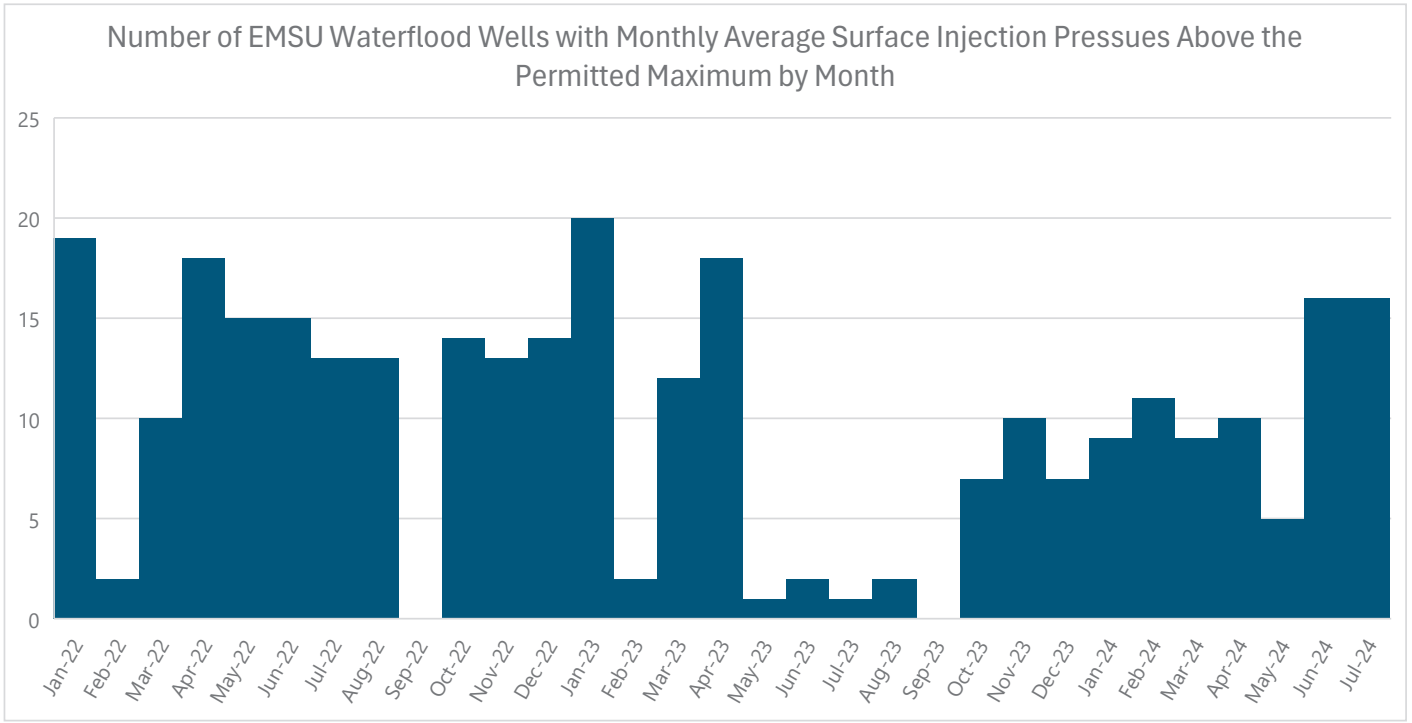


EXHIBIT - A-2b

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 PURPPOSE OF
CONSIDERING:

CASE No. 8398
Order No. R-7766

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

ORDER OF THE COMMISSION

BY THE COMMISSION:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

IT IS THEREFORE ORDERED THAT:

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

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

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

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

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

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

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

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

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

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

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JIM BACA, Member

ED KELLEY, Member

R. L. STAMETS, Chairman and Secretary

S E A L

LEA COUNTY, NEW MEXICO

TOWNSHIP 20 SOUTH, RANGE 36 EAST, NMPM
Section 25: All
Section 36: All

TOWNSHIP 20 SOUTH, RANGE 37 EAST, NMPM
Section 30: S/2, S/2 N/2, NE/4 NW/4 and NW/4 NE/4
Section 31: All
Section 32: All

TOWNSHIP 21 SOUTH, RANGE 36 EAST, NMPM
Section 2: S/2 S/2
Section 3: Lots 3, 4, 5, 6, 11, 12, 13, and 14 and S/2
Sections 4 through 11: All
Section 12: W/2 SW/4
Section 13: NW/4 NW/4
Sections 14 through 18: All
Section 21: N/2 and N/2 S/2
Section 22: N/2 and N/2 S/2

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

LEA COUNTY, NEW MEXICO

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

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

LEA COUNTY, NEW MEXICO

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

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

LEA COUNTY, NEW MEXICO

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

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

LEA COUNTY, NEW MEXICO

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

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

LEA COUNTY, NEW MEXICO

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

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

(1) Amoco Production Co. State "C" Tr. 11 Well No. 3 located 1980 feet from the South line and 1980 feet from the East line of Section 2, Township 21 South, Range 36 East;

(2) Amoco Production Co. State "C" Tr. 11 Well No. 4 located 3300 feet from the South line and 1980 feet from the East line of Section 2, Township 21 South, Range 36 East;

(3) Texas Crude Oil Co. Kincheloe 2 State Well No. 1 located 1980 feet from the South line and 1980 feet from the West line of Section 2, Township 21 South, Range 36 East;

(4) El Paso Natural Gas Co. Coleman Well No. 1 located 2310 feet from the South line and 2310 feet from the East line of Section 17, Township 21 South, Range 36 East;

(5) Texaco Inc. New Mexico "H" NCT-1 Well No. 28, a dry hole, located 990 feet from the South line and 660 feet from the East line of Section 31, Township 20 South, Range 37 East;

all in Lea County, New Mexico.

CASE NO. 8398
Order No. R-7766
EXHIBIT "C"

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

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

CASE NO. 12320
ORDER NO. R-7766-B

APPLICATION OF CHEVRON U.S.A. PRODUCTION COMPANY FOR WATERFLOOD EXPANSION AND AUTHORIZATION TO INJECT, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on March 2, 2000 at Santa Fe, New Mexico, before Examiner Mark W. Ashley.

NOW, on this 29th day of March, 2000, the Division Director, having considered the testimony, the record and the recommendations of the Examiner,

FINDS THAT:

(1) Due public notice has been given and the Division has jurisdiction of this case and its subject matter.

(2) The applicant, Chevron U.S.A. Production Company ("Chevron"), is the operator of the Eunice Monument South Unit Waterflood Project ("EMSU"), Lea County, New Mexico. The EMSU was originally defined and authorized by Division Order No. R-7766, issued in Case No. 8398 and dated December 27, 1984, which was amended by Division Order No. R-7766-A, issued in Case No. 10060 and dated October 19, 1990.

(3) Chevron seeks authority to expand the EMSU by converting the following five existing producing wells to injection wells to improve recovery efficiency of the waterflood patterns and enhance production:

WELL NUMBER API NUMBER	WELL LOCATION	INJECTION INTERVAL	UNIT TOP	PACKER DEPTH
EMSU No. 210 30-025-04469	3261' FNL & 1980' FWL Unit K-Sec.4-T21S-R36E	3650'-3807'	3613'	3617'

EXHIBIT - A-4

EMSU No. 212 30-025-04504	3258' FNL & 660' FEL Unit I-Sec.5-T21S-R36E	3661'-3890'	3646'	3615'
EMSU No. 222 30-025-04531	3300' FSL & 1980' FEL Unit O-Sec.6-T21S-R36E	3754'-4010'	3673'	3700'
EMSU No. 252 30-025-04528	660' FSL & 1980' FEL Unit W-Sec.6-T21S-R36E	3758'-3977'	3688'	3711'
EMSU No. 258 30-025-21251	940' FSL & 940' FWL Unit U-Sec.4-0-T21S-R36E.	3659'-3817'	3633'	3637'

(4) Pursuant to Division Order No. R-7766, the unitized interval of the EMSU includes "the formations which extend from an upper limit of 100 feet below mean sea level or at the top of the Grayburg formation, which ever is higher, to a lower limit being the base of the San Andres formation," all within the Eunice Monument Grayburg-San Andres Pool, Lea County, New Mexico.

(5) Chevron proposes to inject through the subject wells into the Penrose, Grayburg and San Andres formations in the gross interval from approximately 3,400 feet to 4,500 feet.

(6) Chevron further proposes to inject into the subject wells through 2 3/8-inch internally plastic or cement lined tubing set in a packer located no higher than 100 feet above the upper most perforation at a rate of approximately 750 barrels of water per day.

(7) Chevron requests that the subject wells be allowed to inject at a maximum surface injection pressure of 750 psi, which is within the 0.2 pounds per foot of depth from the surface to the top-most injection perforation as authorized previously by Division Order No. R-7766, as amended.

(8) Chevron submitted data on the proposed injection wells and on all water wells and water bearing formations and all other wells that penetrate the proposed injection interval within the ½-mile "area of review" of each of the proposed injection wells.

(9) The evidence indicates that there are no plugged and abandoned wells within 1/2 mile of any of the proposed injection wells.

(10) Doyle Hartman Oil Operator ("Hartman"), operator of the State "A" Com Well No. 4 (**API No. 30-025-04567**), located 660 feet from the North line and 660 from the East line (Unit A) of Section 8, Township 21 South, Range 36 East, NMPM, and the State "A" Com Well No. 5 (**API No. 30-025-31117**), located 1650 feet from the South line and 845 from the East line (Unit ●) of Section 5, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, appeared at the hearing, through legal counsel, in opposition to Chevron's application. Both wells currently produce from the Eumont Yates-Seven Rivers-Queen Prorated Gas Pool.

(11) Hartman stated that he is not opposed to additional injection wells being added to the EMSU provided Chevron can demonstrate that its proposed injection wells can be installed and operated in accordance with industry-accepted injection practices and standards.

(12) Chevron presented evidence showing that it operates the Eunice Monument South Unit Waterflood Project in accordance with industry-accepted injection practices and standards and that:

(a) all necessary steps, including but not limited to injection profiles, will be taken to ensure that the injection fluid enters only the proposed injection interval and to prevent fluid from exiting the unitized interval into other formations or onto the surface from injection, production or plugged and abandoned wells;

(b) each of the proposed injection wells has been properly cemented with adequate volumes of API sulfate-resistant cement and the wells will be monitored to ensure that, if there is a problem with the cement in any of these wells, action can be promptly undertaken to correct the problem; and

(c) the wellhead injection pressures for the proposed injection wells will be at or below the pressures authorized by the Oil Conservation Division and constantly monitored to ensure that the injection pressure is kept below the reservoir fracture pressure and will not result in the migration of fluids from the injection formation.

(13) Hartman testified that the State "A" Com Well No. 4 and the State "A" Com Well No. 5 were originally non-productive of water, but are now producing water as a result of injection water migrating out of zone.

(14) Chevron testified that the water production in the State "A" Com Well No. 4 and the State "A" Com Well No. 5 is a result of fracture stimulation jobs performed by Hartman on both wells and not a result of injection water migrating out of zone due to improperly completed and operated wells in the EMSU.

(15) Chevron presented additional evidence and testimony indicating that injection pressures in the offset injectors have not exceeded fracture gradient pressure since they were converted to injection.

(16) Chevron further testified that it would be unlikely for any injected water to migrate out of zone in the offset injectors because the cumulative production from the offset injectors is greater than their cumulative injection, resulting in a voidage in the reservoir.

(17) Hartman did not present any further evidence to indicate that the fracture stimulation jobs on the State "A" Com Well No. 4 and the State "A" Com Well No. 5 were not the cause of water production or that injection operations in the EMSU were the cause of water production within the State "A" Com Well No. 4 and the State "A" Com Well No. 5.

(18) Chevron has demonstrated that the proposed injection wells will be installed and operated in accordance with the Division's requirements for conversions to injection and therefore should not adversely affect wells located within the "area of review."

(19) The unitized interval in the proposed waterflood expansion area is in an advanced state of depletion and the area is suitable for waterflooding.

(20) The application of Chevron for expansion of the EMSU by the conversion of five additional wells to injection should be approved.

(21) The proposed waterflood expansion should result in the recovery of otherwise unrecoverable oil and will not cause waste or impair correlative rights.

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

(23) Injection into the proposed injection wells should be accomplished through 2 3/8-inch plastic-lined tubing set in a packer located within 100 feet of the uppermost

injection perforations or casing shoe.

(24) The casing-tubing annulus in each well should be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing or packer.

(25) Before injection operations begin in each well, the casing should be pressure tested from the surface to the packer setting depth to ensure the integrity of the casing.

(26) Each injection well or system should be equipped with a pressure limiting device that will limit the wellhead injection pressure on each well to no more than .2 psi per foot of depth to the uppermost injection perforation.

(27) The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator that such higher pressure will not result in migration of the injected fluid from the unitized interval. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to the Division.

(28) The operator shall notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity tests so that the same may be inspected and witnessed.

(29) The operator shall immediately notify the supervisor of the Hobbs district office of the Division of the failure of the tubing, casing or packer in any well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(30) The subject wells should be governed by all provisions of Division Order No. R-7766, as amended, and Rules 701 through 708 of the Division rules.

(31) The injection authority granted herein for each well shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the wells, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Chevron U.S.A. Production Company, is hereby authorized to expand its Eunice Monument South Unit Waterflood Project ("EMSU") as defined and authorized by Division Order No. R-7766, as amended, by converting the following wells to injection to improve recovery efficiency of the waterflood patterns and enhance

production of the EMSU:

WELL NUMBER API NUMBER	WELL LOCATION	INJECTION INTERVAL	UNIT TOP	PACKER DEPTH
EMSU No. 210 30-025-04469	3261' FNL & 1980' FWL Unit K-Sec.4-T21S-R36E	3650'-3807'	3613'	3617'
EMSU No. 212 30-025-04504	3258' FNL & 660' FEL Unit I-Sec.5-T21S-R36E	3661'-3890'	3646'	3615'
EMSU No. 222 30-025-04531	3300' FSL & 1980' FEL Unit O-Sec.6-T21S-R36E	3754'-4010'	3673'	3700'
EMSU No. 252 30-025-04528	660' FSL & 1980' FEL Unit W-Sec.6-T21S-R36E	3758'-3977'	3688'	3711'
EMSU No. 258 30-025-21251	940' FSL & 940' FWL Unit U-Sec.4-0-T21S-R36E.	3659'-3817'	3633'	3637'

(2) Pursuant to Division Order No. R-7766, the unitized interval of the EMSU includes "the formations which extend from an upper limit of 100 feet below mean sea level or at the top of the Grayburg formation, which ever is higher, to a lower limit being the base of the San Andres formation," all within the Eunice Monument Grayburg-San Andres Pool, Lea County, New Mexico.

(3) Injection shall be limited to the Penrose, Grayburg and San Andres formations through the gross interval from approximately 3,400 feet to 4,500 feet.

(4) The operator shall take all steps necessary to ensure that the injected fluid enters only the unitized interval and to prevent fluid from exiting the unitized interval into other formations or onto the surface from injection, production or plugged and abandoned wells.

(5) Injection into each of the five injection wells shall be accomplished through 2 3/8-inch plastic lined tubing set in a packer located within 100 feet of the uppermost injection perforations or casing shoe.

(6) The casing-tubing annulus in each well shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate

detection of leakage in the casing, tubing or packer.

(7) Before injection operations begin in each of the five wells, the casing shall be pressure tested from the surface to the packer setting depth to ensure the integrity of the casing.

(8) Each injection well or the system shall be equipped with a pressure limiting device that will limit the wellhead injection pressure on each well to no more than .2 psi per foot of depth to the uppermost injection perforation.

(9) The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator that such higher pressure will not result in migration of the injected fluid from the unitized interval. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to the Division.

(10) The operator shall notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity tests so that the same may be inspected and witnessed.

(11) The operator shall immediately notify the supervisor of the Hobbs district office of the Division of the failure of the tubing, casing or packer in any well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(12) Chevron shall conduct injection operations in accordance with Division Order No. R-7766, as amended and Division Rules 701 through 708 and shall submit monthly progress reports in accordance with Division Rules 706 and 1115.

(13) The injection authority granted herein or each well shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the wells, provided however the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

(14) Jurisdiction is hereby 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

LORI WROTENBERY
Director

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

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

CASE NO. 12320 (Reopened)
ORDER NO. R-7766-C

APPLICATION OF CHEVRON U.S.A. PRODUCTION COMPANY TO CONVERT THE EMSU WELLS NO. 210, 212, 222, 252 AND 258 TO INJECTION WITHIN THE EUNICE MONUMENT SOUTH UNIT, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on April 18, 2002, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 17th day of June, 2002, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner,

FINDS THAT:

(1) Due public notice has been given, and the Division has jurisdiction of this case and its subject matter.

(2) On November 10, 1999, Chevron U.S.A. Production Company ("Chevron") filed an administrative application with the Division seeking authorization to convert its Eunice Monument South Unit ("EMSU") Wells No. 210, 212, 222, 252 and 258 located respectively in Unit K of Section 4, Unit I of Section 5, Unit O of Section 6, Unit W of Section 6, and Unit U of Section 4, all in Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, to injection wells within the EMSU Waterflood Project.

(3) Chevron's application was subsequently set for hearing and was heard before a Division examiner on March 2, 2000, at which time Chevron presented evidence to support its application, and Doyle Hartman ("Hartman"), an operator of wells in the area, appeared through counsel and cross examined Chevron's witnesses.

EXHIBIT - A-5

(4) On March 29, 2000, the Division entered Order No. R-7766-B in Case No. 12320. This order approved Chevron's application to convert the subject wells to injection.

(5) Hartman timely filed an application for a hearing de novo in Case No. 12320. The case was subsequently remanded to the Division for further proceedings.

(6) Chevron appeared through legal counsel at the April 18, 2002 hearing and requested that:

(a) its application in Case No. 12320 be withdrawn;

(b) reopened Case No. 12320 be dismissed; and

(c) Division Order No. R-7766-B be rescinded.

(7) Chevron stated that Hartman concurs with its request in this case.

(8) Chevron's request should be granted.

IT IS THEREFORE ORDERED THAT:

(1) Pursuant to the request of Chevron U.S.A. Production Company, its application in reopened Case No. 12320 to convert its Eunice Monument South Unit ("EMSU") Wells No. 210, 212, 222, 252 and 258 located respectively in Unit K of Section 4, Unit I of Section 5, Unit O of Section 6, Unit W of Section 6, and Unit U of Section 4, all in Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, to injection wells within the EMSU Waterflood Project, is hereby dismissed.

(2) Division Order No. R-7766-B, entered in Case No. 12320 on March 29, 2000, is hereby rescinded.

(3) By virtue of rescinding Order No. R-7766-B, the de novo appeal of Case No. 12320 is hereby deemed moot and of no consequence.

(4) Jurisdiction is hereby 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

LORI WROTENBERY
Director

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Betty Rivera
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

ADMINISTRATIVE ORDER NO. WFX-785

APPLICATION OF CHEVRONTEXACO TO EXPAND ITS EUNICE MONUMENT SOUTH UNIT WATERFLOOD PROJECT IN THE EUNICE MONUMENT OIL POOL IN LEA COUNTY, NEW MEXICO

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Order No. R-7766, ChevronTexaco has made application to the Division on September 10, 2002 for permission to expand its Eunice Monument South Unit Waterflood Project in the Eunice Monument Oil Pool in Lea County, New Mexico.

THE DIVISION DIRECTOR FINDS THAT:

(1) The application has been filed in due form.

(2) Satisfactory information has been provided that all offset operators have been duly notified of the application.

(3) No objection has been received within the waiting period as prescribed by Rule 701(B).

(4) The proposed injection wells are eligible for conversion to injection under the terms of Rule 701.

(5) The proposed expansion of the above referenced Waterflood Project will not cause waste nor impair correlative rights.

(6) The application should be approved.

IT IS THEREFORE ORDERED THAT:

The applicant, ChevronTexaco is hereby authorized to inject water into the Grayburg formation at approximately 3,703 feet to approximately 3,954 feet through plastic lined tubing set in a packer located within 100 feet of the uppermost injection intervals in the following described wells for purposes of secondary recovery to wit:

EXHIBIT - A-6

Well Name	API Number	Well Location (T21S, R36E, Lea County)	Injection Interval	Packer Depth	Maximum Injection Pressure
EMSU No. 343	30-025-04589	Unit M, Section 10	3,738' – 3,910'	3,650'	(0.2 psi/ft) 748
EMSU No. 345	30-025-29823	Unit O, Section 10	3,768' – 3,922'	3,700'	(0.2 psi/ft) 754
EMSU No. 347	30-025-04606	Unit M, Section 11	3,777' – 3,935'	3,700'	(0.2 psi/ft) 755
EMSU No. 357	30-025-04636	Unit A, Section 15	3,703' – 3,942'	3,660'	(0.2 psi/ft) 741
EMSU No. 359	30-025-04651	Unit C, Section 15	3,755' – 3,954'	3,700'	(0.2 psi/ft) 751

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Prior to commencing injection operations into the well, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection wells to the pressures as specified above.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said wells that such higher pressure will not result in migration of the injected fluid from the Grayburg formation. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity tests so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Hobbs district office of the Division of the failure of the tubing, casing or packer in said wells and shall take such steps as may be timely and necessary to correct such failure or leakage.

The subject wells shall be governed by all provisions of Division Order No. R-7766 and Rules 702-706 of the Division Rules and Regulations not inconsistent herewith.

PROVIDED FURTHER THAT, jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh water or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject wells, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

DONE at Santa Fe, New Mexico, on this 4th day of November 2002.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Lori Wrotenbery (WVJJ)
LORI WROTENBERY
Director

S E A L

LW/wvjj

cc: Oil Conservation Division – Hobbs
Case File No.8398 (R-7766)

Chevron U.S.A. Production Company
Kevin Hickey
New Mexico Waterflood
Petroleum Engineer
15 Smith Road
Midland, Texas 79705

ChevronTexaco

October 28, 2002

APPLICATION FOR AUTHORIZATION TO INJECT - OCD FORM C-108
EUNICE MONUMENT SOUTH UNIT
EUNICE MONUMENT OIL POOL
LEA COUNTY, NEW MEXICO

NOV - 1

State of New Mexico
Energy and Minerals Dept.
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Attention: Mr. William V. Jones Jr.

Dear Sir:

In response to your letter of October 10, 2002, regarding Chevron U.S.A. Production Co. application to inject into Eunice Monument South Unit Wells 343, 345, 347, 357, and 359., please find the following information:

Wellbore schematics for the twelve wells listed.

Injection rate and pressure plots for EMSU Wells 344 and 346.

Your prompt consideration and approval of this application will be greatly appreciated. If further information is required, please contact me at (915) 687-7260.

Sincerely,

Kevin F. Hickey
Petroleum Engineer
New Mexico Waterfloods

File
Attachments

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Betty Rivera
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

October 10, 2002

Mr. Kevin F. Hickey
ChevronTexaco
15 Smith Road
Midland, Texas 79705

Re: Administrative Application for Water Flood Expansion (WFX)
Eunice Monument South Unit 343, 345, 347, 357, and 359
Township 21 South, Range 36 East, NMPM, Lea County, New Mexico.

Dear Mr. Hickey:

The New Mexico Oil Conservation Division (OCD) received your application September 10, 2002. After review, the following information is needed to complete your order:

- Please provide injection rate and injection pressure vs time plots for injection wells 344 and 346 for the time period from January 1, 2002 until the present.

- Please provide cementing and casing details showing cement tops and method for obtaining the cement tops on the following twelve wells in this area of review.

API	WellName	Operator	NS	EW	UL1	Sec
30-025-20306	JOHN D KNOX #011	EXXON MOBIL	2310S	330E	I	10
30-025-04631	EMSU #389	Chevron	1980N	660W	E	14
30-025-04584	EMSU #319	Chevron	1650S	990E	I	9
30-025-04600	EMSU #315	Chevron	1980S	660E	I	10
30-025-04590	EMSU #317	Chevron	1980S	1980W	K	10
30-025-04608	EMSU #313	Chevron	1980S	1980W	K	11
30-025-04636	EMSU #355	Chevron	660N	1980W	C	14
30-025-04650	EMSU #385	Chevron	1980N	660W	E	15
30-025-04645	EMSU #387	Chevron	1980N	1980E	G	15
30-025-04655	EMSU #361	Chevron	660N	660E	A	16
30-025-20700	A J ADKINS #008	EXXON MOBIL	2310S	2260W	K	10
30-025-20662	STATE D BATTERY 2 #130	CONOCO	990S	660W	M	11

Please reply as soon as possible and the OCD will finish processing your request. For questions or concerns, please call (505) 476-3448.

Sincerely,

William V Jones Jr. PE

cc: Oil Conservation Division-Hobbs

CURRENT
WELLBORE DIAGRAM

LEASE:	JD KNOX	WELL:	11	FIELD:	OIL CENTER	API:	30-025-20306
LOC:	2310 FSL & 330 FEL	SEC:	10	BLK:	T21S, R36E	REF NO:	
SVY:	N.M.P.M.	GL:		CTY/ST	Lea Co., NM	SPUD:	11/23/1963
CURRENT STATUS:	TA	KB:	3597	DF:		TD DATE:	

7-5/8", 24# H-40
Surf. Pipe set @ 1329' w/
575 SX cement
TOC @ 0' (CIRC)
11" HOLE

1329'

Date Completed: 12-31-1963

Initial Prod: Initial Formation: Blinbery From: 5812' To: 5945'
Workover Data:

10/1993
Frac 160K sand

7/1995
Set CIBP @5745' capped w 2.5 sx TA well

4.5" Csg.
set @ 6225' w/ 500 SX
TOC @ 2400' (TEMP SUR)
6.75" HOLE

CIBP @ 5745' w / 2.5 sx cmt

5812

5945

6225

TD @ 6225'

10/28/2002

CURRENT
WELLBORE DIAGRAM

LEASE:	AJ ADKINS	WELL:	8	FIELD:	OIL CENTER	API:	30-025-20700
LOC:	2310 FSL & 2260 FWL	SEC:	10	BLK:	T21S, R36E	REF NO:	
SVY:	N.M.P.M.	GL:		CTY/ST	Lea Co., NM	SPUD:	6/27/1964
CURRENT STATUS:	Producer	KB:	3596	DF:		TD DATE:	7/11/1964

7-5/8", 24#
Surf. Pipe set @ 1364' w/
625 SX cement
TOC 0' circ
11" HOLE

1364'

4.5" Csg.
set @ 6050' w/ 600 SX
TOC 2600' (temp survey)
6.75" HOLE

5805'

5887'

6050'

TD @ 6050'

Date Completed: 8-13-1964

Initial Prod:

Initial Formation: BLINBERY

Workover

9/65 Added Perfs 5849-64

6/66 Added Perfs 5805-5840 Frac W 25K crude

10/93 Frac 160K sand

10/28/2002

Chevron

WELL DATA SHEET

LEASE: EMSU WELL: 313

LOC: 1980' F S L & 1980' F W L SEC: 11
TOWNSHIP: 21S CNTY: Lea
RANGE: 36E UNIT: K ST: N.M.
(formerly: State "D" Battery 2 #4)

FORM: Grayburg / San Andres DATE:

GL: 3594'
KB: 3594'
DF:

STATUS: Producer
API NO: 30-025-04608
CHEVNO: FA 57490:01

Date Completed: 3/3/37
Initial Production: 168 BOPD
Initial Formation: Grayburg
FROM: 3735' to 3890' / GOR 1190

10-3/4" OD
40.5# CSG
Set @ 271' W/ 225 SX
Cmt circ.? Yes
TOC @ --- by calc.
(15" hole)

7-5/8" OD
26.4# CSG
Set @ 1404' W/ 425 SX
Cmt circ.? Yes
TOC @ --- by calc.
(9-5/8" hole)

Tubing Detail: 6/7/87

Original KBTH	0.00'
130 Jts. 2-3/8" H-40 10V tbg	3849.56'
2-7/8" Seating Nipple	1.10'
2-3/8" Perf Sub	4.00'
2-7/8" H-40 BPMA	30.41'
Landed @	3885.07'

Rod Detail: 6/7/87

151 - 3/4" X 25' Steel Rods
2 - 1" K-Bars
1-1/4" X 2" X 12' RWTC Pump

5-1/2" OD
17# CSG
Set @ 3735' W/ 425 SX
Cmt circ.? Yes
TOC @ --- by calc.
(6-3/4" hole)

QN
PN
Z1
Z2
Z2A
Z3
Z4
Z5
Z6

PBD:
TD: 3890'

FILE: EMSU313WB.XLS

printed 10/22/2002

Completion Data

DST 3737-3790'. Tstd 180' fluid & 560 mcf gas. Tubing set on btm w/ pkr set @ 3790'.

Subsequent Workover or Reconditioning:

3/44 Acdz OH w/ 500 gal acid.
11/51 Trtd 3735-3890' w/ 1500 gal XR spec. acid. Test: flwg 25 BO/ 4 BWPD. B/4: 5 BO/ 0 BWPD.
10/83 SS OH w/ 700 grain prime cord. C/O to 3890'. Acdz OH w/ 2100 gal 15% NeFeA in 5 stgs. Scale inhibit. Tst: 3 BO/ 9 BW/ 49 mcfpd.
6/87 KOWH. C/O w/ foam to 3890'. Log. Put well on prod. Tst: 2 BO/ 3 BW/ 46 mcfg. FL = 117' ASN. B/4:4 BO/ 4 BW/ 99 mcfg.
3/96 Tag btm - no fill. Pickle tbg w/ 300 gals 15% Acid. Acdz OH w/ 4000 gals Resisol in 4 stages. RIH w/ PE. TOTP.

Additional Data:
T/Queen Formation @ 3377'
T/Penrose Formation @ 3506'
T/Grayburg Zone 1 @ 3692'
T/Grayburg Zone 2 @ 3722'
T/Grayburg Zone 2A @ 3753'
T/Grayburg Zone 3 @ 3785'
T/Grayburg Zone 4 @ 3817'
T/Grayburg Zone 5 @ 3862'
T/Grayburg Zone 6 @ 3903'
T/San Andres @ 3904'
KB @ 3594'

Chevron

WELL DATA SHEET

LEASE: EMSU WELL: 317

LOC: 1980' F S L & 1980' F W L SEC: 10

TOWNSHIP: 21S CNTY: Lea

RANGE: 36E UNIT: K ST: N.M.

FORM: Grayburg / San Andres DATE:

GL: 3592' STATUS: Producer

KB: 3584' API NO: 30-025-04590

DF: CHEVNO: FA 5731:01

Date Completed: 4/30/1936

Initial Production: f/ 648 BOPD / 3 BWPD / GOR 715

Initial Formation: Grayburg

FROM: 3797' to 3880'

10-3/4" OD
32.75# CSG
Set @ 260' W/ 150 SX
Cmt circ.? yes
TOC @ surf. by calc.

Tubing & Rod Detail: 5/6/97

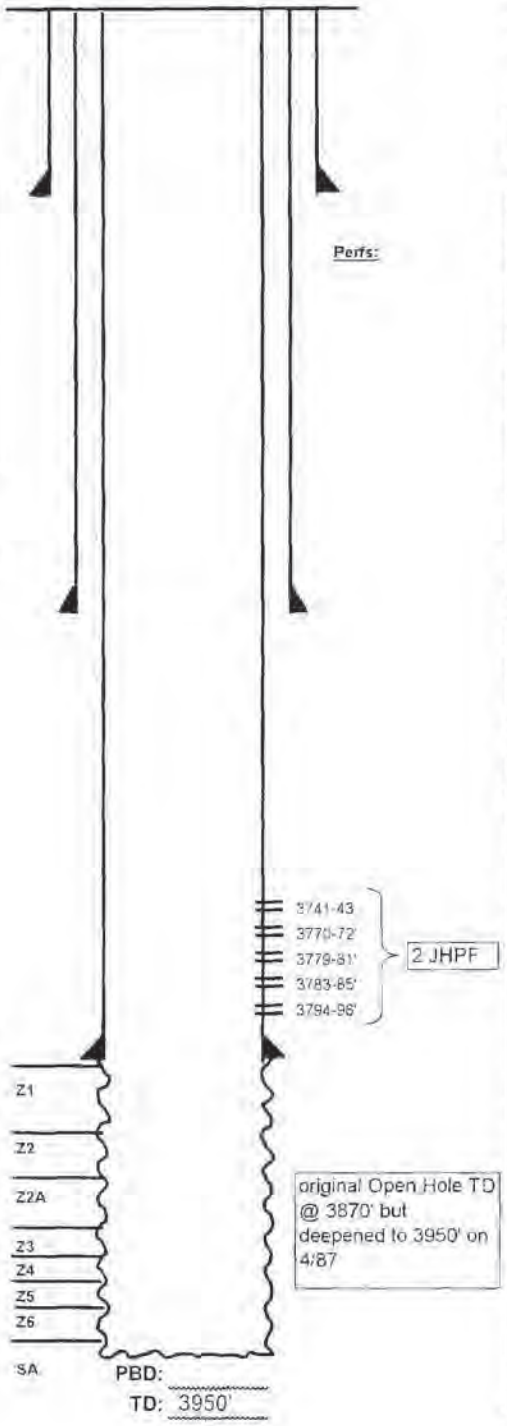
Original KB to THF	0.00'
118 Jts. 2-7/8" J-55 Bare EUE 8rd tbg	3636.20'
1 5.5" X 2-7/8" TAC	5.10'
7 Jts. 2-7/8" J-55 EUE 8rd Bare tbg	217.33'
1 2.25 Working Barrel #469-B	25.00'
4' 2.874" Perf Sub	4.00'
2-7/8" EUE 8rd BPMAJ	33.10'
Landed @	3918.73

7-5/8" OD
26.4# CSG
Set @ 1363' W/ 525 SX
Cmt circ.? yes
TOC @ surf. by calc.

Rod Detail: 5/6/97

1.250" SM Polished Rod
131 3/4" N-97 Rods
4' X 1" Pony Rod w/ Rod Guides
3 3/4" N-97 Rods
13 1-1/2" X 25' K-Bars
4' X 1" Pony Rod w/ Rod Guides
3 1-1/2" X 25' K-Bars
4' X 1" Pony Rod w/ Rod Guides
3 1-1/2" X 25' K-Bars w/ Pinger

5-1/2" OD
17# CSG
Set @ 3797' W/ 150 SX
Cmt circ.? no
TOC @ 2137' by calc.



Completion Data

4/36 Natural completion.

Subsequent Workover or Reconditioning:

3/51 Acdz OH w/ 2000 gals 15% acid & 750 gals gel acid. Test: 43 BO / 9 BW / 1329 GOR.
3/59 Dump 300 gals acid. Test: 16 BO / 16 BW.
8/74 Temporarily abandoned.
4/85 Tst csg to 500 psi - OK. CO to TD (Exxon). Turned over to Gulf
9/85 XO WH. Acdz OH w/ 3500 gals 15% NeFeA in 3 stgs. Swb 2 BO / 10 BW. Swb 2 BO / 3 BW & dry. Chemical squeezed. Put on prod. Tst: 4 BO / 27 BW / 6 TSTM. B/4 - TAd
4/87 CO & deepened to 3950'. Perf 3741-43, 3770-72, 3779-81, 3783-85 & 3794-96 (2 JHPF). Acdz perfs & OH w/ 4000 gals 15% NeFeA in 2 stgs w/ 3000# GRS as diverter. Swb 0 BO / 31 BW FeR = 1 BPH. Put on prod. Test: 5 BO / 80 BW / 5 MCFG. FL @ 154' ASN. B/4 - 4 BO / 15 BW / 17 MCFPD.
8/87 Chemical squeeze.
3/89 Chemical squeeze.
2/92 Upsize pumping equipment. Tst: 30 BO / 282 BW / 7 MCFG.
11/92 Dump acid (1000 gals?) Tst: 36 BO / 279 BW / 5 MCF.
2/94 CO f/ 3930 to 3950'. ACDZ perfs & OH w/ 5000 gals 15% acid. Swb 50 BBLS. Tst: B - 25 BO / 211 BW / 4 MCFG. A - 26 BO / 288 BW / 6 MCFG. FL @ 63' ASN.
5/5/97 ACDZ w/ 1000 gals. Resisol II+.

Additional Data:
T/Queen Formation @ 3419'
T/Penrose Formation @ 3548'
T/Grayburg Zone 1 @ 3736'
T/Grayburg Zone 2 @ 3774'
T/Grayburg Zone 2A @ 3811'
T/Grayburg Zone 3 @ 3837'
T/Grayburg Zone 4 @ 3875'
T/Grayburg Zone 5 @ 3929'
T/Grayburg Zone 6 @ 3979'
T/San Andres Formation @ 3982'
KB @ 3584'

FILE: EMSU317WB.XLS

printed: 10/22/2002

Chevron

WELL DATA SHEET

LEASE: EMSU WELL: 319

LOC: 1650' F S L & 990' F E L SEC: 9
TOWNSHIP: 21S CNTY: Lea
RANGE: 36E UNIT: I ST: N.M.
(formerly: ARCO E.C. Adkins #7)

FORM: Grayburg / San Andres DATE:

GL: 3590' STATUS: Producer
KB: 3590' API NO: 30-025-04584
DF: CHEVNO: FA 57250:01

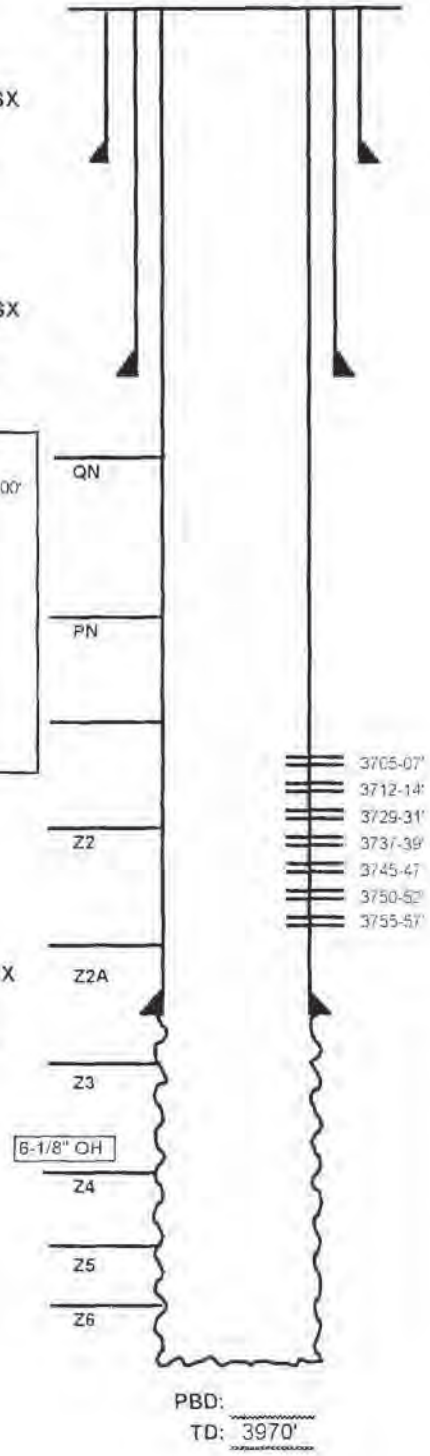
Date Completed: 5/3/36
Initial Production: F/ 1056 BOPD
Initial Formation: Grayburg
FROM: 3770' to 3890' / GOR ----

12-1/2" OD
50# CSG
Set @ 268' W/ 300 SX
Cmt circ.? Yes
TOC @ surf. by calc.
(15-1/2" hole)

9-5/8" OD
CSG
Set @ 1423' W/ 400 SX
Cmt circ.? Yes
TOC @ surf. by calc.
(11-1/2" hole)

Tubing Detail:
Original KBTH: 0.00'
Landed @:
Rod Detail:
NONE GIVEN

7" OD
24# CSG
Set @ 3778' W/ 250 SX
Cmt circ.? No
TOC @ 2241' by calc.
(8-3/4" hole)



PBD:
TD: 3970'

FILE: EMSU319WB.XLS

printed: 10/22/2002

Completion Data

No information given.

Subsequent Workover or Reconditioning:

2/57 Acdz OH w/ 500 gals acid.
7/78 Acdz OH w/ 3000 gals 15% acid.
12/86 COWH. CO & deepen w/ 6-1/8" bit to 3970'. Log w/ CNL, GR, CCL, caliper. Perf @ 3705-07, 3712-14, 3729-31, 3737-39 3745-47, 3750-52, 3755-57 (2 JHPF). ACDZ w/ 1500 gals 15% NeFe. ACDZ OH w/ 4000 gals 15% NeFe. RIH w/ PE. TOTP. A/W: 1 BO/ 83 BWPD GOR 13500. B/4: 0 BO/ 88 BW/ 9.7 MCFG.
8/87 Chem treat.
4/89 Chem treat.
2/90 Chem treat.

Additional Data:
T/Queen Formation @ 3392'
T/Penrose Formation @ 3522'
T/Grayburg Zone 1 @ 3697'
T/Grayburg Zone 2 @ 3732'
T/Grayburg Zone 2A @ 3767'
T/Grayburg Zone 3 @ 3792'
T/Grayburg Zone 4 @ 3830'
T/Grayburg Zone 5 @ 3883'
T/Grayburg Zone 6 @ 3934'
T/San Andres @ 3970'
KB @ 3590'

Chevron

WELL DATA SHEET

LEASE: EMSU WELL: 315

LOC: 1980' F S L & 660' F E L SEC: 10

TOWNSHIP: 21S CNTY: Lea

RANGE: 36E UNIT: I ST: N.M.

FORM: Grayburg / San Andres DATE:

GL: 3587' STATUS: Producer

KB: 3599' API NO: 30-025-04600

DF: CHEVNO: FA 5741.01

Date Completed: 10/2/1936

Initial Production: F/ 674 BOPD / 0 BWPD / GOR 555

Initial Formation: Grayburg

FROM: 3775' to 3890'

10-3/4" OD
35.75# CSG
Set @ 229' W/ 100 SX
Cmt circ.? yes
TOC @ surf. by calc.
(13-3/4" hole)

Tubing Detail: 4/30/87

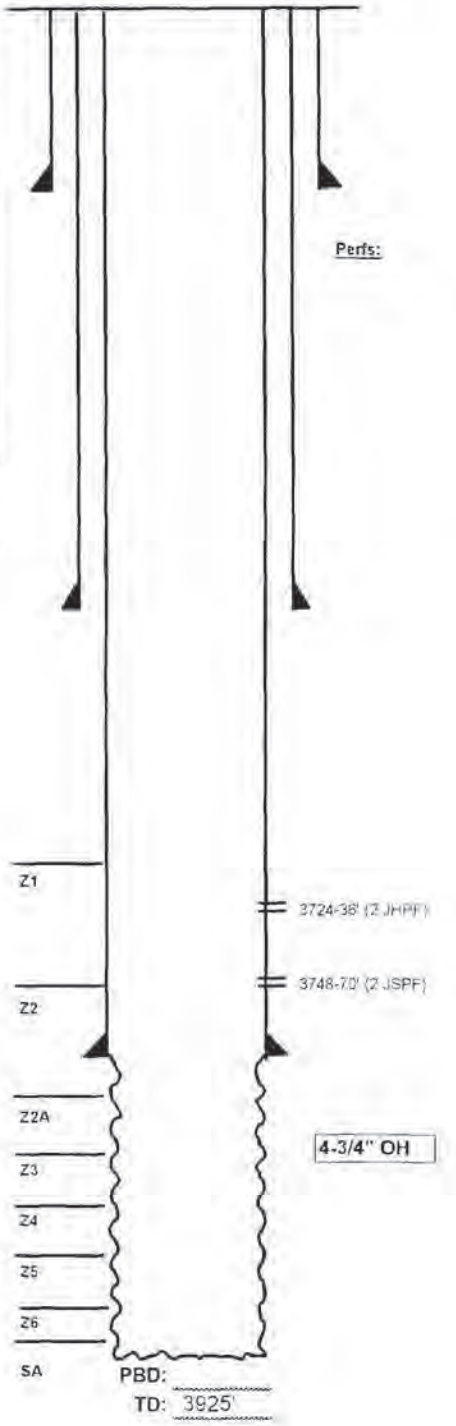
Original KB to THF:	12.00'
126 Jts 2-3/8" H-40 4.7# EUE 10V tbg	3863.21'
1 X-O 10V X 8rd Collar	0.58'
1 2-3/8" Std. SN	0.74'
1 2-3/8" Perf Sub	3.10
2-3/8" J-55 4.7# EUE BPMAJ	31.75'
Landed @:	3911.38

7-5/8" OD
26.4# CSG
Set @ 1449' W/ 400 SX
Cmt circ.? yes
TOC @ surf. by calc.
(9-7/8" hole)

Rod Detail: 4/30/87

1 250" X 12' Polished Rod w/ 1-1/2" X 5' liner
1 3/4" X 2' Sub
154 3/4" X 25' "K" Rods
3/4' X 2' Sub
1 2 X 1-1/4 X 8 X 10 X 12 RHBC pump

5-1/2" OD 10rd
17# CSG
Set @ 3775' W/ 100 SX
Cmt circ.? no
TOC @ 2668' by calc.
(6-3/4" hole)



Completion Data

10/36 ACDZ OH w/2000 gal HCl; oil gravity 35.2 @ 60 deg

Subsequent Workover or Reconditioning:

11/47 Acdz OH w/ 2500 gals HCl acid.
7/57 Log w/ OH caliper. Frac OH 3820-3874' w/ 10,000 gals oil & 15,000# sand, using 600# moth balls. Swb test 10 BO / 10 hrs. Run PE. Test. 33 BO / 38 BW. B/4 - 16 BO / 1 BW.
4/81 CO to 3858'. Hit iron in hole - possible OH pkr left in hole on 7/57. Perf 3478-70 (2 SPF). ACDZ 3748-3890' w/ 6400 gals 15% NEHCl + 125# BAF to divert. ISIP - vac. Swb test. SFL = 3100'. EFL = 3100'. Chemical treat. RTP. Test 11 BO / 47 BW. B/4 - 3 BO.
4/87 CO WH. CO to 3890'. Deepen w/ foam to 3925'. Run 2-3/8" PE. RTP. Test: 1 BO / 32 BW / 25 MCFG. B/4 - 3 BO / 11 BW / 1 MCFG.
8/89 Chemical squeezed.
2/90 Dump acid - 750 gals 15% NeFe. Test 19 BO / 82 BW / 33 MCFG. B/4 - 14 BO / 50 BW / 33 MCFG.
4/90 Chemical squeezed.
9/90 Dump acid - 1000 gals 15% NeFe. Test 13 BO / 125 BW / 35 MCFG. B/4 - 9 BO / 53 BW / 25 MCFG.
4/91 Install 228 PU - upsize.
9/91 Log w/ GR, CCL, CNL. Acdz 3748-3925' w/ 1500 gals 15% NeFe. Swb SFL = 3750', EFL = 3700'. FeR - 0 BPH. Perf 3724-3736 (2 JHPF). ACDZ perf 3724-3736' w/ 1250 gals 15% NeFe. Swb test - SFL @ 2600'. EFL @ 3700'. Rec'd 2 BW / run PE. RTP.
7/96 Tag @ 3925'. Acdz w/ 6000 gals Resisol II + 2000# salt. RIH w/ KUDU pump. RTP.

Additional Data:
T/Queen Formation @ 3386'
T/Penrose Formation @ 3525'
T/Grayburg Zone 1 @ 3713'
T/Grayburg Zone 2 @ 3750'
T/Grayburg Zone 2A @ 3789'
T/Grayburg Zone 3 @ 3812'
T/Grayburg Zone 4 @ 3842'
T/Grayburg Zone 5 @ 3878'
T/Grayburg Zone 6 @ 3918'
T/San Andres Formation @ 3921'
KB @ 3599'

FILE: EMSU315WB.XLS

printed 10/22/2002

Chevron

WELL DATA SHEET

LEASE: EMSU WELL: 361

LOC: 660' F N L & 660' F E L SEC: 16
TOWNSHIP: 21S CNTY: Lea
RANGE: 36E UNIT: A ST: N.M.
(formerly: State "AW" #1)

FORM: Grayburg / San Andres DATE:

GL: 3589' STATUS: Producer
KB: 3589' API NO: 30-025-04655
DF: CHEVNO: FA 57960:01

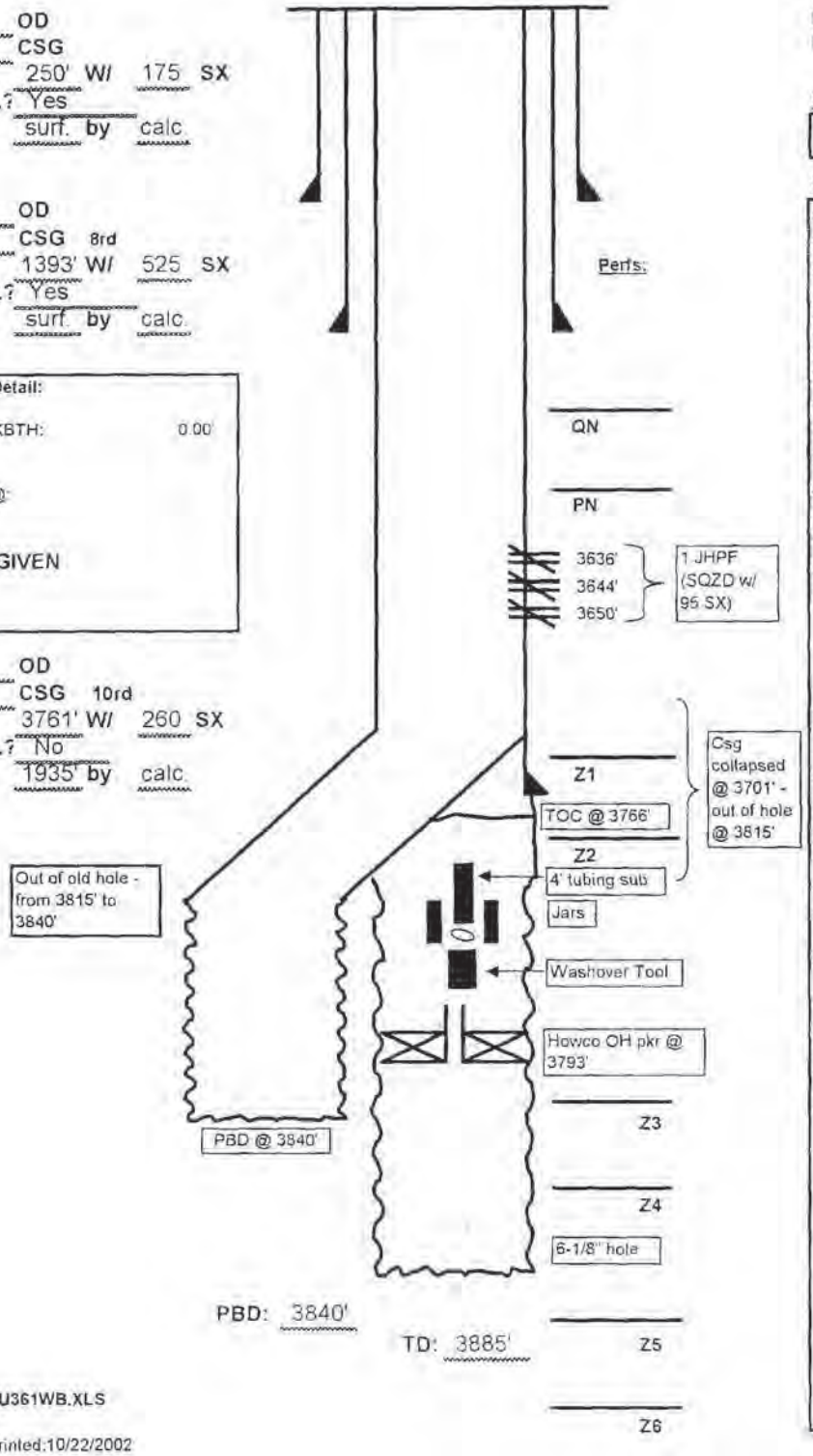
Date Completed: 12/31/1935
Initial Production:
Initial Formation: Grayburg
FROM:

13" OD
CSG
Set @ 250' W/ 175 SX
Cmt circ.? Yes
TOC @ surf. by calc

9-5/8" OD
36# CSG 8rd
Set @ 1393' W/ 525 SX
Cmt circ.? Yes
TOC @ surf. by calc

Tubing Detail:
Original KBTH: 0.00
Landed @:
NONE GIVEN

7" OD
24# CSG 10rd
Set @ 3761' W/ 260 SX
Cmt circ.? No
TOC @ 1935' by calc



PBD: 3840'
TD: 3885'

FILE: EMSU361WB.XLS
printed:10/22/2002

Completion Data

12/35 Natural completion.

Subsequent Workover or Reconditioning:

4/42 ACDZ w/ 8000 gals acid.
10/45 Perf 7" csg @ 3636, 3644, 3650' (1 JHPF).
8/54 C/O hole. SQZD perfs 3636, 3644, 3650' w/ 95 SX cmt. D/O to 3840'. Csg collapsed @ 3701'. Looks like bit went out of old hole @ 3815' & cut new hole next to old hole (fr 3815' to 3840'). ACDZ OH (3761-3840') w/ 500 gals MA.
12/60 ACDZ OH w/ 1000 gals regular acid.
2/65 ACDZ OH w/ 250 gals 15% NeA.
5/87 COWH. C/O fill to 3840'. Deepened to 3859'. ACDZ OH 3753-3959' w/ 3500 gals 15%. RIH w/ PE. TOTP.
3/87 Test: 2 BOPD/ 46 BWPD/ 187 MCFGPD
9/87 Chemical treat.
7/88 Chemical treat.

Additional Data:
T/Queen Formation @ 3430'
T/Penrose Formation @ 3559'
T/Grayburg Zone 1 @ 3729'
T/Grayburg Zone 2 @ 3769'
T/Grayburg Zone 2A @ 3805'
T/Grayburg Zone 3 @ 3830'
T/Grayburg Zone 4 @ 3871'
T/Grayburg Zone 5 @ 3919'
T/Grayburg Zone 6 @ 3958'
T/San Andres @ 3961'
KB @ 3589'

Lost in hole on 4/42: 1 - 7' X 2" Halliburton Drillable Pkr. 1 - Wash Tool Jar 4-1/2'. 1 - 2" EUE X 4' Tbg Sub. 90' 6" - 2" SS 8rd tubing

Chevron

WELL DATA SHEET

LEASE: EMSU WELL: 355

LOC: 660' F N L & 1980' F W L SEC: 14
TOWNSHIP: 21S CNTY: Lea
RANGE: 36E UNIT: ST: N.M.
(formerly: Arnott Ramsey NCT-C #14)

FORM: Grayburg / San Andres DATE:

GL: 3584' STATUS: Producer
KB: 3594' API NO: 30-025-04636
DF: CHEVNO: FA 5777:01

Date Completed: 8/26/1936
Initial Production: F/ 254 BOPD
Initial Formation: Grayburg
FROM: 3698' to 3883' / GOR 17460

10-3/4" OD
32# CSG
Set @ 300' W/ 250 SX
Cmt circ.? Yes
TOC @ surf. by calc.
(13-3/4" hole)

7-5/8" OD
22# CSG
Set @ 1430' W/ 300 SX
Cmt circ.? No
TOC @ 130' by calc
(9-7/8" hole)

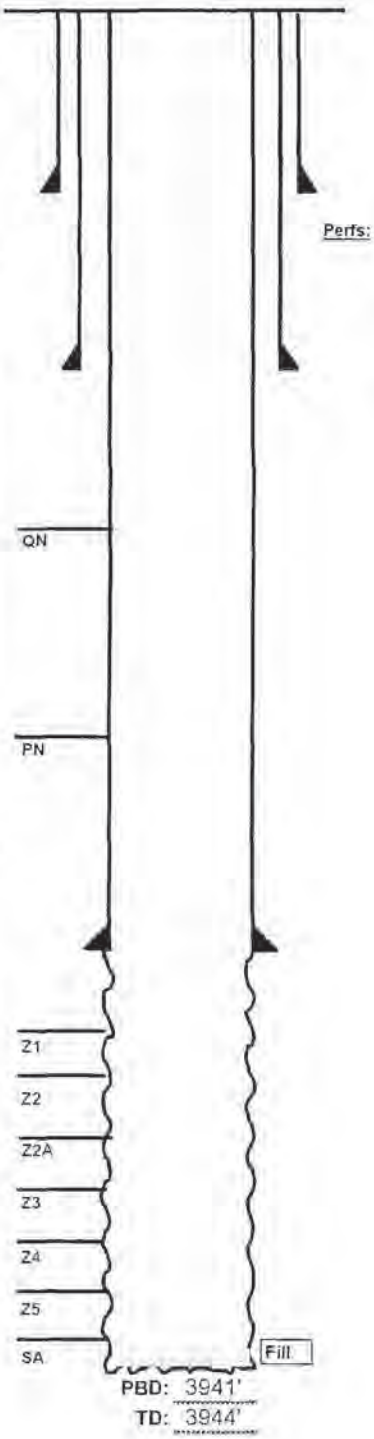
Tubing Detail: 12/24/97

Original KBTH:	10.00'
108 Jts. 2-7/8" J-55 6.5# EUE 8rd tbg:	3405.15'
2-7/8" X 5-1/2" TAC:	2.70'
1 Jt. 2-7/8" J-55 6.5# EUE 8rd	31.50'
12 Jts. 3-1/2" J-55 9.3# EUE 8rd:	376.41'
2-1/2" X 2-1/4" Pump Barrel:	25.12'
2-7/8" Perf Sub:	4.10'
2-7/8" 6.5# J-55 8rd EUE tbg BPMA:	31.10'
Landed @	3876.08'

5-1/2" OD
17# CSG
Set @ 3698' W/ 300 SX
Cmt circ.? No
TOC @ 379' by calc.
(6-3/4" hole)

Rod Detail: 12/24/97

1 - 1-1/2" X 26' Polished Rod
3 - 7/8" Norris 97 Pony Rods (8'-8'-4')
55 - 7/8" Norris 97 Sucker Rods
84 - 3/4" Norris 97 Sucker Rods
12 - 1-1/2" K-Bars
7/8" Norris 97 Pony Rods (2')
2-1/4" X 48" Pump Plunger



Completion Data

ACDZ OH w/ 2000 gals Dowell X sol'n. ACDZ OH w/ 5000 gals 50/50 non-inhib. solution.

Subsequent Workover or Reconditioning:

2/39 Set OH pkr @ 3787'. Tst: f/ 105 BO/ 0 BW/ 320 MCFGPD.
2/59 Well SI - TA'd.
6/60 Cut tbg @ 3564'. Left tbg & OH pkr in well. Set cement retr @ 3551' and SQZD 3551' to TD (3883') w/ 150 SX cmt. Filled hole w/ mud. Spot 10 SX cmt in top of 5-1/2" csg. Well P&A'd.
4/85 D/O surface plug. C/O to 3551'. Test csg - OK. D/O cement retr. D/O, wash over and retr. OH pkr. CO to 3885'. Log well. ACDZ OH w/ 3500 gals 15% NeFeA w/ GRS as block. Swb 0 BO/ 17 BW - 1 hr. EFL - 1500'. Swb SFL - 2900'. EFL @ SN. Rec'd 23 BBLS. Fld w/ slight oil cut. Chem sqzd. Put on prod. Well SI - waiting on ppg equip (until 1987?)
7/87 CO & deepen to 3944'. Put on prod. Tst - 1 BO/ 13 BW/ 55 MCFG. FL - 187' ASN. B/4 - 2 BO/ 1 BW/ 1 MCFGPD.
12/95 Tag @ 3941' WL. Pickle tbg w/ 500 gals 15% NeFe pickle acid. ACDZ w/ 5000 gals viscosified Pentol 200 in 4 stages. Swb, RIH w/ PE. RTP.
12/17/97 BJ pump 5000 gals mini-frac @ 30 BPM @ 2350 psig. FRAC'D OH 3698-3750' w/ 12,000 gals Viking I-30 fluid. Carrying 42,000# 16/30 sand. TOTP on 12/24.
8/2000 acid 6000 gal 50Q CO2

Additional Data:
T/Queen Formation @ 3409'
T/Penrose Formation @ 3536'
T/Grayburg Zone 1 @ 3723'
T/Grayburg Zone 2 @ 3755'
T/Grayburg Zone 2A @ 3788'
T/Grayburg Zone 3 @ 3812'
T/Grayburg Zone 4 @ 3843'
T/Grayburg Zone 5 @ 3885'
T/Grayburg Zone 6 @ 3923'
T/San Andres Formation @ 3924'
KB @ 3594'

FILE: EMSU355WB.XLS

printed: 10/22/2002

Chevron

WELL DATA SHEET

LEASE: EMSU WELL: 385

LOC: 1980' F N L & 660' F W L SEC: 15
TOWNSHIP: 21S CNTY: Lea
RANGE: 36E UNIT: E ST: N.M.

FORM: Grayburg / San Andres DATE:

GL: 3562' STATUS: Producer
KB: 3582' API NO: 30-025-04650
DF: CHEVNO: FA 5791:01

Date Completed: 4/21/1936
Initial Production: f/ 1520 BOPD
Initial Formation: Grayburg
FROM: 3776' to 3869' GOR 822

10-3/4" OD
32# CSG
Set @ 312' W/ 250 SX
Cmt circ.? yes
TOC @ surf. by calc.

7-5/8" OD
26# CSG
Set @ 1469' W/ 300 SX
Cmt circ.? no
TOC @ 178' by calc.

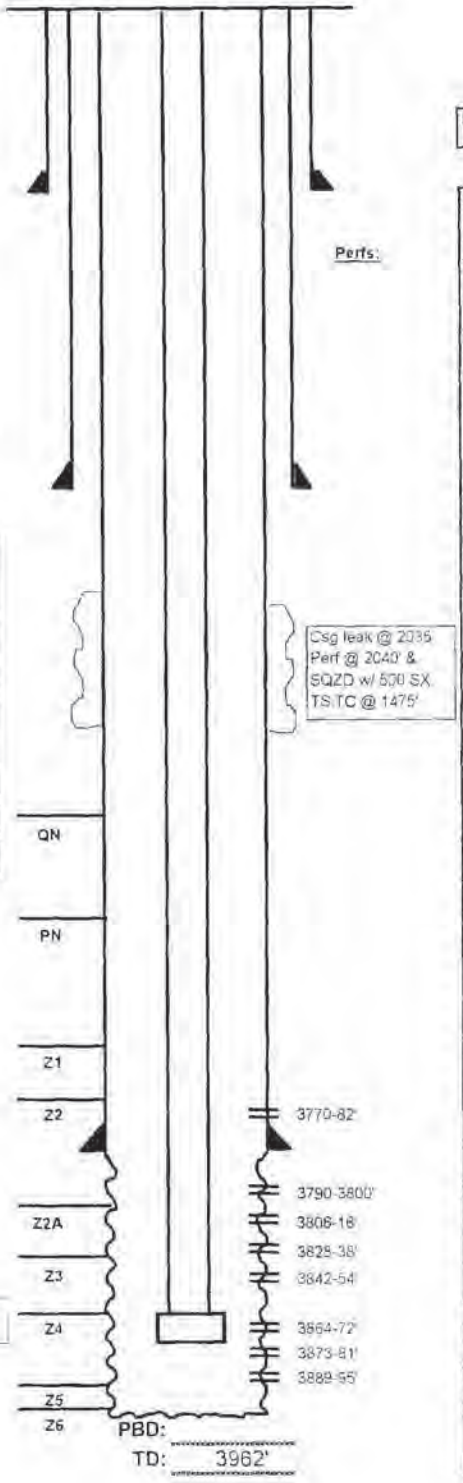
Tubing Detail: 3/1/99

KBTH	0.00'
119 jts 2-7/8" 6.5# J-55 8rd EUE tbg	3727.05'
2-7/8 Sub w/ X/O	4.65
1 156 STG RA-16 pump w/ 87.5 HP Motor	45.05'
Landed @	3780.75'

NOTE, Perf & ACDZ OH. Bad csg fr 2105-2479'. Suspected casing leak fr 2105-2479' but unable to pump into it. Circulated recised out.

5-1/2" OD
17# CSG
Set @ 3776' W/ 300 SX
Cmt circ.? no
TOC @ 2040' by est

Submersible pump @ 3670'
4-3/4" O-I



Completion Data

Natural OH well completion.

Subsequent Workover or Reconditioning:

9/51 Trtd w/ 1000 GAL 15% NeA & 500 GAL MA. REACDZ W/ 2500 gal 15% NeA. Tst: 114 BO/ 16 BW/ GOR=1675. B/4 - 10 BO/ 2 BWPD.
11/52 Install ppg eq. Tst: 60 BO/28 BWPD/GOR = 1990. B/4 - 13 BO/ 5 BWPD.
3/55 Ran GR&N log. Fnd csg lk @ 2035'. Perf 2040' (2 JHPF). Set rtr @ 1694'. SQZD lk w/ 500 SX. TSITC @ 1475'. D/O to 2155'. Tst csg OK. Drld cmt 3645-58'. Drld/push CIBP f/ 3658-3860', left BP @ 3860'. Tst: 62 BO/ 10 BW/ GOR = 1065.
11/60 C/O to TD, tst: 19 BO/ 3 BW.
8/66 Replace tbg.
2/71 Dump acid 750 gal 15% NeA. Tst: 28 BO/ 30 BW/ GOR = 1607. B/4 - 11 BO/ 14 BW.
6/81 Tag bottom. 10' fill. ACDZ w/ 3000 gal 15% NeA @5 - 7.7 BPM w/ 200# GRS block. Tst - 26 BO/ 7 BW/ 7 MCFPD. B/4 - 6 BO/ 8 BWPD.
7/82 Dump acid 1000 gal 15% NeA. Tst 4 BO/ 6 BW. B/4 - 3 BO/ 6 BW.
6/87 XO WH. CO fill 3854-69'. Drld uo BP on btm. Deepened to 3962' w/ air. Log, put on prod. Tst: 2 BO/ 64 BW/ 70 MCFGPD. FL@285' ASN. B/4 - 5 BO/ 23 BW/ 11 MCF.
4/89 Scale squeezed.
11/90 Full scale sqzd & directed. Note that normal scale squeeze is not effective. Set pkr @ 3650'. Ppd 4 stg chem sqz w/ 750# RS as diverter. Got good block action. Used T133 & TS923 scale chemical.
5/91 Upsize ppg. equip. Conv. 228 unit. Tst: 10 BO/ 224 BW/ FL = 943' ASN.
4/92 Install larger ppg. equip. (456). Tst: 50 BO/ 579 BW/ FL = 756' ASN.
10/92 Install larger ppg. equip. Tst: 68 BO/ 922 BW. FL = 274' ASN.
11/93 Tag btm - 2' fill. ACZD OH w/ 5000 gal HCl w/ 1st 5000 gal using anti-sludge additive & last 2000 gal NeFeA in 5 stg. w/ 2500# GRS as block. Tag salt bridge @ 3836'. Pmp FW. RTP. Tst: 182 BO/743 BW/ 2 MCF. FL= 785' ASN.
12/93 Install ESP. Tst 186 BO/ 1051 BW/ 7 MCF. FL = 62' above pump intake.
7/94 GIH, tag fill / bridge @ 3829', Left sub pump tubed w/ btm @ 3829' (?). **8/1/94** Tag @ 3834', Hit 3' solid bridge. Sidewall buildup worse 3860-3910'. CO to 3962' Replace subpump. Tst: B - 102 BO/ 929 BW/ 9 MF. A - 93 BO/ 729 BW/ 14 MCF. FL @ 0' ASN.
9/95 Tag @ 3852'. Drill bridge 3852-3885'. Fell thru to 3962'. Pickle tbg., ACDZ OH w/ 5000 gal Pertol 200 (20% xylene, 80% 0.15 HCl) & 5000# 1000 mesh salt in 5 stgs RTP. Tst: 135 BO/ 1532 BW/ 25 MCF. FL = 500' above pump. B/4 = 108 BO/ 991 BW/ 19 MCF.
8/96 Tag @ 3872'. D/O to 3893' & CO to 3962'. Pickle tbg w/ 300 gals. ACDZ w/ 5000 gals - swb. Chemical treat. RTP.
11/2/98 RU Weatherford foam unit, CO to 3953'. TIH w/ Baker infl. pkr, set @ 3910'. SQZD OH fr 3910' to TD w/ 150 SX Cl C + additives. 26 SX in form. Drill cmt fr 3479' to 3900'. Spot acid, swb & run sub pump. TOTP.
2/22/99 Release pkr and lower tbg 1 jt. (TP @ 3894'). Pump 300 gals 15% NeFe & flush w/ 10 BW. RIH w/ 3-1/8 HSCG loaded w/ 3 SPF @ 120 deg phasing. Perf 3889-95, 3873-81, 3864-72, 3842-54, 3828-38, 3806-16, 3790-3800 & 3770-82. Reset RBP @ 2974'. Isolate csg leak - btm leak @ 2479'. (See NOTE at left) Swb csg & tbg down to SN @ 2593'. ACDZ OH w/ 3000 gals 15% NeFe HCl foamed to 50Q w/ CO2. Run subpump on 119 jts. 2-7/8" tbg. EOP @ 3780'.

Additional Data:
T/Queen Formation @ 3407'
T/Penrose Formation @ 3535'
T/Grayburg Zone 1 @ 3716'
T/Grayburg Zone 2 @ 3758'
T/Grayburg Zone 2A @ 3791'
T/Grayburg Zone 3 @ 3820'
T/Grayburg Zone 4 @ 3859'
T/Grayburg Zone 5 @ 3912'
T/Grayburg Zone 6 @ 3956'
T/San Andres Formation @ 3957'
KB @ 3582'

FILE: EMSU385WB.XLS

printed: 10/22/2002

Chevron

WELL DATA SHEET

LEASE: EMSU WELL: 387

LOC: 1980' F N L & 1980' F E L SEC: 15
TOWNSHIP: 21S CNTY: Lea
RANGE: 36E UNIT: G ST: N.M.

FORM: Grayburg / San Andres DATE:

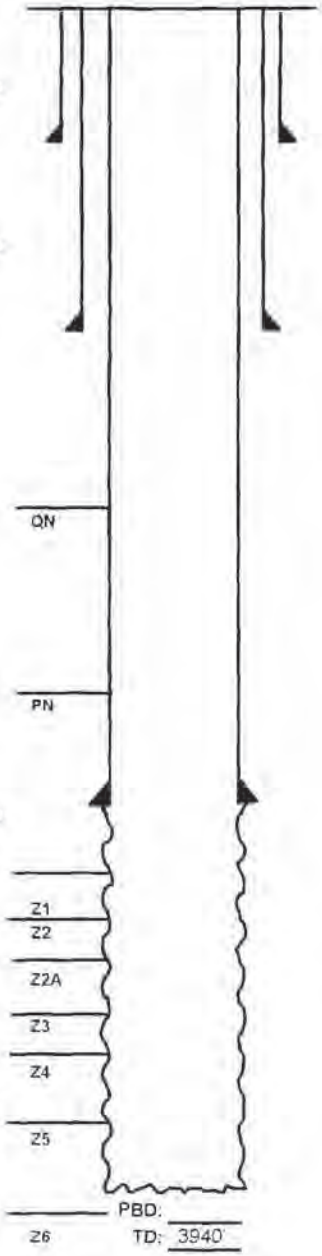
GL: 3580' STATUS: Producer
KB: 3580' API NO: 30-025-04645
DF: CHEVNO: FA 57860:01

Date Completed: 12/6/36
Initial Production: F/ 1536 BOPD
Initial Formation: Grayburg
FROM: 3699' to 3880'

10-3/4" OD CSG
Set @ 286' W/ 250 SX
Cmt circ.? Yes
TOC @ surf. by calc

7-5/8" OD CSG
Set @ 1394 W/ 425 SX
Cmt circ.? Yes
TOC @ surf. by calc

5-1/2" OD 10rd K-55
17# CSG
Set @ 3699 W/ 425 SX
Cmt circ.? YES
TOC @ 0 by calc.



Underream open hole to 6"
3728-3940'

FILE: EMSU389WB.XLS

Completion Data

Natural.

Subsequent Workover or Reconditioning:

10/51ACDZ w/ 1500 gals.
8/53 ACDZ w/ 1500 gals.
7/86 CO to TD. ACDZ w/ 750 gals acid.
11/86 Deepened from 3890-3940'. Log and acidized W/ 5000 gals 15% NE HCL + GRS
1/87 Underream OH @ 3728'-3940' to 6". Acidized OH w/ 1300 gals 15% NEFE +1000 gal 10 # GBW + 1000# GRS
8/92 Upsize pump
9/1992 Upsize to ESP.
9/1995 Acidized w4800 gals Pentol w rock salt for diversion

Additional Data:

T/Penrose @ 3540'
T/Grayburg Zone 1 @ 3731'
T/Grayburg Zone 2 @ 3764'
T/Grayburg Zone 3 @ 3822'
T/Grayburg Zone 4 @ 3862'
T/Grayburg Zone 5 @ 3912'

KB @ 3580'

Chevron

WELL DATA SHEET

LEASE: EMSU WELL: 389

LOC: 1980' F N L & 660' F W L SEC: 14
TOWNSHIP: 21S CNTY: Lea
RANGE: 36E UNIT: E ST: N.M.
(formerly: Lockhart "B-14" #1)

FORM: Grayburg / San Andres DATE:

GL: 3566' STATUS: Producer
KB: 3566' API NO: 30-025-04631
DF: CHEVNO: FA 57720:01

Date Completed: 6/13/36
Initial Production: F/ 1080 BOPD
Initial Formation: Grayburg
FROM: 3662' to 3870' / GOR 847

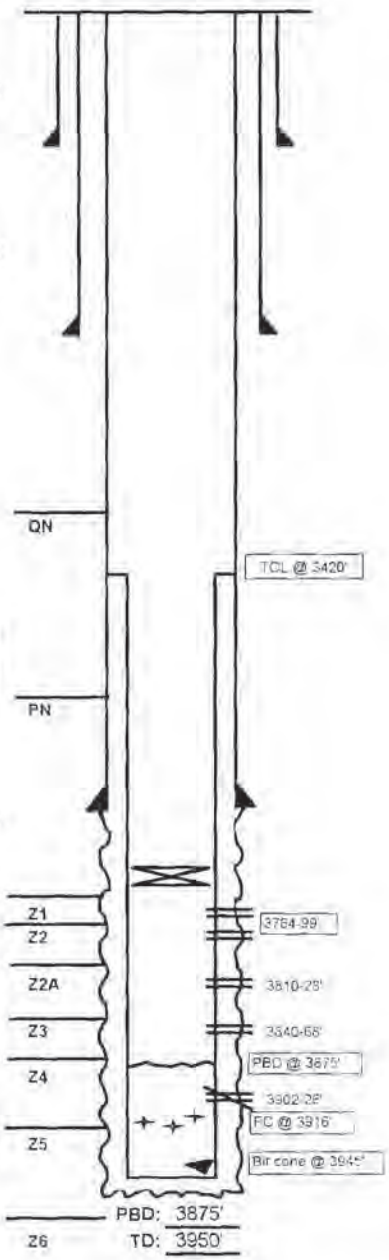
10-3/4" OD CSG
Set @ 374' W/ 200 SX
Cmt circ.? Yes
TOC @ surf. by calc

7-5/8" OD CSG
Set @ 2664' W/ 900 SX
Cmt circ.? Yes
TOC @ surf. by calc

Plugging Detail:
CIBP @ 3725' with 35' cmt cap

5-1/2" OD 10rd K-55
17# CSG
Set @ 3662' W/ 150 SX
Cmt circ.? No
TOC @ 1765' by calc

4" 12.93# L80/K-55 Liner w/ RFC conn. Set @ 3950' w/ 50 SX cmt



FILE: EMSU389WB.XLS

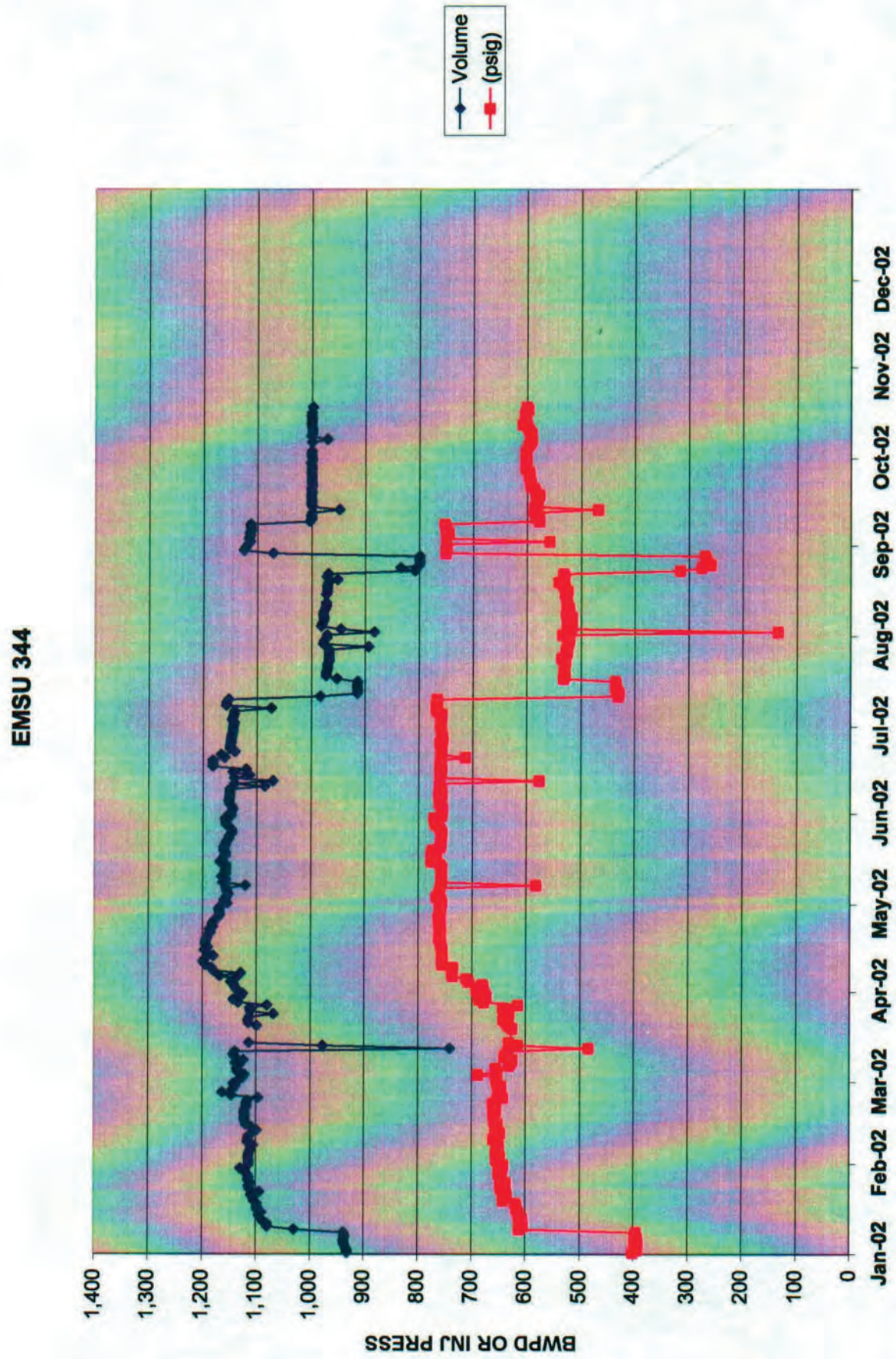
Completion Data

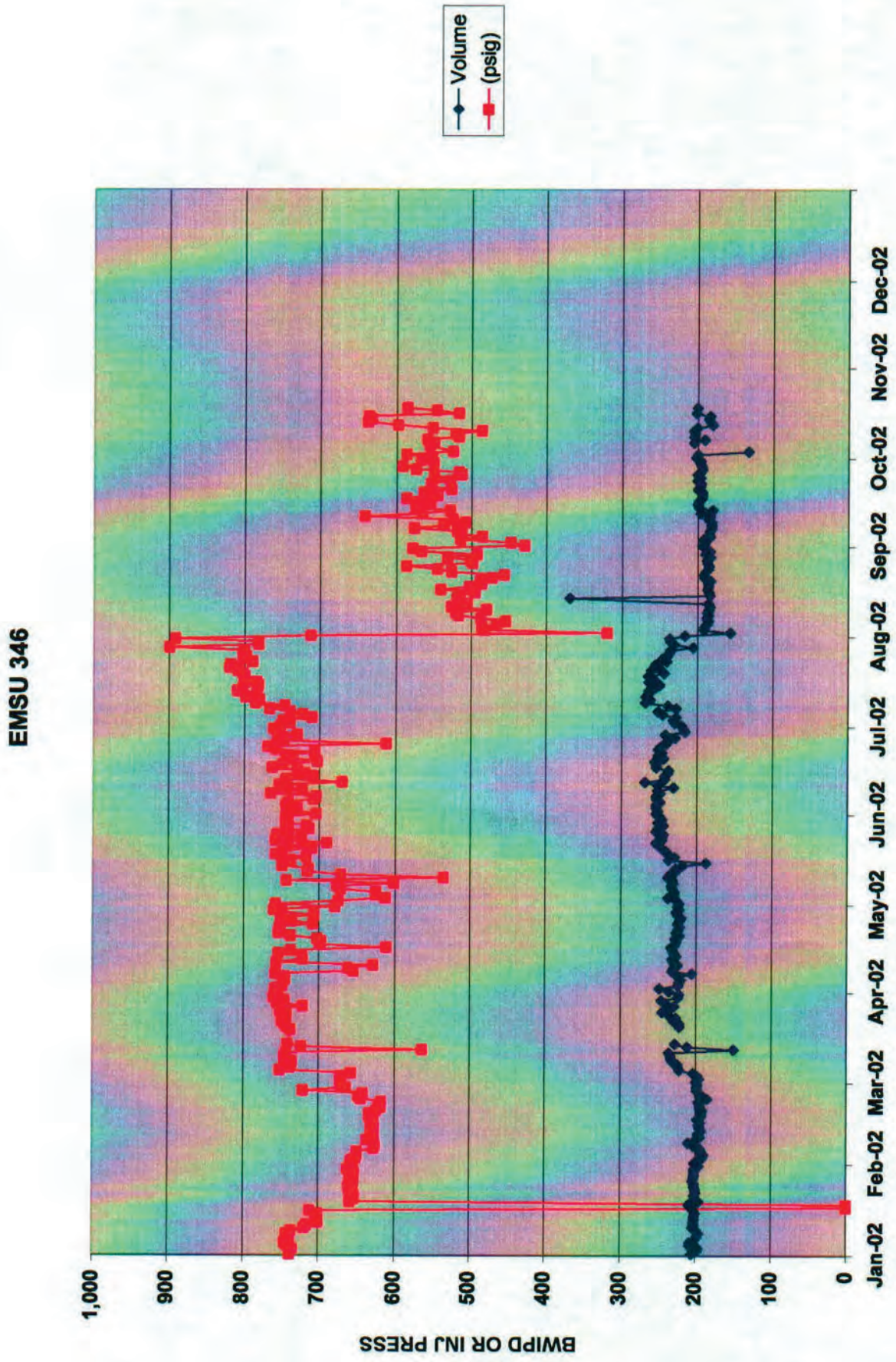
Natural.

Subsequent Workover or Reconditioning:

10/7/43 ACDZ w/ 1000 gals.
10/27/43 ACDZ w/ 2000 gals.
5/28/51 ACDZ w/ 750 gals gelled acid + 3000 gals 15% HCl.
8/52 Installed pumping equipment.
3/16/54 Frac w/ 6000 gals crude and 6000# sand.
1/1/65 TA'd.
2/85 C/O to 3870'.
8/85 Installed new 7-1/16" 3M WH. C/O to 3842'. Ran CNL/GR/CCL - Spectralog. ACDZ w/ 3500 gals 15% HCl + 1000# GRS.
7/87 Deepened from 3870-3950'. Ran 4" liner f/ 3420-3950'. Drilled out to 3945' (left one cone in hole). Ran CNL/CCL/GR. Perfed 4" liner @ 3764-99, 3810-28, 3840-68 & 3902-26'. ACDZ w/ 7500 gals 15% HCl.
8/87 Production: 0 BO/ 126 BWPD. FL - 1578' F.S.
9/23/87 SQZD perfs @ 3764-3926' w/ 300 SX CL C cmt. D/O & re-perf fr 3764-99, 3810-28 and 3840-68' (1 JHPF - 81 holes). ACDZ w/ 4100 gals 15% NeFe. Run PE.
4/19/2002 TA'd well

Additional Data:
T/Queen @ 3404'
T/Penrose @ 3525'
T/Grayburg Zone 1 @ 3726'
T/Grayburg Zone 2 @ 3758'
T/Grayburg Zone 2A @ 3798'
T/Grayburg Zone 3 @ 3831'
T/Grayburg Zone 4 @ 3869'
T/Grayburg Zone 5 @ 3924'
T/Grayburg Zone 6@ 3961'
T/San Andres @ 3963'
KB @ 3566'


EMSU 344
Volume
(psig)
BWPD OR INJ PRESS
1,400
1,300
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
0
Jan-02
Feb-02
Mar-02
Apr-02
May-02
Jun-02
Jul-02
Aug-02
Sep-02
Oct-02
Nov-02
Dec-02


EMSU 346
Volume
(psig)
BWIPD OR INJ PRESS
1,000
900
800
700
600
500
400
300
200
100
0
Jan-02
Feb-02
Mar-02
Apr-02
May-02
Jun-02
Jul-02
Aug-02
Sep-02
Oct-02
Nov-02
Dec-02

225427201 WFX 9/25/02

Chevron U.S.A. Production Company
Kevin Hickey
New Mexico Waterflood
Petroleum Engineer
15 Smith Road
Midland, Texas 79705

ChevronTexaco

September 3, 2002

SEP 10

**APPLICATION FOR AUTHORIZATION TO INJECT - OCD FORM C-108
EUNICE MONUMENT SOUTH UNIT
EUNICE MONUMENT OIL POOL
LEA COUNTY, NEW MEXICO**

State of New Mexico
Energy and Minerals Dept.
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Attention: Ms. Lori Wrotenbery, Director

Ladies and Gentlemen:

Chevron U.S.A. Production Co. requests your approval of the subject application to inject water into the following Eunice Monument South Unit Wells:

- EMSU No. 343 located in Unit M, Sec. 10, T21S-R36E, Lea County, NM 3,738 – 3,910
- EMSU No. 345 located in Unit O, Sec. 10, T21S-R36E, Lea County, NM 3,768 – 3,922
- EMSU No. 347 located in Unit M, Sec. 11, T21S-R36E, Lea County, NM 3,777 – 3,935
- EMSU No. 357 located in Unit A, Sec. 15, T20S-R37E, Lea County, NM 3,703 – 3,942
- EMSU No. 359 located in Unit C, Sec. 15, T20S-R37E, Lea County, NM 3,755 – 3,954

Chevron plans on converting these producers to an injection as part of an ongoing infill drilling and pattern re-alignment program. These conversions will provide the much needed injection support in this area and enhance the production of the EMSU secondary recovery unit.

Attached is an OCD Form C-108 with information relative to the water injection conversion of the referenced wells. A copy of this application is being sent to applicable surface land owners and offset operators by certified mail as their notice as well as a legal notice was placed in the Hobbs Sun-Times. A copy of this application will also be sent to the OCD Hobbs District Office.

Your prompt consideration and approval of this application will be greatly appreciated. If further information is required, please contact me at (915) 687-7260.

Sincerely,

Kevin F. Hickey
Petroleum Engineer
New Mexico Waterfloods

File
Attachments

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

FORM C-108
Revised 4-1-98

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: __X__ Secondary Recovery _____ Pressure Maintenance _____ Disposal _____ Storage
Application qualifies for administrative approval? __X__ Yes _____ No

II. OPERATOR: ChevronTexaco Inc.

ADDRESS: 15 Smith Road Midland TX 79705

CONTACT PARTY: Kevin Hickey - Petroleum Engineer PHONE: 915-687-7260

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? __X__ Yes _____ No
If yes, give the Division order number authorizing the project: R-7766

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: Kevin F. Hickey TITLE: Petroleum Engineer

SIGNATURE: Kevin F. Hickey DATE: 8/22/2002

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

Side 2

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

EMSU Nos. 343, 345, 347, 357, and 359
Conversion to Injection
Eunice Monument South Unit
Lea County, NM

INFORMATION FOR NMOCD FORM C-108

ITEM I
(See OCD Form C-108)

ITEM II
(See OCD Form C-108)

ITEM III
See attached wellbore schematic.

ITEM IV
(See OCD Form C-108)

ITEM V
This was originally submitted as Exhibit No. 28 Case No. 8398 heard at a Commissioner's hearing on 11-07-84 (Order No. 7766 - effective 12-27-84). Smaller area maps relating to the conversions are attached. Attached also are four tables. Table 1 is a list of all the wells in the area of review. Table 2 is a list of all new completions in wells that penetrated the injection interval in the area of review since the effective date of the original order (12-27-84). Table 2A is a list of all wells that are plugged and abandoned in the area of review. Detailed wellbore schematics are included for those wells in Tables 2 and 2A as part of Item VI. Finally Table 3 is a list of all wells that are in the in the shallower Eumont field. This is for information only.

ITEM VI
This was originally submitted as Exhibit No. 31 of Case 8398 heard at a Commissioner's hearing on 11-07-84 (Order No. 7766 - effective 12-27-84). Please note attached schematic diagrams of new drilled wells within the area of review since the effective date of the Order. Included are also the wells that have been plugged and abandoned since the time of the original Order.

ITEM VII
See attached table showing items VII (1), (2), and (3) for the subject wells of this C-108 application. Items VII (4) and (5) are consistent with the original C-108 application and its Exhibit No. 33a.

ITEM VIII
This was originally submitted as Exhibit No. 34a and 36 of Case No. 8398 heard at a Commissioner's hearing on 11-07-84 (Order No. 7766 - effective 12-27-84). Copies of these Exhibits are enclosed.

ITEM IX
All wells will be restimulated with 15% Hydrochloric HCl acid prior to injection.

ITEM X
Logging and test data have been filed with the OCD.

ITEM XI
This was originally submitted as Exhibit No. 37 of Case 8398 heard at a Commissioner's hearing on 11-07-84 (Order No. 7766 - effective 12-27-84). A copy of this Exhibit is enclosed.

ITEM XII
This was originally submitted as Exhibit No. 38 of Case 8398 heard at a Commissioner's hearing on 11-07-84 (Order No. 7766 - effective 12-27-84). A copy of this Exhibit is enclosed.

EMSU Nos. 343, 345, 347, 357, and 359
Conversion to Injection
Eunice Monument South Unit
Lea County, NM

ITEM XIII

All surface land owners and offset operators are being notified by Certified Mail with a copy of the C-108 Form. A request for publication in the Hobbs News-Sun was mailed on . The actual newspaper ad and an affidavit of publication will be forwarded to the OCD as soon as it is obtained.

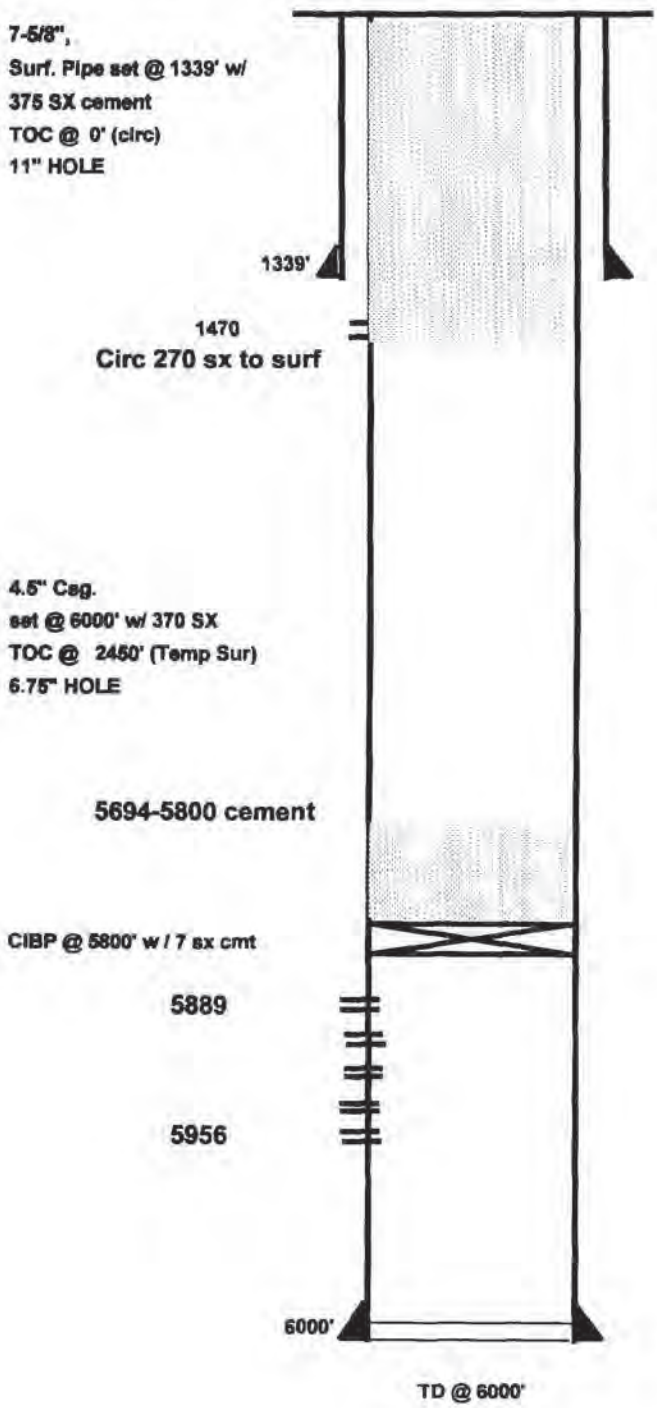
EMSU Nos. 343, 345, 347, 357, and 359
Conversion to Injection
Eunice Monument South Unit
Lea County, NM

Well No.	Max Inj. Rate (BWPD)	Avg. Inj. Rate (BWPD)	Max Inj. Press. (PSI)	Avg. Inj. Press. (PSI)	System Open	System Closed
EMSU #343	1500	750	750	650		X
EMSU #345	1500	750	750	650		X
EMSU #347	1500	750	750	650		X
EMSU #357	1500	750	750	650		X
EMSU #359	1500	750	750	650		X


R36E
R37E
EUMONT HARDY UT.
PERMIAN RES.(OPER)
OIL CENTER
MONUMENT SO. UT
CHEVRON (OPER.)

CURRENT
WELLBORE DIAGRAM

LEASE:	State D	WELL:	13	FIELD:	Oil Center	API:	30-025-20662
LOC:	990 FSL & 660 FWL	SEC:	11	BLK:	T21S, R36E	REF NO:	
SVY:	N.M.P.M.	GL:		CTY/ST	Lea Co., NM	SPUD:	8/28/1964
CURRENT STATUS:	P&A	KB:	3600'	DF:		TD DATE:	



Date Completed: 09-13-1984

Initial Formation: Blinbery From: 5889' To: 5956'
Workover Data:

11/21/1990
Well P&A'd

10/28/2002

Chevron USA

New Mexico Waterflood

EMSU proposed conversions

Area of Review

Wells penetrating injection interval

0 2,128 4,256

FEET

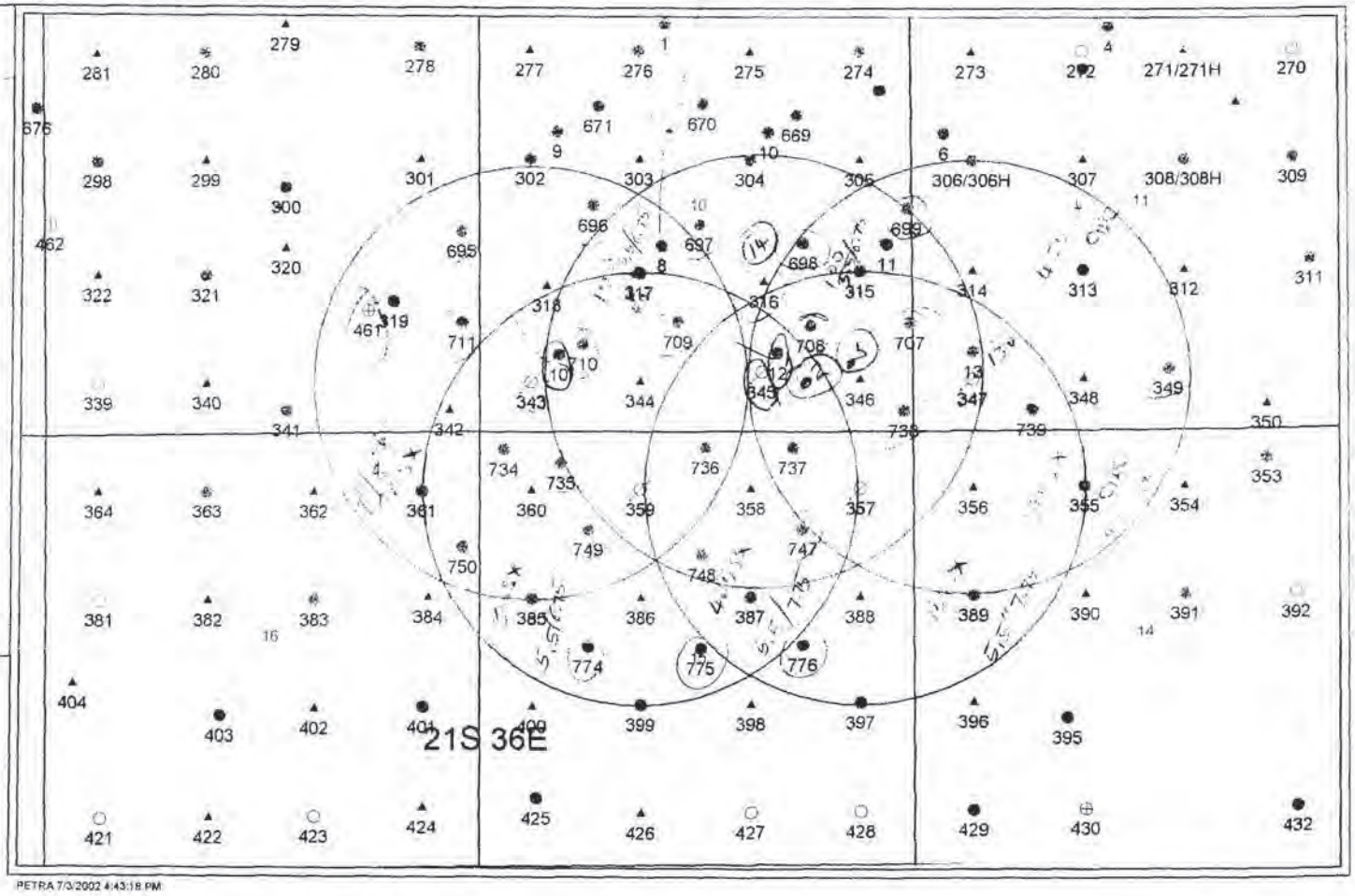
POSTED WELL DATA

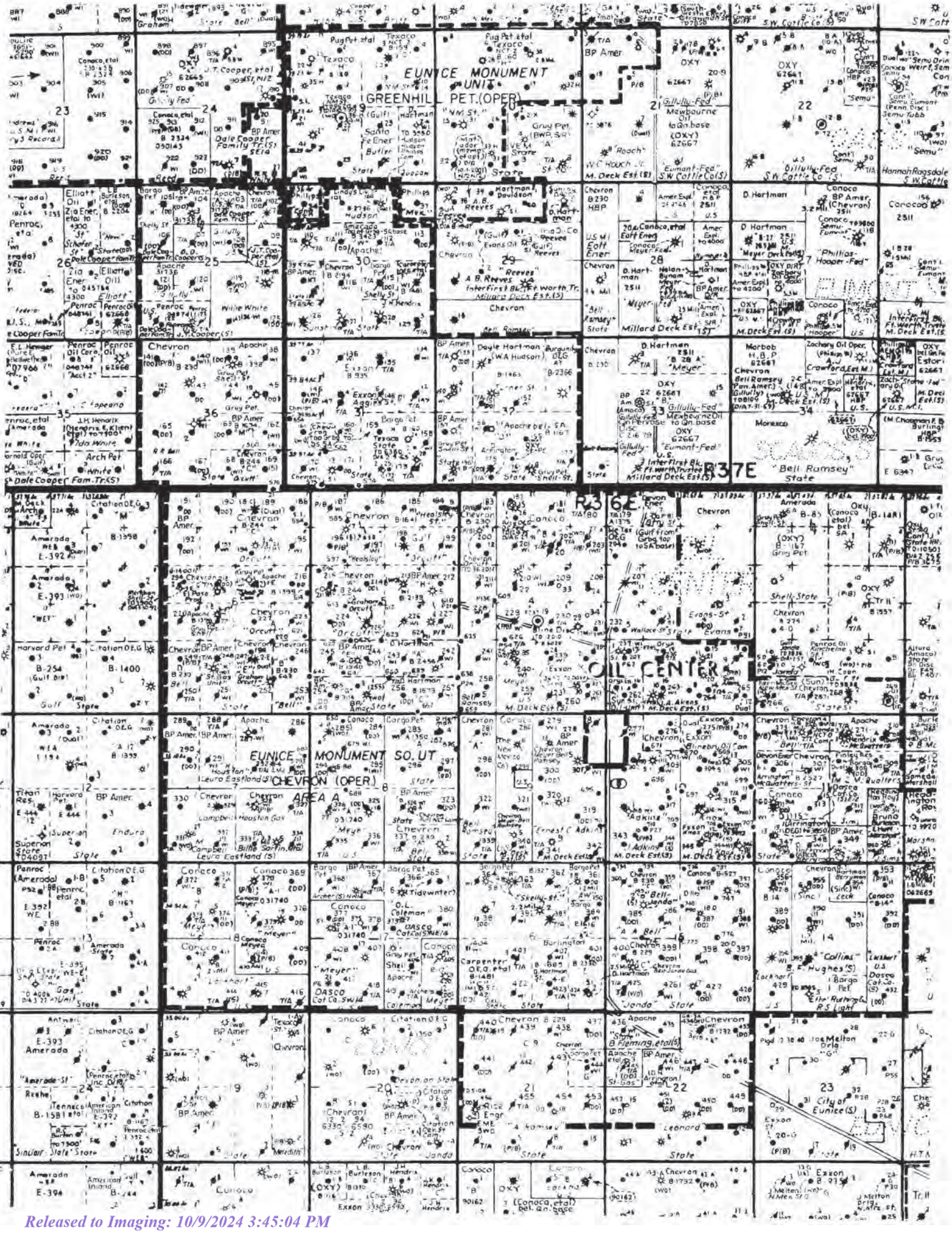
Well Number

WELL SYMBOLS

- Location Only
- Oil Well
- Converted Injection Well
- Unknown Status
- Injector Well

July 3, 2002




EUNICE MONUMENT GREENHILL PET.(OPER)
EUNICE MONUMENT SO. UT CHEVRON (OPER) AREA A
OIL CENTER
R37E
R36E
R3

Chevron USA

New Mexico Waterflood

EMSU proposed conversions

Area of Review

Wells penetrating injection interval

0 4,862 9,724

FEET

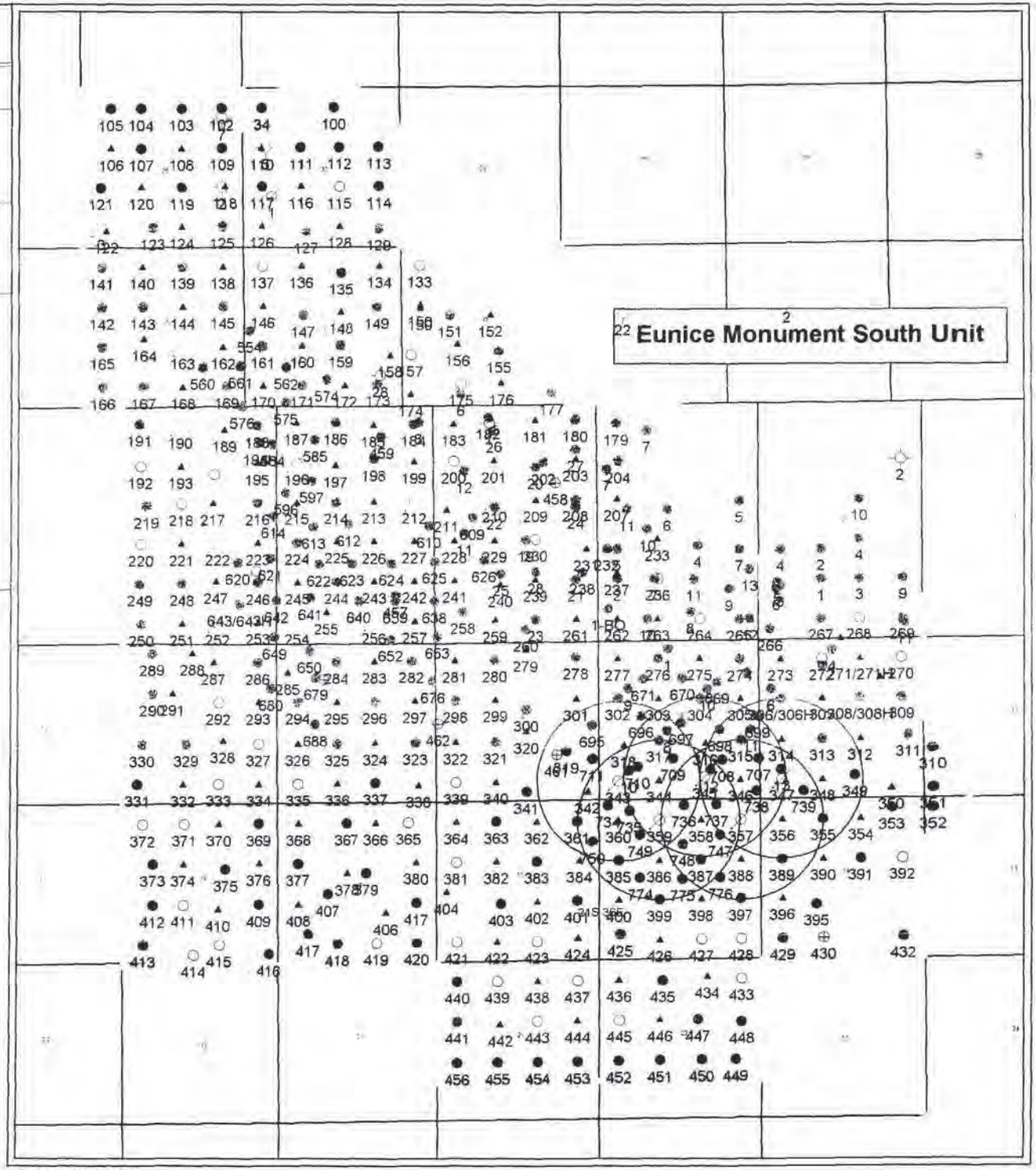
POSTED WELL DATA

Well Number

WELL SYMBOLS

- Location Only
- Oil Well
- Gas Well
- Dry Hole
- Converted Injection We
- Unknown Status
- Injector Well

July 3, 2002



Chevron

WELL DATA SHEET

LEASE: EMSU WELL: 343 FORM: Grayburg / San Andres DATE:

LOC: 660' F S L & 660' F W L SEC: 10 GL: 3578' STATUS: Producer
TOWNSHIP: 21S CNTY: Lea KB: 3578' API NO: 30-025-04589
RANGE: 36E UNIT: M ST: N.M. DF: CHEVNO: FA 57300:01
(formerly: EXXON A.J. Adkins #2)

Date Completed: 2/11/1936
Initial Production: 1704 BOPD / 0 BWPD
Initial Formation: Grayburg
FROM: 3834' to 3863' / GOR 538

CURRENT

10-3/4" OD
35.75# CSG
Set @ 293' W/ 175 SX
Cmt circ.? No
TOC @ 22' by calc
(15" hole)

7-5/8" OD
26.4# CSG
Set @ 1529' W/ 400 SX
Cmt circ.? Yes
TOC @ surf. by calc
(9-7/8" hole)

Tubing Detail:
Original KBTH: 0.00'
Landed @:
NONE GIVEN

5-1/2" OD
17# CSG
Set @ 3834' W/ 165 SX
Cmt circ.? No
TOC @ 2008' by calc
(6-3/4" hole)

QN
PN
Z1
Z2
Z2A
Z3
Z4
Z5
Z6

Found csg leak fr 243' to 491'. SQZD w/ 51 SX. Circ out 5-1/2" ann.

Perfs:
3738-40'
3748-50'
3762-64'
3771-73'
3782-84'
3795-97'
2 JHPF

Whipstock @ 3812'

Sidetracked hole - from 3812' to 3910'

Fish Detail - Old wellbore w/ fish Halliburton cone-type testing pkr & 47' Drillpipe. Top @ 3830', btm @ 3890'

4-3/4" OH

PBD:
TD: 3910'

Completion Data

Left Halliburton cone-type testing tool & 47' of drill pipe in hole. TOF @ 3830', bottom @ 3890'. Set whipstock @ 3812' & sidetracked to TD of 3910'. ACDZ OH w/ 1000 gals - swab and encountered 95% sulfur water fr TD 3910' to 3834'. PB w/ 10 SX, 15 SX & 20 SX to 3888'. Unsuccessful. Set Robinson 3-1 Rubber Pkr @ 3863' in OH to shut off water - OK. ACDZ w/ 500 gals.

Subsequent Workover or Reconditioning:

3/59 ACDZ w/ 300 gals 15% HCl.
4/87 XOWH. Tag fill @ 3794'. Mill on fish fr 3799-3806'. Ream thru window @ 3806-11'. WAsh fr 3829-41'. Cut over fish pkr @ 3841-44'. Rec'd Robinson pkr. C/O to 3910'. Log w/ CNL, GR, cal, CCL. Perf 3795-97, 3738-40, 3748-50, 3762-64, 3771-73 & 3782-84' (2 JHPF). ACDZ perfs w/ 2400 gals 15% NeFeA & 38 7/8" RCNBs. Swb perfs, SFL -3500', EFL - 3655'. Rec'd tr water & dry. Wait 30 min. 1 run dry to SN. Put well on prod. Tst: 0 BO/ 132 BW/ 1 mcfg. FL - 370' ASN. B/4: 1 BO/ 94 BW/ 3 mcfg.
7/89 Chemical squeeze.
5/90 Upsized to 456 ppg unit. Tst: 14 BO/ 494 BW/ 5 mcfg. FL - not pumped off per rpt. B/4: 0 BO/ 145 BW/ 1 mcfg.
4/91 Ran prod. log - rate: 23 BO/ 597 BW/ 5 mcfg. Log indicated 23% 3873-94', 4% - 3857-73', 3% - 3839-57', 21% - 3795-97', 9% - 3768-86', 11% - 3762-64', 20% - 3748-50', 9% - 3738-40'.
10/92 Set RBP @ 3809'. Pump tst: 10 BO/ 800+ BWPD. B/4 - 25 BO/ 784 BWPD. POH w/ RBP. RIH w/ VSD ESP test. Tst: 63 BO/ 2440 BWPD. Install perm ESP. Tst 63 BO/ 2440 BWPD.

Additional Data:
T/Queen Formation @ 3390'
T/Penrose Formation @ 3514'
T/Grayburg Zone 1 @ 3713'
T/Grayburg Zone 2 @ 3753'
T/Grayburg Zone 2A @ 3788'
T/Grayburg Zone 3 @ 3821'
T/Grayburg Zone 4 @ 3855'
T/Grayburg Zone 5 @ 3905'
T/Grayburg Zone 6 @ 3950'
T/San Andres @ 3952'
KB @ 3578'

FILE: EMSU343WB.XLS
printed: 7/3/2002

Chevron

WELL DATA SHEET

LEASE: EMSU WELL: 359

LOC: 660' F N L & 1980' F W L SEC: 15

TOWNSHIP: 21S CNTY: Lea

RANGE: 36E UNIT: C ST: N.M.

FORM: Grayburg / San Andres DATE:

GL: 3579' STATUS: Producer

KB: 3579' API NO: 30-025-04651

DF: CHEVNO: FA 5792:01

Date Completed: 9/22/1936

Initial Production: f/ 750 BOPD / 0 BWPD / GOR 9860

Initial Formation: Grayburg

FROM: 3755' to 3881'

CURRENT

16" OD
70# CSG
Set @ 34' W/ 60 SX
Cmt circ.? yes
TOC @ surf. by calc

7-5/8" OD
22# CSG
Set @ 1408' W/ 773 SX
Cmt circ.? yes
TOC @ surf. by calc

5-1/2" OD
17# CSG
Set @ 3755' W/ 275 SX
Cmt circ.? no
TOC @ 712' by calc

Perfs:

QN

PN

Z1

Z2

Z2A

Z3

Z4

Z5

PBD:

TD: 3954'

FILE: EMSU359WB.XLS

printed: 7/3/2002

Completion Data

ACDZ OH w/ 2000 gals acid.

Subsequent Workover or Reconditioning:

10/54 Install pumping equipment. Tst: 78 BO/ 0 BW/ 1560 GOR. B/4 - 24 BO / 2 BW.
12/70 750 gals 15% NeA dump acid job. Tst: 25 BO/ 3 BW. B/4 - 14 BO / 9 BW.
5/81 750 gals 15% NeA dump acid job. Tst: 38 BO/ 11 BW/ 65 MCF. B/4 - 23 BO / 7 BW/ 80 MCF.
12/81 Tag bottom - 11' fill. Acdz w/ 1000 gals 15% NeA. Tst: 19 BO/ 25 BW/ 106 MCF. B/4 - 6 BO / 3 BW/ 108 MCF.
9/82 1000 gals 15% NeA dump acid job. Tst: 19 BO/ 4 BW. B/4 - 10 BO / Tr wtr.
2/83 1000 gals 15% NeA dump acid. Tst 17 BO/ 3 BW B/4 - 17 BO/ 4 BW.
6/87 XO WH. CO & deepen to 3954'. Run logs. Put back on prod. Tst 1 BO/ 67 BW/ 22 MCF. FL = 121' ASN. B/4 - 10 BO/ 11 BW/ 112 MCFGPD.
7/89 Chemical squeezed.
9/90 Chemical squeezed.
7/91 Upsize pumping equip.
10/92 Upsize pumping equip. Tst: 73 BO/ 458 BW/ 7 MCF. FL @ 0' ASN.
1/93 Acdz OH w/ 3500 gals 15%. Swb 77 bbls. EFL @ 3200'. Rec 12 bbls. Tst: B - 58 BO/ 367 BW/ 9 MCF. A - 67 BO/ 535 BW / 7 MCF. FL @ 30' ASN.
4/97 Acdz w/ 5000 gals Resisol II. RIH w/ PE. TOTP.
9/8/98 RIH w/ bit, tag @ 3914'. Wash, D/O fill to 3954'. Circ clean. ACDZ OH w/ 4800 gals 15% NeFe HCl & 2000 gals VAS diverter. RIH w/ PE, TOTP.

Additional Data:

T/Queen Formation @ 3427'
T/Penrose Formation @ 3552'
T/Grayburg Zone 1 @ 3742'
T/Grayburg Zone 2 @ 3780'
T/Grayburg Zone 2A @ 3816'
T/Grayburg Zone 3 @ 3847'
T/Grayburg Zone 4 @ 3878'
T/Grayburg Zone 5 @ 3930'
T/Grayburg Zone 6 @ 3967'
T/San Andres Formation @ 3969'
KB @ 3579'

Chevron

WELL DATA SHEET

LEASE: EMSU WELL: 343 FORM: Grayburg / San Andres DATE:

LOC: 660' F S L & 660' F W L SEC: 10 GL: 3578' STATUS: Producer
TOWNSHIP: 21S CNTY: Lea KB: 3578' API NO: 30-025-04589
RANGE: 36E UNIT: M ST: N.M. DF: CHEVNO: FA 57300:01
(formerly: EXXON A.J. Adkins #2)

Date Completed: 2/11/1936
Initial Production: 1704 BOPD / 0 BWPD
Initial Formation: Grayburg
FROM: 3834' to 3863' / GOR 538

PROPOSED

10-3/4" OD
35.75# CSG
Set @ 293' W/ 175 SX
Cmt circ.: No
TOC @ 22' by calc.
(15" hole)

7-5/8" OD
26.4# CSG
Set @ 1529' W/ 400 SX
Cmt circ.: Yes
TOC @ surf. by calc.
(9-7/8" hole)

Tubing Detail:
2/3/8" 4.70 #/ft IPC
Landed @ 3650'

5-1/2" Weatherford 1-XS packer @ 3650'

5-1/2" OD
17# CSG
Set @ 3834' W/ 165 SX
Cmt circ.: No
TOC @ 2008' by calc.
(6-3/4" hole)

Found csg leak fr 243' to 491'. SQZD w/ 51 SX. Circ out 5-1/2" ann.

Perfs:

QN
PN
Z1
Z2
Z2A
Z3
Z4
Z5

3738-40'
3748-50'
3762-64'
3771-73'
3782-84'
3795-97'
2 JHPF

Whipstock @ 3812'

Sidetracked hole from 3812' to 3910'

Fish Detail - Old wellbore w/ fish: Halliburton cone-type testing pkr & 47' Drillpipe. Top @ 3830', btm @ 3890'

4-3/4" OH

PBD:
TD: 3910'

Completion Data

Left Halliburton cone-type testing tool & 47' of drill pipe in hole. TOF @ 3830', bottom @ 3890'. Set whipstock @ 3812' & sidetracked to TD of 3910'. ACDZ OH w/ 1000 gals - swab and encountered 95% sulfur water fr TD 3910' to 3834'. PB w/ 10 SX, 15 SX & 20 SX to 3888'. Unsuccessful. Set Robinson 3-1 Rubber Pkr @ 3863' in OH to shut off water - OK. ACDZ w/ 500 gals.

Subsequent Workover or Reconditioning:

3/59 ACDZ w/ 300 gals 15% HCl.
4/87 XOWH. Tag fill @ 3794'. Mill on fish fr 3799-3806'. Ream thru window @ 3806-11'. WAsh fr 3829-41'. Cut over fish pkr @ 3841-44'. Rec'd Robinson pkr. C/O to 3910'. Log w/ CNL, GR, cal, CCL. Perf 3795-97, 3738-40, 3748-50, 3762-64, 3771-73 & 3782-84' (2 JHPF). ACDZ perfs w/ 2400 gals 15% NeFeA & 38 7/8" RCNBs. Swb perfs, SFL - 3500', EFL - 3655'. Rec'd tr water & dry. Wait 30 min. 1 run dry to SN. Put well on prod. Tst: 0 BO/ 132 BW/ 1 mcfg. FL - 370' ASN. B/4: 1 BO/ 94 BW/ 3 mcfg.
7/89 Chemical squeeze.
5/90 Upsized to 456 ppg unit. Tst: 14 BO/ 494 BW/ 5 mcfg. FL - not pumped off per rpt. B/4: 0 BO/ 145 BW/ 1 mcfg.
4/91 Ran prod. log - rate: 23 BO/ 597 BW/ 5 mcfg. Log indicated 23% 3873-94', 4% - 3857-73', 3% - 3839-57', 21% - 3795-97', 9% - 3768-86', 11% - 3762-64', 20% - 3748-50', 9% - 3738-40'.
10/92 Set RBP @ 3809'. Pump tst: 10 BO/ 800+ BWPD. B/4 - 25 BO/ 784 BWPD. POH w/ RBP. RIH w/ VSD ESP test. Tst: 63 BO/ 2440 BWPD. Install perm ESP. Tst 63 BO/ 2440 BWPD.

Additional Data:
T/Queen Formation @ 3390'
T/Penrose Formation @ 3514'
T/Grayburg Zone 1 @ 3713'
T/Grayburg Zone 2 @ 3753'
T/Grayburg Zone 2A @ 3788'
T/Grayburg Zone 3 @ 3821'
T/Grayburg Zone 4 @ 3855'
T/Grayburg Zone 5 @ 3905'
T/Grayburg Zone 6 @ 3950'
T/San Andres @ 3952'
KB @ 3578'

Chevron

WELL DATA SHEET

LEASE: EMSU WELL: 345

LOC: 760' F S L & 1880' F E L SEC: 10

TOWNSHIP: 21S CNTY: Lea

RANGE: 36E UNIT: O ST: N.M.

FORM: Grayburg / San Andres DATE:

GL: 3567.4' STATUS: Producer

KB: 3585' API NO: 30-025-29823

OF: CHEVNO: IH 4143:01

Date Completed: 9/22/1987

Initial Production: 5 BOPD / 38 BWPD

Initial Formation: Grayburg

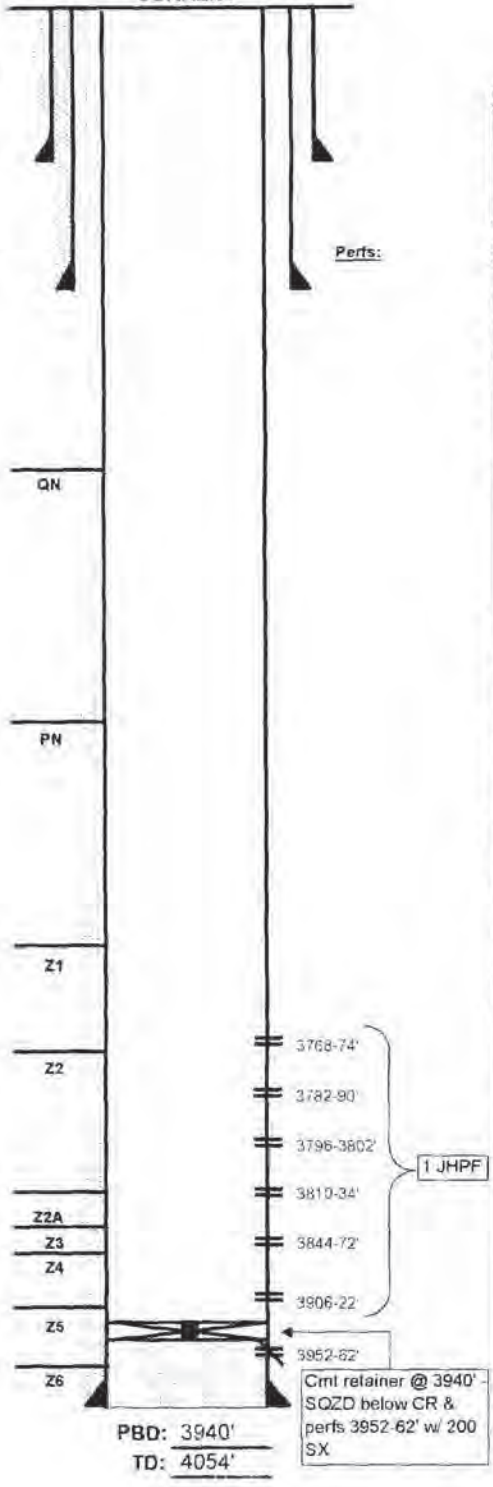
FROM: 3768' to 3922' / GOR 4800

CURRENT

11-3/4" OD
42 # CSG
Set @ 370' W/ 350 SX
Cmt circ.? yes
TOC @ surf. by calc.
(14-3/4" hole)

8-5/8" OD K-55 ST&C
24 & 32 # CSG
Set @ 2655' W/ 700 SX
Cmt circ.? yes
TOC @ 111' by calc.
(11" hole)

5-1/2" OD K-55 ST&C
15.5 & 17 # CSG
Set @ 4054' W/ 615 SX
Cmt circ.? yes
TOC @ surf. by calc.



PBD: 3940'
TD: 4054'

FILE: EMSU345WB.XLS

printed: 7/3/2002

Completion Data

Perf Zone 5 fr 3952-62'. ACDZ w/ 1100 gals 15% NeFe HCl. SQZD w/ 200 SX. Perf 3768-74, 3782-90, 3796-3802, 3810-34, 3844-72 & 3906-22 (1 JHPF - 88 holes). ACDZ w/ 6500 gals 15% NeFe HCl.

Subsequent Workover or Reconditioning:

9/19/87 From 3952-62' interval: swabbed 70 BW / 0 oil in 2.5 hrs (5 BLW).
9/20/87 From 3952-62' interval: swabbed 21 BW / 0 oil (FER 21 BPH).
4/95 Upsize pumping equipment.
5/7/97 ACDZ perfs 3768-3922' w/ 6000 gals Resisol II+. Swb, IFL = 2200', EFL = 2400'. Rec'd 68 BW w/ trace oil. RIH KUDU pump, TOTP.

Additional Data:
T/Queen Formation @ 3413'
T/Penrose Formation @ 3543'
T/Grayburg Zone 1 @ 3737'
T/Grayburg Zone 2 @ 3775'
T/Grayburg Zone 2A @ 3810'
T/Grayburg Zone 3 @ 3838'
T/Grayburg Zone 4 @ 3875'
T/Grayburg Zone 5 @ 3927'
T/Grayburg Zone 6 @ 3971'
T/San Andres Formation @ 3973'
KB @ 3585'

Chevron

WELL DATA SHEET

LEASE: EMSU WELL: 345

LOC: 760' F S L & 1880' F E L SEC: 10
TOWNSHIP: 21S CNTY: Lea
RANGE: 36E UNIT: O ST: N.M.

FORM: Grayburg / San Andres DATE:

GL: 3567.4' STATUS: Producer
KB: 3585' API NO: 30-025-29823
DF: CHEVNO: IH 4143:01

Date Completed: 9/22/1987
Initial Production: 5 BOPD / 38 BWPD
Initial Formation: Grayburg
FROM: 3768' to 3922' / GOR 4800

PROPOSED

11-3/4" OD
42 # CSG
Set @ 370' W/ 350 SX
Cmt circ.? yes
TOC @ surf. by calc.
(14-3/4" hole)

8-5/8" OD K-55 ST&C
24 & 32 # CSG
Set @ 2655' W/ 700 SX
Cmt circ.? yes
TOC @ 111' by calc.
(11" hole)

Perfs:

QN

PN

Tubing Detail:

KBTH:	0.00'
2-3/8" 4.70# J-55 IPC Tbg	3700'
Weatherford I-XS Packer @	3705'

Z1

Z2

3768-74'
3782-90'
3796-3802'
3810-34'
3844-72'
3906-22'
1 JHPF

Z2A
Z3
Z4
Z5
Z6

5-1/2" OD K-55 ST&C
15.5 & 17 # CSG
Set @ 4054' W/ 615 SX
Cmt circ.? yes
TOC @ surf. by calc

3952-62'

Cmt retainer @ 3940' - SQZD below CR & perfs 3952-62' w/ 200 SX

PBD: 3940'
TD: 4054'

FILE: EMSU345WB.XLS

Completion Data

Perf Zone 5 fr 3952-62'. ACDZ w/ 1100 gals 15% NeFe HCl. SQZD w/ 200 SX. Perf 3768-74, 3782-90, 3796-3802, 3810-34, 3844-72 & 3906-22 (1 JHPF - 88 holes). ACDZ w/ 6500 gals 15% NeFe HCl.

Subsequent Workover or Reconditioning:

9/19/87 From 3952-62' interval: swabbed 70 BW / 0 oil in 2.5 hrs (5 BLW).
9/20/87 From 3952-62' interval: swabbed 21 BW / 0 oil (FER 21 BPH).
4/95 Upsize pumping equipment.
5/7/97 ACDZ perfs 3768-3922' w/ 6000 gals Resisol II+. Swb, IFL = 2200', EFL = 2400'. Rec'd 68 BW w/ trace oil. RIH KUDU pump, TOTP.

Additional Data:

T/Queen Formation @ 3413'
T/Penrose Formation @ 3543'
T/Grayburg Zone 1 @ 3737'
T/Grayburg Zone 2 @ 3775'
T/Grayburg Zone 2A @ 3810'
T/Grayburg Zone 3 @ 3838'
T/Grayburg Zone 4 @ 3875'
T/Grayburg Zone 5 @ 3927'
T/Grayburg Zone 6 @ 3971'
T/San Andres Formation @ 3973'
KB @ 3585'

Chevron

WELL DATA SHEET

LEASE: EMSU WELL: 347

LOC: 660' F S L & 660' F W L SEC: 11

TOWNSHIP: 21S CNTY: Lea

RANGE: 36E UNIT: M ST: N.M

(formerly: H.T. Orcutt NCT-A #6)

FORM: Grayburg / San Andres DATE:

GL: 3597' STATUS: Producer

KB: 3587' API NO: 30-025-04606

DF: CHEVNO: FA 5747:01

Date Completed: 10/18/1936

Initial Production: 720 BOPD / 0 BWPD

Initial Formation: Grayburg

FROM: 3777' to 3900' / GOR 1389

CURRENT

10-3/4" OD
40.5# CSG
Set @ 317' W/ 250 SX
Cmt circ.? yes
TOC @ surf. by calc.

7-5/8" OD
26.4# CSG
Set @ 1386' W/ 425 SX
Cmt circ.? Yes
TOC @ surf. by calc.

Rod Detail: 9/3/98

1-1/4" Polished Rod
2-7/8" N-97 Sub
141-7/8" N-97 Rods
12 - 1/2" K-Bars w/ 1" X 4' Sub w/ guides spaced betw every third K-Bar

5-1/2" OD
17# CSG
Set @ 3777' W/ 425 SX
Cmt circ.? Yes
TOC @ surf. by calc.

Perfs:

QN
PN
Z1
Z2
Z2A
Z3
Z4
Z5
Z6

PBD:
TD: 3935'

Completion Data

Natural OH completion.

Subsequent Workover or Reconditioning:

11/43 ACDZ OH w/ 1000 gals. Tst 45 BO/ 162 MCFGPD. B/4 - 18 BO/ 76 MCFGPD.
3/52 ACDZ w/ 2000 gals 20% HCl. Tst: 11 BO - 8 hrs swbg. B/4 - flwd 18 BO/ 124 MCFGPD.
7/52 Install ppg. equipment. Tst: 38 BO/ 293 MCFGPD.
12/77 Tag for fill @ 3808'. ACDZ w/ 500 gals 15% NeA.
5/87 XO WH. C/O & deepend to 3935'. Log Put on prod. Tst: 5 BO/ 17 BW/ 11 MCFGPD. FL = 22' ASN. B/4 - 4 BO/ 5 BW/ 28 MCFGPD.
4/96 Tag TD @ 3935'. Pickle tbg. Pump 5000 gals Resisol II in 5 stages. Swab. RIH w/ PE. RTP.
9/2/98 TD tagged @ 3925'. Set pkr @ 3590' w/ TP @ 3758'. Pickle tbg. Pump 5000 gals 15% NeFe HCl & 2000 gal VES diverter in 5 stages. Swab. IFL - 1500, EFL - 2300' (11 runs). RIH w/ prod tbg. RTP.

Additional Data:

T/Queen Formation @ 3394'
T/Penrose Formation @ 3519'
T/Grayburg Zone 1 @ 3710'
T/Grayburg Zone 2 @ 3745'
T/Grayburg Zone 2A @ 3780'
T/Grayburg Zone 3 @ 3805'
T/Grayburg Zone 4 @ 3840'
T/Grayburg Zone 5 @ 3888'
T/Grayburg Zone 6 @ 3928'
T/San Andres Formation @ 3931'
KB @ 3587'

FILE: EMSU347WB.XLS

printed: 7/3/2002

Chevron

WELL DATA SHEET

LEASE: EMSU WELL: 347

LOC: 660 F S L & 660 F W L SEC: 6
TOWNSHIP: 21S CNTY: Lea
RANGE: 36E UNIT: ST: N.M.
(formerly: H.T. Orcutt NCT-A #6)

FORM: Grayburg / San Andres DATE:

GL: 3597'
KB: 3587'
DF:

STATUS: Producer
API NO: 30-025-04606
CHEVNO: FA 5747:01

Date Completed: 10/18/1936
Initial Production: 720 BOPD / 0 BWPD
Initial Formation: Grayburg
FROM: 3777' to 3900' / GOR 1389

PROPOSED

10-3/4" OD
40.5# CSG
Set @ 317' W/ 250 SX
Cmt circ.? yes
TOC @ surf. by calc.

7-5/8" OD
26.4# CSG
Set @ 1386' W/ 425 SX
Cmt circ.? Yes
TOC @ surf. by calc.

5-1/2" OD
17# CSG
Set @ 3777' W/ 425 SX
Cmt circ.? Yes
TOC @ surf. by calc.

Perfs

Tubing Detail:
2-3/8" 4.7# J-55 IPC tbg. 3700'
Weatherford I-XS Packer @ 3700'

QN
PN
Z1
Z2
Z2A
Z3
Z4
Z5
Z6

PBD:
TD: 3935'

Completion Data

Natural OH completion.

Subsequent Workover or Reconditioning:

11/43 ACDZ OH w/ 1000 gals. Tst 45 BO/ 162 MCFGPD. B/4 - 18 BO/ 76 MCFGPD.
3/52 ACDZ w/ 2000 gals 20% HCl. Tst: 11 BO - 8 hrs swbg. B/4 flwd 18 BO/ 124 MCFGPD.
7/62 Install ppg. equipment. Tst: 38 BO/ 293 MCFGPD.
12/77 Tag for fill @ 3808'. ACDZ w/ 500 gals 15% NeA.
5/87 XO WH. C/O & deepend to 3935'. Log Put on prod. Tst: 5 BO/ 17 BW/ 11 MCFGPD. FL = 22' ASN. B/4 - 4 BO/ 5 BW/ 28 MCFGPD.
4/96 Tag TD @ 3935', Pickle tbg. Pump 5000 gals Resisol II in 5 stages. Swab. RIH w/ PE. RTP.
9/2/98 TD tagged @ 3925', Set pkr @ 3590' w/ TP @ 3758', Pick e tbg. Pump 5000 gals 15% NeFe HCl & 2000 gal VES diverter in 5 stages. Swab. IFL - 1500, EFL - 2300' (11 runs). RIH w/ prod tbg. RTP.

Additional Data:
T/Queen Formation @ 3394'
T/Penrose Formation @ 3519'
T/Grayburg Zone 1 @ 3710'
T/Grayburg Zone 2 @ 3745'
T/Grayburg Zone 2A @ 3780'
T/Grayburg Zone 3 @ 3805'
T/Grayburg Zone 4 @ 3840'
T/Grayburg Zone 5 @ 3888'
T/Grayburg Zone 6 @ 3928'
T/San Andres Formation @ 3931'
KB @ 3587'

FILE: EMSU347WB.XLS

Chevron

WELL DATA SHEET

LEASE: EMSU WELL: 357

LOC: 660' F N L & 660' F E L SEC: 15

TOWNSHIP: 21S CNTY: Lea

RANGE: 36E UNIT: A ST: N.M

FORM: Grayburg / San Andres DATE:

GL: 3584' STATUS: Producer

KB: 3577' API NO: 30-025-04636

DF: CHEVNO: FA 5777:01

Date Completed: 9/16/1936

Initial Production: F/ 1488 BOPD

Initial Formation: Grayburg

FROM: 3703' to 3875' / GOR 1452

CURRENT

10-3/4" OD
40.5# CSG
Set @ 289' W/ 200 SX
Cmt circ.? Yes
TOC @ surf. by calc.
(13" hole)

7-5/8" OD
26.4# CSG
Set @ 1388' W/ 425 SX
Cmt circ.? Yes
TOC @ surf. by calc.
(9" hole)

Tubing Detail: 1/28/94

Original KBTH:	7.00'
120 Jts. 2-3/8" J-55EUE 8rd tbg.	3622.65'
5-1/2" TAC:	2.75'
8 Jts. 2-3/8" J-55 EUE 8rd tbg:	245.51'
Tubing Pump 1-3/4":	21.15'
2-3/8" Slotted Org. Peeled Mud Jt.	16.60'
Landed @	3905.91'

5-1/2" OD
17# CSG
Set @ 3703' W/ 425 SX
Cmt circ.? Yes
TOC @ surf. by calc.
(6-3/4" hole)

Rod Detail: 12/24/97

1 - Polished Rod
2' X 3/4" Sub
95 - 3/4" X 25' Rods
59 - 7/8" X 25' Rods
2 - 2' X 7/8" Subs
1-3/4" Plunger

Perfs:
QN
PN
Z1
Z2
Z2A
Z3
Z4
Z5
Z6

PBD:
TD: 3942'

Completion Data

Natural OH completion.

Subsequent Workover or Reconditioning:

5/46 ACDZ OH w/ 500 gals Tst: F/ 62 BO/ 384 MCFGPD.
2/52 ACDZ w/ 1500 gals 20% LT acid. Tst 45 BOPD/ B-4: 11 BOPD.
8/54 C/O well & installed ppg. unit. Tst 45 BOPD.
12/75 ACDZ w/ 1000 gals.
9/79 Dump acid 1000 gals. Tst 6 BO/ 9 BW/ 47 MCFGPD. **9/82** CO 7' of fill. SS OH w/ 700 grain prima cord. C/O to TD. ACDZ OH w/ 2535 gals 15% NeFeA in 2 stages. Scale squeezed. Test: 2 BO/ 13 BW/ 5 MCFGPD.
6/87 XO WH. C/O & deepened to 3942'. ran logs. Put on prod. Test: 4 BO/ 46 BW/ 9 MCFG. FL @ 211' ASN. B/4 - 1 BO/ 72 BW/ 6 MCFGPD.
4/91 Upsize ppg. equipment. Tst 29 BO/ 170 BW/ 14 MCFG. B/4 - 17 BO/ 144 BW/ 16 MCF.
1/94 ACDZ OH w/ 4000 gals 15%. Flush w/ 25 bbls. Swb 21 bbls acid residue. EFL - 3300'. Recover 10 bbls fluid. Test: B - 10 BO/ 167 BW/ 9 MCFG. A - 7 BO/ 254 BW/ 11 MCFG. FL - 498' ASN.
8/95 Pickle tbg w/ 250 gals. ACDZ w/ 5000 gals viscosified Pentol 200 in 5 stages.

Additional Data:
T/Queen Formation @ 3424'
T/Penrose Formation @ 3541'
T/Grayburg Zone 1 @ 3722'
T/Grayburg Zone 2 @ 3758'
T/Grayburg Zone 2A @ 3795'
T/Grayburg Zone 3 @ 3823'
T/Grayburg Zone 4 @ 3855'
T/Grayburg Zone 5 @ 3900'
T/Grayburg Zone 6 @ 3934'
T/San Andres Formation @ 3935'
KB @ 3577'

FILE: EMSU357WB.XLS

printed: 7/3/2002

Chevron

WELL DATA SHEET

LEASE: EMSU WELL: 357

LOC: 660' F N L & 660' F E L SEC: 15

TOWNSHIP: 21S CNTY: Lea

RANGE: 36E UNIT: A ST: N.M.

FORM: Grayburg / San Andres DATE:

GL: 3584' STATUS: Producer

KB: 3577' API NO: 30-025-04636

DF: CHEVNO: FA 5777:01

Date Completed: 9/16/1936

Initial Production: F/ 1488 BOPD

Initial Formation: Grayburg

FROM: 3703' to 3875' / GOR 1452

PROPOSED

10-3/4" OD
40.5# CSG
Set @ 289' W/ 200 SX
Cmt circ.? Yes
TOC @ surf. by calc.
(13" hole)

7-5/8" OD
26.4# CSG
Set @ 1388' W/ 425 SX
Cmt circ.? Yes
TOC @ surf. by calc.
(9" hole)

Perfs:

ON

PN

Tubing Detail:

2-3/8" 4.7# J-55 IPC tbg 3660'
Weatherford I-XS Packer @ 3660'

5-1/2" OD
17# CSG
Set @ 3703' W/ 425 SX
Cmt circ.? Yes
TOC @ surf. by calc.
(6-3/4" hole)

Z1

Z2

Z2A

Z3

Z4

Z5

Z6

PBD:

TD: 3942'

FILE: EMSU357WB.XLS

Completion Data

Natural OH completion.

Subsequent Workover or Reconditioning:

5/46 ACDZ OH w/ 500 gals Tst: F/ 62 BO/ 384 MCFGPD.
2/52 ACDZ w/ 1500 gals 20% LT acid. Tst 45 BOPD/ B-4: 11 BOPD.
8/54 C/O well & installed ppg. unit. Tst 45 BOPD.
12/75 ACDZ w/ 1000 gals.
9/79 Dump acid 1000 gals. Tst 6 BO/ 9 BW/ 47 MCFGPD.
9/82 CO 7' of fill. SS OH w/ 700 grain prima cord. C/O to TD. ACDZ OH w/ 2535 gals 15% NeFeA in 2 stages. Scale squeezed. Test: 2 BO/ 13 BW/ 5 MCFGPD.
6/87 XO WH. C/O & deepened to 3942', ran logs. Put on prod. Test: 4 BO/ 46 BW/ 9 MCFG. FL @ 211' ASN. B/4 - 1 BO/ 72 BW/ 6 MCFGPD.
4/91 Upsize ppg. equipment. Tst 29 BO/ 170 BW/ 14 MCFG. B/4 - 17 BO/ 144 BW/ 16 MCF.
1/94 ACDZ OH w/ 4000 gals 15%. Flush w/ 25 bbls. Swb 21 bbls acid residue. EFL - 3300'. Recover 10 bbls fluid. Test: B - 10 BO/ 167 BW/ 9 MCFG. A - 7 BO/ 254 BW/ 11 MCFG. FL - 498' ASN.
8/95 Pickle tbg w/ 250 gals. ACDZ w/ 5000 gals viscosified Pentol 200 in 5 stages.

Additional Data:
T/Queen Formation @ 3424'
T/Penrose Formation @ 3541'
T/Grayburg Zone 1 @ 3722'
T/Grayburg Zone 2 @ 3758'
T/Grayburg Zone 2A @ 3795'
T/Grayburg Zone 3 @ 3823'
T/Grayburg Zone 4 @ 3855'
T/Grayburg Zone 5 @ 3900'
T/Grayburg Zone 6 @ 3934'
T/San Andres Formation @ 3935'
KB @ 3577'

Chevron

WELL DATA SHEET

LEASE: EMSU WELL 359

LOC: 660' F N L & 1980' F W L SEC: 15

TOWNSHIP: 21S CNTY: Lea

RANGE: 36E UNIT: C ST: N.M.

FORM: Grayburg / San Andres DATE:

GL: 3579' STATUS: Producer

KB: 3579' API NO: 30-025-04651

DF: CHEVNO: FA 5792:01

Date Completed: 9/22/1936

Initial Production: F/ 750 BOPD / 0 BWPD / GOR 9860

Initial Formation: Grayburg

FROM: 3755' to 3881'

PROPOSED

16" OD
70# CSG
Set @ 34' W/ 60 SX
Cmt circ.? yes
TOC @ surf. by calc

7-5/8" OD
22# CSG
Set @ 1408' W/ 773 SX
Cmt circ.? yes
TOC @ surf. by calc

5-1/2" OD
17# CSG
Set @ 3755' W/ 275 SX
Cmt circ.? no
TOC @ 712' by calc

Perfs:

QN

PN

Z1

Z2

Z2A

Z3

Z4

Z5

PBD:

TD: 3954'

Tubing Detail:

KBTH: 0.00'
2-3/8" 4.70# J-55 IPC Tbg 3700'
Weatherford 1-XS Packer @ 3700'

FILE: EMSU359WB.XLS

Completion Data

ACDZ OH w/ 2000 gals acid.

Subsequent Workover or Reconditioning:

10/54 Install pumping equipment. Tst: 78 BO/ 0 BW/ 1560 GOR. B/4 - 24 BO / 2 BW.
12/70 750 gals 15% NeA dump acid job. Tst: 25 BO/ 3 BW. B/4 - 14 BO / 9 BW.
5/81 750 gals 15% NeA dump acid job. Tst: 38 BO/ 11 BW/ 65 MCF. B/4 - 23 BO / 7 BW/ 80 MCF.
12/81 Tag bottom - 11' fill. Acdz w/ 1000 gals 15% NeA. Tst: 19 BO/ 25 BW/ 106 MCF. B/4 - 6 BO / 3 BW/ 108 MCF.
9/82 1000 gals 15% NeA dump acid job. Tst: 19 BO/ 4 BW. B/4 - 10 BO / Tr wtr.
2/83 1000 gals 15% NeA dump acid. Tst 17 BO/ 3 BW B/4 - 17 BO/ 4 BW.
6/87 XO WH. CO & deepen to 3954'. Run logs. Put back on prod. Tst 1 BO/ 67 BW/ 22 MCF. FL = 121' ASN. B/4 - 10 BO/ 11 BW/ 112 MCFGPD.
7/89 Chemical squeezed.
9/90 Chemical squeezed.
7/91 Upsize pumping equip.
10/92 Upsize pumping equip. Tst: 73 BO/ 458 BW/ 7 MCF. FL @ 0' ASN.
1/93 Acdz OH w/ 3500 gals 15%. Swb 77 bbls. EFL @ 3200'. Rec 12 bbls. Tst: B - 58 BO/ 367 BW/ 9 MCF. A - 67 BO/ 535 BW / 7 MCF. FL @ 30' ASN.
4/97 Acdz w/ 5000 gals Resisol II. RIH w/ PE. TOTP.
9/8/98 RIH w/ bit, tag @ 3914'. Wash, D/O fill to 3954'. Circ clean. ACDZ OH w/ 4800 gals 15% NeFe HCl & 2000 gals VAS diverter. RIH w/ PE, TOTP.

Additional Data:
T/Queen Formation @ 3427'
T/Penrose Formation @ 3552'
T/Grayburg Zone 1 @ 3742'
T/Grayburg Zone 2 @ 3780'
T/Grayburg Zone 2A @ 3816'
T/Grayburg Zone 3 @ 3847'
T/Grayburg Zone 4 @ 3878'
T/Grayburg Zone 5 @ 3930'
T/Grayburg Zone 6 @ 3967'
T/San Andres Formation @ 3969'
KB @ 3579'

2

Data on Proposed Operation of Eunice Monument South Unit

1. Proposed average and maximum daily rate and volume of fluids to be injected:

   Average daily rate of 400 BWPD
   Maximum daily rate of 500 BWPD

2. System is closed.

3. Proposed average and maximum injection pressures:

   Average injection pressure of 350 psi
   Maximum injection pressure of 740 psi *

4. The source of injection fluids will be from the San Andres formation initially, then produced water from Unit wells will be used as the primary source of water when the Unit becomes fully developed.

5. The make-up water from the San Andres formation to be used as injection fluid is compatible with the produced water from the Unit wells (See attached water analysis).

* Until a fracture gradient is determined, maximum injection pressure will be based on a .2 psi/foot gradient.

EXHIBIT NO. 33a
Case No. 8397
November 7, 1984

P O BOX 1468
MONAHANS TEXAS 79756
PH 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W INDIANA
MIDLAND TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 284226
SAMPLE RECEIVED 2-15-84
RESULTS REPORTED 2-20-84

TO Mr. Stan Chapman
P.O. Box 670, Hobbs, NM

COMPANY Gulf Oil Exploration & Production Company LEASE

FIELD OR POOL

SECTION BLOCK SURVEY COUNTY STATE

SOURCE OF SAMPLE AND DATE TAKEN.

NO. 1 Make-up water.

NO. 2 Produced water.

NO. 3

NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0465	1.0051		
pH When Sampled				
pH When Received	6.80	7.22		
Bicarbonate as HCO_3	964	1,830		
Supersaturation as $CaCO_3$	75	120		
Undersaturation as $CaCO_3$	—	—		
Total Hardness as $CaCO_3$	5,400	800		
Calcium as Ca	1,400	144		
Magnesium as Mg	462	107		
Sodium and/or Potassium	23,244	2,308		
Sulfate as SO_4	3,432	300		
Chloride as Cl	36,575	2,841		
Iron as Fe	0.27	7.5		
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	66,077	7,530		
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	600	325		
Resistivity, ohms/m at 77° F.	0.126	0.935		
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Calcium Carbonate Scaling Tendency	NONE	NONE		
Calcium Sulfate Scaling Tendency	NONE	NONE		

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks: We see no evidence in the above results that would indicate any incompatibility when mixing these two waters in any proportion. Please contact us if we can be of any additional assistance in this regard.

EXHIBIT NO. 336
Case No. 8397
November 7, 1984

Form No. 3

By Waylan C. Martin, M.A.

54.

Geological Data
Injection Zones
in the
Proposed Eunice Monument South Unit

Penrose - Approx. depth 3,400'-3,800*, approx. 170 gross feet.

The Penrose is the lower portion of the Queen formation and overlies the Grayburg. The Penrose is composed of alternating layers of hard dolomite and sand lenses. The Penrose is productive of oil and/or gas, depending on structural position.

Grayburg - Approx. depth 3,500'-3,900*, approx. 490 gross feet.

The Grayburg is a massive dolomite with thin stringers of sand interspersed within it. The majority of oil production comes from intercrystalline porosity in the dolomite.

The range in depths to the top of the Grayburg is due to an asymmetrical anticlinal structure running NW to SE through the Eunice-Monument Pool. The structure dips steeply along the western and southern flanks and therefore the Grayburg top runs deeper, approximately 3,700'-3,900'. Along the axis and the gently dipping eastern flank of the anticline the Grayburg depths run at approximately 3,500-3,700 feet.

San Andres - Approx. depth 4,100'-4,500*, approx. 1,130 gross feet.

The San Andres is a massive dolomite with intercrystalline porosity, which lies directly below the Grayburg. The contact between the Grayburg and the San Andres is gradational and there is no clear marker for the top of the San Andres which can be traced across the field. The San Andres contributes very little if any oil production to the field and serves primarily as a source for injection make-up water and as a zone for salt water disposal.

There are no known faults cutting through the San Andres and Grayburg which would act as a conduit for gas, oil or injection water to seep into fresh water horizons above the injection zones in the Grayburg and San Andres.

* Depth depends upon structural position of the well.

EXHIBIT NO. 34a
Case No. 8397
November 7, 1984

P O BOX 1468
MONAHANS, TEXAS 79756
PH 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W INDIANA
MIDLAND TEXAS 79701
PHONE 682-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 284225
SAMPLE RECEIVED 2-15-84
RESULTS REPORTED 2-20-84

TO: Mr. Stan Chapman
P.O. Box 670, Hobbs, NM

COMPANY Gulf Oil Exploration & Production LEASE
FIELD OR POOL Company
SECTION BLOCK SURVEY COUNTY STATE
SOURCE OF SAMPLE AND DATE TAKEN.
NO. 1 Fresh water (sample #1).
NO. 2 Fresh water (sample #2).
NO. 3 Fresh water (sample #3).
NO. 4
REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0047	1.0020	1.0022	
pH When Sampled				
pH When Received	7.56	8.20	8.27	
Bicarbonate as HCO_3	212	494	476	
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	1,680	75	68	
Calcium as Ca	376	16	15	
Magnesium as Mg	180	8	7	
Sodium and/or Potassium	744	289	413	
Sulfate as SO_4	1,492	186	300	
Chloride as Cl	1,115	60	138	
Iron as Fe	0.31	1.3	1.3	
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	4,119	1,065	1,391	
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0	0.0	
Resistivity, ohms/m at 77° F.	1.60	8.10	5.50	
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Carbonate, as CO_3	0	12	42	

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks: Please contact us if we can be of any assistance in interpretation of the above results.

Form No. 3

By
Waylan C. Martin, M.A.

UNICHEM INTERNATIONAL

601 NORTH LEECH P.O BOX1499

HOBBS, NEW MEXICO 88240

COMPANY : GULF OIL
DATE : 9-28-84
FIELD,LEASE&WELL SECTION 17-T21S-R36E, UNIT O
SAMPLING POINT: WELLHEAD-FRESH WATER SAMPLE
DATE SAMPLED : 9-27-84

SPECIFIC GRAVITY = 1
TOTAL DISSOLVED SOLIDS = 1055
PH = 7.21

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	4.4	88.1
MAGNESIUM	(MG)+2	3.8	46.1
SODIUM	(NA),CALC	7.2	167.
ANIONS			
BICARBONATE	(HCO3)-1	4.6	280
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	5.8	282.
CHLORIDES	(CL)-1	5	190
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		1.4
BARIUM	(BA)+2	0	.4
MANGANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) = .023

#3

Proposed Eunice Monument South Unit
Lea County, New Mexico

Affirmative Statement

Gulf Oil Corporation has examined available geological and engineering data and finds no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

EXHIBIT NO. 38
Case No. 8397

Geological Data
Fresh Water Aquifers
in the Area of the
Proposed Eunice Monument South Unit
Lea County, New Mexico

The proposed Eunice Monument South Unit is located approximately 3/4 of a mile southwest of the Mescalero Ridge on the Eunice Plain.

The fresh water zones within the proposed Eunice Monument South Unit boundaries are the Quaternary alluvium, Pliocene Ogallala, and the Triassic Chinle and Santa Rosa formations.

The Quaternary aquifers are in recent sediments and are very localized in extent. They are made up of dune sands and sands filling channels or depressions in the underlying Ogallala. The sands are unconsolidated to semiconsolidated, fine to medium grained sands. They are found at the surface to a depth of approximately 100 feet.

The Pliocene Ogallala aquifer underlies the Quaternary alluvium and is present across the entire area but is not a major water source. The Ogallala is a calcareous unconsolidated sand containing some silt, clay and gravel. The Ogallala is found at approximately 60-125 feet.

The Triassic Chinle and Santa Rosa aquifers are the principal fresh water bearing zones in this area. They are both fine to medium grained sandstones interbedded with red clays and silt stones. At the northern end of the proposed unit, the Chinle is at a depth of approximately 50 feet and the Santa Rosa is at about 675 feet. At the southern end of the unit the Chinle is at approximately 200 feet and the Santa Rosa is at about 1000 feet.

Below the Santa Rosa are un-differentiated Permian and Triassic red beds. These "red beds" consist of red shales and red silty sandstones, and are not known to produce fresh water.

At the base of the Santa Rosa and/or the un-differentiated Permian and Triassic "red beds" is the Permian Rustler. At the top of the Rustler is an impermeable anhydrite bed, approximately 60-70 feet thick which provides an excellent barrier against contamination from brine waters in the Permian oil producing formations. The Rustler anhydrite is at approximately 1000 feet at the northern end of the unit and approximately 1400 feet at the southern end of the unit. There are no known fresh water horizons below the Rustler anhydrite.

For the protection of all fresh water zones within the unit boundary, cement will be circulated to surface around casing on all new injection wells and producing wells converted to injection wells.

Reference - Ground Water Report 6, USGS, 1961.

EXHIBIT NO. 36
Case No. 8397
November 7, 1984

5

Chemical Analysis of Fresh Water
Within The
Proposed Eunice Monument South Unit
Lea County, New Mexico

See attached water analysis results.

Sample No. 1 -Unit A Section 16, T-21-S, R-36-E
Livestock Water Source
Ogallala Formation
State Engineer's Well No. CP 00505

Sample No. 2 -Unit D Section 10, T-21-S, R-36-E
Domestic and Commercial Sale Source
Triassic Chinle Formation
State Engineer's Well No. CP 00147

Sample No. 3 -Unit K Section 36, T-20-S, R-36-E
Livestock Water Source
(Not on file with State Engineer's office)

Sample No. 4 -Unit O Section 17, T-21-S, R-36-E
Livestock Water Source
Ogallala Formation
(Not on file with State Engineers Office)

EXHIBIT NO. 37
Case No. 8397
November 7, 1984.

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 PURPPOSE OF CONSIDERING:

CASE No. 8398
Order No. R-7766

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

ORDER OF THE COMMISSION

BY THE COMMISSION:

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

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

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

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

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

IT IS THEREFORE ORDERED THAT:

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

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

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

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

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

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JIM BACA, Member

ED KELLEY, Member

R. L. STAMETS, Chairman and Secretary

SEAL

LEA COUNTY, NEW MEXICO

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

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

LEA COUNTY, NEW MEXICO

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

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

(1) Amoco Production Co. State "C" Tr. [illegible] located 1980 feet from the South line and 1980 feet from the East line of Section 2, Township 21 South, Range 36 East;

(2) Amoco Production Co. State "C" Tr. 11 Well No. 4 located 3300 feet from the South line and 1980 feet from the East line of Section 2, Township 21 South, Range 36 East;

(3) Texas Crude Oil Co. Kincheloe 2 State Well No. 1 located 1980 feet from the South line and 1980 feet from the West line of Section 2, Township 21 South, Range 36 East;

(4) El Paso Natural Gas Co. Coleman Well No. 1 located 2310 feet from the South line and 2310 feet from the East line of Section 17, Township 21 South, Range 36 East;

(5) Texaco Inc. New Mexico "H" NCT-1 Well No. 28, a dry hole, located 990 feet from the South line and 660 feet from the East line of Section 31, Township 20 South, Range 37 East;

all in Lea County, New Mexico.

CASE NO. 8398
Order No. R-7766
EXHIBIT "C"

TABLE 1
WELLS IN AREA OF REVIEW

API	Lease	Well #	Operator Name	Location	Footage	Field Name	Current Status	IP Prod Form	Driller TD	Spud Date	Comp Date
30025207020001	A J ADKINS COM	10	EXXON CORPORATION	10 21S 36E	990 FSL 990 FWL	EUMONT	GAS	YATES	6010	05/04/1992	06/07/1992
30025207020001	A J ADKINS COM	10	EXXON CORPORATION	10 21S 36E	990 FSL 990 FWL	EUMONT	GAS	YATES	6010	05/04/1992	06/07/1992
30025324420000	ADKINS EARNEST C	12	ARCO OIL & GAS CORP	9 21S 36E NW SE	2160 FSL 1650 FEL	EUMONT	GAS	YATES	3700	04/02/1994	05/11/1994
30025291830000	BELL R R(NCT-C) COM	5	CHEVRON U S A INC	15 21S 36E	1440 FNL 1320 FWL	EUMONT	GAS	YATES	3625	06/24/1985	07/14/1985
30025350820000	BERRYMAN M S	2	HARTMAN DOYLE	11 21S 36E SW SW SE	405 FSL 2295 FEL	EUMONT	GAS	YATES	3850	09/17/2000	10/06/2000
30025321310000	COLLINS HENRY C	6	CHEVRON U S A INC	14 21S 36E NE NW	890 FNL 1810 FWL	EUMONT	GAS	YATES	3750	09/23/1993	10/30/1993
30025045860000	ERNEST C ADKINS	9	ARCO OIL & GAS CORP	9 21S 36E	730 FSL 1910 FEL	EUMONT	GAS	YATES	3705	12/04/1953	01/03/1954
30025309220000	GRAHAM ORCUTT GAS COM	1	CHEVRON U S A INC	9 21S 36E SW SE	1175 FSL 1375 FEL	EUMONT	GAS	YATES	3700	02/28/1991	04/19/1991
30025045950001	JD KNOX	1	EXXON CORPORATION	10 21S 36E	1980 FSL 1980 FEL	EUMONT	GAS	YATES	3865	11/12/1954	11/17/1954
30025207060002	KNOX JOHN D	12	EXXON CORPORATION	10 21S 36E	990 FSL 1652 FEL	EUMONT	GAS	YATES	6020	10/25/1995	11/28/1995
30025304210000	LOCKHART 'B'	10	CONOCO INCORPORATED	14 21S 36E SW NW	2280 FNL 660 FWL	EUMONT	GAS	YATES	3680	08/01/1988	12/14/1988
30025332100000	LOCKHART 'B'	12	CONOCO INCORPORATED	14 21S 36E	860 FNL 660 FWL	EUMONT	GAS	YATES	3700	04/04/1996	04/30/1996
30025326860001	SKELLY 'B' STATE COM	3	TEXACO EXPL&PROD INC	16 21S 36E NE NE	660 FNL 990 FEL	EUMONT	GAS	YATES	3700	12/29/1997	01/28/1998
30025260180000	STATE 'D'	14	CONOCO INCORPORATED	15 21S 36E	915 FNL 990 FEL	EUMONT	GAS	YATES	3800	07/31/1978	09/12/1978
30025293750000	STATE 'D'	16	CONOCO INCORPORATED	11 21S 36E	2080 FSL 660 FWL	EUMONT	GAS	YATES	3750	01/29/1986	02/24/1986
30025327180000	STATE 'D'	18	CONOCO INCORPORATED	15 21S 36E SW NE	1780 FNL 1895 FEL	EUMONT	GAS	YATES	3700	11/01/1994	01/17/1995
30025330670000	STATE 'D'	20	CONOCO INCORPORATED	15 21S 36E	2180 FSL 910 FEL	EUMONT	GAS	YATES	3720	09/05/1995	09/28/1995
30025329970000	STATE 'D' COM	19	CONOCO INCORPORATED	11 21S 36E	990 FSL 760 FWL	EUMONT	GAS	YATES	3685	07/05/1995	07/26/1995
30025046050002	STATE D	1	CONOCO INCORPORATED	11 21S 36E	1980 FSL 660 FWL	EUMONT	GAS	YATES	4091	1801/01/01	1801/01/01
30025046080000	EMSU	313	CHEVRON U S A INC	11 21S 36E	1980 FSL 1980 FWL	EUNICE MONUMENT	OIL	GRAYBURG	3890	01/29/1937	03/05/1937
30025046050000	EMSU	314	CHEVRON U S A INC	11 21S 36E	1980 FSL 660 FWL	EUNICE MONUMENT	W-INJ	GRAYBURG	4091		09/20/1936
30025046000000	EMSU	315	CHEVRON U S A INC	10 21S 36E	1980 FSL 660 FEL	EUNICE MONUMENT	OIL	GRAYBURG	3890	03/20/1981	04/01/1981
30025298820000	EMSU	316	CHEVRON U S A INC	10 21S 36E NW SE	1847 FSL 1885 FEL	EUNICE MONUMENT	W-INJ	GRAYBURG	4030	04/24/1987	05/22/1987
30025045900000	EMSU	317	CHEVRON U S A INC	10 21S 36E	1980 FSL 1980 FWL	EUNICE MONUMENT	OIL	GRAYBURG	3880	04/04/1936	05/01/1936
30025299010000	EMSU	318	CHEVRON U S A INC	10 21S 36E NW SW	1860 FSL 830 FWL	EUNICE MONUMENT	W-INJ	GRAYBURG	4000	05/01/1987	05/31/1987
30025045840000	EMSU	319	CHEVRON U S A INC	9 21S 36E	1650 FSL 990 FEL	EUNICE MONUMENT	OIL	GRAYBURG	3890	02/19/1957	02/22/1957
30025045830000	EMSU	342	CHEVRON U S A INC	9 21S 36E	330 FSL 330 FEL	EUNICE MONUMENT	W-INJ	GRAYBURG	3895	12/23/1935	02/08/1936
30025045890000	EMSU	343	CHEVRON U S A INC	10 21S 36E	660 FSL 660 FWL	EUNICE MONUMENT	OIL	GRAYBURG	3910	12/08/1935	02/11/1936
30025045920000	EMSU	344	CHEVRON U S A INC	10 21S 36E	660 FSL 1980 FWL	EUNICE MONUMENT	W-INJ	GRAYBURG	3960	02/22/1987	03/04/1987
30025298230000	EMSU	345	CHEVRON U S A INC	10 21S 36E SW SE	760 FSL 1880 FEL	EUNICE MONUMENT	OIL	GRAYBURG	4054	03/22/1987	10/21/1987
30025298810000	EMSU	346	CHEVRON U S A INC	10 21S 36E SE SE	659 FSL 560 FEL	EUNICE MONUMENT	W-INJ	GRAYBURG	4050	04/18/1987	09/01/1987
30025046060000	EMSU	347	CHEVRON U S A INC	11 21S 36E	660 FSL 660 FWL	EUNICE MONUMENT	OIL	GRAYBURG	3900	09/10/1936	10/18/1936
30025046070000	EMSU	348	CHEVRON U S A INC	11 21S 36E	660 FSL 1980 FWL	EUNICE MONUMENT	W-INJ	GRAYBURG	3905	09/07/1936	10/11/1936
30025298380000	EMSU	349	CHEVRON U S A INC	11 21S 36E SW SE	760 FSL 2230 FEL	EUNICE MONUMENT	OIL	GRAYBURG	4000	01/23/1987	08/10/1987
30025046360000	EMSU	355	CHEVRON U S A INC	14 21S 36E	660 FNL 1980 FWL	EUNICE MONUMENT	OIL	GRAYBURG	3883	05/06/1985	09/09/1985
30025046290000	EMSU	356	CHEVRON U S A INC	14 21S 36E	660 FNL 660 FWL	EUNICE MONUMENT	W-INJ	GRAYBURG	3895	06/12/1936	08/28/1936
30025046430000	EMSU	357	CHEVRON U S A INC	15 21S 36E	660 FNL 660 FEL	EUNICE MONUMENT	OIL	GRAYBURG	3875	09/27/1982	10/13/1982
30025046420000	EMSU	358	CHEVRON U S A INC	15 21S 36E	660 FNL 1980 FEL	EUNICE MONUMENT	W-INJ	GRAYBURG	3865	07/18/1936	08/30/1936
30025046510000	EMSU	359	CHEVRON U S A INC	15 21S 36E	660 FNL 1980 FWL	EUNICE MONUMENT	OIL	GRAYBURG	3881	08/12/1936	09/20/1936
30025046490000	EMSU	360	CHEVRON U S A INC	15 21S 36E	660 FNL 660 FWL	EUNICE MONUMENT	W-INJ	GRAYBURG	3885	01/24/1936	03/16/1936
30025046550000	EMSU	361	CHEVRON U S A INC	16 21S 36E	660 FNL 660 FEL	EUNICE MONUMENT	OIL	GRAYBURG	3885	11/20/1935	01/01/1936
30025046500000	EMSU	385	CHEVRON U S A INC	15 21S 36E	1980 FNL 660 FWL	EUNICE MONUMENT	OIL	GRAYBURG	3869	03/19/1936	04/20/1936
30025046520000	EMSU	386	CHEVRON U S A INC	15 21S 36E	1980 FNL 1980 FWL	EUNICE MONUMENT	W-INJ	GRAYBURG	3875		02/09/1937
30025046450000	EMSU	387	CHEVRON U S A INC	15 21S 36E	1980 FNL 1980 FEL	EUNICE MONUMENT	OIL	GRAYBURG	3880	11/01/1936	12/06/1936

TABLE 1
WELLS IN AREA OF REVIEW

30025046410000	EMSU	388	CHEVRON U S A INC	15 21S 36E	1980	FNL	660	FEL	EUNICE MONUMENT	W-INJ	GRAYBURG	4000	03/06/1987	03/06/1987
30025046310000	EMSU	389	CHEVRON U S A INC	14 21S 36E	1980	FNL	660	FWL	EUNICE MONUMENT	TA	GRAYBURG	3950	06/30/1987	10/13/1988
30025046460000	EMSU	397	CHEVRON U S A INC	15 21S 36E	1980	FSL	660	FEL	EUNICE MONUMENT	OIL	GRAYBURG	3865	11/03/1936	12/03/1936
30025296210000	EMSU	461	CHEVRON U S A INC	9 21S 36E NE SE	1540	FSL	1305	FEL	EUNICE MONUMENT	P&A	GRAYBURG	5000	05/24/1986	10/16/1986
30025351620000	EMSU	695	CHEVRON U S A INC	9 21S 36E NE NE SE	2440	FSL	200	FEL	EUNICE MONUMENT	OIL	GRAYBURG	3930	10/12/2000	11/20/2000
30025341370000	EMSU	696	CHEVRON U S A INC	10 21S 36E	2523	FNL	1456	FWL	EUNICE MONUMENT	TA	GRAYBURG	3910	12/02/1997	09/03/1998
30025351630000	EMSU	697	CHEVRON U S A INC	10 21S 36E NW NW SE	2517	FSL	2550	FEL	EUNICE MONUMENT	OIL	GRAYBURG	3942	10/20/2000	11/23/2000
30025348470000	EMSU	698	CHEVRON U S A INC	10 21S 36E NE NW SE	2285	FSL	1280	FEL	EUNICE MONUMENT	OIL	GRAYBURG	3925	04/01/2000	07/10/2000
30025342150000	EMSU	699	CHEVRON U S A INC	10 21S 36E SE NE	2562	FNL	100	FEL	EUNICE MONUMENT	OIL	GRAYBURG	3893	02/23/1998	05/25/1998
30025351640000	EMSU	707	CHEVRON U S A INC	10 21S 36E NE SE SE	1310	FSL	20	FEL	EUNICE MONUMENT	OIL	GRAYBURG	3920	10/27/2000	12/10/2000
30025348480000	EMSU	708	CHEVRON U S A INC	10 21S 36E SW NE SE	1330	FSL	1220	FEL	EUNICE MONUMENT	OIL	GRAYBURG	3920	02/19/2000	04/14/2000
30025348490000	EMSU	709	CHEVRON U S A INC	10 21S 36E SE NE SW	1330	FSL	2421	FWL	EUNICE MONUMENT	OIL	GRAYBURG	3930	03/08/2000	06/29/2000
30025348250000	EMSU	710	CHEVRON U S A INC	10 21S 36E NW SE SW	1170	FSL	1425	FWL	EUNICE MONUMENT	TA	GRAYBURG	3931	01/25/2000	04/20/2000
30025348500000	EMSU	711	CHEVRON U S A INC	9 21S 36E NE SE SE	1320	FSL	200	FEL	EUNICE MONUMENT	OIL	GRAYBURG	3940	04/11/2000	07/05/2000
30025348510000	EMSU	734	CHEVRON U S A INC	15 21S 36E NW NW NW	225	FNL	300	FWL	EUNICE MONUMENT	OIL	GRAYBURG	3940	03/23/2000	05/28/2000
30025348260000	EMSU	735	CHEVRON U S A INC	15 21S 36E NE NW NW	275	FNL	1220	FWL	EUNICE MONUMENT	OIL	GRAYBURG	3925	02/04/2000	07/03/2000
30025348520000	EMSU	736	CHEVRON U S A INC	15 21S 36E NW NW NE	208	FNL	2490	FEL	EUNICE MONUMENT	OIL	GRAYBURG	3925	03/15/2000	07/06/2000
30025348530000	EMSU	737	CHEVRON U S A INC	15 21S 36E NE NW NE	210	FNL	1420	FEL	EUNICE MONUMENT	OIL	GRAYBURG	3914	02/29/2000	07/09/2000
30025351650000	EMSU	738	CHEVRON U S A INC	10 21S 36E SE SE SE	240	FSL	100	FEL	EUNICE MONUMENT	OIL	GRAYBURG	3930	11/04/2000	02/28/2001
30025354580000	EMSU	739	CHEVRON U S A INC	11 21S 36E SW SE SW	235	FSL	1400	FWL	EUNICE MONUMENT	OIL	GRAYBURG	3910	05/15/2001	07/30/2001
30025351670000	EMSU	747	CHEVRON U S A INC	15 21S 36E SW NE NE	1200	FNL	1310	FEL	EUNICE MONUMENT	OIL	GRAYBURG	3946	11/15/2000	02/24/2001
30025346320000	EMSU	748	CHEVRON U S A INC	15 21S 36E SW NE	1510	FNL	2543	FEL	EUNICE MONUMENT	OIL	GRAYBURG	3950	07/02/1999	08/31/1999
30025346410000	EMSU	749	CHEVRON U S A INC	15 21S 36E NE NW	1205	FNL	1330	FWL	EUNICE MONUMENT	OIL	GRAYBURG	3951	06/23/1999	08/29/1999
30025351680000	EMSU	750	CHEVRON U S A INC	16 21S 36E NE SE NE	1420	FNL	200	FEL	EUNICE MONUMENT	OIL	GRAYBURG	3950	11/30/2000	01/30/2001
30025351660000	EMSU	774	CHEVRON U S A INC	15 21S 36E SW SE NW	2630	FNL	1330	FWL	EUNICE MONUMENT	OIL	GRAYBURG	4008	10/03/2000	11/10/2000
30025354590000	EMSU	775	CHEVRON U S A INC	15 21S 36E NW NW SE	2630	FSL	2558	FEL	EUNICE MONUMENT	OIL	GRAYBURG	3950	04/28/2001	07/10/2001
30025354600000	EMSU	776	CHEVRON U S A INC	15 21S 36E SW SE NE	2610	FNL	1310	FEL	EUNICE MONUMENT	OIL	GRAYBURG	3960	05/07/2001	06/30/2001
30025045960000	KNOX JOHN D	2	EXXON CORPORATION	10 21S 36E	660	FSL	1980	FEL	EUNICE MONUMENT	P&A	GRAYBURG	3852	06/07/1936	07/01/1936
30025045990000	KNOX JOHN D	5	EXXON CORPORATION	10 21S 36E	660	FSL	660	FEL	EUNICE MONUMENT	TA	GRAYBURG	3885	09/06/1936	09/27/1936
30025207000000	AJ ADKINS	8	EXXON CORPORATION	10 21S 36E	2310	FSL	2260	FWL	OIL CENTER	OIL	BLINEBRY	6050	06/27/1964	08/13/1964
30025203060000	KNOX JOHN D	11	EXXON CORPORATION	10 21S 36E	2310	FSL	330	FEL	OIL CENTER	OIL	BLINEBRY	6225	11/23/1963	02/10/1964
30025337780000	KNOX JOHN D	WI-14	EXXON CORPORATION	10 21S 36E	2337	FSL	1543	FEL	OIL CENTER	W-INJ	BLINEBRY	6220	01/01/1998	04/30/1999
30025206620000	STATE `D`	13	CONOCO INCORPORATED	11 21S 36E	990	FSL	660	FWL	OIL CENTER	OIL	BLINEBRY	6000	08/28/1964	11/06/1964
30025270160000	STATE `D`	15	CONOCO INCORPORATED	11 21S 36E	2310	FSL	2310	FWL	OIL CENTER	OIL	BLINEBRY	7120	04/30/1981	09/22/1981

TABLE 2
NEW COMPLETIONS IN AREA OF REVIEW

API	Lease Name	Well #	Operator Name	Location	Footage				Field Name	Current Status	Driller TD	Comp Date
30025298820000	EUNICE MONUMENT SOUTH UNIT	316	CHEVRON U S A INC	10 21S 36E NW SE	1847	FSL	1885	FEL	EUNICE MONUMENT	W-INJ	4030	05/22/1987
30025299010000	EUNICE MONUMENT SOUTH UNIT	318	CHEVRON U S A INC	10 21S 36E NW SW	1860	FSL	830	FWL	EUNICE MONUMENT	W-INJ	4000	05/31/1987
30025298230000	EUNICE MONUMENT SOUTH UNIT	345	CHEVRON U S A INC	10 21S 36E SW SE	760	FSL	1880	FEL	EUNICE MONUMENT	OIL	4054	10/21/1987
30025298810000	EUNICE MONUMENT SOUTH UNIT	346	CHEVRON U S A INC	10 21S 36E SE SE	659	FSL	560	FEL	EUNICE MONUMENT	W-INJ	4050	09/01/1987
30025298380000	EUNICE MONUMENT SOUTH UNIT	349	CHEVRON U S A INC	11 21S 36E SW SE	760	FSL	2230	FEL	EUNICE MONUMENT	TA	4000	08/10/1987
30025296210000	EUNICE MONUMENT SOUTH UNIT	461	CHEVRON U S A INC	9 21S 36E NE SE	1540	FSL	1305	FEL	EUNICE MONUMENT	P&A	5000	10/16/1986
30025351620000	EUNICE MONUMENT SOUTH UNIT	695	CHEVRON U S A INC	9 21S 36E NE NE SE	2440	FSL	200	FEL	EUNICE MONUMENT	OIL	3930	11/20/2000
30025341370000	EUNICE MONUMENT SOUTH UNIT	696	CHEVRON U S A INC	10 21S 36E	2523	FNL	1456	FWL	EUNICE MONUMENT	TA	3910	09/03/1998
30025351630000	EUNICE MONUMENT SOUTH UNIT	697	CHEVRON U S A INC	10 21S 36E NW NW SE	2517	FSL	2550	FEL	EUNICE MONUMENT	OIL	3942	11/23/2000
30025348470000	EUNICE MONUMENT SOUTH UNIT	698	CHEVRON U S A INC	10 21S 36E NE NW SE	2285	FSL	1280	FEL	EUNICE MONUMENT	OIL	3925	07/10/2000
30025342150000	EUNICE MONUMENT SOUTH UNIT	699	CHEVRON U S A INC	10 21S 36E SE NE	2562	FNL	100	FEL	EUNICE MONUMENT	OIL	3893	05/25/1998
30025351640000	EUNICE MONUMENT SOUTH UNIT	707	CHEVRON U S A INC	10 21S 36E NE SE SE	1310	FSL	20	FEL	EUNICE MONUMENT	OIL	3920	12/10/2000
30025348480000	EUNICE MONUMENT SOUTH UNIT	708	CHEVRON U S A INC	10 21S 36E SW NE SE	1330	FSL	1220	FEL	EUNICE MONUMENT	OIL	3920	04/14/2000
30025348490000	EUNICE MONUMENT SOUTH UNIT	709	CHEVRON U S A INC	10 21S 36E SE NE SW	1330	FSL	2421	FWL	EUNICE MONUMENT	OIL	3930	06/29/2000
30025348250000	EUNICE MONUMENT SOUTH UNIT	710	CHEVRON U S A INC	10 21S 36E NW SE SW	1170	FSL	1425	FWL	EUNICE MONUMENT	OIL	3931	04/20/2000
30025348500000	EUNICE MONUMENT SOUTH UNIT	711	CHEVRON U S A INC	9 21S 36E NE SE SE	1320	FSL	200	FEL	EUNICE MONUMENT	OIL	3940	07/05/2000
30025348510000	EUNICE MONUMENT SOUTH UNIT	734	CHEVRON U S A INC	15 21S 36E NW NW NW	225	FNL	300	FWL	EUNICE MONUMENT	OIL	3940	05/28/2000
30025348260000	EUNICE MONUMENT SOUTH UNIT	735	CHEVRON U S A INC	15 21S 36E NE NW NW	275	FNL	1220	FWL	EUNICE MONUMENT	OIL	3925	07/03/2000
30025348520000	EUNICE MONUMENT SOUTH UNIT	736	CHEVRON U S A INC	15 21S 36E NW NW NE	208	FNL	2490	FEL	EUNICE MONUMENT	OIL	3925	07/06/2000
30025348530000	EUNICE MONUMENT SOUTH UNIT	737	CHEVRON U S A INC	15 21S 36E NE NW NE	210	FNL	1420	FEL	EUNICE MONUMENT	OIL	3914	07/09/2000
30025351650000	EUNICE MONUMENT SOUTH UNIT	738	CHEVRON U S A INC	10 21S 36E SE SE SE	240	FSL	100	FEL	EUNICE MONUMENT	OIL	3930	02/28/2001
30025354580000	EUNICE MONUMENT SOUTH UNIT	739	CHEVRON U S A INC	11 21S 36E SW SE SW	235	FSL	1400	FWL	EUNICE MONUMENT	OIL	3910	07/30/2001
30025351670000	EUNICE MONUMENT SOUTH UNIT	747	CHEVRON U S A INC	15 21S 36E SW NE NE	1200	FNL	1310	FEL	EUNICE MONUMENT	OIL	3946	02/24/2001
30025346320000	EUNICE MONUMENT SOUTH UNIT	748	CHEVRON U S A INC	15 21S 36E SW NE	1510	FNL	2543	FEL	EUNICE MONUMENT	OIL	3950	08/31/1999
30025346410000	EUNICE MONUMENT SOUTH UNIT	749	CHEVRON U S A INC	15 21S 36E NE NW	1205	FNL	1330	FWL	EUNICE MONUMENT	OIL	3951	08/29/1999
30025351680000	EUNICE MONUMENT SOUTH UNIT	750	CHEVRON U S A INC	16 21S 36E NE SE NE	1420	FNL	200	FEL	EUNICE MONUMENT	OIL	3950	01/30/2001
30025351660000	EUNICE MONUMENT SOUTH UNIT	774	CHEVRON U S A INC	15 21S 36E SW SE NW	2630	FNL	1330	FWL	EUNICE MONUMENT	OIL	4008	11/10/2000
30025354590000	EUNICE MONUMENT SOUTH UNIT	775	CHEVRON U S A INC	15 21S 36E NW NW SE	2630	FSL	2558	FEL	EUNICE MONUMENT	OIL	3950	07/10/2001
30025354600000	EUNICE MONUMENT SOUTH UNIT	776	CHEVRON U S A INC	15 21S 36E SW SE NE	2610	FNL	1310	FEL	EUNICE MONUMENT	OIL	3960	06/30/2001
30025337780000	KNOX JOHN D	WI-14	EXXON CORPORATION	10 21S 36E	2337	FSL	1543	FEL	OIL CENTER	W-INJ	6220	04/30/1999
30025207060002	KNOX JOHN D	12	EXXON CORPORATION	10 21S 36E	990	FSL	1652	FEL	EUMONT	GAS	6020	11/28/1995
30025207020001	A J ADKINS COM	10	EXXON CORPORATION	10 21S 36E	990	FSL	990	FWL	EUMONT	GAS	6010	06/07/1992

TABLE 2A
ABANDONED WELLS IN AREA OF REVIEW

API	Lease Name	Well #	Operator Name	Location	Footage				Field Name	Current Status	Driller TD	Comp Date
30025296210000	EMSU	461	CHEVRON U S A INC	9 21S 36E NE SE	1540	FSL	1305	FEL	EUNICE MONUMENT	P&A	5000	10/16/1986
30025045960000	KNOX JOHN D	2	EXXON CORPORATION	10 21S 36E	660	FSL	1980	FEL	EUNICE MONUMENT	P&A	3852	07/01/1936
30025045990000	KNOX JOHN D	5	EXXON CORPORATION	10 21S 36E	660	FSL	660	FEL	EUNICE MONUMENT	TA	3885	09/27/1936

WELLBORE DIAGRAMS IN ITEM VI

WELLS THAT PENETRATED INJECTION INTERVAL

TABLE 3
EUMONT WELLS IN AREA

API	Lease Name	Well #	Operator Name	Location	Footage				Field Name	Current Status	Driller TD	Spud Date	Comp Date
30025045860000	ERNEST C ADKINS	9	ARCO OIL & GAS CORP	9 21S 36E	730	FSL	1910	FEL	EUMONT	GAS	3705	12/04/1953	01/03/1954
30025045950001	JD KNOX	1	EXXON CORPORATION	10 21S 36E	1980	FSL	1980	FEL	EUMONT	GAS	3865	11/12/1954	11/17/1954
30025046050002	STATE D	1	CONOCO INCORPORATED	11 21S 36E	1980	FSL	660	FWL	EUMONT	GAS	4091	1801/01/01	1801/01/01
30025207020001	A J ADKINS COM	10	EXXON CORPORATION	10 21S 36E	990	FSL	990	FWL	EUMONT	GAS	6010	05/04/1992	06/07/1992
30025260180000	STATE `D`	14	CONOCO INCORPORATED	15 21S 36E	915	FNL	990	FEL	EUMONT	GAS	3800	07/31/1978	09/12/1978
30025291830000	BELL R R(NCT-C) COM	5	CHEVRON U S A INC	15 21S 36E	1440	FNL	1320	FWL	EUMONT	GAS	3625	06/24/1985	07/14/1985
30025293750000	STATE `D`	16	CONOCO INCORPORATED	11 21S 36E	2080	FSL	660	FWL	EUMONT	GAS	3750	01/29/1986	02/24/1986
30025304210000	LOCKHART `B`	10	CONOCO INCORPORATED	14 21S 36E SW NW	2280	FNL	660	FWL	EUMONT	GAS	3680	08/01/1988	12/14/1988
30025309220000	GRAHAM ORCUTT GAS COM	1	CHEVRON U S A INC	9 21S 36E SW SE	1175	FSL	1375	FEL	EUMONT	GAS	3700	02/28/1991	04/19/1991
30025321310000	COLLINS HENRY C	6	CHEVRON U S A INC	14 21S 36E NE NW	890	FNL	1810	FWL	EUMONT	GAS	3750	09/23/1993	10/30/1993
30025324420000	ADKINS EARNEST C	12	ARCO OIL & GAS CORP	9 21S 36E NW SE	2160	FSL	1650	FEL	EUMONT	GAS	3700	04/02/1994	05/11/1994
30025326860001	SKELLY `B` STATE COM	3	TEXACO EXPL&PROD INC	16 21S 36E NE NE	660	FNL	990	FEL	EUMONT	GAS	3700	12/29/1997	01/28/1998
30025327180000	STATE `D`	18	CONOCO INCORPORATED	15 21S 36E SW NE	1780	FNL	1895	FEL	EUMONT	GAS	3700	11/01/1994	01/17/1995
30025329970000	STATE `D` COM	19	CONOCO INCORPORATED	11 21S 36E	990	FSL	760	FWL	EUMONT	GAS	3685	07/05/1995	07/26/1995
30025330670000	STATE `D`	20	CONOCO INCORPORATED	15 21S 36E	2180	FSL	910	FEL	EUMONT	GAS	3720	09/05/1995	09/28/1995
30025332100000	LOCKHART `B`	12	CONOCO INCORPORATED	14 21S 36E	860	FNL	660	FWL	EUMONT	GAS	3700	04/04/1996	04/30/1996
30025350820000	BERRYMAN M S	2	HARTMAN DOYLE	11 21S 36E SW SW SE	405	FSL	2295	FEL	EUMONT	GAS	3850	09/17/2000	10/06/2000

CURRENT WELLBORE DIAGRAM

LEASE:	EMSU	WELL:	750	FIELD:	Eunice-Monument	API:	30-025-35168
LOC:	1420 FNL & 200 FEL, Unit H	SEC:	16	BLK:	T21S, R36E	REF NO:	
SVY:	N.M.P.M.	GL:	3567	CTY/ST	Lea Co., NM	SPUD:	11/30/2000
CURRENT STATUS:	Producer	KB:	3573	DF:		TD DATE:	

9-5/8", 36#/ft
Surf. Pipe set @ 500' w/
350 SX cement
Cmt Circ.? Yes
(12-1/4" hole)

500'

7", 20#/ft K-55 Csg.
set @ 3950' w/ 1100 SX
Cmt Circ.? Yes

(8-3/4" hole)

3758-73'
3780-88'
3828-50'
3860-77'
3890-3904'
3914-30'

3950'

PBTD @ 3936'
TD @ 3950'

Date Completed: 1-30-2001
Initial Prod: 27 BOPD/ 1547 BWPD/ 12 MCFGPD
Initial Formation: Grayburg From: 3758' To: 3930'
Completion Data:
Perf 3758-73, 3780-88, 3828-50, 3860-77, 3790-3904, 3914-30. Acidized 2750 gal w ball sealers then acidized with 4500 gals 50 qual CO2. Swab 5% oilcut. Place on pump.

2/2001 Sqz perfs 3758-73. Acidized perfs 3828-3930 w/ 3650 gals swab 25% oilcut. Place on pump. Test prior 15 BOPD 1769 BWPD Test after 104 BOPD 526 BWPD.

Additional Data:
T/Queen Formation @ 3418'
T/Grayburg Zone 1 @ 3711'

05/20/2002

Chevron

WELL DATA SHEET

LEASE: EMSU WELL: 316WI

LOC: 1847' F S L & 1885' F E L SEC: 10

TOWNSHIP: 21S CNTY: Lea

RANGE: 36E UNIT: J ST: N.M.

FORM: Grayburg / San Andres DATE:

GL: 3583' STATUS: Injector

KB: 3601' API NO: 30-025-29882

DF: CHEVNO: IH 17480.01

Date Completed: 05/17/1987

Initial Injection: 720 BWIPD @ 0 psig

Initial Formation: Grayburg

FROM: 3752' to 3970'

Completion Data

GIH w/ bit. Tag @ 4002'. Perf 3752-64, 3776-86, 3806-30, 3834-40, 3846-60, 3896-3913 & 3939-70 (1 JHPF). Spot 250 gals acid across perfs. ACDZ w/ 6750 gals 15% NeFeA w/ 170 RCNBs. Swb 2 BO/ 34 BW SFL = 2200', EFL = 2600'. Swb Tr oil/35 BW SFL = 2600', EFL = 2800'. GIH w/ Baker TSN II pkr on 119 jts. 2-3/8" IPC tbg. Circ. w/ pkr fluid & set pkr @ 3698'. PWOI. Test: 720 BWIPD @ 0 psig.

Subsequent Workover or Reconditioning:

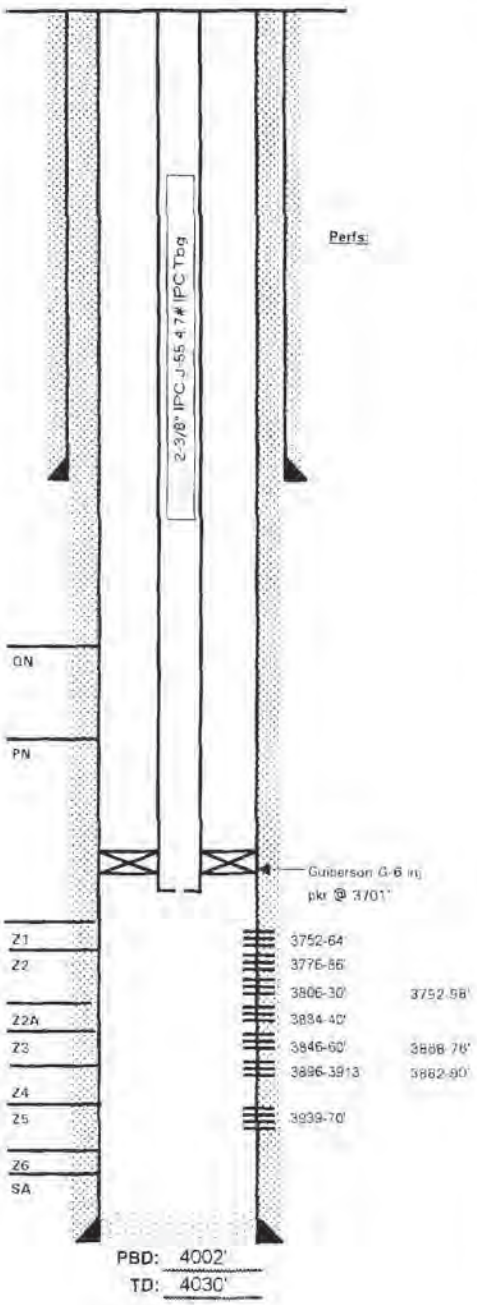
8/93 POH w/ pkr & tbg. GIH w/ Guiberson Uni VI on 2-3/8" IPC tbg. Circ. pkr fluid & set pkr. Pkr has 1.781" F SS profile nipple. Test csg to 320 psi - OK. RTI.
5/95 MIRU CTU. Wash to 3937'. ACDZ perfs 3752-3970' w/ 5000 gals 15% acid.
10/3/2000 POH w/ tbg & G-6 pkr. Perf w/ 3 spf @120 deg phs'g, 3792-98', 3868-76', & 3882-90'. RIH w/ pkr & RBP. Set RBP @ 3723'. Load hole w/55 BPW. Pickle tbg w/ 300 gals 15% HCl. Straddle acdz perfs w/ 15% NEFE HCl. Perfs 3896-3913' w/ 1000 gals HCl. Perfs 3882-90' w/1000 gals HCl. Perfs 3868-76' w/ 1000 gals HCl. Perfs 3846-60' w/ 1500 gals HCl. Perfs 3834-40' w/ 500 gals HCl. Perfs 3792-98' w/ 750 gals HCl. RIH w/ Guiberson G-6 pkr w/ 1.781 "F" Nipple and XL O/O Tool. Set pkr @ 3701'.

8-5/8" OD
24# CSG
Set @ 1350' W/ 900 SX
Cmt circ.? yes
TOC @ surf. by calc.

Tubing Detail: 5/16/87

Original KBTH	18.00'
1 jt 2-3/8" 4.7# J-55 EUE 8rd	31.38'
118 jts. 2-3/8" J-55 4.7# EUE 8rd IPC tbg	3648.39'
2-3/8" x 5-1/2" XL O/O Tool	
Guiberson G-6 pkr w/ 1.781.1 F Nipple	
Wireline entry guide	
Landed @:	3704.75

5-1/2" OD
15.5 & 17# CSG
Set @ 4029' W/ 750 SX
Cmt circ.? yes
TOC @ surf. by calc.



PBD: 4002'
TD: 4030'

Additional Data:
T/Queen Formation @ 3408'
T/Penrose Formation @ 3536'
T/Grayburg Zone 1 @ 3731'
T/Grayburg Zone 2 @ 3766'
T/Grayburg Zone 2A @ 3807'
T/Grayburg Zone 3 @ 3829'
T/Grayburg Zone 4 @ 3864'
T/Grayburg Zone 5 @ 3920'
T/Grayburg Zone 6 @ 3978'
T/San Andres Formation @ 3980'
KB @ 3601'

FILE: EMSU316WB.XLS

printed: 04/15/2002

Chevron

WELL DATA SHEET

LEASE: EMSU WELL: 318WI

LOC: 1860' F S L & 830' F W L SEC: 10

TOWNSHIP: 21S CNTY: Lea

RANGE: 36E UNIT: L ST: N.M.

FORM: Grayburg / San Andres DATE:

GL: 3570' STATUS: Injector

KB: 3588' API NO: 30-025-29901

DF: CHEVNO: IH 1753:01

Date Completed: 06/10/1987

Initial Production:

Initial Formation: Grayburg

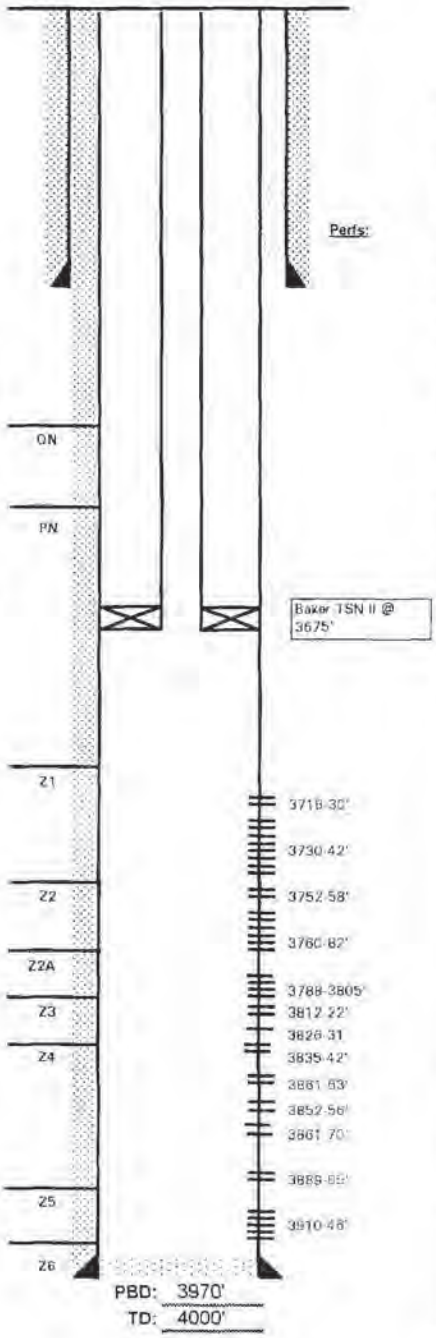
FROM: 3718' to 3946'

8-5/8" OD
24# CSG K-55 8rd
Set @ 1349' W/ 900 SX
Cmt circ.? Yes
TOC @ surf. by calc.

Tubing Detail: 5/29/87

Original KBTrl:	17.00'
117 Jts. 2-3/8" J-55 8rd IPC Tbg:	3619.82'
1 Jt. 2-3/8" J-55 4.7# IPC EUE 8rd:	31.70'
5-1/2" Baker TSN-2 injection Pkr:	5.40'
Landed @:	3673.92'

5-1/2" OD
15.5# CSG
Set @ 4000' W/ 775 SX
Cmt circ.? Yes
TOC @ surf. by calc.



Completion Data

Tag @ 3970'. Perf 3835-42, 3861-63, 3889-95, 3910-46' w/ 1 JHPF. Treated w/ 4000 gals 15% NeFeA & 80 RCNBs. Perf 3718-30, 3730-42, 3752-58, 3760-82, 3788-3805, 3812-22' w/ 1 JHPF. ACDZ w/ 4700 gals 15% NeFeA & 95 RCNBs. Ran 5-1/2" Baker TSN II inj packer on 2-3/8" IPC tbg. Set pkr @ 3673'. Put on injection.

Subsequent Workover or Reconditioning:

8/87 POH w/ inj. equip. Ran CBL/CET. GIH w/ inj. pkr. on 2-3/8" IPC tbg. Set pkr @ 3675'. RTI. Test 676 BWIPD @ 0 psig.
6/93 CO w/ CTU. Tag fill @ 3968'. Pretreat w/ 5 BBLS FW, 12 BBLS 15% NeFe, 20 BBL Biocide, 20 BBL X-LINKER, 21 BBLS FW. Pump 125 bbls 2#/ bbl gel w/ 300 ppm X-Linker 1107-1463 psi. Pump 360 bbls 2.5# per bbl gel w/ 300 ppm X-Linker 1463-1730 psi. Pump 120 bbls 3#/bbl gel w/ 300 ppm X-Linker 1730-1895 psi. Inj. 1524 BWIPD @ 800 psig.
4/2001 Perf 3826-31, 3852-56, 3861-70, acid new perfs 1500 gals, acid old perfs 2500 gals

Additional Data:
T/Queen Formation @ 3392'
T/Penrose Formation @ 3520'
T/Grayburg Zone 1 @ 3706'
T/Grayburg Zone 2 @ 3743'
T/Grayburg Zone 2A @ 3780'
T/Grayburg Zone 3 @ 3806'
T/Grayburg Zone 4 @ 3847'
T/Grayburg Zone 5 @ 3900'
T/Grayburg Zone 6 @ 3949'
T/San Andres Formation @ 3951'
KB @ 3588'

FILE: EMSU318WB.XLS

printed: 04/15/2002

Chevron

WELL DATA SHEET

LEASE: EMSU WELL: 345

LOC: 760' F S L & 1880' F E L SEC: 10
TOWNSHIP: 21S CNTY: Lea
RANGE: 36E UNIT: O ST: N.M.

FORM: Grayburg / San Andres DATE:

GL: 3567.4' STATUS: Producer
KB: 3585' API NO: 30-025-29823
DF: CHEVNO: IH 4143:01

Date Completed: 09/22/1987
Initial Production: 5 BOPD / 38 BWPD
Initial Formation: Grayburg
FROM: 3768' to 3922' / GOR 4800

11-3/4" OD
42 # CSG
Set @ 370' W/ 350 SX
Cmt circ.? yes
TOC @ surf. by calc
(14-3/4" hole)

8-5/8" OD K-55 ST&C
24 & 32 # CSG
Set @ 2655' W/ 700 SX
Cmt circ.? yes
TOC @ 111' by calc.
(11" hole)

Tubing Detail: 5/12/97

KBTH:	0.00
123 Jts 2-7/8" 6.5# J-55 8rd tbg:	3831.84'
KUDU pump	44.28'
Landed @	3876.12'

Rod Detail: 5/12/97

1 1-1/2" X 30' Polished Rod
3 6' & 1-4' 1" Subs
151 1" N-97 Rods
15' Rotor

5-1/2" OD K-55 ST&C
15.5 & 17 # CSG
Set @ 4054' W/ 615 SX
Cmt circ.? yes
TOC @ surf. by calc

QN
PN
Z1
Z2
Z2A
Z3
Z4
Z5
Z6

Perfs:
3768-74'
3782-90'
3796-3802'
3810-34'
3844-72'
3906-22'
3952-62'
1 JHPF

Cmt retainer @ 3840' - SQZD below CR & perfs 3952-62' w/ 200 SX

PBD: 3940'
TD: 4054'

Completion Data

Perf Zone 5 fr 3952-62'. ACDZ w/ 1100 gals 15% NeFe HCl. SQZD w/ 200 SX. Perf 3768-74, 3782-90, 3796-3802, 3810-34, 3844-72 & 3906-22 (1 JHPF - 88 holes). ACDZ w/ 6500 gals 15% NeFe HCl.

Subsequent Workover or Reconditioning:

9/19/87 From 3952-62' interval: swabbed 70 BW / 0 oil in 2.5 hrs (5 BLW).
9/20/87 From 3952-62' interval: swabbed 21 BW / 0 oil (FER 21 BPH).
4/95 Upsize pumping equipment.
5/7/97 ACDZ perfs 3768-3922' w/ 6000 gals Resisol II+. Swb, IFL = 2200', EFL = 2400'. Rec'd 68 BW w/ trace oil. RIH KUDU pump, TOTP.

Additional Data:

T/Queen Formation @ 3413'
T/Penrose Formation @ 3543'
T/Grayburg Zone 1 @ 3737'
T/Grayburg Zone 2 @ 3775'
T/Grayburg Zone 2A @ 3810'
T/Grayburg Zone 3 @ 3838'
T/Grayburg Zone 4 @ 3875'
T/Grayburg Zone 5 @ 3927'
T/Grayburg Zone 6 @ 3971'
T/San Andres Formation @ 3973'
KB @ 3585'

FILE: EMSU345WB.XLS

printed: 04/15/2002

Chevron

WELL DATA SHEET

LEASE: EMSU WELL: 346 WI

LOC: 659' F S L & 569' F E L SEC: 10

TOWNSHIP: 21S CNTY: Lea

RANGE: 36E UNIT: O ST: N.M.

FORM: Grayburg / San Andres DATE:

GL: 3582' STATUS: Injector

KB: 3600' API NO: 30-025-29881

DF: CHEVNO: IH 4144:01

Date Completed: 08/27/1987

Initial Injection: 720 BWIPD @ 0 psig

Initial Formation: Grayburg

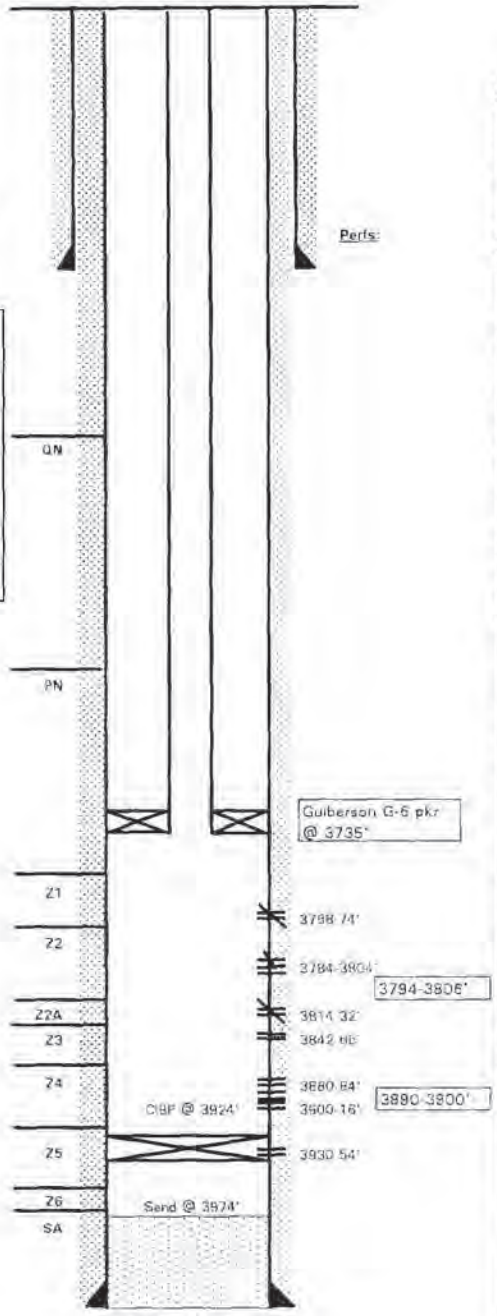
FROM: 3768' to 3954'

8-5/8" OD
24 # CSG
Set @ 1358' W/ 900 SX
Cmt circ.? yes
TOC @ surf. by calc.

Tubing Detail: 8/25/2003

KBTH: 17.60'
120 jts 2-3/8" 4.7# J-55 IPC tbg. Top J-EPC & IPC: 3729.22'
2-3/8" XL O/O tool w/ 1.78 "F" nipple: 3731.02'
5-1/2" Guiberson G-6 pkr: 3734.72'
2-3/8" wireline entry guide: 3735.25'

Landed @ 3735.25'



5-1/2" OD
15.5 & 17 # CSG
Set @ 4050' W/ 750 SX
Cmt circ.? yes
TOC @ surf. by calc

PBD: 3924'
TD: 4050'

FILE: EMSU346WB.XLS

printed: 04/15/2002

Completion Data

CO to 3970'. Perf 3880-84, 3906-16 & 3930-54 (1 JHPF). Trtd w/ 2900 gals 15% NeFeA. Perf 3768-74, 3784-3804, 3814-32 & 3842-66 (1 JHPF). ACDZ w/ 5200 gals 15% NeFeA. GIH w/ Baker TSN pkr on 2-3/8" 4.7# J-55 IPC tbg. Set pkr @ 3734', Put on injection.

Subsequent Workover or Reconditioning:

4/93 Present inj.: 2075 BWIPD @ 181 psig.
8/93 Retreat w/ 15 bbls FW, 12 bbls 15% NeFe, 20 bbls FW w/ 10G biocide, 20 bbls FW w/ 5 gals X-Linker, 20 bbls FW. Pump 10 bbls FW spacer. Pump 112 bbls of 2 PPB mix @ 48 GPM 1131-1271 psi. Pump 368 bbls of 2.5 PPB mix w/ 500 ppm X-Linker @ 48 GPM 1271-1339 psi. Pump 100 bbls polymer flush w/ non X-linked gel & FW. Test: 1656 BWIPD @ 111 psig.
12/10/98 Monitor backside for communication - perfs 3842 in comm. w/ perfs 3832' (perform supplemental procedure). ACDZ perfs 3842-3954' w/ 2000 gals 15% Anti-sludge HCl, pmpg 70Q 1% KCl wtr for diversion. Swb (15 runs), IFL=1200' and EFL=1200'. Dump 3450# 20/40 sand, tag @ 3672'. Wash sd to 3922', dump 1100# sand down tbg & tag @ 3844'. Set CIBP @ 3840'. RIH w/ CICR, set @ 3702'. M&P 105 SX Cl "C" & sqzd 22 SX in form. Perfs 3768-3832' squeezed off. D/O CICR & CIBP. Run MIT. RTI.
8/18/2000 Rlse G-6 pkr, POH w/ 2-3/8" IPC tbg. RIH w/ 4-3/4" bit. Wash FeS scale to 4011', quit making hole. Perf w/ 3SPF @ 120 deg phs'g, 3794-3806' & 3890-3900'. Dump 1250# 100 mesh sd to pb to 3820', RIH w/ notch collar & MCL. Tag sd @ 3959'. POH L/D MCL. RIH set RBP @ 3750'. Pickle tbg w/500 gals 15% HCl. Straddle acdz perfs 3906-3916 w/ 500 gals 15% NEFE; Perfs 3890-3900' w/ 750 gals 15% NEFE HCl; Perfs 3880-84' w/ 500 gals 15% NEFE HCl; Perfs 3842-66' w/ 1500 gals 15% NEFE HCl, and Perfs 3794-3806' w/ 750 gals. Sqz'd perfs 3768'-3804' brk dn during acd job. Dump 400# 20/40 sd & cap w/200# 100 mesh sd. RIH OE'd, tag sd @ 3974'. Previous sd top @ 3959'. RIH w/ 5-1/2" CIBP, tag solid @ 3774'. POH w/ CIBP. RIH OE'd , tag sd @ 3974. Wash to 3940'. RIH w/ set CIBP @ 3924'. RIH w/ 5-1/2" G-6 pkr w/ XL O/O tool w/ 1.78 "F" nipple. Set pkr @ 3735'.

Additional Data:

T/Queen Formation @ 3434'
T/Penrose Formation @ 3545'
T/Grayburg Zone 1 @ 3742'
T/Grayburg Zone 2 @ 3776'
T/Grayburg Zone 2A @ 3812'
T/Grayburg Zone 3 @ 3837'
T/Grayburg Zone 4 @ 3871'
T/Grayburg Zone 5 @ 3919'
T/Grayburg Zone 6 @ 3962'
T/San Andres Formation @ 3964'
KB @ 3600'

Chevron

WELL DATA SHEET

LEASE: EMSU (ARCO: M.S. Berryman #2) WELL: 349

LOC: 760' F S L & 2230' F E L SEC: 11

TOWNSHIP: 21S CNTY: Lea

RANGE: 36E UNIT: O ST: N.M.

FORM: Grayburg / San Andres DATE:

GL: 3581.9' STATUS: SI Producer

KB: 3594.7' API NO: 30-025-29838

DF: CHEVNO: IG 19010:01

Date Completed: 7/5/87

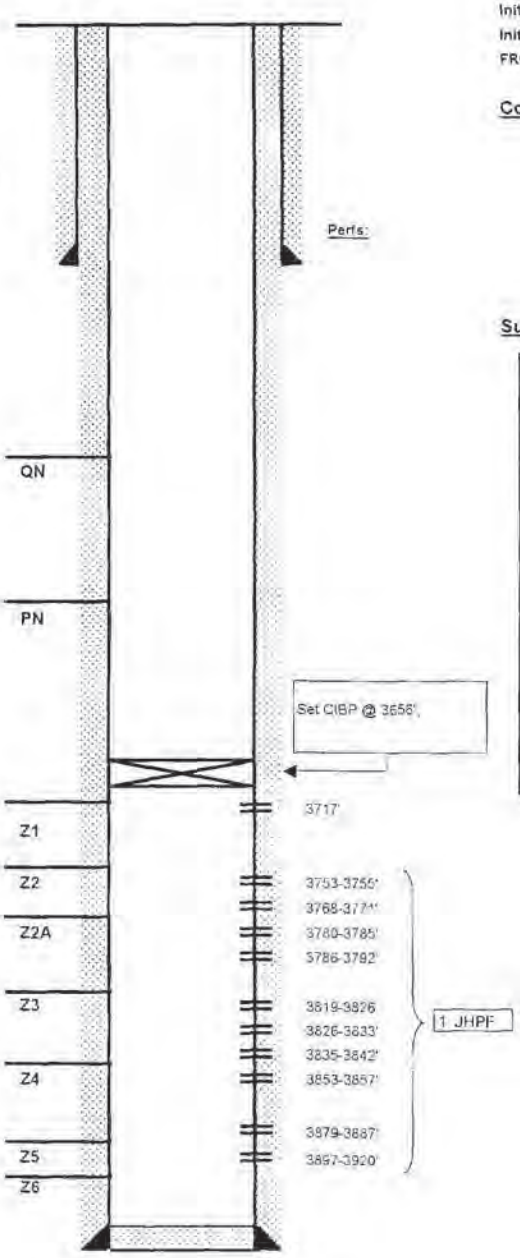
Initial Production: 0 BOPD / 63 BWPD / 118 MCFPD

Initial Formation: Grayburg Zones 1-5

FROM: 3717' - 3920'

8-5/8" OD
24# CSG
Set @ 368' W/ 250 SX
Cmt circ.? Yes
TOC @ surf. by calc
(12-1/4" hole)

4-1/2" OD
9.5# CSG J-55 LT&C
Set @ 4000' W/ 1200 SX
Cmt circ.? Yes
TOC @ surf. by calc
(7-5/8" hole)



PBD: 3990'
TD: 4000'

Completion Data

DO cmt & FC f/ 3924-3990'.
Log w/ GR, CNL, CCL, CBL, CET. Perf: 3897-3920 & 3878-3887. Perf: 3853-3857, 3717, 3786-3792, 3780-3785, 3768-3771, 3753-3755, 3835-3842, 3826-3833, 3819-3826. ACDZ perfs 3920-3878' w/ 2500 gals. Acdz perf 3754-3858' w/ 3500 gal 15% NeFe.

Subsequent Workover or Reconditioning:

11/2001 Set CIBP at 3656' Test failed MIT.

Formation Tops:
T/Queen @ 3410'
T/Penrose @ 3533'
T/Grayburg Zone 1 @ 3716'
T/Grayburg Zone 2 @ 3745'
T/Grayburg Zone 2A @ 3784'
T/Grayburg Zone 3 @ 3810'
T/Grayburg Zone 4 @ 3844'
T/Grayburg Zone 5 @ 3888'
T/Grayburg Zone 6 @ 3924'
T/San Andres @ 3925'
KB @ 3595'

FILE: EMSU349WB.XLS

printed: 04/15/2002

WELL DATA SHEET

FIELD: Eunice Monument South Unit **WELL NAME:** EMSU 695 **FORMATION:** Grayburg

LOC: 2440' FSL & 200' FEL
TOWNSHIP: 21S
RANGE: 36E

SEC: 9
COUNTY: Lea
STATE: NM

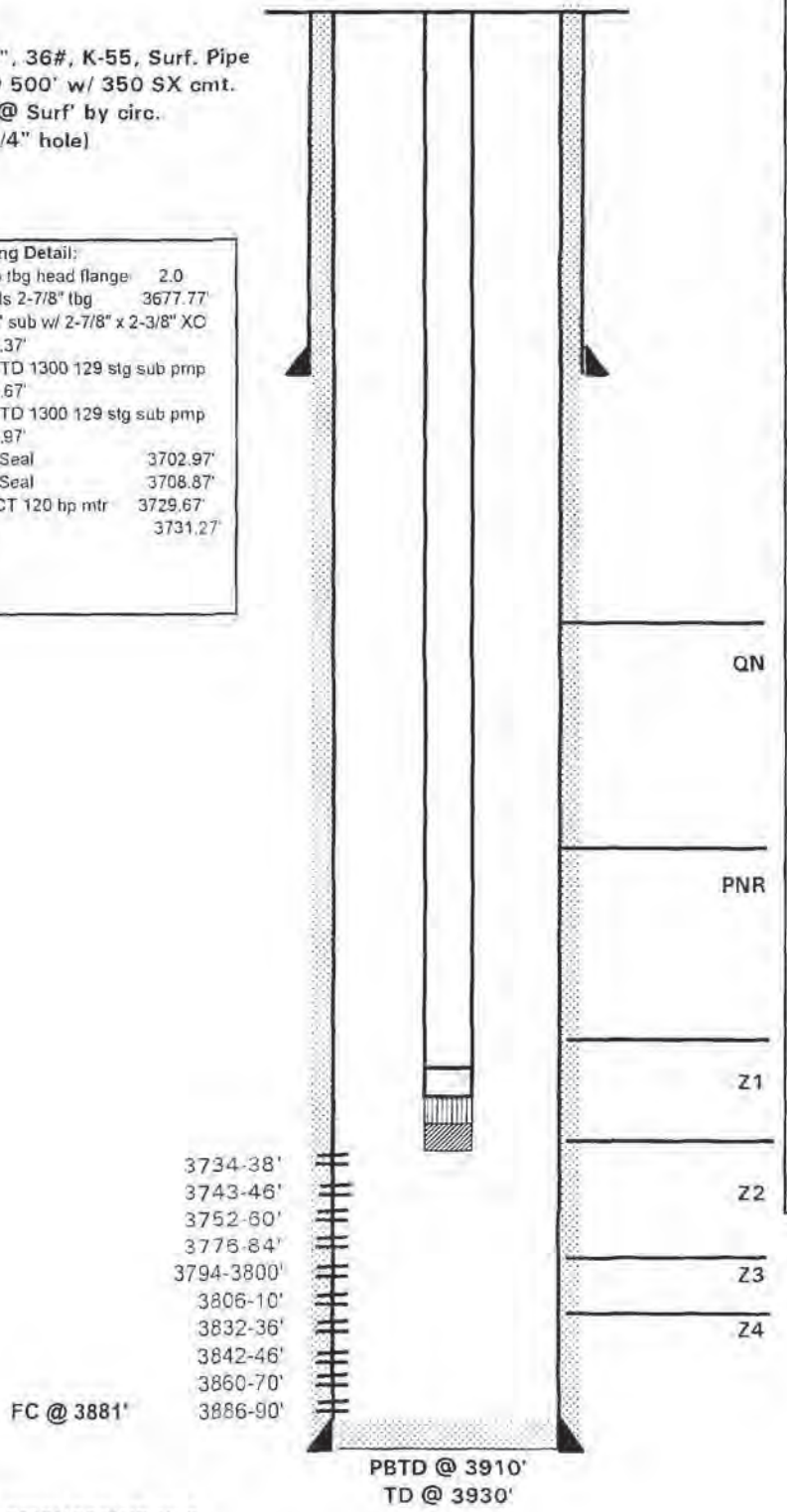
UNIT: N

GL: 3572'
KB: 3578'
DF: 3577'

CURRENT STATUS: Producer
API NO: 30-025-35162
CHEVNO: HA3291

9-5/8", 36#, K-55, Surf. Pipe
set @ 500' w/ 350 SX cmt.
TOC @ Surf' by circ.
(12-1/4" hole)

Tubing Detail:	
KB to tbg head flange	2.0
117 jts 2-7/8" tbg	3677.77'
2-7/8' sub w/ 2-7/8" x 2-3/8" XO	3682.37'
ESP TD 1300 129 stg sub pmp	3688.67'
ESP TD 1300 129 stg sub pmp	3694.97'
TR4 Seal	3702.97'
TR4 Seal	3708.87'
456 CT 120 hp mtr	3729.67'
PSI	3731.27'



Date Completed: 11/20/2000
Initial Prod: 18 BOPD/ 512 BWPD/ 9 MCF
Initial Formation: Grayburg **From:** 3734 **To:** 3890
OH Logs: GR/DSN, SDL, GR/DLL/MSFL/CSL.
Completion Data:
RIH. Tag @3868'. DO 10' cmt to FC @ 3878'. DO FC & hard cmt to 3910'. Run CBL/GR/CCL, indicates good bond. Run Cast-V-CBL-CCL, indicates very good bond & improved w/ press. RIH w/ HSCG w/ 3 SPF @120 phs'g. Perf: 3734-38', 3743-46', 3752-60', 3776-84', 3794-3800', 3806-10', 3832-36', 3842-46', 3860-70', & 3886-90'. Set pkr @ 3654'. Spot 1650 gals 15% CCA NEFE HCl, dropping 250 1.1 7/8 RCNBS. Rlse pkr. Circ balls out. Reset pkr @ 3654', Acdz w/3750 gals 15% CSA NEFE HCl foamed to 50Q w/CO2 and drop 125 7/8" 1.1.RCNBS. Swb tst f/ comm. Perfs comm'd : 3806-10' & 3832-36'; 3776-84' & 3794-3800'. RIH w/ ESP Rental TD 1300 129 stg sub pmp w/ 120 hp mtr, w/ 117 jts 2-7/8" tbg, intake @ 3695'.

Workover History:

Additional Data:
T/Rustler @ 1330'
T/Salado @ 1424'
T/Tansil @2560'
T/Yates @ 2759'
T/Seven Rivers@ 2956'
T/Queen Formation @ 3380'
T/Penrose Formation @ 3540'
T/Grayburg Zone 1 @ 3688'
T/Grayburg Zone 2 @ 3725'
T/Grayburg Zone 3 @ 3786'
T/Grayburg Zone 4 @ 3826'
KB @ 3578

7", 20#, K-55 csg set @ 3930'
w/ 980 SX Premium + cmt
1st stage 930 sx Premium + Zoneseal cmt
2nd stage 50 sx Premium +
Cmt Circ.? Yes, est. 200 sx
TOC @ surf
(8-3/4" hole)

FILE: EMSU695WB.XLS
DLMc: 12/12/2000

EMSU696WB.xls

CURRENT WELLBORE DIAGRAM

LEASE:	EMSU	WELL:	696	FIELD:	Eunice-Monument	API:	30-025-34137
LOC:	2523 FNL & 1456 FWL, Unit F	SEC:	10	BLK:	T21S , R36E	REF NO:	
SVY:	N.M.P.M.	GL:	3584	CTY/ST	Lea / NM	SPUD:	12/02/1997
CURRENT STATUS:	Prod	KB:	3590	DF:	3589	TD DATE:	12/16/1997

HOLE SIZE: 12 1/4
SURFACE CSG: 9.625 36#
SET @: 525
SXS CMT: 300
CIRC: YES
TOC AT: 0
TOC BY: CIRC

525'

DV Tool @ 3258'

cmt circ to surface

HOLE SIZE: 8 3/4
PROD CSG: 7" 29 #
SET @: 3745
SXS CMT: 685
CIRC: No
TOC AT: 5390
TOC BY: EST 75%

3745'

Z1

Z2

Z3

Z4

Z5

TD @ 3910'

COMMENTS:

Date Completed: 2-19-98
Initial Prod: 1 BOPD/338 BWPD/4 MCFPD
Initial Formation: From: 3745 To: 3910
Completion Data:
12-2-97 Drill to 525'. CMT surf csg w/ 300 SX - circ. 93 SX CMT; drill to 3745'. CMT 1st STAGE w/ 110 SX, drop bomb, open DVT. Cir. CMT 2nd STAGE w/ 400 SX (lead). Tail w/ 175 SX CMT & close tool. Cut three cores.

2-23-98 ACDZ zn 3-4 w/ 3000 gals 15% RSII & 1500 gal 70Q 15% NEFE HCL. Swb. Set pkr @ 3721'. ACDZ zn 2-3 w/ 4000 gal 15% RSII and 3000 70Q 15% NEFE HCL. Swb. RIH w/ prod tbg & TOTP.

Workover History:

3-98 Run ESP.

8-18-98 Restim new drill; ACDZ zn 3-5 w/ 3600 gals 15% Antisludge, 1750 gals VES Diverter, 3500 4% KCl & 1000 gal preflush w/ solvent. Swb. ACDZ zn 2 w/ 1650 gals 15% Antisludge, 825 VES & 4% KCl flush. Swb. RIH w/ sub pump, fluid to surface in 10 min (amps-46, 46, 47) & TOTP.

Additional Data:
T/Queen @ 3388'
T/Penrose @ 3520'
T/Grayburg Zone 1 @ 3699'
T/Grayburg Zone 2 @ 3712'
T/Grayburg Zone 3 @ 3794'
T/Grayburg Zone 4 @ 3832'
T/Grayburg Zone 5 @ 3884'

20# K-55

04/22/2002

WELL DATA SHEET

FIELD: EMSU **WELL NAME: EMSU 697** **FORMATION: Grayburg**

LOC: 2517' FSL & 2550' FEL
TOWNSHIP: 21S
RANGE: 36E Unit J

SEC: 10
COUNTY: Lea
STATE: NM

GL: 3593'
KB: 3599'
DF: 3598'

CURRENT STATUS: Producer
API NO: 30-025-35163
CHEVNO: HA4582

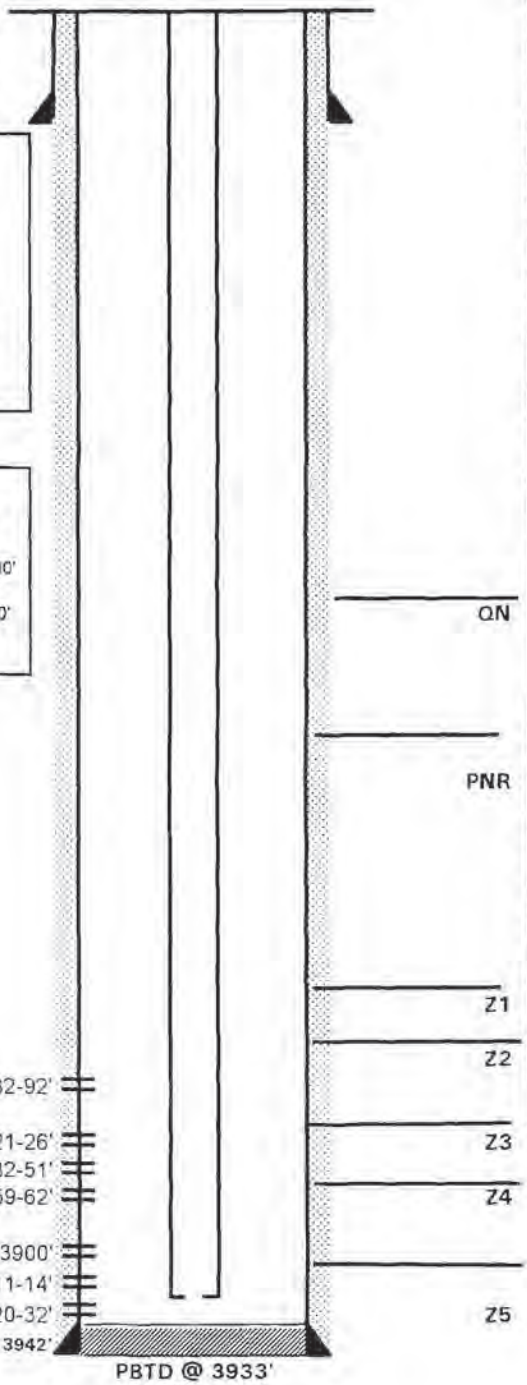
9-5/8", 36#,K-55 Surf. Pipe set @ 505' w/ 350 SX cmt. Cmt Circ.? Yes, est. 150 sx TOC @ Surf' by circ.

Tubing Detail: 11/4/2000

KBTH:	6.00'
120 Jts. 2-7/8" 6.5# J-55 8rd EUE:	3755.06'
7" TAC	3757.41'
4 2-7/8" 6.5# J-55 8rd EUE Bare tbg	3879.71'
2.5" x 2.25" x 24' Wrkg bbl	3909.01'
2-7/8" 6.5# J-55 8rd Slotted MAJT	3925.01'

Rod Detail: 11/4/2000

1-1/2" x 26' Polish Rod	26.00
8'-6'-4'-2' x 7/8" Norris 97 rod subs	46.00'
142 jts 7/8" Norris 97 rds	3596.00'
12 jts 1-1/2" WT Bars	3896.00'
2.25" x 4' Plunger	3900.00'



FC @ 3887'

PBTD @ 3933'
TD @ 3942'

Date Completed: 11/23/2000
Initial Prod: 8 BOPD/ 610 BWPD/ 4 MCF
Initial Formation: Grayburg From: 3782' To: 3932'

Completion Data:
11/2/2000 RIH and tag @445', rotate thru tight spot , tag solid @ 525'. DO cmt stringers f/ 525 - 600', fell free. Tag cmt @ 3658'. DO cmt f/ 3658' -88'. Wash to 3826'. DO soft cmt f/ 3826'-3887', Tag FC @ 3887'. DO FC & solid cmt to 3933'. Run GAL-GR-CCL f/3928'-2928'. Fair bond thru pay zone. Perf w/ 4" csg gun @: 3782'-92', 3821-26', 3832-51', 3859-62', 3889-3900', 3911-14', & 3920-32' w/ 3 JHPF 120 dgr phs'g. Set pkr @ 3694'. Acdz w/ 2000 gals 15% NEFE HCl, drop 250 - 1.1 RCNBS. Flush perfs w/ 1% KCl. Rev out ball sealers. Pmp 1000 gal 50Q foamed KCl wtr, Acdz perfs w/3200 gals 15% NEFE HCl foamed to 50Q w/ CO2, drop 150 - 1.1 RCNBS evenly thru last 5900 gals foamed acid, over displace 10 bbls 50Q foamed KCl wtr. Upper perfs 3782'-92' communicated to 3821'-26'. RIH w/ slotted MAJT, 2.5" x 2.25" x 24' working bbl, 4 jts, TAC, 120 jts 2-7/8" 6.5# J-55 8rd EUE tbg, TAC @ 3755', pmp @ 3879', EOT @ 3925'.

Workover History:

Additional Data:
T/Rustler @ 1322'
T/Salado @ 1413'
T/Tansil @ 2574'
T/ Yates @ 2776'
T/Seven Rivers @ 2964'
T/Queen @ 3399'
T/Penrose Formation @ 3518'
T/Grayburg Zone 1 @ 3719'
T/Grayburg Zone 2 @ 3753'
T/Grayburg Zone 3 @ 3815'
T/Grayburg Zone 4 @ 3852'
T/Grayburg Zone 5 @ 3904'
KB @ 3599'

7", 20#,K-55 csg set @ 3942' w/ 910 SX cmt.
1st stg, 860 sx Prem + Zoneseal
2nd stg. 50 sx Premium +
Cmt Circ.? Yes, est. 238 sx
TOC @ surf.

FILE: EMSU697WB.XLS
DLMc: 12/14/2000

CURRENT
WELLBORE DIAGRAM

LEASE:	EMSU	WEL	698	FIELD:	Eunice-Monument	API:	30-025-34847
LOC:	2585' FSL & 1330' FEL, Unit I	SEC:	10	BLK:	T21S , R36E	REF NO:	BY5766
SVY:	N.M.P.M.	GL:	3591'	CTY/ST	Lea / NM	SPUD:	04/01/2000
CURRENT STATUS:	Oil Producer	KB:	3597'	DF:		TD DATE:	04/07/2000

9-5/8", 36# K-55 STC Csg.
set @ 512' 300 sxs
w/35:36 POZ "C" +Add.
Tail w/150 sx "C" +Add
Cmt Circ? Yes (107 sx)
TOC @ surf. by circ.

12-1/4" Hole → 512'

Tubing Detail
Orig KB 6'
116 Jts 2-7/8" 6.5# J-55
8RD EUE Tbg. 3649.89
1 2-7/8" x4 sub 4.10
ESP TD 1750 183 STG
sub pmp 68.60
EOT 3728.59

8-3/4" Hole →

Perfs:
3768'-74'
3804'-12'
3819'-22'
3828'-36'
3844'-47'
3854'-57'-
3870'-78'

QN
PN
Z1
Z2
Z3
Z4
Z5

7", 20# K-55 STC Csg.
set @ 3924' w/600 sxs "C"
Nitrified +Add., Tail w/125 sx "C"
+Add, Cap w/50 sxs "C" +Add
Cmt Circ? Yes (144 sx)
TOC @ surf. by circ.

PBTD @ 3898'
TD @ 3925'

Date Completed: 7/10/2000
Initial Prod: P 52 BOPD/ 1704' BWPD/ 22 MCFPD
Initial Formation: Grayburg From: 3709' To: 3935'

Completion Data: 5/26/00 thur 8/16/00
Pickle tbg & csg w/1000 gals 15% HCL. Spot 500 gals 15% NEFE HCL from 3881'-3586'. Run SBT/CBL/GR/CCL F/3899'-3000'. Good bond to 3500'.
Perf w/4" HSCG w/3 SPF @ 120 deg., 3768'-74, 3804'-12', 3819'-22', 3828'-36', 3844'-47', 3854'-57', 3870'-78'. 117 holes, all fired. Acdz w/2000 gals 15% NEFE HCL, & 3000 Gals 15% NEFE HCL, foamed to 50 Q w/CO2 & 100 7/8 1.1 ball sealers.

Workover History:

Additional Data:
T/Rustler @ 1323'
T/Salado @ 1415'
T/Tansil @ 2570'
T/Yates @ 2765'
T/Seven Rivers @ 2954'
T/Queen @ 3390'
T/Penrose @ 3520'
T/Grayburg Zone 1 @ 3709'
T/Grayburg Zone 2 @ 3747'
T/Grayburg Zone 3 @ 3814'
T/Grayburg Zone 4 @ 3837'
T/Grayburg Zone 5 @ 3884'

FILE: EMSU698WB.xls
CJH: 3-8-2001

04/15/2002

CURRENT
WELLBORE DIAGRAM

LEASE:	EMSU	WELL:	707	FIELD:	Eunice-Monument	API:	30-025-35164
LOC:	1310 FSL & 20 FEL, Unit P	SEC:	10	BLK:	T21S, R36E	REF NO:	
SVY:	N.M.P.M.	GL:	3588	CTY/ST	Lea Co., NM	SPUD:	10/27/2000
CURRENT STATUS:	Producer	KB:		DF:		TD DATE:	

9-5/8", 36#/ft
Surf. Pipe set @ 500' w/
350 SX cement
Cmt Circ.? Yes
(12-1/4" hole)

500'

7", 20#/ft K-55 Csg.
set @ 3918' w/ 915 SX
Cmt Circ.? Yes

(8-3/4" hole)

3768-76'
3806-10'
3816-33'
3841-54'
3864-78'
3886-3904'

3918'

PBTD @ 3908'
TD @ 3920'

Date Completed: 01-25-2001
Initial Prod: 8 BOPD/ 255 BWPD/ 10 MCFGPD
Initial Formation: Grayburg From: 3806 To: 3904
Completion Data:
Perf 3768-76, 3806-10, 3816-33, 3841-54, 3864-78, 3886-3904. Acidized w/ 2000 gals. with ball sealers. Swab 0% oilcut. Acidized w 3500 gals 50Q CO2. Swab 100% water Placed on pump with y-tool. Sqz perfs 3868-76'. Swab 15% oilcut. Place well on pump.

Additional Data:
T/Queen Formation @ 3394'
T/Grayburg Zone 1 @ 3708'

04/22/2002

CURRENT WELLBORE DIAGRAM

LEASE:	EMSU	WELL:	708	FIELD:	Eunice-Monument	API:	30-025-34848
LOC:	1330 FSL & 1220 FEL, Unit I	SEC:	10	BLK:	T21S, R36E	REF NO:	
SVY:	N.M.P.M.	GL:	3578	CTY/ST	Lea Co., NM	SPUD:	02/19/2000
CURRENT STATUS:	Producer	KB:		DF:		TD DATE:	

9-5/8", 36#/ft
Surf. Pipe set @ 505' w/
350 SX cement
Cmt Circ.? Yes
(12-1/4" hole)

505'

7", 20#/ft K-55 Csg.
set @ 3919' w/ 800 SX
Cmt Circ.? Yes

(8-3/4" hole)

3790-3800'
3824-26'
3830-36'
3840-48'
3856-62'
3866-72'
3879-98'

CIBP @3899'

3919'

PBTD @ 3899'
TD @ 3920'

Date Completed: 04-14-2000
Initial Prod: 21 BOPD/ 121 BWPD/ 20 MCFGPD
Initial Formation: Grayburg From: 3790 To: 3898
Completion Data:
Set CIBP @ 3899' Perf 3790-3800, 3824-26, 3830-36, 3840-48, 3856-62, 3866-72, 3879.5-3897.5 Acidized w/ 2600 gals. with PIP. Swab 15% oilcut. Placed on pump.

Additional Data:
T/Queen Formation @ 3409'
T/Grayburg Zone 1 @ 3726'

04/19/2002

CURRENT WELLBORE DIAGRAM

LEASE:	EMSU	WEL	709	FIELD:	Eunice-Monument	API:	30-025-34849
LOC:	1330' FSL & 2421' FWL, Unit	SEC:	10	BLK:	T21S , R36E	REF NO:	BY4280
SVY:	N.M.P.M.	GL:	3574'	CTY/ST	Lea / NM	SPUD:	03/08/2000
CURRENT STATUS:	Oil Producer	KB:	3580'	DF:	3579	TD DATE:	03/13/2000

9-5/8", 36# K-55 STC Csg.
set @ 502' w/200 sxs
w/35:36 POZ "C" +Add.
Tail w/150 sx "C" +Add
Cmt Circ? Yes (45 sx)
TOC @ surf. by circ.

12-1/4" Hole → 502'

Tubing Detail
Orig KB 6'
121 Jts 2-7/8" 6.5# J-55
8RD EUE Tbg.

8-3/4" Hole →

Perfs
3836'-38'
3846'-58'
3864'-76'

Isolated
w/CIBP
3918'-23'
3911'-16'

7", 20# K-55 STC Csg.
set @ 3929' w/650 sxs "C"
Nitrified +Add., Tail w/125 sx "C"
+Add, Cap w/50 sxs "C"
Cmt Circ? Yes (99 sx)
TOC @ surf. by circ.

QN
PN
Z1
Z2
Z3
Z4

PBTD @ 3883'
TD @ 3927'

Date Completed: 6/29/2000
Initial Prod: P 20 BOPD/ 286' BWPD/ 80 MCFPD
Initial Formation: Grayburg From: 3737' To: 3879'

Completion Data:
4/19/00 thur 5/03/00
Pickle tbg & csg w/1000 gals 15% HCL.
Tag PBTD @ +/- 3926', attemp to log bottom, tool started logging @ 3852'. Logged to 3560', w/questional bond. MIRU BKR Atlas, run SBT/CBL/CCL, correlated to HLS GR/DSN/SDL, dated 3-14-00 f/3924' (WLTD)-2900'. RIH w/4" HSCG w/3 spf @ 120 deg., perf 3918'-23', 3911'-16'. RIH O/E to 3905'. Pickle tbg w/250 gals 15% HCL. Spot 300 gals 15% NEFE HCL f/3924'-3745'. Acdz perfs 3918'-23' & 3911'-16' w/total 1000 gals 15% NEFE HCL, set pkr @ 3847' & Swab. Rlse pkr, POH & L/D tool. Set CIBP @ 3900', Perf w/4" HSCG w/3 SPF @ 120 deg., 3836'-38', 3846'-58', 3864'-76'. All shots fired. Acdz w/ total 1300 gals Acid. Set RBP @ 3842' & PKR @ 3793'. RIH w/117 jts 2-7/8" tbg, EOT @ 3747', Intake @ 3708'.

5-24-00 Run sub pump w/Top of Pump @ 3825', intake @ 3859' & Bottom of Pump @ 3896'.

Workover History:

Additional Data:
T/Rustler @ 1320'
T/Salado @ 1420'
T/Tansil @ 2560'
T/Yates @ 2782'
T/Seven Rivers @ 2976'
T/Queen @ 3412'
T/Penrose @ 3536'
T/Grayburg Zone 1 @ 3737'
T/Grayburg Zone 2 @ 3774'
T/Grayburg Zone 3 @ 3837'
T/Grayburg Zone 4 @ 3879'

FILE: EMSU709WB.xls
CJH: 3-8-2001

04/15/2002

CURRENT WELLBORE DIAGRAM

LEASE:	EMSU	WELL:	710	FIELD:	Eunice-Monument	API:	30-025-34825
LOC:	1170 FSL & 1425 FWL, Unit N	SEC:	10	BLK:	T21S, R36E	REF NO:	
SVY:	N.M.P.M.	GL:	3573	CTY/ST	Lea Co., NM	SPUD:	01/25/2000
CURRENT STATUS:	Producer	KB:	3579	DF:	3578	TD DATE:	

9-5/8", 36#/ft
Surf. Pipe set @ 542' w/
350 SX cement
Cmt Circ.? Yes
(12-1/4" hole)

542'

Date Completed: 04-20-2000
Initial Prod: 27 BOPD/ 1396 BWPD/ 81 MCFGPD
Initial Formation: Grayburg From: 3826 To: 3919
Completion Data:
Perf 3884-88, 3895-99, 3913-19. Set CIBP @ 3921'. Acidized 3913-19 w/ 300 gals. Acidized 3895-99 W 200 gals, 3884-88 with 200 gals . Perf 3792-94, 3802-04, 3823-25, 3831-34, 3842-46, 3857-60. acidized 800 gals using PIP. Swab 100% water. Sqz all perfs 150 sx. Drill out cmt to 3925'. Perf 3826-36, 3844-48, 3857-60, 3884-88, 3895-99, 3913-19. Acidize with PPI 3200 gals Swab 2% oilcut. Placed on pump.

7", 20#/ft K-55 Csg.
set @ 3931' w/ 670 SX
Cmt Circ.? Yes

(8-3/4" hole)

Additional Data:
T/Queen Formation @ 3393'
T/Grayburg Zone 1 @ 3715'

3792-94'
3802-04'
3823-25'
3831-34'
3842-46'
3857-60'
3884-88'
3895-99'
3864-84'
3913-19'

3826-36'
3844-48'

CIBP @3925'

3931'

PBTD @ 3925'
TD @ 3931'

04/19/2002

CURRENT
WELLBORE DIAGRAM

LEASE:	EMSU	WEL	711	FIELD:	Eunice-Monument	API:	30-025-34850
LOC:	1310' FSL & 200' FEL, Unit P	SEC:	9	BLK:	T21S , R36E	REF NO:	BY6852
SVY:	N.M.P.M.	GL:	3581'	CTY/ST	Lea / NM	SPUD:	04/11/2000
CURRENT STATUS:	Oil Producer	KB:	3587'	DF:	3586'	TD DATE:	04/16/2000

9-5/8", 36# K-55 STC Csg.
set @ 518' 300 sxs
w/65:35 POZ "C"
Tail w/150 sx "C" +Add
Cmt Circ? Yes (165 sx)
TOC @ surf. by circ.

12-1/4" Hole

518'

Date Completed: 6/9/2000
Initial Prod: P 19 BOPD/ 370' BWPD/ 10 MCFPD
Initial Formation: Grayburg From: 3720' To: 3940'

Completion Data: 5/31/00 thur 6/7/00
Pickle tbg & csg w/1000 gals 15% HCL. Run SBT-CBL-CCL from 3916'-2900'. Tied into HLS GR-DSN-SDL. Good bond from 3370'-to TD. Perf w/3 JHPF w/4" csg guns, 120 deg @ 3778'-91', 3812'-15', 3834'-36', 3848'-54', 3867'-70', & 3891-96'. WL TD @ 3916'. Set & tst Pkr. Acdz Perfs w/2400 gals 15% NEFE HCL. Run 2-7/8" tbg.

Workover History:

Tubing Detail 6-7-00	
Orig KB	6.00
119 Jts 2-7/8"	3725.21
7" TAC	2.35
3 Jts 2-7/8" TBG	93.94
1 Jt 3-1/2" IPC Tbg	31.63
2-3/4" Bottleneck Pump	29.62
2-7/8" Slotted MAJT	15.95
EOT	3904.60

Rod Detail: 6-7-00	
1-1/2" x26' Polish Rod	26
6'-8' x 7/8" Rod Subs	14
133-7/8" N-97 Rod	3325
20-1-1/2" wt Bars	500
	3865

QN
PN
Z1
Z2
TAC @3731'
Z2a
Z3
Z4
Z5

Perfs.
3778'-91'
3812'-15'
3834'-36'
3848'-54
3867'-70
3891'-96'

Additional Data:
T/Rustler @ 1362'
T/Salado @ 1453'
T/Tansil @ 2583'
T/Yates @ 2785'
T/Seven Rivers @ 2975'
T/Queen @ 3396'
T/Penrose @ 3526'
T/Grayburg Zone 1 @ 3720'
T/Grayburg Zone 2 @ 3758'
T/Grayburg Zone 2a @ 3792'
T/Grayburg Zone 3 @ 3818'
T/Grayburg Zone 4 @ 3858'
T/Grayburg Zone 5 @ 3911'

7", 20# K-55 STC Csg.
set @ 3940' w/550 sxs "C"
N2 +Add., Tail w/125 sx "C"
+Add, Cap w/100 sxs "C" +Add
Cmt Circ? Yes (42 sx)
TOC @ surf. by circ.

PBTD @ 3916'
TD @ 3940'

FILE: EMSU711WB.xls
CJH: 3-20-2001

04/15/2002

CURRENT
WELLBORE DIAGRAM

LEASE:	EMSU	WEL	734	FIELD:	Eunice-Monument	API:	30-025-34851
LOC:	225' FNL & 300' FWL, Unit D	SEC:	15	BLK:	T21S , R36E	REF NO:	BY5273
SVY:	N.M.P.M.	GL:	3583'	CTY/ST	Lea / NM	SPUD:	03/23/2000
CURRENT STATUS:	Oil Producer	KB:	3589'	DF:	3588'	TD DATE:	03/29/2000

9-5/8", 36# K-55 STC Csg.
set @ 517' 200 sxs
w/35:65 POZ, Tail w/150
sx "C" +Additives
Cmt Circ? Yes (60 sx)
TOC @ surf. by circ.

12-1/4" Hole

517'

Date Completed: 5/23/00
Initial Prod: P 45 BOPD/ 850' BWPD/ 64 MCFPD
Initial Formation: Grayburg From: 3711' To: 3940'

Completion Data: 5/17/00 thru 5/23/00
GIH w/2-7/8' Tbg, Tag FC @ 3889'. PU pwr swivel & stripper head, Break Circ, DO FC, solid cmt to 3915'. Pickle tbg & csg w/1000 gals 15% NEHCL. Run SBT-CBL-CCL from 3915'-3000' Tied into Halibuton, GR-DSN-SDL, 3-30-00. Good bond thru Pay. Perf w/4" csg guns, w/3 JHPF, 120 deg, @ 3774'-79', 3818'-28', 3838'-46', 3855'-59', 3866'-69', 3880'-84' & 3890'-95'. Loggers TD 3913'. Selectively Acdz Perfs w/2925 gals 15% NEFE HCL. Swab. Run 2-7/8" tbg. & Sub pmp.
6/27/00
POH L/D Sub Pump, RIH w/ tbg. EOT @ 3905'.

Workover History:

Tubing Detail 6-27-00

Orig KB	6.00

118 Jts 2-7/8", TAC, 4 Jts 2-7/8", 1 jt 2-7/8" IPC, 2-3/4" bottle neck pump.
EOT @ 3905'

QN
PN
Z1
Z2
Z3
Z4
Z5

Perfs:
3774'-79'
3818'-28'
3838'-46'
3855'-59'
3866'-69'
3880'-84'
3890'-95'

Additional Data:
T/Rustler @ 1372'
T/Salado @ 1463'
T/Tansil @ 2592'
T/Yates @ 2791'
T/Seven Rivers @ 2984'
T/Queen @ 3409'
T/Penrose @ 3533'
T/Grayburg Zone 1 @ 3711'
T/Grayburg Zone 2 @ 3743'
T/Grayburg Zone 3 @ 3808'
T/Grayburg Zone 4 @ 3849'
T/Grayburg Zone 5 @ 3898'

7", 20# K-55 STC Csg.
set @ 3940' w/650 sxs "C"
Tail w/125 sx Class "C",
Cap w/50 sxs Class "C"
Cmt Circ? Yes (117 sx)
TOC @ surf. by circ.

PBTD @ 3915'
TD @ 3940'

FILE: EMSU734WB.xls
CJH: 3-22-2001

WELL DATA SHEET

FIELD: Eunice Monument South Unit **WELL NAME:** EMSU 735 **FORMATION:** Grayburg

LOC: 275' FNL & 1220' FWL SEC: 15 UNIT: D GL: 3578' CURRENT STATUS: Producer
TOWNSHIP: 21S COUNTY: Lea KB: 3584' API NO: 30-025-34826
RANGE: 36E STATE: NM DF to GL: CHEVNO:

9-5/8", 36#, K-55, Surf. Pipe
set @ 514' w/ 300 SX cmt.
TOC @ Surf' by cap.
(12-1/4" hole)

Tubing Detail:

7", 20# & 23# , csg set @
3925' w/ 850 SX "C" w/
233 SCF N2/BBL & 125 SX "C"
Cap w/ 50 SX "C"
Cmt Circ.? Yes
TOC @ surf
(8-3/4" hole)

Rod Detail:

3784 - 94
3800 - 06
3826 - 28
3842 - 44
3851 - 71
FC @ 3875'
3916 - 22
PBTD @ 3921'
TD @ 3925'

QN
PNR
Z1
Z2
Z2A
Z3
Z4
Z5
Z6

Date Completed: 5-00
Initial Prod: 48 BOPD/ 1362 BWPD/ 89 MCF
Initial Formation: Grayburg **From:** 3784 **To:** 3922
OH Logs: HLS - GR-CSL-DLL-MSFL, GR-DSN-SDL, GR-MRIL
Cored from 3750 to 3925.

Completion Data:
2/00 - Run GR-SBT-CBL. Good Bond.
5/00 - DO FC to 3921. Pickle tbg & csg w/ 500 gal 15% HCl. Spot 500 gal 15%nefe HCl. Perf w/ 3JSPF 3784 - 3794, 3800 - 3806, 3826 - 3828, 3842 - 3844, 3851 - 3871, 3916 - 3922. Acdz w/ 2200 gal 15% NEFE HCl dropping 175 RCNBS's. Swab 20% OC. Acdz w/ 2500 gal 15% NEFE HCl foamed to 50 Q w/ CO2 dropping 100 RCNBS's. Swab 15% OC. Run sub pump.

Workover History:

Additional Data:
T/Rustler @ 1334'
T/Salt @ 1426'
B/Salt @ 2573'
T/Yates @ 2775'
T/Seven Rivers@ 2968'
T/Queen Formation @ 3393'
T/Penrose Formation @ 3521'
T/Grayburg Zone 1 @ 3736'
T/Grayburg Zone 2 @ 3771'
T/Grayburg Zone 2A @ 3802'
T/Grayburg Zone 3 @ 3831'
T/Grayburg Zone 4 @ 3874'
T/Grayburg Zone 5 @ 3904'
T/Grayburg Zone 6 @ ~3953'
T/San Andres Formation @ ~3956'
KB @ 3584'

FILE: EMSU735WB.XLS
TGL: 05/00

CURRENT WELLBORE DIAGRAM

LEASE:	EMSU	WELL:	736	FIELD:	Eunice-Monument	API:	30-025-34852
LOC:	2490 FEL & 208 FNL, Unit B	SEC:	15	BLK:	T21S, R36E	REF NO:	
SVY:	N.M.P.M.	GL:	3564	CTY/ST	Lea Co., NM	SPUD:	03/15/2000
CURRENT STATUS:	Producer	KB:	3570	DF:		TD DATE:	

9-5/8", 36#/ft
Surf. Pipe set @ 501' w/
350 SX cement
Cmt Circ.? Yes
(12-1/4" hole)

501'

7", 20#/ft K-55 Csg.
set @ 3924' w/ 750 SX
Cmt Circ.? Yes

(8-3/4" hole)

3767-69'
3783-87'
3790-94'
3804-07'
3832-44'
3850-56'
3868-72'
3894-3902'

3925'

PBTD @ 3925'
TD @ 3925'

Date Completed: 6-13-2000
Initial Prod: 13 BOPD/ 446 BWPD/ 11 MCFGPD
Initial Formation: Grayburg From: 3767' To: 3902'
Completion Data:
Perf 3832-44, 3850-56, 3868-72, 3878-82, 3894-3902 Acidized 2500 gal 50% foam w CO2. Swab 30% oilcut. Perf 3767-69, 3783-87, 3790-94, 3804-07. Stimulated with straddle packer and 975 gals HCl. Swab 5% il cut. Placed well on pump.

Additional Data:
T/Queen Formation @ 3410'
T/Grayburg Zone 1 @ 3733'

04/16/2002

CURRENT
WELLBORE DIAGRAM

LEASE:	EMSU	WELL:	737	FIELD:	Eunice-Monument	API:	30-025-34853
LOC:	1420 FEL & 210 FNL, Unit B	SEC:	15	BLK:	T21S, R36E	REF NO:	
SVY:	N.M.P.M.	GL:	3560	CTY/ST	Lea Co., NM	SPUD:	02/29/2000
CURRENT STATUS:	Producer	KB:	3566	DF:		TD DATE:	

9-5/8", 36#/ft
Surf. Pipe set @ 507' w/
350 SX cement
Cmt Circ.? Yes
(12-1/4" hole)

507'

7", 20#/ft K-55 Csg.
set @ 3914' w/ 850 SX
Cmt Circ.? Yes

(8-3/4" hole)

3775-79'
3830-38'
3844-50'
3862-65'
3884-88'
3893-99'

3914'

PBTD @ 3903'
TD @ 3914'

Date Completed: 7-9-2000
Initial Prod: 12 BOPD/ 740 BWPD/ 13 MCFGPD
Initial Formation: Grayburg **From:** 3775' **To:** 3899'
Completion Data:
Perf 3775-79, 3830-38, 3844-50, 3862-65, 3884-3888, 3893-99 Acidized 2000 gal w ball sealers. Swab 10% oilcut. Place on pump.

Additional Data:
T/Queen Formation @ 3420'
T/Grayburg Zone 1 @ 3721'

04/16/2002

CURRENT WELLBORE DIAGRAM

LEASE:	EMSU	WELL:	738	FIELD:	Eunice-Monument	API:	30-025-35165
LOC:	100 FEL & 240 FSL, Unit P	SEC:	10	BLK:	T21S, R36E	REF NO:	
SVY:	N.M.P.M.	GL:	3560	CTY/ST	Lea Co., NM	SPUD:	11/04/2000
CURRENT STATUS:	Producer	KB:	3566	DF:		TD DATE:	

9-5/8", 36#/ft
Surf. Pipe set @ 1020' w/
625 SX cement
Cmt Circ.? Yes
(12-1/4" hole)

1020'

7", 20#/ft K-55 Csg.
set @ 3930' w/ 825 SX
Cmt Circ.? Yes

(8-3/4" hole)

3771-74'
3792-96'
3826-48'
3856-60'
3866-70'
3886-92'

3930'

PBTD @ 3914'
TD @ 3930'

Date Completed: 2-28-2001
Initial Prod: 28 BOPD/ 421 BWPD/ 6 MCFGPD
Initial Formation: Grayburg From: 3771' To: 3892'
Completion Data:
Perf 3771-74, 3792-96, 3826-48, 3856-60, 3866-70, 3886-3892 Acidized 4000 gal w 50 qual CO2. Swab 3% oilcut. Place on pump.

Additional Data:
T/Queen Formation @ 3418'
T/Grayburg Zone 1 @ 3718'

04/16/2002

CURRENT WELLBORE DIAGRAM

LEASE:	EMSU	WELL:	739	FIELD:	Eunice-Monument	API:	30-025-35458
LOC:	1400 FWL & 235 FSL, Unit N	SEC:	11	BLK:	T21S, R36E	REF NO:	
SVY:	N.M.P.M.	GL:	3584	CTY/ST	Lea Co., NM	SPUD:	05/15/2001
CURRENT STATUS:	Producer	KB:	3590	DF:		TD DATE:	

9-5/8", 36#/ft
Surf. Pipe set @ 500' w/
350 SX cement
Cmt Circ.? Yes
(12-1/4" hole)

500'

7", 20#/ft K-55 Csg.
set @ 3910' w/ 930 SX
Cmt Circ.? Yes

(8-3/4" hole)

3782-86'
3802-06'
3829-40'
3850-56'

3930'

PBTD @ 3880'
TD @ 3910'

Date Completed: 7-30-2001
Initial Prod: 4 BOPD/ 103 BWPD/ 2 MCFGPD
Initial Formation: Grayburg **From:** 3782' **To:** 3856'
Completion Data:
Perf 3782-86, 3802-06, 3829-40, 3850-56, Acidized 950 gal w ball sealers then acidized with 2200 gals 50 qual CO2. Swab 4% oilcut. Place on pump.

Additional Data:
T/Queen Formation @ 3420'
T/Grayburg Zone 1 @ 3715'

04/16/2002

EMSU699WB.xls

CURRENT WELLBORE DIAGRAM

LEASE:	EMSU	WELL:	699	FIELD:	Eunice-Monument	API:	30-025-34215
LOC:	1262 FNL & 150 FEL, Unit H	SEC:	10	BLK:	T21S , R36E	REF NO:	BP7316
SVY:	N.M.P.M.	GL:	3580	CTY/ST	LEA, N.M.	SPUD:	02/23/1998
CURRENT STATUS:	Prod	KB:	3586	DF:		TD DATE:	7/31/98

9-5/8", 36#/ft, Surf. Pipe set @ 533' w/ 300 SX cmt. TOC @ Surf' by circ. 12-1/4" hole.

533'

Tubing Detail: 07/31/98

KBTH:	10.00'
111 Jts. 2-7/8" 6.5#:	3459.04'
2-7/8" X 7 TAC	2.34'
2-7/8" Tbg 6.5# J-55 8RD Tbg	31.02'
3-1/2" J-55 8 RD Tbg	315.02'
2.25" Tbg Pmp w/ Stablzr	33.23'
2-7/8" Perf Sub	4.10'
3-1/2" BP MA JT	31.30'
Landed @	3886.10'

7", 23#/ft, csg set @ 3731' w/ 835 sxs cmt. TOC @ Surf' by circ. 8-3/4" hole.

3731'

PNRS

Z1

Z2

Z3

Z4

OPEN HOLE

TD @ 3893'

Date Completed: 3-1-98
Initial Prod: 14 BOPD/349 BWPD/6 MCFPD
Initial Formation: Pnrs/Grayburg **From:** 3506' **To:** 3686'
Completion Data:
Drill to 3790', circ & clean hole. Run 7" csg to 3731'.

Workover History:
7-27-98 Dump 4000# 20/40 sd down tbg. Acdz OH fr 3770-3860 w/ 5,060 gal S-3000 Acid + additives, pump 700 foamed 1% KCl down ann. Swb. C/O sand to 3899'. Tag @ 3890'. Set TAC @ 3469'. EOT @ 3886'. RIH w/ prod tbg and TOTP.

Additional Data:
T/Queen @ 3382'
T/Penrose @ 3506'
T/AGU @ N/A
T/Grayburg Zone 1 @ 3689'
T/Grayburg Zone 2 @ 3724'
T/Grayburg Zone 3 @ 3780'
T/Grayburg Zone 4 @ 3814'

Rod Detail: 07-31-98

1 1-1/2" x 26' Polish Rod
2 7/8" N97 Pony (1-4' 1-2')
1 COROD (3555')
10 1-1/2" K-Bars (250')
2.250" Plunger (3')

FILE: EMSU699WB.xls
DKTS: 8/12/98

04/15/2002

CURRENT WELLBORE DIAGRAM

LEASE:	EMSU	WELL:	747	FIELD:	Eunice-Monument	API:	30-025-35167
LOC:	1310 FWL & 1200 FNL, Unit A	SEC:	15	BLK:	T21S, R36E	REF NO:	
SVY:	N.M.P.M.	GL:	3572	CTY/ST	Lea Co., NM	SPUD:	11/15/2000
CURRENT STATUS:	Producer	KB:	3578	DF:		TD DATE:	

9-5/8", 36#/ft
Surf. Pipe set @ 1002' w/
550 SX cement
Cmt Circ.? Yes
(12-1/4" hole)

1002'

7", 20#/ft K-55 Csg.
set @ 3946' w/ 900 SX
Cmt Circ.? Yes

(8-3/4" hole)

3780-94'
3800-06'
3844-54'
3862-71'
3879-82'
3907-14'

3946'

PBTD @ 3931'
TD @ 3946'

Date Completed: 2-24-2001
Initial Prod: 30 BOPD/ 470 BWPD/ 4 MCFGPD
Initial Formation: Grayburg From: 3780' To: 3914'
Completion Data:
Perf 3780-94, 3800-06, 3844-54, 3862-71, 3879-82, 3907-14'. Acidized 1750 gal w ball sealers then acidized with 2500 gals 50 qual CO2. Swab 10% oilcut. Place on pump.

Additional Data:
T/Queen Formation @ 3420'
T/Grayburg Zone 1 @ 3732'

04/17/2002

CURRENT WELLBORE DIAGRAM

LEASE:	EMSU	WELL:	748	FIELD:	Eunice-Monument	API:	30-025-34632
LOC:	1510 FNL & 2543 FEL, Unit G	SEC:	15	BLK:	T21S, R36E	REF NO:	
SVY:	N.M.P.M.	GL:	3572	CTY/ST	Lea Co., NM	SPUD:	07/02/1999
CURRENT STATUS:	Producer	KB:	3578	DF:		TD DATE:	

8-5/8", 24#/ft
Surf. Pipe set @ 518' w/
350 SX cement
Cmt Circ.? Yes
(11" hole)

518'

5.5", 15.5#/ft K-55 Csg.
set @ 3950' w/ 725 SX
Cmt Circ.? Yes

(7-7/8" hole)

3790-98'
3806-16'
3826-36'
3848-54'
3860-72'
3880-86'
3892-3900'
3908-16'

3950'

PBTD @ 3950'
TD @ 3950'

Date Completed: 8-31-1999
Initial Prod: 90 BOPD/ 963 BWPD/ 42 MCFGPD
Initial Formation: Grayburg From: 3790' To: 3916'
Completion Data:
Perf 3790-98, 3806-16, 3826-36, 3848-54, 3860-72, 3880-86, 3892-3900, 3908-16'. Acidized 2500 gal w ball sealers then acidized with 6000 gals 50 qual CO2. Swab 20% oilcut. Place on pump.

Additional Data:
T/Queen Formation @ ~~3420~~ 3426'
T/Grayburg Zone 1 @ ~~3782~~ 3782'

04/17/2002

CURRENT
WELLBORE DIAGRAM

LEASE:	EMSU	WELL:	749	FIELD:	Eunice-Monument	API:	30-025-34641
LOC:	1205 FNL & 1330 FWL, Unit C	SEC:	15	BLK:	T21S, R36E	REF NO:	
SVY:	N.M.P.M.	GL:	3580	CTY/ST	Lea Co., NM	SPUD:	06/23/1999
CURRENT STATUS:	Producer	KB:	3591	DF:		TO DATE:	

8-5/8", 24#/ft
Surf. Pipe set @ 528' w/
350 SX cement
Cmt Circ.? Yes
(11" hole)

518'

5.5", 15.5#/ft K-55 Csg.
set @ 3951' w/ 850 SX
Cmt Circ.? Yes

(7-7/8" hole)

3808-14'
3818-30'
3842-46'
3854-64'
3870-84'
3900-12'
3933-42'

3951'

PBTD @ 3951'
TD @ 3951'

Date Completed: 8-29-1999
Initial Prod: 71 BOPD/ 597 BWPD/ 24 MCFGPD
Initial Formation: Grayburg From: 3908' To: 3942'
Completion Data:
Perf 3808-14, 3818-30, 3842-46, 3854-64, 3870-84, 3900-12, 3933-42'. Acidized 2500 gal w ball sealers then acidized with 6000 gals 50 qual CO2. Swab 10% oilcut. Place on pump.

Additional Data:
T/Queen Formation @ 3423'
T/Grayburg Zone 1 @ 3752'

04/17/2002

CURRENT WELLBORE DIAGRAM

LEASE:	EMSU	WELL:	750	FIELD:	Eunice-Monument	API:	30-025-35168
LOC:	1420 FNL & 200 FEL, Unit H	SEC:	16	BLK:	T21S, R36E	REF NO:	
SVY:	N.M.P.M.	GL:	3567	CTY/ST	Lea Co., NM	SPUD:	11/30/2000
CURRENT STATUS:	Producer	KB:	3573	DF:		TD DATE:	

9-5/8", 36#/ft
Surf. Pipe set @ 500' w/
350 SX cement
Cmt Circ.? Yes
(12-1/4" hole)

500'

7", 20#/ft K-55 Csg.
set @ 3950' w/ 1100 SX
Cmt Circ.? Yes

(8-3/4" hole)

3758-73'
3780-88'
3828-50'
3860-77'
3890-3904'
3914-30'

3950'

PBTD @ 3936'
TD @ 3950'

Date Completed: 1-30-2001
Initial Prod: 27 BOPD/ 1547 BWPD/ 12 MCFGPD
Initial Formation: Grayburg **From:** 3758' **To:** 3930'
Completion Data:
Perf 3758-73, 3780-88, 3828-50, 3860-77, 3790-3904, 3914-30. Acidized 2750 gal w ball sealers then acidized with 4500 gals 50 qual CO2. Swab 5% oilcut. Place on pump.

2/2001 Sqz perfs 3758-73. Acidized perfs 3828-3930 w/ 3650 gals swab 25% oilcut. Place on pump. Test prior 15 BOPD 1769 BWPD Test after 104 BOPD 526 BWPD.

Additional Data:
T/Queen Formation @ 3418'
T/Grayburg Zone 1 @ 3711'

04/17/2002

CURRENT WELLBORE DIAGRAM

LEASE:	EMSU	WELL:	774	FIELD:	Eunice-Monument	API:	30-025-35166
LOC:	2630 FNL & 1330 FWL, Unit F	SEC:	15	BLK:	T21S, R36E	REF NO:	
SVY:	N.M.P.M.	GL:	3580	CTY/ST	Lea Co., NM	SPUD:	10/03/2000
CURRENT STATUS:	Producer	KB:	3586	DF:	3585	TD DATE:	

9-5/8", 36#/ft
Surf. Pipe set @ 505' w/
350 SX cement
Cmt Circ.? Yes
(12-1/4" hole)

505'

7", 20#/ft K-55 Csg.
set @ 4008' w/ 1075 SX
Cmt Circ.? Yes

(8-3/4" hole)

3794-3802'
3806-12'
3842-46'
3854-64'
3874-82'
3894-98'
3904-08'
3920-30'
3946-62'

4008'

PBTD @ 3977'
TD @ 4008'

Date Completed: 11-10-2000
Initial Prod: 52 BOPD/ 1600 BWPD/ 16 MCFGPD
Initial Formation: Grayburg From: 3794' To: 3962'
Completion Data:
Perf 3946-62 acid 1000 gal. Swab 8% oil cut. Perf 3794-3802, 3806-12, 3842-46, 3854-64, 3874-82, 3894-98, 3904-08 and 3920-30. Acidized 2500 gal w ball sealers then acidized with 3500 gals 50 qual CO2. Swab 5% oilcut. Place on pump.

Additional Data:
T/Queen Formation @ 3430'
T/Grayburg Zone 1 @ 3750'

04/18/2002

WBD_EMSU_775.xls

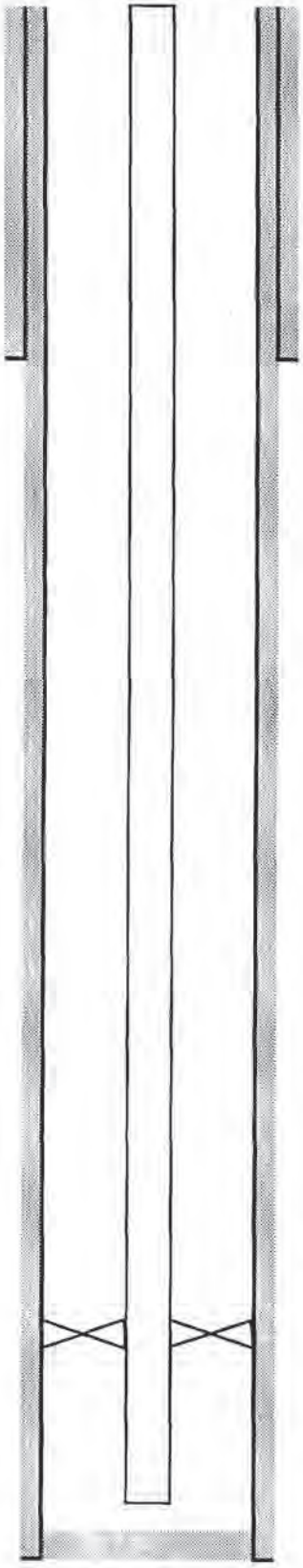
Well: **EMSU** **775** **EUNICE** Reservoir:

Location:	2630' FSL
	2558' FEL
Section:	15
Block:	21S
Survey:	36E
County:	LEA, NM

Elevations:

GL:	3570'
DF:	3575'
KB:	3576'

Current Wellbore Diagram



Well ID Info:	
Refno:	
API No:	30-025-
L5/L6:	
Spud Date:	
Compl. Date:	07/03/2001

Surf. Csg:	9 5/8"
	36#
	k-55
Set: @	1003'
With:	525 sxs
Hole Size:	12 1/4"
Circ:	YES
TOC @	SURF

Perfs:	**Status**
3810'-18'	ACTIVE
3830-34'	"
3847'-58'	"
3858-74	"
3886-90	"
3896-3900	"
3912-18	"

Tbg Detail:

KB	6.00
123 JTS 2 7/8"	3765.46
TAC	2.75
3 JTS 2 7/8"	93.17
1 JT 2 7/8" IPC	31.10
SN	1.10
SLOTTED MAJT	15.80
EOT	3915.38

ROD DETAIL:	
1 1/2" POLISH ROD	26
7/8" ROD SUB	6
146 - 7/8" KD RODS	3650
8 - 1 1/2" WT BARS	200
2 1/2"X2"X24' PROD PUMP	24
	3906

Prod. Csg:	7
	20
	K-55
Set @	3,950 '
With:	935 SXS
Hole Size:	8 3/4"
Circ:	
TOC @	SURF
COTD:	
PBTD:	3,935 '
TD:	3,950 '
Updated:	21-Jun-01
By:	DL LOVELL

04/18/2002 11:00 AM

CURRENT
WELLBORE DIAGRAM

LEASE:	EMSU	WELL:	776	FIELD:	Eunice-Monument	API:	30-025-35460
LOC:	2610 FNL & 1310 FEL, Unit H	SEC:	15	BLK:	T21S, R36E	REF NO:	
SVY:	N.M.P.M.	GL:	3570	CTY/ST	Lea Co., NM	SPUD:	05/07/2001
CURRENT STATUS:	Producer	KB:	3576	DF:	3575	TD DATE:	

9-5/8", 36#/ft
Surf. Pipe set @ 500' w/
350 SX cement
Cmt Circ.? Yes
(12-1/4" hole)

500'

7", 20#/ft K-55 Csg.
set @ 3958' w/ 1050 SX
Cmt Circ.? Yes

(8-3/4" hole)

3756-60'
3810-12'
3841-46'
3864-84'

3958'

PBTD @ 3930'
TD @ 3960'

Date Completed: 06-30-2001
Initial Prod: 30 BOPD/ 1193 BWPD/ 7 MCFGPD
Initial Formation: Grayburg From: 3756 To: 3884
Completion Data:
Perf 3756-60, 3810-12, 3841-46, 3864-84 . Acidized w/ 1250 gals w ball sealers.
Acidized again with 2200 gals foamed 50Q CO2. Swab 2 % oilcut. Place on pump.

Additional Data:
T/Queen Formation @ 3449'
T/Grayburg Zone 1 @ 3754'

04/18/2002

CURRENT
WELLBORE DIAGRAM

LEASE:	JD KNOX	WELL:	14	FIELD:	OIL CENTER	API:	30-025-33778
LOC:	2337 FSL & 1543 FEL	SEC:	10	BLK:	T21S, R36E	REF NO:	
SVY:	N.M.P.M.	GL:	3591	CTY/ST	Lea Co., NM	SPUD:	01/01/1998
CURRENT STATUS:	Producer	KB:	3606	DF:		TD DATE:	

8-5/8",
Surf. Pipe set @ 1350' w/
800 SX cement
TOC 0' (est.)
12.25" hole

1353'

Date Completed: 04-30-1999
Initial Prod: Water injection well

Initial Formation: Blinbery From: 5884' To: 6108'

5.5" Csg.
set @ 6215' w/ 1200 SX
TOC 0' (est.)
7.785" hole

5844'

6108'

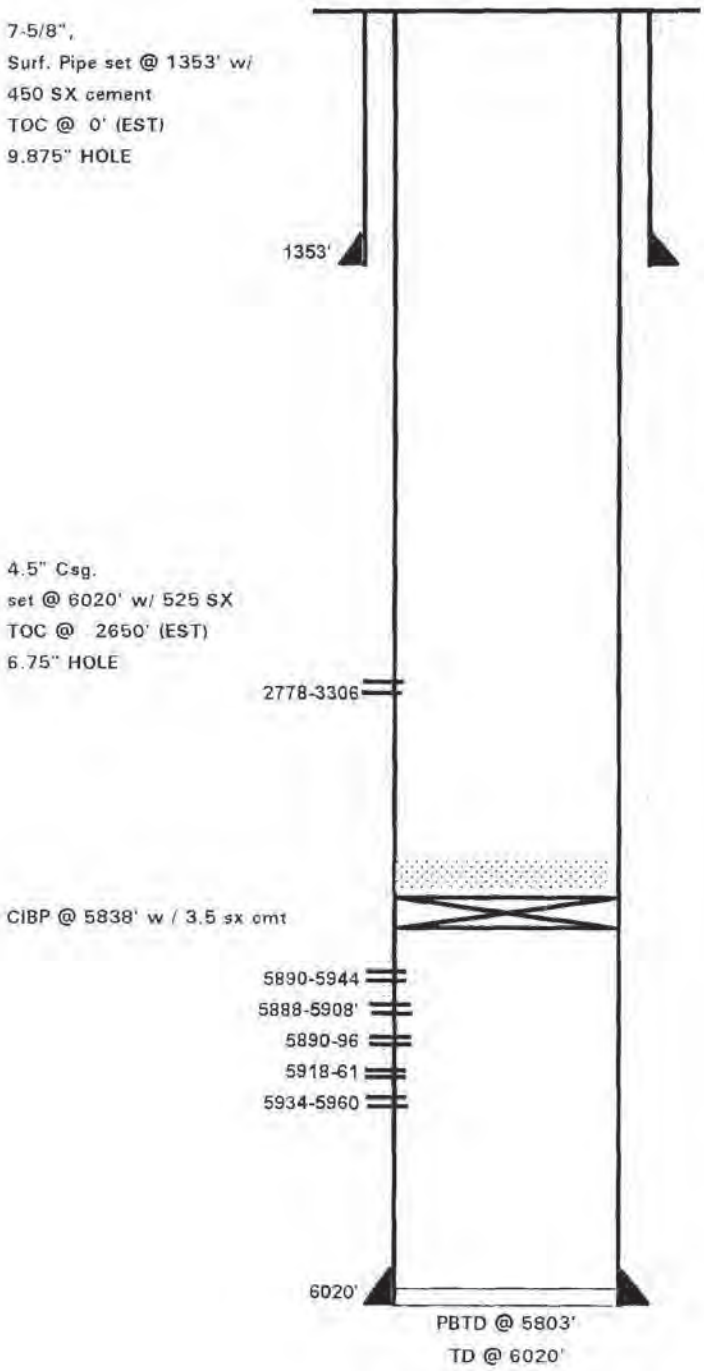
6215'

PBTD @ 6169'
TD @ 6220'

04/30/2002

CURRENT
WELLBORE DIAGRAM

LEASE:	JD KNOX	WELL:	12	FIELD:	EUMONT	API:	30-025-20706
LOC:	990 FSL & 1652 FEL	SEC:	10	BLK:	T21S, R36E	REF NO:	
SVY:	N.M.P.M.	GL:		CTY/ST	Lea Co., NM	SPUD:	03/27/1964
CURRENT STATUS:	Producer	KB:	3583	DF:		TD DATE:	



Date Completed: 06-24-1964

Initial Prod: 122 BOPD/ 43 BWPD 103 MCFGPD
Initial Formation: Blinbery From: 5890' To: 5896'
Workover Data:

11/11/1983
Perf 5890-5944 acid 3600 gals

11/28/1995
Perf 2778-3306 flowed 754 MCFD from Yates

04/30/2002

CURRENT
WELLBORE DIAGRAM

LEASE:	AJ ADKINS	WELL:	10	FIELD:	EUMONT	API:	30-025-20702
LOC:	990 FSL & 990 FWL	SEC:	10	BLK:	T21S, R36E	REF NO:	
SVY:	N.M.P.M.	GL:		CTY/ST	Lea Co., NM	SPUD:	10/16/1964
CURRENT STATUS:	Producer	KB:	3585	DF:		TD DATE:	

7-5/8",
Surf. Pipe set @ 1412' w/
475 SX cement
TOC 0' EST
9.875' HOLE

1412'

Date Completed: 12-23-1964

Initial Prod: 42 BOPD 42 BWPD 25 MCFD

Initial Formation: GLORIETA

Workover

6/7/1992 Perf Queen 3397-3591 F 511 MCFG

4.5" Csg.
set @ 6010' w/ 600 SX
TOC 2750' (EST)
6.75" HOLE

3319'-3591'

CIBP @ 5800'

5822'

5974'

6010'

PBTD @ 5800'
TD @ 6010'

04/30/2002

Chevron

WELL DATA SHEET

LEASE: EMSU WELL: 461-WSW

LOC: 1540' F S L & 1305' F E L SEC: 9

TOWNSHIP: 21S CNTY: Lea

RANGE: 36E UNIT: ST: N.M.

FORM: Grayburg / San Andres DATE:

GL: 3584' STATUS: SI Water Supply

KB: 3602' API NO: 30-025-29621

DF: 3601' CHEVNO: FW 6272

Date Completed: 06/08/1986

Initial Production: flwd 750 BW in 1-3/4 hrs.

Initial Formation: Grayburg

FROM: 4200 to 5000'

16" OD
65# CSG H-40
Set @ 368' W/ 500 SX
Cmt circ.? Yes
TOC @ surf. by

11-3/4" OD
47# CSG K-55
Set @ 2668' W/ 1000 SX
Cmt circ.? Yes
TOC @ surf. by TS

8-5/8" OD
32# CSG K-55
Set @ 4200' W/ 700 SX
Cmt circ.? Yes
TOC @ surf. by

Set CIBP @ 4160' Circ w/Pkr Fl.
TOP PLUG 4051-4159

PLUG # 5 3-33'

PLUG # 4 308-418'

PLUG #3 1315-1425

PLUG #2 2549-2718'

QN

PN

Z1

Z2

Z3

Z4

Z5

Z6

SA

PBD:

TD: 5000'

FILE: EMSU461WB.XLS

printed: 04/22/2002

Completion Data

5/24/1986 Drill to 3745'. Core 3745'-3926' w/ 6 core barrels. Drill 3926'-4200'. Log Schl. LDT-CNL-EPT, DLL-MSFL, & RFT (logger TD @ 4202'. Run 8-5/8" csg. DO cmt. Drill 4200'-5000'. Lost 800 bbls wtr 4610'-4643'. Well flowed approx 100 BW & died. RTBP set @ 4001' & circ 240 BW w/ corr inhib on top of plug.
10/13/1986 Rec RBP & set fullbore pkr @ 4035'. Swb Rec 95 BW in 12 runs in 3 hrs. SFL @ 1100', FER 31.6 BPH. Swb SION Rec 60 BW in 8 runs in 2.5 hrs; SFL & EFL @ 1200', FER 24 BPH. Rel pkr & RIH w/ submersible pmp. Well tubed to 2553', pmp intake @ 2511'. Tst well Rec 750 BW in 1-3/4 hrs (12,000 BWPD). FL @1470' /10 min shut dn; @ 1344' / 20 min shut dn. Turn over to Prod.

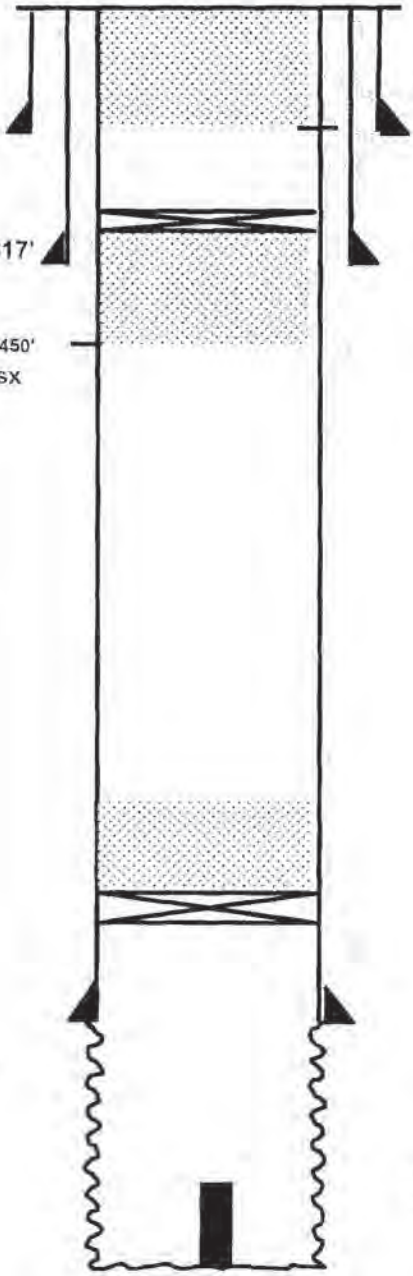
Subsequent Workover or Reconditioning:

2/18/1987 Pmp would not start. Run Gearhart logs FDC-CNL-GR 4000'-5011' (logr TD). Repair & RIH w/ pmp. SFL @ 1050', 10 min FL @1150' FS, 25 min FL @ 1200' FS, 45 min FL @ 1200' FS . Well flwg @ approx 16,000 bbl/ day.
7/12/1988 Bad seal, motor and bad spots on cable approx 800- 1000' f/ pmp. TIH w/ new PE. Centralift 2200 v, 79 amp, KME 300 hp mtr, equalizer, 34 stg pmp, & drain vlv. Fluid to surf in 30 sec. Initial rate 23,700 BPD w/ 80 psi tbg press. Ck dn to 14,000 BPD w/ 220 psi tp. Amps:62 in bal, volts: 2260. 7/16 Pmp rate 13,400 BPD w/220 psi tp.
10/3/1988 Repair sub pmp. Hole in last jt 4-1/2" csg. "Corrosion" under mtr flat. Pmp stuck. XO pmp & seal. Ran same mtr. Pmp 68 amps. Rate 14,800 BWPD.
6/15/1989 Splice to mtr flat blown. Pmp & mtr OK. GIH w/ mtrs, new seal, & pmp. XO 30 jts 4-1/2" csg because of corrosion pits. Starting amps 66 @ 14,200 BWPD..
10/6/1989 Mini-mandrel burned along w/ lower pigtail. Replaced. Pmp 12,600 BPD @ 71 amps.
6/2001 Set CIBP at 4160' /Test failed MIT
11/2001 P&A set Bentonite plugs

Additional Data:
T/Queen Formation @ 3427'
T/Penrose Formation @ 3558'
T/Grayburg Zone 1 @ 3749'
T/Grayburg Zone 2 @ 3783'
T/Grayburg Zone 3 @ 3844'
T/Grayburg Zone 4 @ 3882'
T/Grayburg Zone 5 @ 3936'
T/Grayburg Zone 6 @ 3992'
T/San Andres Formation @ 4002'
KB @ 3602'

CURRENT
WELLBORE DIAGRAM

LEASE:	JD KNOX	WELL:	2	FIELD:	EUNICE MON	API:	30-025-04596
LOC:	660 FSL & 1980 FEL	SEC:	10	BLK:	T21S, R36E	REF NO:	
SVY:	N.M.P.M.	GL:	3563	CTY/ST	Lea Co., NM	SPUD:	06/07/1936
CURRENT STATUS:	P&A	KB:	3578	DF:	3577	TD DATE:	



10-3/4", 33.75#
Surf. Pipe set @ 220' w/
110 SX cement
TOC @ 0' (EST)
15.75" HOLE

Perf @ 100' circ cmt to surface

7-5/8", 26.4#
Int.Pipe set @ 1317'
400 SX cement
TOC @ 0' (EST)
9-7/8" HOLE

1450'
PERF 1450' SQZ 60 SX
THRU CMT RET @
1195'

Initial completion
06/28/1936
Plugged and Abandoned
10/16/1987

5.5" Csg.
set @ 3748' w/ 150 SX
TOC @ 2150' (EST)
6.75" HOLE

CIBP @ 3700'
w / 25 sx cmt on top

OPEN HOLE 3748-3860

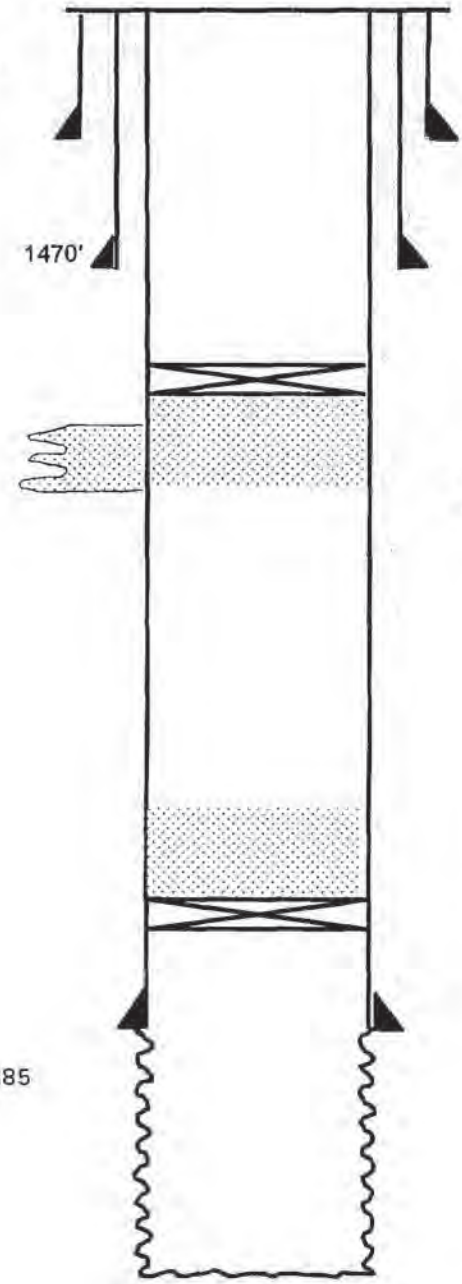
Junk in hole - HOMCO center shear assembly
and 1 jt of tubing @3791'

TD @3860'

05/01/2002

CURRENT WELLBORE DIAGRAM

LEASE:	JD KNOX	WELL:	5	FIELD:	EUNICE MON	API:	30-025-04599
LOC:	660 FSL & 660 FEL	SEC:	10	BLK:	T21S, R36E	REF NO:	
SVY:	N.M.P.M.	GL:		CTY/ST	Lea Co., NM	SPUD:	09/06/1936
CURRENT STATUS:	TA	KB:	3595	DF:		TD DATE:	



10-3/4",
Surf. Pipe set @ 201' w/
100 SX cement
TOC @ 0'
15" HOLE

7-5/8", 26.4#
Int.Pipe set @ 1470'
400 SX cement
TOC @ 0' (EST)
9-7/8" HOLE

Initial completion
09/27/1936
Temporarily Abandoned
07/10/1984

sqz holes in 5.5" casing 2670-2730 thru
cmt retainer at 2620'

5.5" Csg.
set @ 3762' w/ 100 SX
TOC @ 2813' (EST)
6.75" HOLE

CIBP @ 3750'
w /35' cmt on top

OPEN HOLE 3762-3885

TD @3885'

05/01/2002

Chevron U.S.A. Production Company
Kevin Hickey
New Mexico Waterflood
Petroleum Engineer
15 Smith Road
Midland, Texas 79705

ChevronTexaco

August 22, 2002

REQUEST TO PUBLISH
LEGAL NOTICE

Hobbs News-Sun
201 N. Thorp
Hobbs, NM 88240

Attention: Classified Department

Chevron U.S.A. Production Company requests that you publish the attached notice in your newspaper, one time only, as soon as possible.

Please mail the invoice to the letterhead address, attention Kevin Hickey. Also please attach a copy of the notice as run in your newspaper and an affidavit certifying publication of the attached notice and the date of publication.

Your prompt assistance in this matter will be greatly appreciated. Questions may be directed to Kevin Hickey at (915) 687-7260.

Sincerely,

Kevin F. Hickey

Kevin Hickey

KFH
Attachment

Legal Notice
(8/22/2002)

Chevron U.S.A. Production Co. has applied to Oil Conservation Division of the State of New Mexico for approval to convert the EMSU #343, #345, #347, #357and #359 to injection in their Eunice Monument South Unit. These wells are designed to improve recovery efficiency of the waterflood patterns and enhance production of the EMSU secondary recovery project. The wells are located in the following locations: #343 – Section 10, Unit M, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico; #345 – Section 10, Unit O, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico; #347 – Section 11, Unit M, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico; #357 – Section 15, Unit A, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico; #359 – Section 15, Unit C, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico. Water will be injected into the unitized interval of the Eunice Monument Grayburg-San Andres Pool which has an upper limit of 100 feet below mean sea level or the top of the Grayburg formation, whichever is higher, to a lower limit being the base of the San Andres formation. Injection will at an expected maximum rate of 1500 barrels of water per day and an expected maximum pressure of 750 pounds per square inch. Persons wanting to contact Chevron U.S.A. should direct their inquiries to Kevin F. Hickey, ChevronTexaco Inc., 15 Smith Road, Midland, TX 79705, phone (915) 687-7260.

Interested Parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, NM 87505, within 15 days of this notice.

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, KATHI BEARDEN

Publisher

of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period.

of 1

weeks.

Beginning with the issue dated

August 28 2002

and ending with the issue dated

August 28 2002

Kathi Bearden

Publisher

Sworn and subscribed to before me this 28th day of

August 2002

Jodi Henson

Notary Public.

My Commission expires
October 18, 2004
(Seal)

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

01102480000 67509205

Chevron Texaco
15 Smith Road
MIDLAND, TX 79705

LEGAL NOTICE
August 28, 2002

Chevron U.S.A. Production Co. has applied to Oil Conservation Division of the Sate of New Mexico for approval to convert the EMSU #343, #345, #347, #357 and #359 to injection in their Eunice Monument South Unit. These wells are designed to improve recovery efficiency of the waterflood patterns and enhance production of the EMSU secondary recovery project. The wells are located in the following locations: #343-Section 10, Unit M, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico; #345 Section 10, Unit O, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, #347- Section 11, Unit M, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico; #357- Section 15, Unit A, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico; #359 - Section 15, Unit C, Township 21 South, Range 36 East, NMPM, Lea County New Mexico. Water will be injected into the unitized interval of the Eunice Monument Grayburg-San Andres Pool which has an upper limit of 100 feet below mean sea level or the top of the Grayburg formation, whichever is higher, to a lower limit being the base of the San Andres formation. Injection will at an expected maximum rate of 1500 barrels of water per day and an expected maximum pressure of 750 pounds per square inch. Persons wanting to contact Chevron U.S.A. should direct their inquiries to Kevin F. Hickey, ChevronTexaco Inc., 15 Smith Road, Midland, TX 79705, phone (915)687-7260. Interested Parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, NM 87505, within 15 days of this notice.
#19204

Chevron U.S.A. Production Company
Kevin Hickey
New Mexico Waterflood
Petroleum Engineer
15 Smith Road
Midland, Texas 79705

ChevronTexaco

August 22, 2002

EMSU #343, #345, #347, #357 & #359
CONVERSIONS TO INJECTION
EUNICE MONUMENT SOUTH UNIT
EUNICE MONUMENT OIL POOL
LEA COUNTY, NEW MEXICO

Attention: Offset Operator

Gentlemen:

Chevron U.S.A. Production Co., as operator of the Eunice Monument South Unit, has filed an application with the New Mexico Oil Conservation Division to convert the EMSU #343, #345, #347, #357 & #359 to injection. These conversions are designed to improve recovery efficiency of the waterflood patterns and enhance production of the EMSU secondary recovery project.

Attached is an OCD Form C-108 with information relative to the water injection conversion of the referenced wells. Also, a copy of the legal notice to be posted in the Hobbs News-Sun is included. If further information is required please contact me at (915) 687-7260.

Sincerely,

Kevin F. Hickey

Kevin Hickey
Petroleum Engineer
New Mexico Area

KFH
Attachments

EMSU #343, #345, #347, #357 & #359
Conversion to Injection
Eunice Monument South Unit
Lea County, NM

Offset Operators

ChevronTexaco (operator)
15 Smith Rd.
Midland, TX 79705

David H. Arrington Oil & Gas Inc.
200 W. Texas
Midland, TX 79701

John H. Trescott, Jr.
A Ways Away
East Palatka, FL 32131

W. W. Gay
524 Stockton Street
Jacksonville, FL 32204

William E. & Connie Revels
9000 Cow Pen Branch Road
Hastings, FL 32145

Jake Petty
P. O. Box 286
Clyde, TX 79510

Alex Crabtree
P. O. Box 421953
Del Rio, TX 78842

JB Investments
James Boldrick
1801 W. Wall
Midland, TX 79701

Dr. Charles Tandy
450 Allison
Dallas, TX 75028

George R. Jones
P. O. Box 10253
Midland, TX 79702

Dr. Billy Kyser
222 Elaine
Camden, AR 71701

Bargo Petroleum Corp.
700 Louisiana, Suite 3700
Houston, TX 77002

The Herman R. Crile Revocable Trust
P. O. Box 880
Roswell, NM 88202

James D. Finley
1308 Lake Street
Fort Worth, TX 76102-4505

Two States Oil Company
4925 Greenville, Suite 718
Dallas, TX 75206

Doyle Hartman, ct ux. Margaret M.
P. O. Box 10426
Midland, TX 79702

John H. Hendrix Corp.
110 N. Marienfield
Midland, TX 79701

Michael L. Klein
909 Citation
Midland, TX 79705

Ronnie H & Karen D. Westbrook
2809 Hughes
Midland, TX 79705

Daniel L Viers
1209 W Cuthbert
Midland, TX 79701

Jetta-X2 LP
777 Taylor St., Suite PI-D
Fort Worth, TX 76102

Amoco Production
c/o BP Amoco
200 Westlake Park Blvd.
Houston, TX 77079

Doyle Hartman
500 N. Main
Midland, TX 79701

Exxon Mobil Corp.
P. O. Box 4697
Houston, TX 77210-4697

Brady W Production, Inc.
2401 Neill Ave
Midland, TX 79708

Conoco Inc.
10 Desta Drive
Midland, TX 79705

MWJR Petroleum
c/o Apache Corporation
2000 Post Oak Blvd, Suite 100
Houston, TX 77056-4400

Chevron U.S.A. Production Company
Kevin Hickey
New Mexico Waterflood
Petroleum Engineer
15 Smith Road
Midland, Texas 79705

ChevronTexaco

August 22, 2002

EMSU #343, #345, #347, #357, & #359
CONVERSIONS TO INJECTION
EUNICE MONUMENT SOUTH UNIT
EUNICE MONUMENT OIL POOL
LEA COUNTY, NEW MEXICO

Attention: Land Owners

Gentlemen:

Chevron U.S.A. Production Co., as operator of the Eunice Monument South Unit, has filed an application with the New Mexico Oil Conservation Division to convert the EMSU #343, #345, #347, #357, and #359 to injection. These conversions are designed to improve recovery efficiency of the waterflood patterns and enhance production of the EMSU secondary recovery project.

Attached is an OCD Form C-108 with information relative to the water injection conversion of the referenced wells. Also, a copy of the legal notice to be posted in the Hobbs News-Sun is included. If further information is required please contact me at (915) 687-7260.

Sincerely,

Kevin F. Hickey

Kevin F. Hickey
Petroleum Engineer
New Mexico Area

KFH
Attachments

EMSU #343, #345, #347, #357, & #359
Conversion to Injection
Eunice Monument South Unit
Lea County, NM

Surface Land Owners

State of New Mexico
c/o State Land Office
P.O. Box 1148
Santa Fe, NM 87504-1148

Millard Deck Estate and Larry Strain
c/o Ronald Rawdon
First Republic Bank
P.O. Box 1479
Ft. Worth, TX 76101-1479

Lea Partners Ltd.
Kirkwood & Darby
3000 E. Belknap, Suite 400
Ft. Worth, TX 76111

Tom Kennann
P. O. Box 186
Eunice NM 88231

Legal Notice

(8/22/2002)

Chevron U.S.A. Production Co. has applied to Oil Conservation Division of the State of New Mexico for approval to convert the EMSU #343, #345, #347, #357and #359 to injection in their Eunice Monument South Unit. These wells are designed to improve recovery efficiency of the waterflood patterns and enhance production of the EMSU secondary recovery project. The wells are located in the following locations: #343 – Section 10, Unit M, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico; #345 – Section 10, Unit O, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico; #347 – Section 11, Unit M, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico; #357 – Section 15, Unit A, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico; #359 – Section 15, Unit C, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico. Water will be injected into the unitized interval of the Eunice Monument Grayburg-San Andres Pool which has an upper limit of 100 feet below mean sea level or the top of the Grayburg formation, whichever is higher, to a lower limit being the base of the San Andres formation. Injection will at an expected maximum rate of 1500 barrels of water per day and an expected maximum pressure of 750 pounds per square inch. Persons wanting to contact Chevron U.S.A. should direct their inquiries to Kevin F. Hickey, ChevronTexaco Inc., 15 Smith Road, Midland, TX 79705, phone (915) 687-7260.

Interested Parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, NM 87505, within 15 days of this notice.

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Betty Rivera
Cabinet Secretary

9/9/02

Lori Wrotenbery
Director
Oil Conservation Division

Oil Conservation Division
1220 S. Francis Drive
Santa Fe, NM 87505

RE: Proposed:
MC
DHC
NSL
NSP
SWD
WFX X
PMX

- EMSU No. 343 located in Unit M, Sec. 10, T21S-R36E, Lea County, NM
- EMSU No. 345 located in Unit O, Sec. 10, T21S-R36E, Lea County, NM
- EMSU No. 347 located in Unit M, Sec. 11, T21S-R36E, Lea County, NM
- EMSU No. 357 located in Unit A, Sec. 15, T20S-R37E, Lea County, NM
- EMSU No. 359 located in Unit C, Sec. 15, T20S-R37E, Lea County, NM

Gentlemen:

I have examined the application for the:

Chevron USA Inc
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK KE

Yours very truly,

Chris Williams
Supervisor, District 1

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Joanna Prukop
Cabinet Secretary
Reese Fullerton
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division

Administrative Order WFX-839
August 18, 2008
Corrected April 10, 2009

APPLICATION OF XTO ENERGY, INC. TO CONVERT THE EMSU WELL NO. 643 TO INJECTION WITHIN ITS EUNICE MONUMENT SOUTH UNIT WATERFLOOD PROJECT IN THE UNICE MONUMENT GRAYBURG-SAN ANDRES POOL IN LEA COUNTY, NEW MEXICO

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Order R-7766, XTO Energy, Inc. (OGRID No. 5380) has made application to the Division for permission to add an additional injection well to its Eunice Monument South Unit Waterflood Project located within the Eunice Monument Grayburg-San Andres Pool (Pool No. 23000) in Lea County, New Mexico.

THE DIVISION DIRECTOR FINDS THAT:

The application was filed in due form. No objections have been filed within the 20 day waiting period prescribed by Division Rule 701(C). The proposed injection well is eligible for conversion to injection under the terms of Rule 701. The operator is in compliance with Rule 40.

There are no know faults cutting through the Grayburg and San Andres which would act as a conduit for gas, oil or injection water to seep into the fresh water horizons above the injection zones in the Grayburg and San Andres. There are no known fresh water horizons below the Rustler anhydrite.

The proposed expansion of the above-referenced waterflood project will not cause waste nor impair correlative rights and should be approved.

IT IS THEREFORE ORDERED THAT:

XTO Energy, Inc. is hereby authorized to inject water from the into the unitized interval of the Eunice Monument South Unit ("EMSU") Waterflood Project, through plastic-lined 2-3/8 inch tubing set in a packer located within 200 feet more or less of the

EXHIBIT - A-7

top of the injection interval in the following-described well for purposes of secondary recovery:

Well Number API Number	Well Location	Injection Interval
EMSU No. 643 30-025-30512	1275' FWL & FEL B, S6-T21S-R36E	3848'-3936'

Maximum Surface Injection Pressure: 1200 PSIG

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Prior to commencing injection operations into the well, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing or packer.

The injection well or system shall be equipped with pressure limiting devices which will limit the wellhead pressure to the maximum surface injection pressure described above.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the permitted injection interval. Such proper showing shall consist of valid step-rate tests run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Hobbs District Office of the Division of the date and time of the installation of injection equipment and of all mechanical integrity tests so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Hobbs District Office of the Division of the failure of the tubing, casing or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

The subject well shall be governed by all provisions of Division Order No. R-7766, as amended, and Rules 702-706 of the Division Rules and Regulations not inconsistent herewith.

PROVIDED FURTHER THAT, jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or

protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh water or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request by the operator received prior to the one year deadline, may grant an extension thereof for good cause shown.

MARK E. FESMIRE, P.E.
Director

MEF/tw

cc: Oil Conservation Division – Hobbs

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Joanna Prukop
Cabinet Secretary
Reese Fullerton
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division

Administrative Order WFX-839
August 18, 2008

APPLICATION OF XTO ENERGY, INC. TO CONVERT THE EMSU WELL NO. 643 TO INJECTION WITHIN ITS EUNICE MONUMENT SOUTH UNIT WATERFLOOD PROJECT IN THE UNICE MONUMENT GRAYBURG-SAN ANDRES POOL IN LEA COUNTY, NEW MEXICO

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Order R-7766, XTO Energy, Inc. (OGRID No. 5380) has made application to the Division for permission to add an additional injection well to its Eunice Monument South Unit Waterflood Project located within the Eunice Monument Grayburg-San Andres Pool (Pool No. 23000) in Lea County, New Mexico.

THE DIVISION DIRECTOR FINDS THAT:

The application was filed in due form. No objections have been filed within the 20 day waiting period prescribed by Division Rule 701(C). The proposed injection well is eligible for conversion to injection under the terms of Rule 701. The operator is in compliance with Rule 40.

There are no know faults cutting through the Grayburg and San Andres which would act as a conduit for gas, oil or injection water to seep into the fresh water horizons above the injection zones in the Grayburg and San Andres. There are no known fresh water horizons below the Rustler anhydrite.

The proposed expansion of the above-referenced waterflood project will not cause waste nor impair correlative rights and should be approved.

IT IS THEREFORE ORDERED THAT:

XTO Energy, Inc. is hereby authorized to inject water from the (more or less) into the unitized interval of the Eunice Monument South Unit ("EMSU") Waterflood Project, through plastic-lined 2-3/8 inch tubing set in a packer located within ~~100 feet of the top of the~~ 200 injection interval in the following-described well for purposes of secondary recovery:

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Joanna Prukop
Cabinet Secretary
Reese Fullerton
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division

Administrative Order WFX-848

December 7, 2008

Kristy Ward
XTO Energy, Inc.
200 N. Loraine, Suite 800
Midland, TX 79705

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Order R-7766, as amended, XTO Energy, Inc. (OGRID No. 5380) has made application to the Division for permission to add one additional injection well to its Eunice Monument South Unit Waterflood Project located within the Eunice Monument-Grayburg San Andres Pool (Pool No. 23000) in Lea County, New Mexico.

THE DIVISION DIRECTOR FINDS THAT:

The application was filed in due form. No objections have been filed within the waiting period prescribed by Division Rule 26.8C.(2). The proposed injection well is eligible for conversion to injection under the terms of Rule 26.8. The operator is in compliance with Rule 5.9.

This well was a subject well as a proposed conversion in Division Orders R-7766-B and R-7766-C. Operators of nearby gas formations were concerned about this waterflood adversely affecting shallower gas reservoirs. Any injection pressure increase for this well should only be approved after adequate notice is provided to the operators of the shallower gas bearing formations.

The proposed expansion of the above-referenced waterflood project, will prevent waste, is in the best interests of conservation, will not impair correlative rights, and should be approved.

IT IS THEREFORE ORDERED THAT:

XTO Energy, Inc. is hereby authorized to inject water into the unitized interval of the Eunice Monument South Unit Waterflood Project, through plastic-lined tubing set in

a packer located within 100 feet of the top of the injection interval in the following-described well for purposes of secondary recovery:

Eunice Monument South Unit Well No. 210 (API No. 30-025-04469)
3261' FNL, 1980' FWL, Unit K, Sec 4, T21S, R36E, NMPM
Permitted Injection Interval: 3680 to 3807 (Perforations and Open Hole)
Injecting Water through 2-3/8 inch tubing
Maximum Surface Injection Pressure: 736 PSIG

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Prior to commencing injection operations into the well, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing or packer.

The injection well or system shall be equipped with pressure limiting devices which will limit the wellhead pressure to the maximum surface injection pressure described above.

The Director of the Division may authorize an increase in injection pressure after notice is provided to operators of shallower gas bearing formations within ½ mile of this well and upon a proper showing that such higher pressure will not result in migration of the injected fluid from the permitted injection interval. Such proper showing shall consist of valid step-rate tests as well as other tests supporting determination of fracturing pressure, run in accordance with and acceptable to the Division.

The operator shall notify the District office of the date and time of the installation of injection equipment and of all mechanical integrity tests so that the same may be inspected and witnessed.

The operator shall immediately notify the District office of the failure of the tubing, casing or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

The subject well shall be governed by all provisions of Division Order No. R-7766, as amended, and Rule 26.9 through Rule 26.13 not inconsistent herewith.

PROVIDED FURTHER THAT, jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh water or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into at least one of the subject wells, provided however, the Division, upon written request by the operator received prior to the one year deadline, may grant an extension thereof for good cause shown.

MARK E. FESMIRE, P.E.
Director

MEF/wvjj

cc: Oil Conservation Division – Hobbs

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Jim Noel
Cabinet Secretary

Karen W. Garcia
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division

Administrative Order WFX-871

August 31, 2010

Kristy Ward
XTO Energy, Inc.
200 N. Loraine, Suite 800
Midland, TX 79705

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Order R-7765, as amended, XTO Energy, Inc. (OGRID No. 5380) has made application to the Division for permission to add one additional injection well to its Eunice Monument South Unit Waterflood Project located within the Eunice Monument; Grayburg-San Andres Pool (Pool No. 23000) in Lea County, New Mexico.

THE DIVISION DIRECTOR FINDS THAT:

The application was filed in due form. No objections have been filed within the waiting period prescribed by Division Rule 26.8C.(2). The proposed injection well is eligible for conversion to injection under the terms of Rule 26.8. The operator is in compliance with Rule 5.9.

The proposed expansion of the above-referenced waterflood project, will prevent waste, is in the best interests of conservation, will not impair correlative rights, and should be approved.

IT IS THEREFORE ORDERED THAT:

XTO Energy, Inc. is hereby authorized to inject water into the unitized interval of the Eunice Monument South Unit Waterflood Project, through plastic-lined tubing set in a packer located within 100 feet of the top of the injection interval in the following-described well for purposes of secondary recovery:

EXHIBIT - A-9

Eunice Monument South Unit Well No. 696 (API No. 30-025-34317)
2523' FNL, 1456' FWL, Unit F, Sec 10, T21S, R36E, NMPM, Lea County
Permitted Open Hole Injection Interval: 3745 to 3910
Injecting Water through 2-3/8 inch tubing
Maximum Surface Injection Pressure: 750 PSIG

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Prior to commencing injection operations into the well, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing or packer.

The injection well or system shall be equipped with pressure limiting devices which will limit the wellhead pressure to the maximum surface injection pressure described above.

The Director of the Division may authorize an increase in injection pressure after notice is provided to operators of shallower gas bearing formations within ½ mile of this well and upon a proper showing that such higher pressure will not result in migration of the injected fluid from the permitted injection interval. Such proper showing shall consist of valid step-rate tests as well as other tests supporting determination of fracturing pressure, run in accordance with and acceptable to the Division.

The operator shall notify the District office of the date and time of the installation of injection equipment and of all mechanical integrity tests so that the same may be inspected and witnessed.

The operator shall immediately notify the District office of the failure of the tubing, casing or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

The subject well shall be governed by all provisions of Division Order No. R-7765, as amended, and Rule 26.9 through Rule 26.13 not inconsistent herewith.

PROVIDED FURTHER THAT, jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh water or (2) consistent with the requirements in this order, whereupon

the Division may, after notice and hearing, terminate the injection authority granted herein.

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into at least one of the subject wells, provided however, the Division, upon written request by the operator received prior to the one year deadline, may grant an extension thereof for good cause shown.

MARK E. FESMIRE, P.E.
Director

MEF/tw

cc: Oil Conservation Division – Hobbs

New Mexico Energy, Minerals and Natural Resources Department

November 10, 2011

Administrative Order WFX-893
Application No. pTGW1129051521

Sharon Hindman
XTO Energy, INC.
200 N. Loraine, Suite 800
Midland, TX 79705

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Order R-7766, XTO Energy, INC. (OGRID No. 005380) has made application to the Division for permission to convert a Eunice Monument Unit well from producing to water injection within the Eunice Monument; Grayburg-San Andres Pool (Pool No. 23000) in Lea County, New Mexico.

THE DIVISION DIRECTOR FINDS THAT:

The application was filed in due form. No objections have been filed within the waiting period prescribed by Division Rule 19.15.26.8 (C). The proposed wells are eligible for conversion to injection under the terms of Rule 19.15.26.8. The operator is in compliance with Rule 19.15.5.9.

IT IS THEREFORE ORDERED THAT:

XTO Energy, INC. is hereby authorized to inject produced water into the unitized interval of the Eunice Monument South Unit Expansion Area B Waterflood Project, through plastic-lined tubing set in a packer located within 100 feet of the top of the injection interval in the following-described wells for purposes of tertiary recovery:

Eunice Monument Unit Well No. 111 (API No. 30-025-06283)
1980' FNL, 1900' FWL, Unit F, Sec 30, T20S, R37E, NMPM
Permitted Vertical Injection Interval (Perforated and Open Hole): 3634' – 3891'
Maximum Surface Injection Pressure: 710 PSIG

EXHIBIT - A-10

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Prior to commencing injection operations into these wells, the casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing or packer.

The wells shall pass an initial mechanical integrity test ("MIT") prior to initially commencing disposal and prior to resuming disposal each time the disposal packer is unseated. All MIT testing procedures and schedules shall follow the requirements in Division Rule 19.15.26.11A. NMAC.

The injection wells or systems shall be equipped with pressure limiting devices which will limit the wellhead pressure to the maximum surface injection pressure described above.

The Director of the Division may authorize increases in injection pressure upon a proper showing by the operator that higher pressure will not result in migration of the injected fluid from the permitted injection interval or harmful formation fracturing. Such proper showing shall consist of valid step-rate tests and possibly injection profiles or pressure transient testing run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Hobbs District Office of the date and time of the installation of injection equipment and of all mechanical integrity tests so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the District Office of the failure of the tubing, casing or packer in said wells and shall take such steps as may be timely and necessary to correct such failure or leakage.

The subject wells shall be governed by all provisions of Division Order No. R-7766, as amended, and Rules 19.15.26.9 through 19.15.26.13 of the Division Rules and Regulations not inconsistent herewith.

PROVIDED FURTHER THAT, jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh water or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject wells, provided however, the Division, upon written request by the operator received prior to the one year deadline, may grant an extension thereof for good cause shown.

Jami Bailey
Division Director

JB/tw
cc: New Mexico Oil Conservation Division – Hobbs

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

BRUCE KING
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

ADMINISTRATIVE ORDER NO. WFX-618

APPLICATION OF CHEVRON U.S.A. INC. TO EXPAND ITS WATERFLOOD PROJECT IN THE EUNICE MONUMENT - GRAYBURG SAN ANDRES POOL IN LEA COUNTY, NEW MEXICO

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Order No. R-7766, Chevron U.S.A. Inc. has made application to the Division on December 9, 1991, for permission to expand its Eunice Monument South Unit Waterflood Project in the Eunice Monument - Grayburg San Andres Pool in Lea County, New Mexico.

THE DIVISION DIRECTOR FINDS THAT:

(1) The application has been filed in due form.

(2) Satisfactory information has been provided that all offset operators have been duly notified of the application.

(3) No objection has been received within the waiting period as prescribed by Rule 701(B).

(4) The proposed injection wells are eligible for conversion to injection under the terms of Rule 701.

(5) The proposed expansion of the above referenced Waterflood Project will not cause waste nor impair correlative rights.

(6) The application should be approved.

EXHIBIT - A-11

IT IS THEREFORE ORDERED THAT:

The applicant, Chevron U.S.A. Inc., be and the same is hereby authorized to inject water into the Eunice Monument - Grayburg San Andres Pool at approximately 3682 feet to approximately 3972 feet through 2 3/8 inch plastic lined tubing set in a packer located within 100 feet of the uppermost injection perforations in the wells shown on Exhibit "A" attached hereto for purposes of secondary recovery to wit.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Prior to commencing injection operations into the wells, the casing in each well shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus in each well shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing or packer.

The injection wells or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection wells to no more than .2 psi/ft. of depth to the uppermost perforation, as shown on Exhibit "A".

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said wells that such higher pressure will not result in migration of the injected fluid from the Eunice Monument - Grayburg San Andres Pool. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity tests so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Hobbs district office of the Division of the failure of the tubing, casing or packer in any of said wells and shall take such steps as may be timely and necessary to correct such failure or leakage.

The subject wells shall be governed by all provisions of Division Order No. R-7766, as amended and Rules 702-706 of the Division Rules and Regulations not inconsistent herewith.

PROVIDED FURTHER THAT, jurisdiction of this cause is hereby retained by the Division for the entry of such further order or orders as may be deemed necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of the operator to conduct operations in a manner which will ensure the protection of fresh water or in a manner inconsistent with the requirements set forth in this order, the Division may, after notice and hearing, terminate the injection authority granted herein.

DONE at Santa Fe, New Mexico, on this 21st day of January, 1992.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY
Director

S E A L

jc/

cc: Oil Conservation Division - Hobbs
State Land Office - Santa Fe

EXHIBIT "A"
DIVISION ORDER NO. WFX-618
EUNICE MONUMENT SOUTH UNIT
APPROVED INJECTION WELLS

Well Number	*Location*	*Unit*	*S-T-R*	*Injection Intervals*	*Packer Depth*	*Tubing Size*	*Injection Pressure*
EMSU NO. 226	3300' FSL & 1980' FEL	O	5-21S-36E	3714' - 3972'	3675'	2 3/8"	743 PSIG
EMSU NO. 228	3300' FSL & 660' FWL	M	4-21S-36E	3700' - 3870'	3650'	2 3/8"	740 PSIG
EMSU NO. 240	1830' FSL & 2080' FWL	S	4-21S-36E	3682' - 3886'	3600'	2 3/8"	736 PSIG
EMSU NO. 242	1980' FSL & 660' FEL	Q	5-21S-36E	3724' - 3950'	3675'	2 3/8"	745 PSIG

ALL IN LEA COUNTY, NEW MEXICO

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
BETTY RIVERA
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

July 25, 2002

ChevronTexaco
15 Smith Road
Midland, Texas 79705

Attn: Mr. Kevin Hickey

RE: ***Injection Pressure Increase, -183***
Eunice Monument South Unit
Waterflood Project
Lea County, New Mexico

Dear Mr. Hickey:

Reference is made to your request dated June 25, 2002, to increase the surface injection pressure on eleven wells within the above-referenced water flood project. This request is based on step rate tests conducted on the subject wells during October 2000, and held in suspense pending outcome of Division Case 12320. This case has been dismissed, test results have been reviewed, and we feel an increase in injection pressure on these wells is justified at this time.

Current tubing sizes remaining the same, you are therefore authorized to increase the surface injection pressure on the wells shown on Exhibit "A". The Division Director may rescind this injection pressure increase if it becomes apparent that the injected fluid is not being confined to the injection zone or is endangering any fresh water aquifers.

Sincerely,

Lori Wrotenbery (WVJ)

Lori Wrotenbery
Director

LW/WVJ

cc: Oil Conservation Division - Hobbs
Files: R-7766; IPI-2002
Attachment

EXHIBIT - A-12

Exhibit "A"
ChevronTexaco
Eunice Monument South Unit (EMSU)
Lea County, New Mexico
Injection Pressure Increases

Injection Well and Location	*Top Perf Depth Feet*	*Maximum Surface Injection Pressure*
EMSU Well No. 126, API No. 30-025-06288 Lot 4, Section 30, T-20S, R-37E	3714	930 PSIG
EMSU Well No. 164, API No. 30-025-29820 (Unit K), Section 36, T-20S, R-36E	3762	1260 PSIG
EMSU Well No. 185, API No. 30-025-04512 Lot 2, Section 5, T-21S, R-36E	3670	870 PSIG
EMSU Well No. 245, API No. 30-025-04498 (Unit I), Section 5, T-21S, R-36E	3770	755 PSIG
EMSU Well No. 295, API No. 30-025-04560 (Unit F), Section 8, T-21S, R-36E	3745	770 PSIG
EMSU Well No. 307, API No. 30-025-08708 (Unit F), Section 11, T-21S, R-36E	3700	840 PSIG
EMSU Well No. 312, API No. 30-025-04616 (Unit J), Section 11, T-21S, R-36E	3723	860 PSIG
EMSU Well No. 318, API No. 30-025-29901 (Unit L), Section 10, T-21S, R-36E	3718	860 PSIG
EMSU Well No. 324, API No. 30-025-04554 (Unit J), Section 8, T-21S, R-36E	3707	875 PSIG
EMSU Well No. 336, API No. 30-025-04557 (Unit N), Section 8, T-21S, R-36E	3742	815 PSIG
EMSU Well No. 354, API No. 30-025-04640 (Unit B), Section 14, T-21S, R-36E	3720	744 PSIG

218253070 IPI-183 NA

Chevron U.S.A. Production Company
Kevin Hickey
New Mexico Waterflood
Petroleum Engineer
15 Smith Road
Midland, Texas 79705

June 25, 2002

ChevronTexaco

STEP-RATE TESTS
EUNICE MONUMENT SOUTH UNIT
LEA COUNTY, NEW MEXICO

State of New Mexico
Energy and Minerals Dept.
Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87504

Attention: Mr. David Catanach

Please refer to our letter dated October 31, 2000. At that time Chevron requested increased injection pressures on eleven (11) wells in the Eunice Monument South Unit (EMSU). This request was held pending outcome of Case No. 12320. This case has now been dismissed. Chevron respectfully would like to resubmit our request to increase the injection pressures on these wells at this time.

If you have any questions or need additional information please contact me at 915-687-7260.

Sincerely,

Kevin F. Hickey

Kevin F. Hickey
ChevronTexaco
Petroleum Engineer
New Mexico Area – Eunice Waterflood Team

Attachments

IPI NSL

Chevron

October 31, 2000

STEP-RATE TESTING TO INCREASE NMOCD PRESSURE LIMITATION EUNICE MONUMENT SOUTH UNIT LEA COUNTY, NEW MEXICO

Chevron U.S.A. Production Company
P.O. Box 1150
Midland, TX 79702

State of New Mexico
Energy and Minerals Dept.
Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505

Attention: Mr. David Catanach

Dear Sir:

Chevron U.S.A. Production Co. requests permission to perform step-rate tests in order to increase injection pressure at the Eunice Monument South Unit (EMSU). The current pressure limitation for EMSU is 0.2 psi/ft, which is around 750 psi wellhead pressure. Many wells are approaching the 0.2 psi/ft limit due to increasing reservoir pressure and conformance work. The conformance work focused on squeezing out of the higher permeability, over-processed zones and targeting injection into the lower permeability, under-processed zones. Injection pressures must be increased in order to achieve target injection rates into the lower permeability zones and maintain desirable FI/FO ratios.

Chevron is also involved in an ongoing infill drilling and pattern re-alignment program at EMSU in order to recover by-passed reserves. This program will reduce well spacing from 40 acres to 20 acres and pattern spacing from 80 acre five-spots to 40 acre five spots. Injection into under-processed zones will need to be increased in order to maximize recovery of by-passed reserves.

Eleven step-rate tests were performed earlier this month to determine surface parting pressure (SPP) from bottom-hole parting pressure (BHPP). The results varied slightly, but most were consistent. The average BHPP was 2581 psi and the average SPP was 955 psi. This gives an average pressure gradient of 0.253 psi/ft. Twenty-five other step-rate candidates have been identified for future step-rate tests. These candidates are based on their proximity the area of infill drilling and pattern re-alignment. Many wells in this area did not qualify as candidates due to the conformance work performed on the wells. There was a concern on compromising thief isolation during the step-rate tests and thus risk losing injection into the thief zones once again.

I would like to discuss the density spacing requirements and procedures for step-rate testing. Your help in this matter would be greatly appreciated. I have attached some maps and the results of the eleven step-rates performed earlier this month. If further information is required, please contact me at (915) 687-7645 or e-mail me at tglo@chevron.com.

Sincerely,

Tracy Love

Tracy G. Love
Petroleum Engineer
New Mexico Waterfloods

- OIL
- P&A OIL
- TA OR CI OIL
- GAS
- P&A GAS
- TA OR CI GAS
- DRY & ABANDONED
- INJECTOR
- WATER SUPPLY WELL

LEGEND

Step Rate Tests performed 10/00

Future Step Rate Test Candidates

0 1/2 1 MILE

Chevron U.S.A. Inc.
Exploration, Land and Production

EUNICE MONUMENT SOUTH UNIT
LEA COUNTY, NEW MEXICO

INJ SG 1.01

EMSU #126		Gauge depth
RATE	**BH PSI**	3710
0	1471	Top perf depth
150	1660	3714
300	1910	BHGPP
450	2200	2600
600	2492	BHPP
750	2698	2601.749
900	2661	SPP
750	2592	977.5057
600	2460	

AVG BHPP	**AVG SPP**
2542	913
w/o 245&295	**w/o 245&295**
2581	955

30-025-06288 R-7166

EMSU #164		Gauge depth
RATE	**BH PSI**	3750
0	1504	Top perf depth
150	2002	3762
300	2554	BHGPP
450	2899	2950
600	2989	BHPP
750	3032	2955.248
600	2963	SPP
450	2762	1310.013

11

29820

EMSU #185		Gauge depth
RATE	**BH PSI**	3585
0	1467	Top perf depth
150	1705	3670
300	2008	BHGPP
450	2278	2500
600	2473	BHPP
750	2571	2537.173
900	2638	SPP
750	2575	932.172
600	2500	
450	2340	

11

04512

EMSU #245		Gauge depth
RATE	**BH PSI**	3765
0	1548	Top perf depth
300	1700	3770
500	1975	BHGPP
700	2136	2275
900	2254	~~BHPP~~ 2220
1100	2320	~~2277.187~~
1300	2344	SPP
1100	2318	628.4526 Questionable BHPP. BHCP is higher.
900	2266	

11

04498

EMSU #295		Gauge depth
RATE	**BH PSI**	3740
150	1554	Top perf depth
300	1536	3745
450	1551	BHGPP
600	1615	2450
700	2206	BHPP
800	2454	2452.187
900	2496	SPP
1000	2481	814.3858 Bad Step Rate Test. Hole in tbg.
900	2475	
800	2450	

04560

R-7766

EMSU #307		Gauge depth
RATE	**BH PSI**	3690
0	1573	Top perf depth
150	1951	3700
300	2231	BHGPP
450	2464	2530
600	2541	BHPP
750	2574	2534.373
900	2596	SPP
750	2596	916.2523
600	2573	
450	2463	

2450

08708

840

EMSU #312		Gauge depth
RATE	**BH PSI**	3630
0	2004	Top perf depth
150	2281	3723
300	2477	BHGPP
450	2524	2510
600	2552	BHPP
750	2568	2550.672
600	2532	SPP
450	2481	922.4921

2480

04616

840

EMSU #318		Gauge depth
RATE	BH PSI	3700
300	1278	Top perf depth
450	1420	3718
600	1598	BHGPP
750	1850	2530
900	2040	BHPP
1050	2280	2537.872
1200	2460	SPP
1350	2590	911.879
1500	2688	
1350		
1250	2480	
1050	2250	

OK

29901

EMSU #324		Gauge depth
RATE	**BH PSI**	3690
0	1310	Top perf depth
150	1417	3707
300	1580	BHGPP
450	2044	2560 2590
600	2486	BHPP
750	2575	2567.435
900	2613	SPP
1050	2649	946.2523
900	2619	
750	2587	
600	2543	

04554 R-7766

875

EMSU #336		Gauge depth
RATE	BH PSI	3660
0	1302	Top perf depth
150	1406	3742
300	1887	BHGPP
450	2277	2475 ✓
600	2476	BHPP
750	2466	2510.861
900	2523	SPP
1050	2542	874.3722
900	2546	
750	2494	
600	2426	
450	2339	

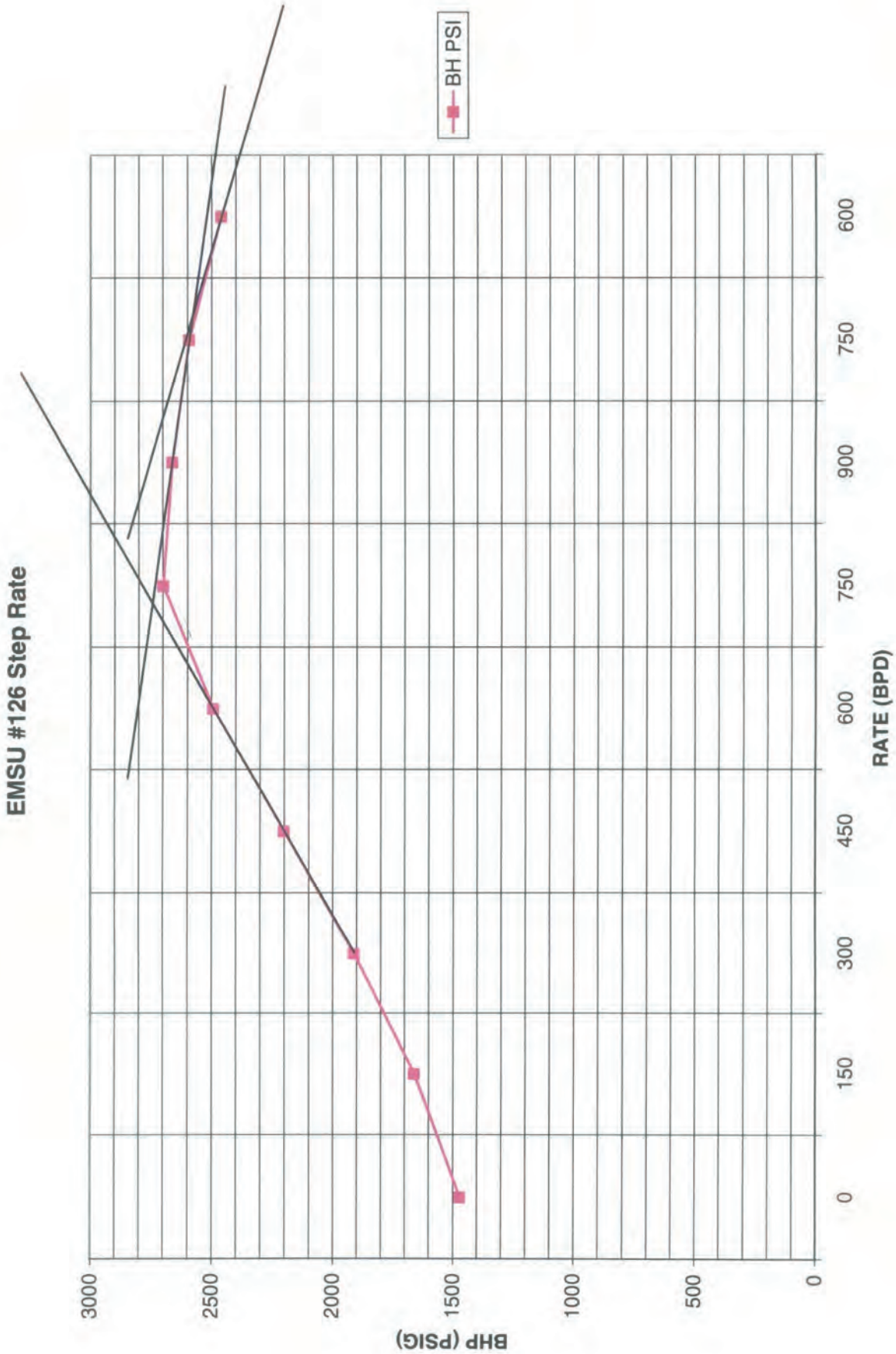
04557 "

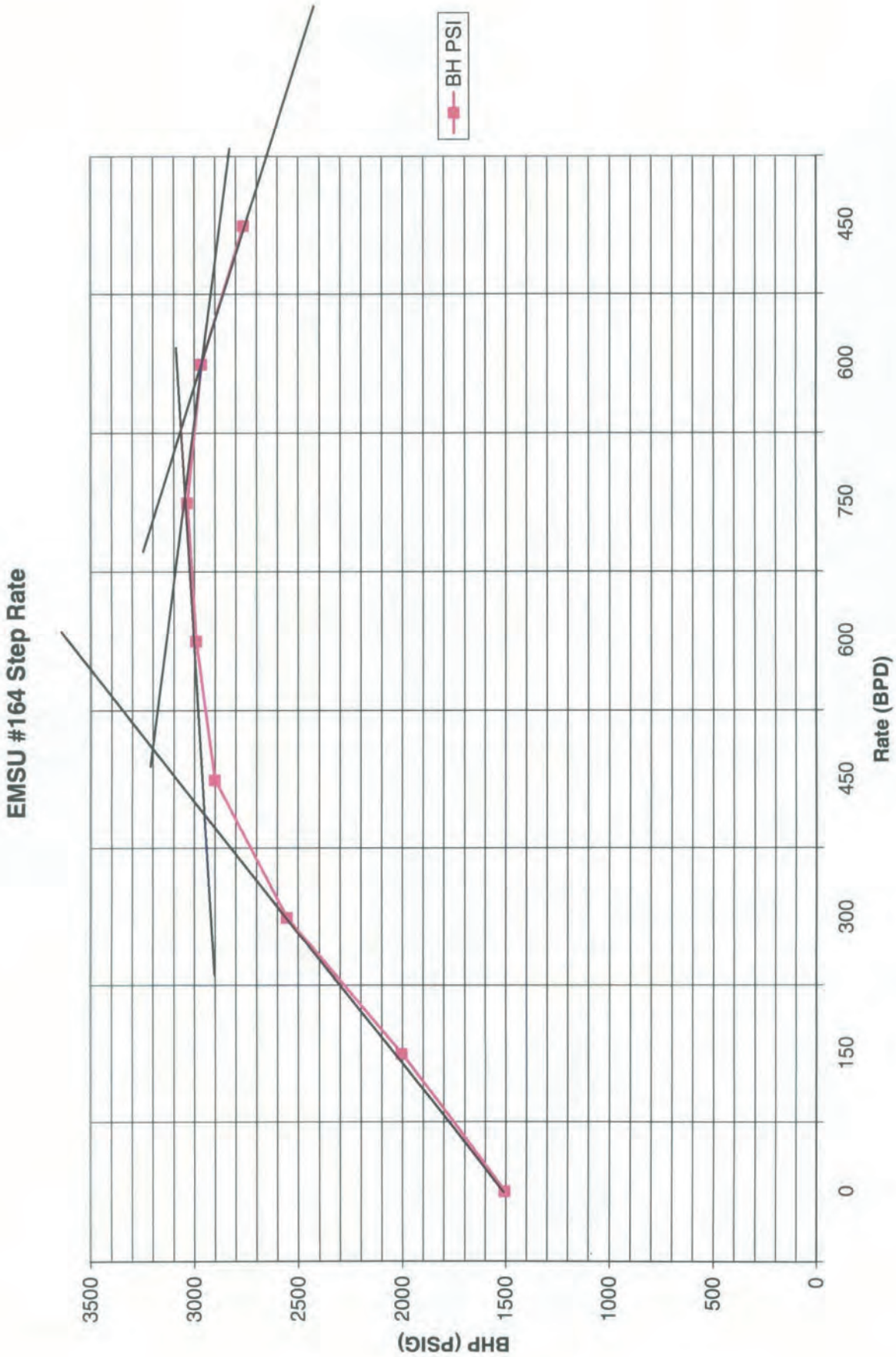
875 ✓

EMSU #354		Gauge depth
RATE	**BH PSI**	3710
0	1939	Top perf depth
150	2020	3720
300	2338	BHGPP
450	2347	~~2430~~ 2329
600	2360	BHPP
450	2342	2434.373
300	2321	SPP
150	2192	807.5057

04640 "

750


EMSU #126 Step Rate
BH PSI
BHP (PSIG)
3000
2500
2000
1500
1000
500
0
RATE (BPD)
0
150
300
450
600
750
900
750
600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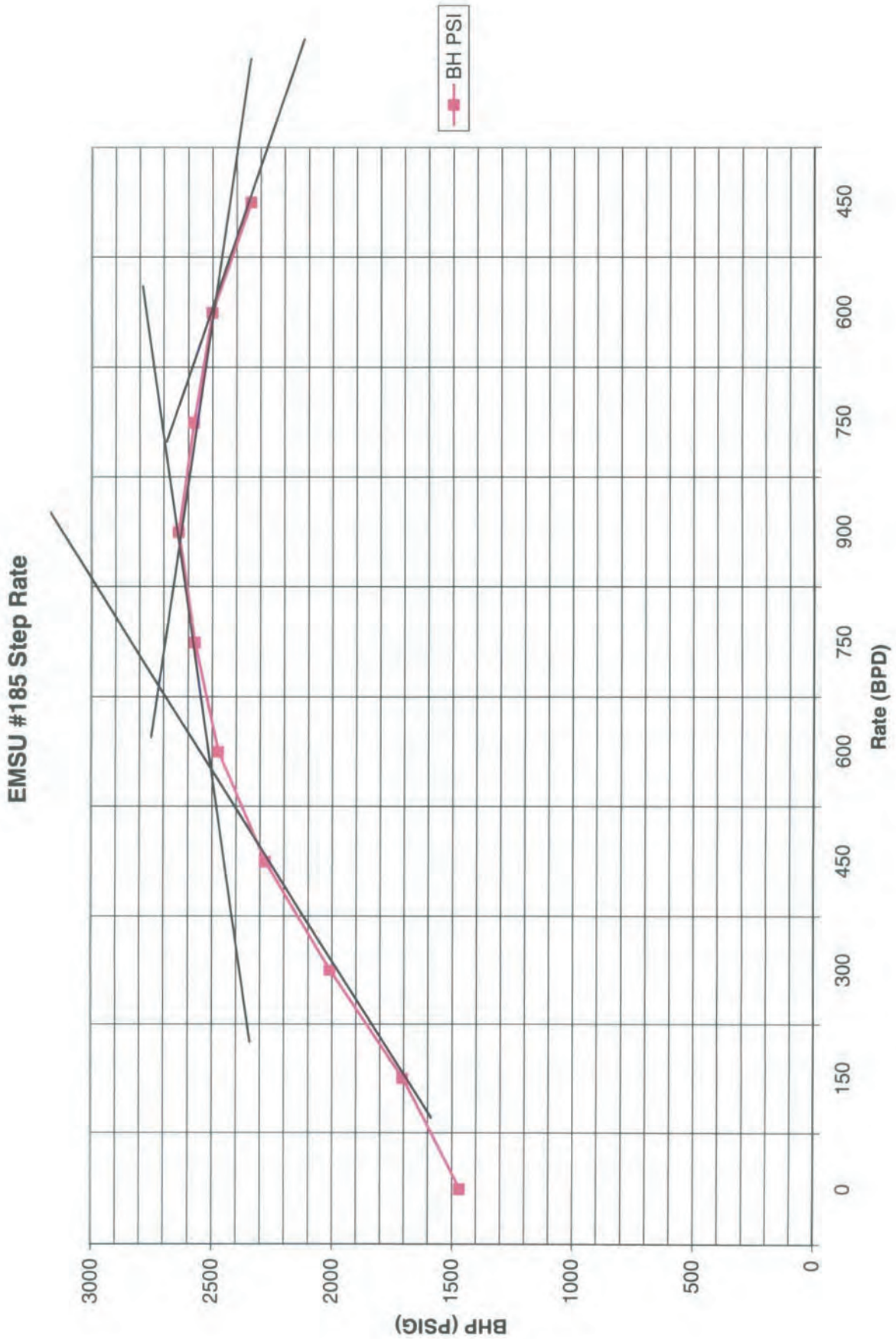
BH PSI
BHP (PSIG)
3500
3000
2500
2000
1500
1000
500
0
Rate (BPD)
0
150
300
450
600
750
600
450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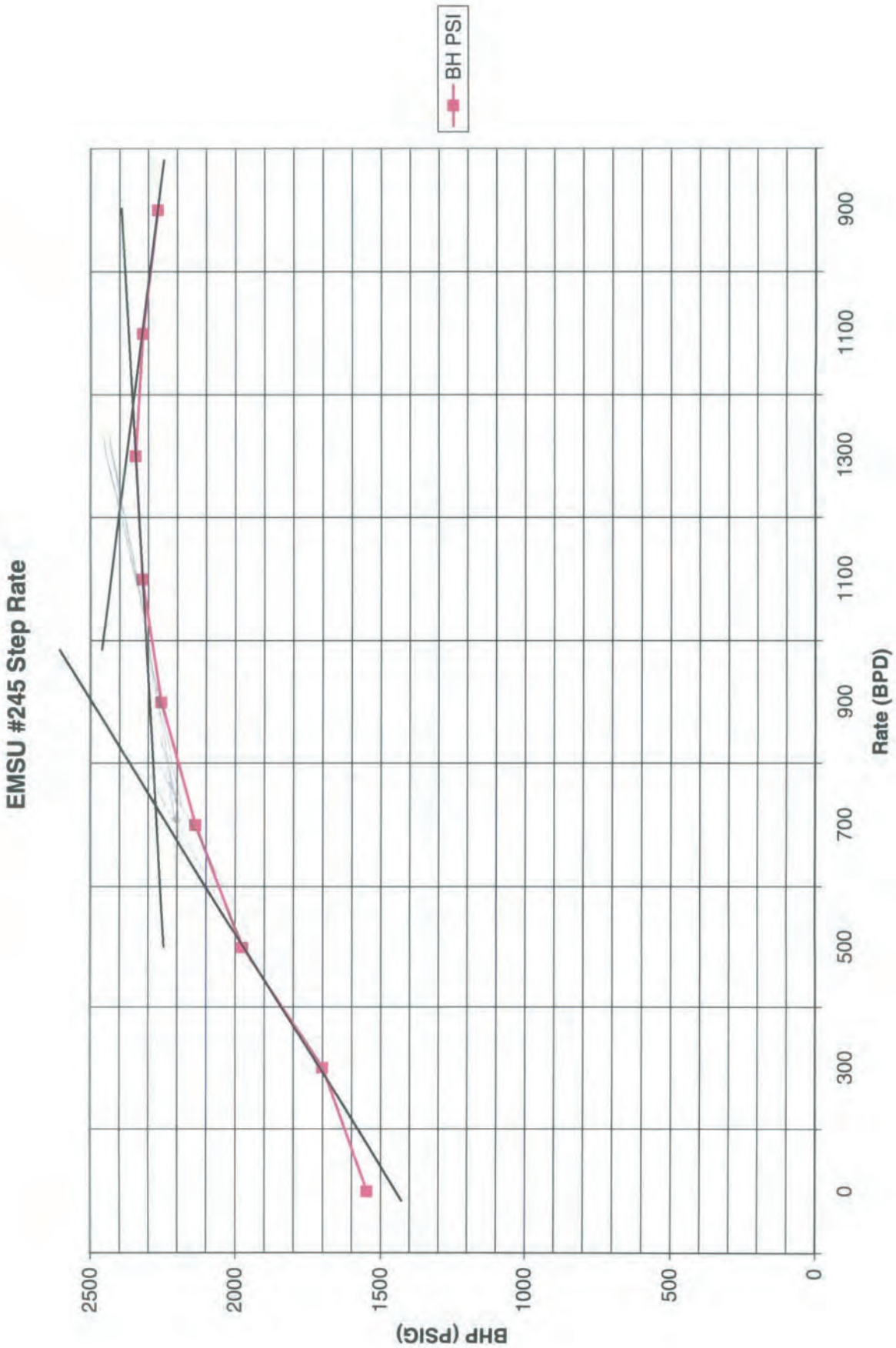
BH PSI
BHP (PSIG)
3000
2500
2000
1500
1000
500
0
Rate (BPD)
0
150
300
450
600
750
900
750
600
450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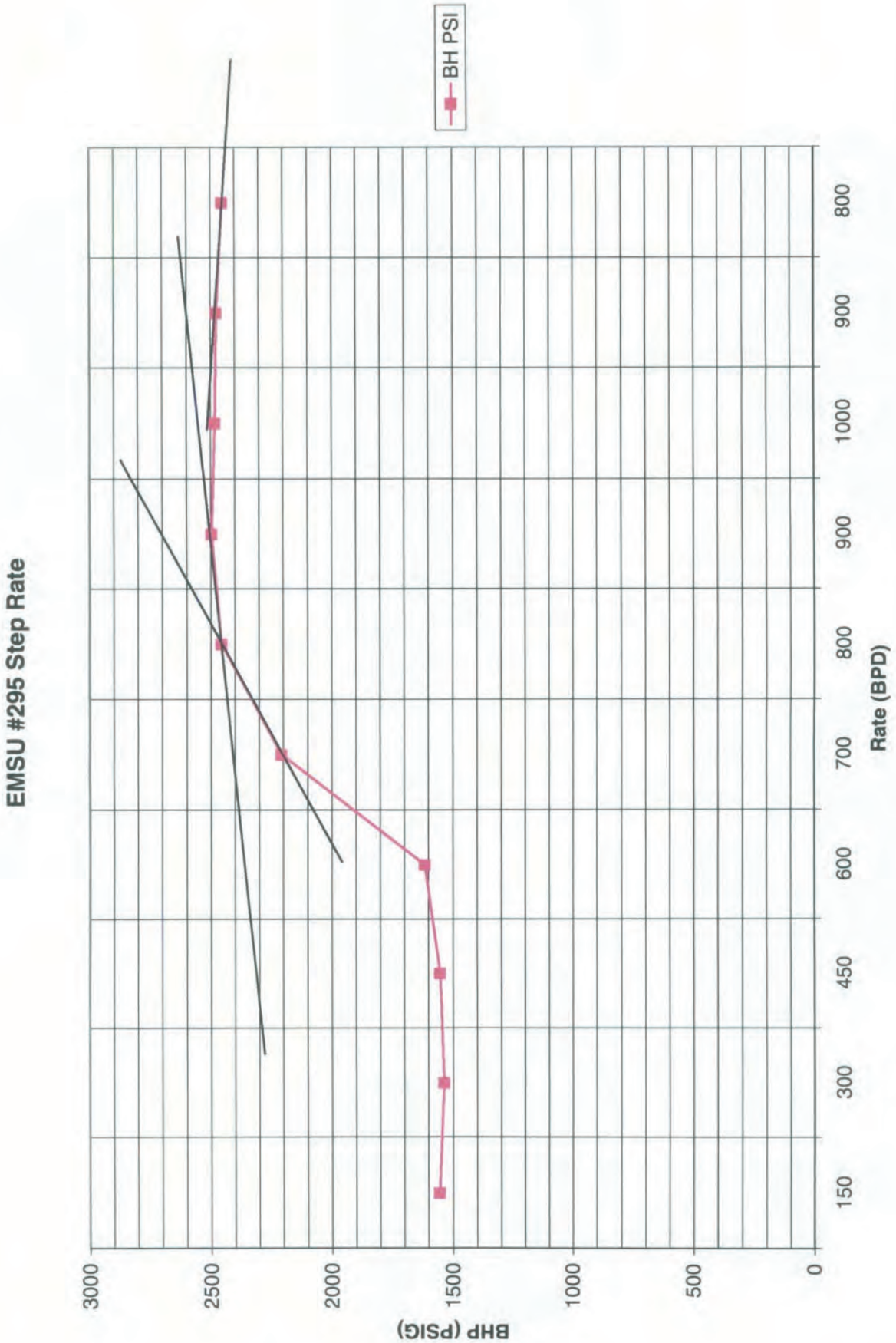
BH PSI
BHP (PSIG)
2500
2000
1500
1000
500
0
Rate (BPD)
0
300
500
700
900
1100
1300
1100
900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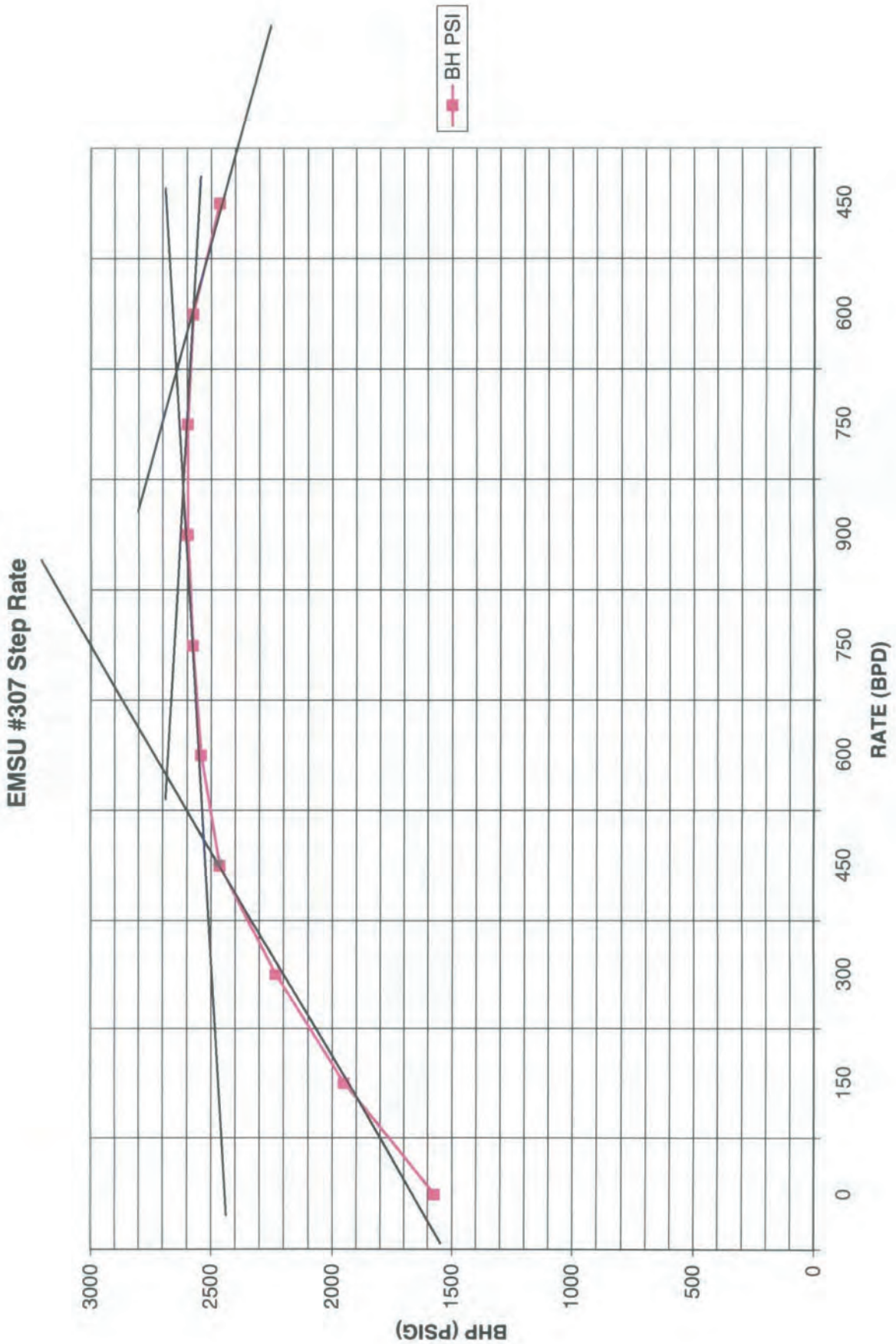
BH PSI
BHP (PSIG)
3000
2500
2000
1500
1000
500
0
Rate (BPD)
150
300
450
600
700
800
900
1000
900
800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BH PSI
BHP (PSIG)
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2500
2000
1500
1000
500
0
RATE (BPD)
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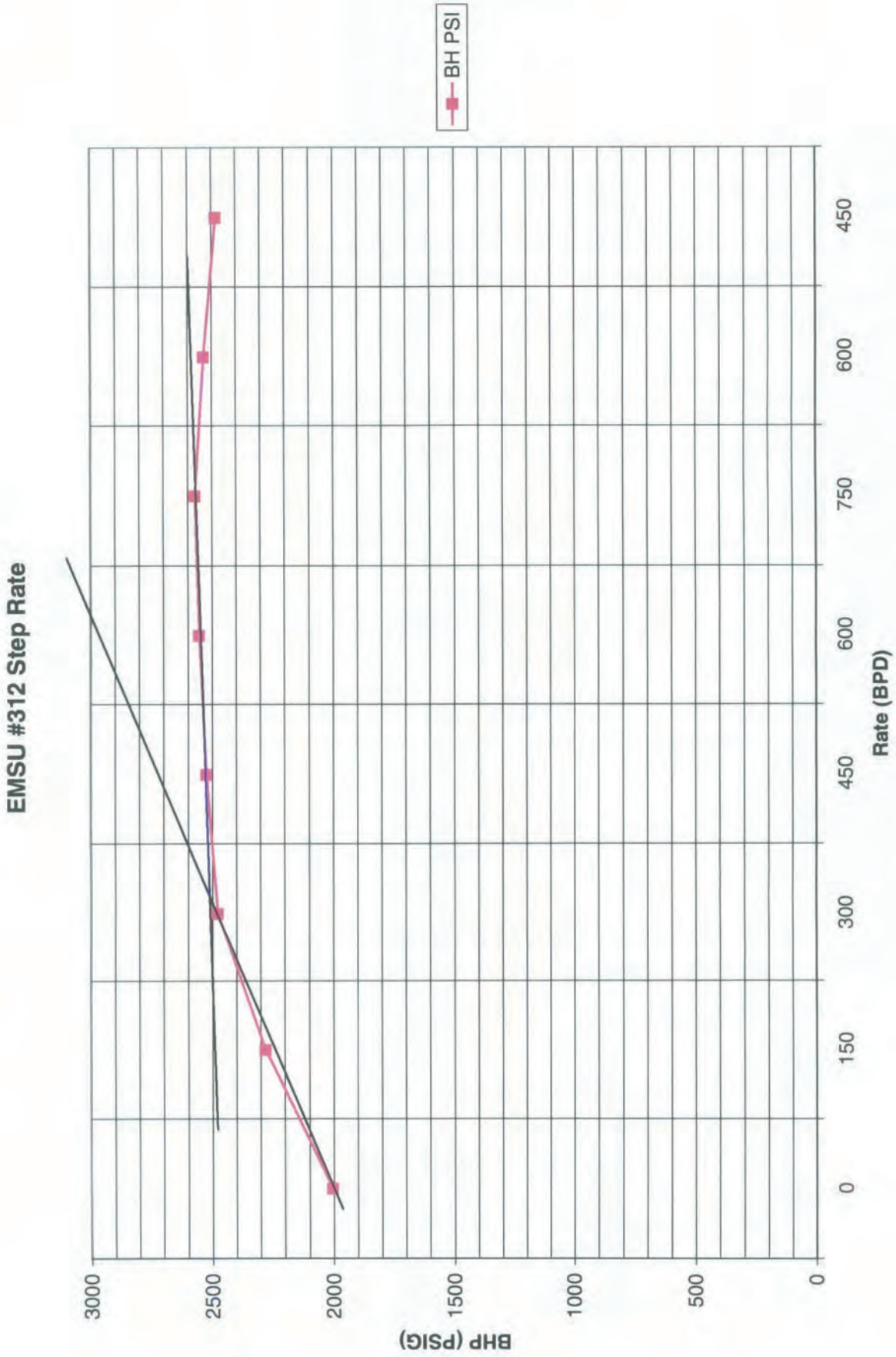
300
450
600
750
900
600
750
450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BH PSI
BHP (PSIG)
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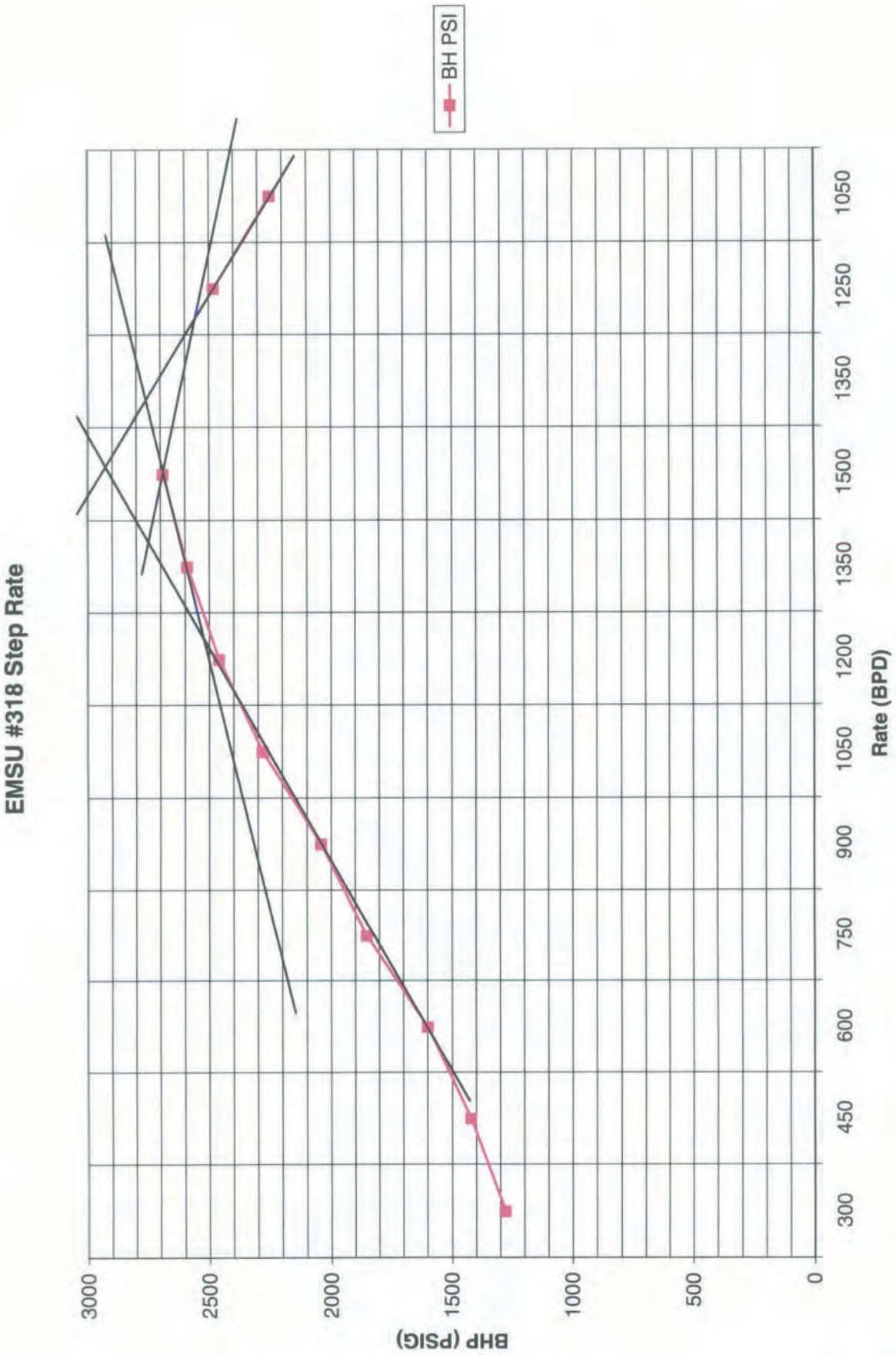
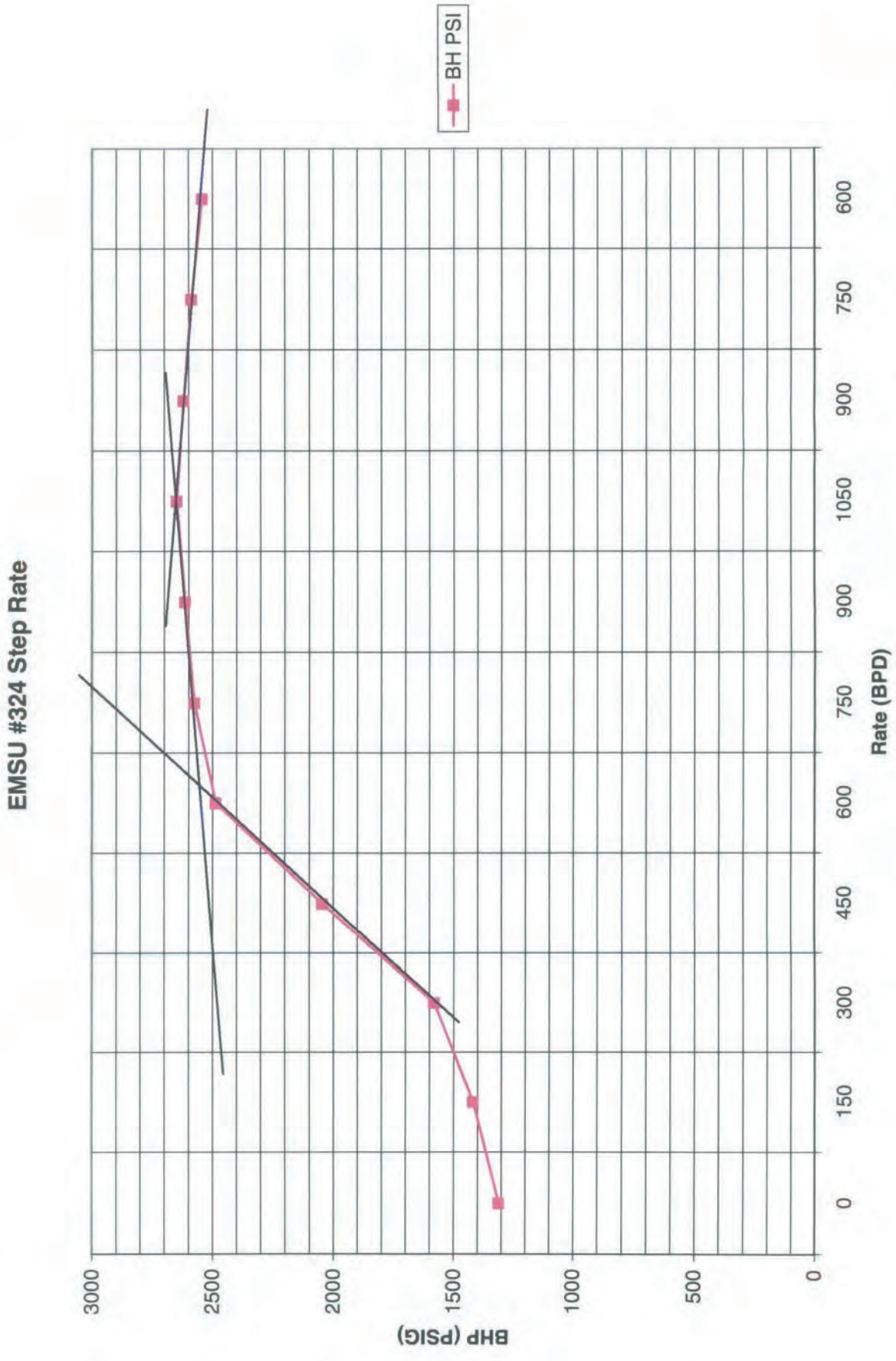
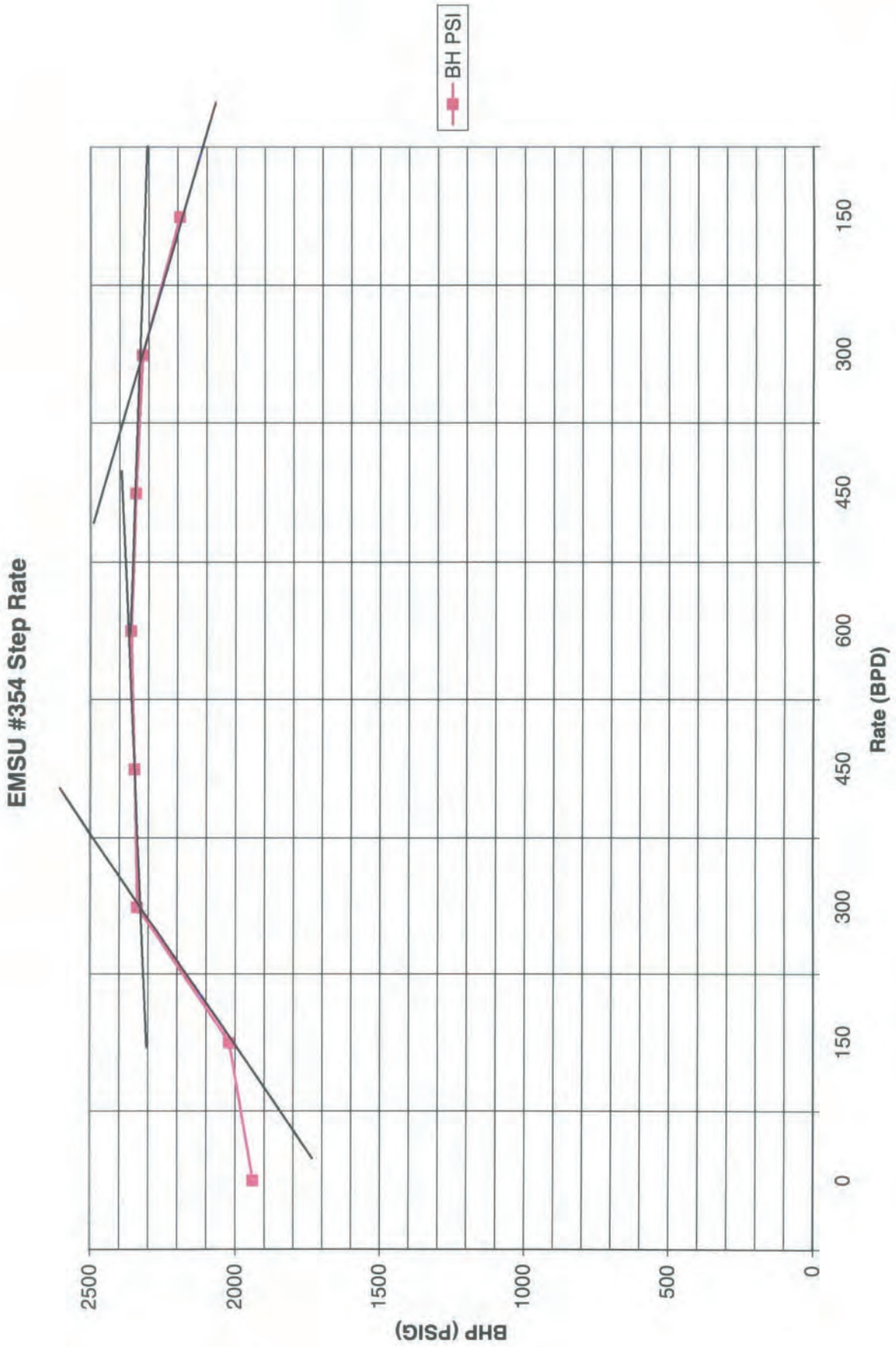
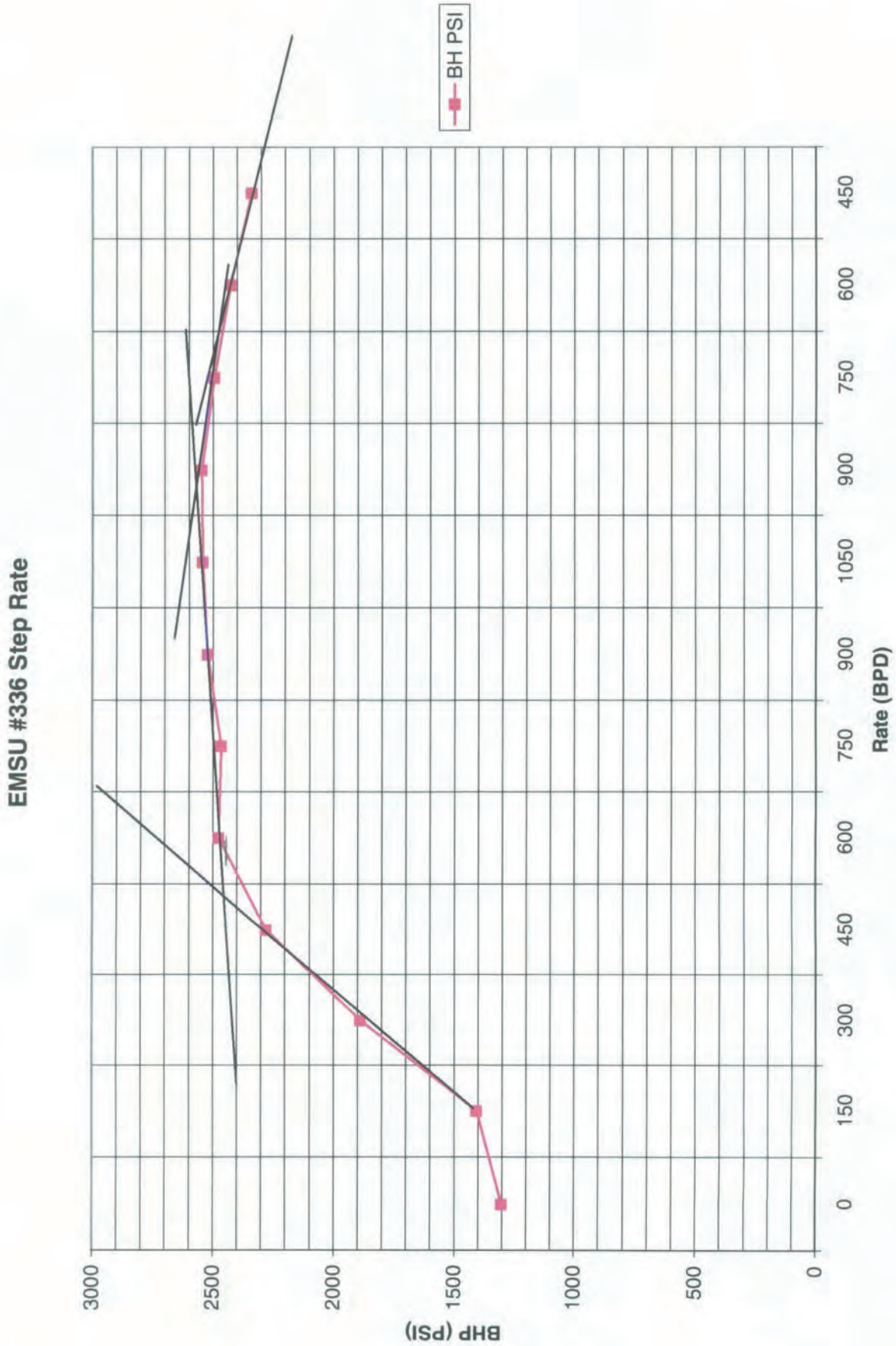
2500
2000
1500
1000
500
0
Rate (BPD)
0
150
300
450
600
750
600
450


EMSU #318 Step Rate
BH PSI
BHP (PSIG)
3000
2500
2000
1500
1000
500
0
Rate (BPD)
300
450
600
750
900
1050
1200
1350
1500
1350
1250
1050


EMSU #324 Step Rate
BH PSI
BHP (PSIG)
Rate (BPD)
3000
2500
2000
1500
1000
500
0
0
150
300
450
600
750
900
1050
600
750
900


EMSU #354 Step Rate
BH PSI
BHP (PSIG)
2500
2000
1500
1000
500
0
Rate (BPD)
0
150
300
450
600
450
300
150
0


EMSU #336 Step Rate
BH PSI
BHP (PSI)
3000
2500
2000
1500
1000
500
0
Rate (BPD)
0
150
300
450
600
750
900
1050
900
750
600
450

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

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

CASE NOS. 23614-23617

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

CASE NO. 23775

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

CASE NOS. 24018-24020, 24025

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

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

ORDER GRANTING GOODNIGHT MIDSTREAM PERMIAN, LLC'S, MOTION FOR AN ORDER DIRECTING EMPIRE NEW MEXICO, LLC, TO CEASE EMSU WATERFLOOD INJECTIONS ABOVE PERMITTED SURFACE INJECTION PRESSURES AND TO PROVIDE A VERIFIED ACCOUNTING OF WATERFLOOD INJECTION

This matter, having come before the Oil Conservation Commission ("Commission") on the motion by Goodnight Midstream Permian, LLC ("Goodnight") for an order directing Empire New Mexico, LLC ("Empire") to cease injection of produced water above permitted pressure in the Eunice Monument South Unit ("EMSU") and to provide a verified accounting on all of its

EXHIBIT - B

waterflood injection wells operated within the EMSU, and the Commission, being fully advised and having heard arguments of the parties' counsel at a public meeting on _____, 2024, hereby finds as follows:

1. Empire has violated the injection pressure limits set forth in the applicable orders permitting its waterflood operations in at least 304 instances, during the period of January 2022 through July 2024, across at least 44 waterflood injection wells operated by Empire in the EMSU.

2. Exhibits A-2, A-2a, and A-2b attached to the Self-Affirmed Statement of Preston McGuire, attached as Exhibit A to Goodnight's Motion, establish each permit violation, identify the API numbers of the relevant wells, and identify the relevant months for each of the 304 violations; thus, substantial evidence supports the Commission's finding related to Empire's permit violations.

3. Exhibits A-3 through A-12, as substantiated by the Self-Affirmed Statement of Preston McGuire, Exhibit A to the motion, constitute substantial evidence that the orders establish surface injection pressure limits as to each well identified in Exhibits A-2, A-2a, and A-2b.

4. The Commission, thus, attaches as **Exhibit 1** to this Order said Exhibits A-2, A-2a, and A-2b, and hereby adopts the data set forth therein as substantial evidence supporting the Commission's determination that Empire violated its permit limitations.

5. Empire shall immediately cease all injections in its waterflood injection wells in the EMSU that exceed the surface injection pressure limits allowed by Empire's permits, both for those wells identified in Exhibit 1, hereto, and for any other injection wells which are otherwise operated by Empire within the EMSU.

6. No later than thirty days following issuance of this Order, Empire shall provide to the parties and to the hearing officer a verified accounting on all waterflood injections for the

preceding twelve months by any Empire well within in the EMSU with the corresponding available data relating to surface injection pressure, specifically including, daily injection volumes, average daily injection pressures, and maximum daily injection pressures, that will allow the hearing officer to recommend to the Commission as to whether such injections violate the applicable permits, in addition to the violations already determined in this Order.

7. Empire shall confirm the type, nature, and functionality of pressure management devices and corresponding pressure-limit settings on each of its EMSU waterflood injection wells.

8. No later than the deadline by which Empire is required to file C-115 reports for its EMSU waterflood injection wells for a given month, Empire shall, each month until February 20, 2025, provide to the parties and to the hearing officer a verified accounting of all injections for the reported month for each such well, with the corresponding available data relating to surface injection pressure, specifically including, daily injection volumes, average daily injection pressures, and maximum daily injection pressures that will allow the hearing officer to recommend to the Commission as to whether such injections violate the applicable permits, in addition to the violations already determined in this Order.

SO ORDERED.

Gerasimos Razatos, Acting Chairman
New Mexico Oil Conservation Commission