

THE APPLICATION OF GINNINGS COMPANY TO CONSIDER UNITIZATION AND SECONDARY RECOVERY AUTHORITY FOR THE NAYLOR JENNINGS SAND UNIT, NAYLOR (JENNINGS SAND) FIELD, COLEMAN COUNTY, TEXAS

HEARD BY: Richard D. Atkins, P.E. - Technical Examiner
Christopher Hotchkiss - Legal Examiner

DATE OF HEARING: February 25, 2011

APPEARANCES:

REPRESENTING:

APPLICANT:

Richard P. Marshall, Jr.
Marke D. Ginnings

Ginnings Company

EXAMINERS' REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Ginnings Company ("Ginnings") requests Commission authority for unitization of the Naylor Jennings Sand Unit and approval of secondary recovery operations on the Unit.

This application was unopposed and the examiners recommend approval.

DISCUSSION OF THE EVIDENCE

The Naylor (Jennings Sand) Field was discovered in August 1952 at an average depth of 3,380 feet. There are no producing oil wells carried on the proration schedule. Field Rules provide for 330'-660' 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 2,000 cubic feet per barrel and a casinghead gas limit of 128 MCFGPD. Cumulative production from the field is 712.8 MBO and 178.9 MMCFG.

The unitized formation is the subsurface portion of the Unit Area commonly known as the Jennings Sand formation between the subsurface depths of 3,393 feet and 3,404 feet as shown on the log of the H.M. Naylor Oil Co. - Horace Stokes Lease, Well No. 1, Section 66, BBB&C RR Co. Survey, Abstract 1181, Coleman County, Texas.

The proposed Naylor Jennings Sand Unit consists of 16 tracts which contain 1,470 acres. The productive interval is a sand which is a stratigraphic trap that has no structural

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component. Solution gas drive is the primary drive mechanism. The proposed unit contains all of the productive portions of the Jennings Sand, as demonstrated by a cross section, structure map and net pay isopach map submitted by Ginnings. The sand has an average porosity of 15%, an average water saturation of 27% and an average net pay thickness of 7 feet.

Ginnings proposes to implement a waterflood initially by drilling 10 producing, 9 injection and one water source wells. Ginnings will inject produced saltwater and additional makeup saltwater from the Serratt and Cambrian Sand formations located at an average depth of approximately 2,120 feet and 4,900 feet, respectively.

Ginnings estimates that secondary recovery will be equal to 100% of primary recovery or approximately 568.7 MBO. The total cost to implement and operate the secondary recovery project is expected to be \$6.6 million and \$5.5 million, respectively. The projected net undiscounted working interest income is \$27.7 million, resulting in a return on investment of 4.18. This calculation is based on an oil price of \$85 per barrel.

The participation formula for the Unit is based on 50% primary cumulative production and 50% net reservoir volume. At the time of the hearing, 100% of the working interest ownership and 91.33% of the royalty interest ownership had signed the unit agreement. There are no state owned lands in the proposed unit. Ginnings anticipates 100% sign up of the working and royalty interest ownership by the time the project is initiated, but will conduct monthly well tests to allocate production to wells on tracts for which 100% sign-up was not achieved.

FINDINGS OF FACT

1. Notice of this hearing was sent to all operators and royalty interest owners within and adjacent to the proposed unit. Notice was published in the *Chronicle & Democrat-Voice*, a newspaper of general circulation in Coleman County, for four consecutive weeks beginning January 19, 2011.
2. The proposed Naylor Jennings Sand Unit consists of 16 tracts which contain 1,470 acres.
3. The unitized formation is the subsurface portion of the Unit Area commonly known as the Jennings Sand formation between the subsurface depths of 3,393 feet and 3,404 feet as shown on the log of the H.M. Naylor Oil Co. - Horace Stokes Lease, Well No. 1, Section 66, BBB&C RR Co. Survey, Abstract 1181, Coleman County, Texas.
4. The productive interval is a sand which is a stratigraphic trap that has no structural component. Solution gas drive is the primary drive mechanism.
5. At the time of the hearing, 100% of the working interest ownership and 91.33% of the royalty interest ownership had signed the unit agreement.

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Ginnings anticipates 100% sign up of the royalty interest ownership by the time the project is initiated.

6. Secondary recovery operations are expected to result in the recovery of an estimated 568.7 MBO which would otherwise go unrecovered.
7. The total cost to implement and operate the secondary recovery project is expected to be \$6.6 million and \$5.5 million, respectively. The projected net undiscounted working interest income is \$27.7 million, resulting in a return on investment of 4.18. The cost does not exceed the value of additional reserves to be recovered.
8. The participation formula for the Unit is based on 50% primary cumulative production and 50% net reservoir volume.
9. The secondary recovery project will not be successful unless the area is unitized.
10. Ginnings proposes to implement a waterflood initially by drilling 10 producing, 9 injection and one water source wells. Ginnings will inject produced saltwater and additional makeup saltwater from the Serratt and Cambrian Sand formations located at an average depth of approximately 2,120 feet and 4,900 feet, respectively.
11. The agreement was voluntarily executed by all parties affixing their signatures thereto and no person has been compelled or required to enter into the agreement. 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 signed the unit agreement.
12. The owners of interest in the oil and gas under each tract of land within the area reasonably defined by development have been given an opportunity to enter into the unit on the same yardstick basis as owners of interest in the oil and gas under the other tracts in the unit.
13. 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.
14. 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

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inadequate for the purpose of secondary recovery.

15. 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.
16. The unit agreement is subject to all valid orders, rules and regulations of the Railroad Commission.
17. The unit agreement contains no provision regarding field rules, nor does it limit the amount of production of oil or gas from the unitized area. The unit agreement does not release the operator from his obligation to reasonably develop lands or leases as a whole.
18. The unit agreement is a voluntary agreement entered into for the purpose of conducting secondary recovery operations.
19. The unit agreement does not provide for the location of wells.
20. There are no state owned lands in the proposed unit.
21. The unit agreement is in the interest of public welfare as being reasonably necessary to prevent waste and to promote conservation.
22. The reservoir described in the unit agreement is identified as a single reservoir for Commission purposes and is a suitable reservoir for a water injection secondary recovery operation.
23. The unit agreement contains only the acreage reasonably necessary to accomplish the proposed secondary recovery project.
24. Monthly well tests will be conducted to allocate production to wells on tracts for which 100% sign-up was not achieved.

CONCLUSIONS OF LAW

1. Proper notice was given to all persons legally entitled to notice.
2. All things have occurred or have been accomplished that are necessary to give the Commission jurisdiction in this matter.
3. Applicant's proposed secondary recovery project satisfies all of the requirements set out in TEX. NAT. RES. CODE ANN. §§101.001 et seq.

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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.

EXAMINERS' RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiners recommend approval of the proposed Naylor Jennings Sand Unit and secondary recovery operations project, as set out in the attached order.

Respectfully submitted,

Christopher Hotchkiss
Legal Examiner

Richard D. Atkins, P.E.
Technical Examiner