



# RAILROAD COMMISSION OF TEXAS

## HEARINGS DIVISION

**OIL & GAS DOCKET NO. 7B-0306956**

---

**THE APPLICATION OF KRAMER OPERATING, LLC TO CONSIDER UNITIZATION AND SECONDARY RECOVERY AUTHORITY FOR THE NORTHWEST VALERA UNIT, WARNER (GARDNER, LOWER) FIELD, COLEMAN COUNTY, TEXAS**

---

**HEARD BY:** Richard Eyster, P.G. - Technical Examiner  
Clayton Hoover - Administrative Law Judge

**DATE OF HEARING:** November 28, 2017  
**CONFERENCE DATE:** January 23, 2018

**APPEARANCES:** Robert McMillan  
Dale Miller

**REPRESENTING:** Kramer Operating, LLC

### EXAMINERS' REPORT AND RECOMMENDATION

#### STATEMENT OF THE CASE

Kramer Operating, LLC ("Kramer") requests Commission authority for unitization of the Northwest Valera Unit and approval of secondary recovery operations on the unit.

This application was unopposed and the examiners recommend approval.

#### DISCUSSION OF THE EVIDENCE

Dale Miller and Robert McMillan testified on behalf of Kramer. Mr. Miller is an oil and gas regulatory consultant and Mr. McMillan is a Registered Engineer and an associate of Kramer.

The Warner (Gardner, Lower) Field was discovered in June, 1950 at an average depth of 3050 feet. There are no wells currently carried on the proration schedule.

Field Rules provide for 330'-933' well spacing, 20 acre density and allocation based on 75% acres and 25% per well. The top allowable is 64 BOPD with an allowable gas-oil ratio of 2000 cubic feet per barrel and a casinghead gas limit of 128 MCFGPD. Cumulative production from the proposed area to be unitized is 1.581 MBO and an estimated 1,219 MMCFG.

Kramer seeks to designate the proposed Unit as the interval comprised of the Lower Gardner sand formation between the subsurface depth of 3069' and 3105' as shown on the log of the Champlin Oil and Refining Company - L. H. Rhodes #5, Block 48, Burnet County School Lands Survey 703, Abstract 19, Coleman County, Texas.

The proposed Northwest Valera Unit consists of eight (8) tracts which contain a total of 683.54 acres. The productive interval is a sand which is a stratigraphic trap with a structural component. The productive formation dips to the west-northwest and is tilted upwards to the northeast. The original water-oil contact existed as a tilted contact between -1152 feet and -1163 feet (subsea depth). An original gas-oil contact existed at -1066' (subsea depth). A solution gas drive with possible gas cap expansion was the primary reservoir drive mechanism. Log cross sections, a structure map and net isopach maps submitted by Mr. McMillan demonstrated the nature of the reservoir.

The original bottom hole pressure was 1176 psig at the time of discovery. The field has an average porosity of 18 per cent, average water saturation of 22.8 percent, and average permeability of 53.3 millidarcies.

The proposed unit contains the overall majority of the field with undrained secondary reserves. Mr. McMillan presented a map of the field showing the area of remaining recoverable reserves after previous unitization and pressure maintenance projects. He further testified that the previous units have expired on their own terms, and there has been no production from the unit area since 1982, being over 35 years ago.

Kramer proposes to implement a waterflood of the field initially by drilling 7 producing wells, 7 injection wells, and re-entering one P&A'd well for a water source well. Kramer will inject all produced saltwater and the additional required makeup saltwater from the Cambrian Sand formation located at approximately 4700 feet.

Kramer estimates that secondary recovery operations will recover approximately 829 MBO and 165.8 MMCFG. The total cost to implement and operate the secondary recovery project is expected to be \$4.4 million and \$5.043 million, respectively. The projected net undiscounted working interest income is \$19.24 million, resulting in a return on investment of 4.37. This calculation is based on an oil price of \$48 per barrel and a gas price of \$2.25 per MCF, both held constant over the life of the project.

The participation formula for the Unit is based on 45% primary cumulative production prior to the previous unitizations of the adjoining properties, 45% net reservoir oil sand volume, and 10% surface acreage. At the time of the hearing, 98.4% of the working interest and 90.2% of the royalty interest ownership had signed the unit agreement. There are no state owned lands in the proposed unit. Kramer anticipates 100% sign up

of the working and royalty interest ownership by the time the project is initiated, but will install separate tank batteries or conduct monthly well tests to properly and accurately allocate production to wells on tracts for which 100% sign-up was not achieved. In addition, if any tract does not have 100% sign-up the last producing well on such tract will not be converted to an injector.

### FINDINGS OF FACT

1. Kramer Operating, LLC seeks Commission authority to designate the Northwest Valera Unit as a unit for secondary recovery purposes in the Warner (Gardner, Lower) Field, Coleman County, Texas (Subject Application).
2. Notice of this hearing was sent to all operators and royalty interest owners within and adjacent to the proposed unit. Notice was also published in the *Chronicle & Democrat-Voice*, a newspaper of general circulation in Coleman County, on October 18th, and 25th, and November 1st, and 8th, 2017, being once per week for four consecutive weeks.
3. The Unit consists of 8 tracts which contain a total of 683.54 acres.
4. Kramer seeks to designate the Unit as the interval known as the Lower Gardner sand formation between the subsurface depth of 3069' and 3105' as shown on the log of the Champlin Oil and Refining Company - L. H. Rhodes #5, Block 48, Burnet County School Lands Survey 703, Abstract 19, Coleman County, Texas.
5. The proposed Unitized Interval is a separate and distinct reservoir in the Warner (Gardner, Lower) Field and was created as a result of stratigraphic trapping in the Gardner formation.
6. At the time of the hearing, November 28, 2017, 98.4% of the working interest ownership and 90.2% of the royalty interest ownership had signed the Unit Agreement.
7. Secondary recovery operations are expected to result in the recovery of an estimated additional 829,000 barrels of oil which may otherwise go unrecovered.
8. The total cost to implement and operate the secondary recovery project is estimated to be \$9,443,000.
9. The net value of the oil to be recovered as a result of the unitization is expected to be \$19,240,802 using a constant price of \$48 per barrel after deductions are made for initial investment costs, Lease Operating Expenses ("LOE"), severance taxes, and ad valorem taxes over a projected 14 year life.

10. The cost to conduct secondary recovery operations on the Northwest Valera Unit in the proposed Unitized Interval does not exceed the value of additional reserves to be recovered from the proposed Unitized Interval.
11. The Unit Agreement was voluntarily executed by all parties affixing their signatures thereto to establish pooled units for secondary recovery operations and no person has been compelled to enter into the agreement. All parties entering into this agreement own or control production, leases, royalty or other interests in the field.
12. The Unit Agreement is a voluntary agreement entered into for the purpose of conducting secondary recovery operations.
13. The unitization agreement is necessary to accomplish the purposes of establishing a Unit to effect secondary recovery operations for water injection and to operate cooperative facilities necessary thereto. Other available or existing methods or facilities for secondary recovery operations are inadequate for the purpose of secondary recovery.
14. The Unit Agreement is in the interest of public welfare as being reasonably necessary to prevent waste, protect correlative rights, and to promote conservation.
15. The proposed injection program will move hydrocarbons across lease lines, and unitization is necessary in order to protect the correlative rights of the various interest owners.
16. The owners of interests in the oil and gas rights under each tract of land within the area reasonably defined by development with undrained secondary reserves have been given an opportunity to enter into the Unit on the same yardstick basis as the owners of the interests in the oil and gas rights under the other tracts in the Unit.
17. The Unit Agreement is subject to all valid orders, rules and regulations of the Railroad Commission of Texas.
18. The Unit Agreement contains no provision regarding the field rules, nor does it limit the amount of production of oil and gas from the unitized area.
19. The Unit Agreement binds only those persons who have executed it, their heirs, successors, assigns and legal representatives. The rights of all owners of interests in the field will be protected under the operation of the Unit, regardless of whether an owner did or did not sign the Unit Agreement.
20. The Unit Agreement provides, in Article 11, Enlargements of Unit Area, to include acreage reasonably proved to be productive, on a fair and reasonable basis.

21. The Unit Agreement does not provide, either directly or indirectly, for the cooperative refining or marketing of crude petroleum, distillate, condensate, or gas, or any by-product thereof.
22. The Unit Agreement is not a voluntary agreement for the joint development and operation of jointly owned properties.
23. The Unit Agreement does not restrict any of the rights which persons now have to make and enter into unitization and pooling agreements.
24. The Unit Agreement does not release the operator from his obligation to reasonably develop lands or leases as a whole.
25. The Unit Agreement provides that dry gas after extraction of hydrocarbons may be returned to a formation underlying any lands committed to the agreement.
26. There are no state-owned lands in the proposed Unit.
27. With respect to any tract within the unit which include non-unitized interest, the last producing well located on those tracts will never be converted to injection.
28. The Unit Agreement does not provide for the location of wells.
29. The proposed Unitized Interval described in the Unit Agreement is identified as a single reservoir for Commission purposes and is a suitable reservoir for a secondary recovery project.
30. The Unit Agreement contains only the acreage reasonably necessary to accomplish the proposed secondary recovery project.
31. Kramer will separately gauge production from wells on tracts in the Unit that do not have 100% sign-up by installing separate tanks for those wells, or by performing monthly wells tests to measure production from all wells on tracts in the Unit that do not have 100% sign-up.
32. Owners of non-unitized interests within the unit will continue to be paid on a tract basis.
33. The participation formula is fair and reasonable as to all parties involved in the unit.
34. Fresh water will not be used as an injectant in the proposed project.


**CONCLUSIONS OF LAW**

1. Resolution of the subject application is a matter committed to the jurisdiction of the Railroad Commission of Texas in Tex. Nat. Res. Code § 81.051.
2. All notice requirements have been satisfied in 16 Tex. Admin. Code § 1.45
3. Applicant's proposed secondary recovery project satisfies all of the requirements set out in Tex. Nat. Res. Code Ann. § 101.001-052.
4. Approval of the proposed unit agreement for secondary recovery operations is in the public interest and is necessary to prevent waste and to promote the conservation of oil or gas or both.

**RECOMMENDATION**

Based on the above findings of facts and conclusions of law, the Examiners recommend that the Commission designate the Northwest Valera Unit as a unit for secondary recovery purposes as proposed by Kramer Operating, LLC.

Respectfully submitted,

  
Richard Eyster P.G.  
Technical Examiner

  
Clayton Hoover  
Administrative Law Judge