CHRISTI CRADDICK, CHAIRMAN RYAN SITTON, COMMISSIONER WAYNE CHRISTIAN, COMMISSIONER



# RAILROAD COMMISSION OF TEXAS **HEARINGS DIVISION**

OIL AND GAS DOCKET No. 01-0308634

THE APPLICATION OF NORTH SOUTH OIL, LLC TO AMEND THE FIELD RULES FOR THE LULING-BRANYON FIELD, CALDWELL AND GUADALUPE COUNTIES, TEXAS

**HEARD BY:** 

Karl Caldwell – Technical Examiner

Jennifer Cook – Administrative Law Judge

**HEARING DATE:** 

March 5, 2018

RECORD CLOSED:

June 13, 2018

**CONFERENCE DATE:** 

June 19, 2018

APPEARANCES:

REPRESENTING:

**APPLICANT:** 

North South Oil, LLC

James Clark, P.E. Claude Joseph

## **EXAMINERS' REPORT AND RECOMMENDATION**

#### STATEMENT OF THE CASE

North South Oil, LLC (North South or Applicant) requests to amend the field rules for the Luling-Branyon Field, Caldwell and Guadalupe Counties, Texas. North South proposes the following field rule amendment for the Luling-Branyon Field:

Where the ownership of oil and gas within the designated interval for the Luling-Branyon Field has been divided horizontally, operators shall have the right to develop the individual ownership as follows:

- a. Operators of tracts with no horizontal severance of ownership within the designated interval for the Luling-Branyon Field AND operators of the shallow rights above a horizontal severance of ownership within that same interval shall permit wells under Field ID Number 55679001.
- b. Operators with ownership of deep rights below a horizontal severance within the designated interval for the Luling-Branyon Field shall permit wells

under a Field ID Number to be assigned in this docket (Field ID No. 55679100). This field number for the Luling-Branyon Field shall be labeled "Luling-Branyon R 40 Exc" in the Commission's records.

- c. Any operator using the Field ID Number for "deep rights" certifies, by use of that number, that the ownership of the oil and gas rights is divided horizontally on the tract for which the drilling permit is sought.
- d. Where the ownership of oil and gas is horizontally divided, the Field Rules for the Luling-Branyon Field will apply separately to wells drilled under Field ID Number 55679001 and wells drilled under the Deep Field Number, such that proration units on a tract above and below the horizontal division of ownership are independent and may overlap.

Notice of the application was provided to all operators in the field.

Commission Oil and Gas staff ("Staff") filed an amicus curiae identifying an area of concern in the request to amend the field rules with a field-wide Statewide Rule 40 exception that could potentially result in waste by allowing the double assignment of acreage to multiple wells within a common, conventional, pressure/water drive reservoir. Staff notes that the proposed field rule for the Luling-Branyon Field mirrors the language adopted by the Commission in 2013 for the Spraberry (Trend Area) Field ("Spraberry"). The evidence in the Spraberry case included evidence that the geology of the field was characterized by thick, unconventional shale, and that production and drainage could not occur without fracture stimulation. As such, a Statewide Rule 40 exception was necessary to fully develop the field's minerals, and waste would not occur because production is confined to the extent of artificial fractures. Staff notes that in contrast, evidence in the most recent field rule amendment for the Luling-Branyon Field found that the field produces from the Austin Chalk and Upper Edwards Formations, and that the field's primary drive mechanism is a strong water drive. Additionally, Staff notes that the field contains multiple permitted and producing open hole completions, further indicating that the geology of the Luling-Branyon Field may be characterized by natural fractures and that the proposed field-wide Statewide Rule 40 exception may result in waste.

North South also requests that the list of 35 wells included in Attachment A of the Notice of Hearing be transferred from the Luling-Branyon Field to the Luling-Branyon R 40 Exc Field without the need for new drilling permits and granted an exception to Statewide Rule 40. The request for an exception to Statewide Rule 40 and the request to transfer 35 wells from the Luling-Branyon Field to the proposed Luling-Branyon R40 Exc Field was severed from the field rule amendment case and given its own docket number (Oil and Gas Docket No. 01-0311764). The Application is unprotested and the Technical Examiner and Administrative Law Judge (collectively, "Examiners") recommend approval of the application to amend the field rules for the Luling-Branyon Field as requested by North South.

#### **DISCUSSION OF THE EVIDENCE**

### Luling-Branyon Field Background

The Luling-Branyon Field was discovered on August 8, 1922 at a depth of 1,900 feet. The field has been producing for almost 100 years and the field is currently on 2-acre density. As of March 2018, there were 1,536 total wells on the proration schedule for the Luling-Branyon Field, of which, 131 were horizontal wells. A correlative interval for the Luling-Branyon Field was designated in Final Order No. 01-0262944 and the Luling-Branyon Field is now defined as the entire correlative interval from 1,620 feet to 2,164 feet as shown on the log of the Texas Petroleum Investment Co. - J. E. Allen "A" Lease, Well No. 46 (API No. 42-187-33111). This interval is designated as a single reservoir for proration purposes and includes both the Austin Chalk and Edwards Formations.

There is a difference in mineral ownership within the Luling-Branyon Field. There are shallow rights, which is typically the Austin Chalk Formation. North South is only interested in developing deeper mineral rights within the Luling Branyon Field, namely the Edwards Formation, with horizontal wells. The Edwards Formation is located at the very base of the correlative interval for the Luling Branyon Field. James Clark, P.E., North South's expert witness in the field of petroleum engineering, testified that if North South is not authorized to develop the Edwards Formation in the Luling Branyon Field, specifically with horizontal wells, waste will occur. In Mr. Clark's expert opinion, there is no other way to produce these recoverable hydrocarbons within the Edwards Formation at this time.

Currently, most of the wells in the Luling-Branyon Field are vertical wells, and many of these vertical wells were open hole completions that could produce the Austin Chalk and the Edwards formations through the same wellbore. Mr. Clark does not believe that most of these vertical wells are producing through the Edwards and the Austin Chalk Formations today because the water cut from the Edwards Formation is going to choke off the Austin Chalk Formation oil production. Mr. Clark would expect most of those vertical wells that penetrated the Edwards Formation have been plugged back to the Austin Chalk Formation. In addition, there is a severance of development rights within the Luling-Branyon Field interval for the leases North South has acquired in the field.

North South filed the application to amend the Luling-Branyon Field rules to request an exception to Statewide Rule 40 for depth severance of minerals within the correlative interval for the field. The request to consider amending the field rules for the Luling Branyon field and creating the proposed Luling-Branyon (R 40 Exc.) Field is that operators have proration units assigned to their wells in the Austin Chalk portion of the Luling-Branyon Field, while North South has leased the deep rights in the Edwards formation of the Luling Branyon Field. The operators with wells in the upper interval of the field generally do not penetrate deeper than the Austin Chalk, and do not produce the Edwards Formation, as the operators producing the Austin Chalk interval do not have the rights to develop the Edwards interval. It is this depth severance of minerals that is

causing a Statewide Rule 40 issue. The Austin Chalk, being the shallower portion of the Luling Branyon Field, was developed first. As a result, without some kind of relief North South is prevented from developing the deeper portion (Edwards Formation) of the field.

#### Development of the Luling Branyon Field

In Mr. Clark's opinion, the Edwards Formation in the Luling-Branyon Field is in the late stages of depletion due to the encroachment of water from a natural water drive and some degree of waterflooding. The Edwards Formation now produces from residual oil saturation that can only be produced by creating a significant pressure drawdown between the reservoir and wellbore to make a portion of the residual oil mobile. The only way to do this economically is to land horizontal laterals in the Edwards Formation to create this drawdown over as much reservoir volume as possible. The residual oil production comes with very large volumes of water as would be expected from producing the residual oil trapped in the pore space. This residual oil will be wasted if it can't be produced through horizontal wellbores at high water cuts.

Mr. Clark considers the Luling-Branyon Field to be a very old field. This field was discovered in 1922, both the Edwards and the Austin Chalk, intervals and has been producing for almost 100 years. The field is on 2-acre density, and the field is largely depleted. The only way to continue to develop this field is by creating a relatively large draw-down in the immediate vicinity of the pore space. By creating that extra pressure differential an operator is able to bring out those last few drops of oil, along with a lot of water. This can be accomplished in two different ways: 1) drill a whole series of vertical wells, which is uneconomic and has a very limited drainage area, or 2) drill a horizontal well.

# Utilizing Horizontal Wells to Recover Residual Oil in the Luling Branyon Field

The horizontal wells drilled in the Edwards Formation are not hydraulically fracture stimulated. The horizontal wells are open-hole completions that produce by creating a new pressure sink in the immediate vicinity of the pore spaces and produce a lot of water with the residual oil. A horizontal well will contact a lot of reservoir volume, a lot of pore space, and will create a pressure sink in the vicinity of those pore spaces, allowing the last remaining residual oil to be liberated. The oil production comes with extremely large water volumes. In Mr. Clark's opinion, the only way this residual oil in the Edwards Formation is going to be produced, is through horizontal wellbores at high water cuts.

Mr. Clark considers this completion technique to be analogous to a new technology, as it was certainly a novel idea to drill a well into the residual oil zone of an interval this depleted, but it works. In Mr. Clark's opinion, that oil is going to be wasted if it can't be produced as the oil will go unrecovered if it can't be produced through this particular technology of drilling horizontal wells.

Based on Mr. Clark's analysis, the Edwards Formation and the Austin Chalk formation may contain some natural fractures within themselves, in other words, the

Austin Chalk might contain some natural fractures that are limited to the Austin Chalk, and the Edwards might contain some natural fractures that are limited to the Edwards. However, the fractures are certainly limited vertically, and there is no way the Austin Chalk and the Edwards are in communication in this field. The Austin Chalk and the Edwards are also separated by two major shale formations: the Eagleford, which is at the base of the Austin Chalk, and the Del Rio, which are present regionally.

#### Previous Field Rule Amendments to the Luling Branyon Field

The most recent field rule hearing for the Luling-Branyon Field was held on October 9, 2009 (Oil and Gas Docket No. 01-0262944), in which Mr. Clark was the engineering witness that testified on behalf of the applicant, Texas Petroleum Investment Co ("TPIC"). According to Mr. Clark, TPIC was having a similar Statewide Rule 40 issue with double assignment of acreage in the Luling-Branyon Field with what North South has today. At that time, the field rules required proration units be filed. The field rule amendment proposed and adopted in that hearing was to eliminate the requirement to file proration unit plats. Mr. Clark concluded that field rule resolved the double assignment of acreage issue when only one operator has the mineral rights within the entire field interval. In that scenario, the operator can simply just not double assign the acreage, by electing not to file proration unit plats. but the operator certainly has the option of filing these proration unit plats. However, in instances where one operator has the Austin Chalk Formation rights, and one operator has the Edwards Formation rights, there can still be issues with Statewide Rule 40 and the double assignment of acreage. In that same hearing, a correlative interval for the field that included the Austin Chalk through the Upper Edwards formations was designated as the correlative interval for the Luling-Branyon Field at the request of operators in the field.

#### North South Statewide Rule 40 Violation Letters

North South has received Statewide Rule 40 violation letters from the Commission that have resulted in oil overproduction due to the inability to assign an oil allowable to several of North South's leases. In total, North South is requesting to transfer 35 wells to the proposed Statewide Rule 40 exception field (Luling-Branyon R 40 Exc Field). All 35 wells are horizontal wells completed in the Edwards Formation. North South has been unable to have an allowable assigned due to the double assignment of acreage with wells that are completed in the Austin Chalk Formation.

North South has leased the rights to develop below the base of the Austin Chalk on the leases with current Statewide Rule 40-double assignment of acreage violations in the Luling-Branyon Field. For example:

1. The Ellison Unit is a 425-acre pooled unit, that is overlain by multiple leases that produce from the Austin Chalk Formation. North South is successor to OAG Holdings II, LLC and has leased the right to develop the only the Edwards Formation in this 425-acre pooled unit. This is an example of where one operator has the rights to develop the Austin Chalk and

shallower portions of the Luling-Branyon Field, and North South currently has leased the rights to develop the Edwards Formation of the Luling-Branyon Field.

2. North South has acquired leases form Castillo Oil Company LLC, which include the Caldwell County Lease (03560), Frank Koehler Lease "A" Lease (00996), Frank Koehler Lease "B" Lease (02519), Frank Koehler Lease "C" Lease (03531), Frank Koehler Lease (02685), and the Salt Water Disposal Well Koehler (12744) The term assignment of oil and gas leases is limited to only cover from the base of the Austin Chalk formation and down, and that this term assignment of oil and gas leases does not cover from the surface down to the base of the Austin Chalk Formation.

# Previous Applications to Address the Statewide Rule 40 Issue in the Luling-Branyon Field

In Final Order for Oil and Gas Docket No. 01-0262944 where a field interval was adopted for the Luling-Branyon Field, Field Rule No. 3 was amended such that operators shall be required to file, along with Form P-15, a plat of the lease, unit, or property; provided that such plat shall not be required to show individual proration units, which allowed TPIC to continue to develop the Edwards Formation. In Oil and Gas Docket No. 01-0306016, North South filed an application to separate the Edwards Formation out of the Luling-Branyon Field. After a pre-hearing conference was held on October 11, 2017 North South decided to withdraw the application. According to Mr. Clark, TPIC, which appeared at the pre-hearing conference, was opposed to unconsolidating the Luling-Branyon Field. In Mr. Clark's opinion it doesn't make sense to separate the Luling-Branyon Field interval into two separate fields, Austin Chalk and Edwards, when the field has been producing for almost 100 years, which would cause a multitude of Statewide Rule 10 problems.

Since TPIC was opposed to unconsolidating the Luling-Branyon Field, Mr. Clark suggested that North South create a field rule with an exception to Statewide Rule 40 and a companion R-40 exception field. The only field where this rule has been adopted todate has been in the Spraberry (Trend Area) Field. Mr. Clark acknowledges that the Luling-Branyon Field and the Spraberry (Trend Area) Field are very different fields, one conventional, one unconventional. However, there is a common similarity that lends to the proposed Statewide Rule 40 exception field concept. The Spraberry (Trend Area) Field interval extends from the top of the Clearfork Formation to the base of the Wolfcamp Formation. In the Spraberry (Trend Area) Field, there were operators that had developed the shallow portion of the field interval, such as the Spraberry Formation, located near the top of the field interval, with vertical wells. Later, an operator wanted to drill horizontal wells in a lower portion of the Spraberry (Trend Area) Field interval, and this same SWR 40 violation arose. There were instances where acreage was already assigned to a well in the field, but in specific cases is a depth severance of the minerals, and an operator has the mineral rights to develop the Wolfcamp Formation, which is the same situation in this case. There are operators that have rights to develop the Austin Chalk Formation in

the Luling Branyon Field, and there are other operators such as North South, that are only interested in developing the Edwards Formation, which is the deeper part of the field interval. Since TPIC was opposed to unconsolidating the field, Clark proposed the Statewide Rule 40 exception field solution.

An alternative solution that Mr. Clark considered proposing, but did not put forward in the Notice of Application is based on the concept of a UFT field. Statewide Rule 40 allows duplicate assignment of acreage to both a horizontal well and a vertical well in certain instances. This would remedy North's South's Statewide Rule 40 issue in the Luling-Branyon Field as North South is only interested in drilling horizontal wells in the Edwards Formation. However, the Luling-Branyon Field is not a tight, unconventional reservoir, and it does not require hydraulic fracture stimulation.

All of the North South wells requested to be transferred to the Luling-Branyon R-40 exception field are horizontal wells in the Edwards Formation. To Mr. Clark's knowledge, there are no horizontal wells drilled in the Austin Chalk interval of in the Luling-Branyon Field to-date. Even though the Luling -Branyon Field is not an unconventional fracture-treated field (UFT), the concept of allowing an operator within the field interval to assign the same acreage to vertical and horizontal wells would also solve the Statewide Rule 40 issue. However, in Mr. Clark's opinion, it makes more sense to proceed with North South's R-40 Exc field application since there is a depth severance of minerals within the field.

#### Discussion of Commission Staff's Area of Concern

Mr. Clark agrees with Staff's assessment that the Spraberry (Trend Area) Field where the requested Statewide Rule 40 exception and Statewide Rule 40 Exc field has been adopted and the Luling-Branyon Field are different. The Spraberry (Trend Area) Field is an unconventional reservoir. The Luling-Branyon Field produces from conventional reservoirs, the Austin Chalk interval and the Edwards interval. In the Spraberry (Trend Area) Field a Statewide Rule 40 exception was deemed necessary to fully develop the field's minerals, and waste would not occur because production is confined to the extent of artificial fractures within the Spraberry (Trend Area) Field. Staff's concern is that the geology of the Luling-Branyon Field may be characterized by natural fractures and that the proposed field-wide Statewide Rule 40 exception may result in waste. However, the Austin Chalk and the Edwards intervals are not connected and are not in communication. The Edwards and Austin Chalk Formations are separated by two major shale formations (Eagle Ford and Del Rio), which are present throughout the Luling-Branyon Field area. Well logs and a cross-section across the field shows the Eagleford and Del Rio shales are present regionally. Although the Edwards Formation and Austin Chalk Formation may contain natural fractures, the fractures are limited vertically, and the Edwards and Austin Chalk Formations are not in communication through any natural means. There may be natural fractures within the individual productive zones, for example, there could be natural fractures within the Austin Chalk Formation, and there could be natural fractures within the Edwards Formation, but these natural fractures do not extend to cause communication between these two formations.

Within the Edwards itself there are different zones that cannot be discerned on well logs that are separated from each other by impermeable strata. Some operators have the upper Edwards broken down into A, B, C, D, E, F intervals. According to Mr. Clark, an operator may drill an A-Zone lateral, and later drill a C Zone lateral directly underneath the previous A-Zone lateral and get completely different reserves, evidence that the different laterals are not connected by natural fractures. The different target zones within the upper Edwards are not in vertical communication because they are separated by non-porous limestones.

Mr. Clark disagrees with Staff's conclusion, based on Oil and Gas Docket No. 01-0262944 finding of fact No. 5 that states that the Luling Branyon Field, produces from the Austin Chalk and Edwards Formations, and the primary drive mechanism is a strong water drive. According to Mr. Clark, the Bureau of Economic Development (BEG) address the Austin Chalk portion of the Luling Branyon Field separately from the Edwards portion of the Luling Branyon Field. Per the BEG Atlas of Major Texas Reservoirs, the Austin Chalk Formation portion of the Luling-Branyon Field is a solution gas drive reservoir. The Edwards Formation portion of the Luling-Branyon field is a water drive reservoir. Mr. Clark believes Oil and Gas Docket No. 01-0262944 finding of fact No. 5 should state that the Edwards Formation primary drive mechanism is a strong water drive and the Austin Chalk Formation is a solution gas drive.

#### **FINDINGS OF FACTS**

- Notice of this hearing was provided to all operators in the Luling-Branyon Field ("Field") in Caldwell and Guadalupe Counties, Texas, and no protests were received.
- 2. North South Oil, LLC requests to amend the field rules for the Luling-Branyon Field as follows:
  - a. Where the ownership of oil and gas within the designated interval for the Luling-Branyon Field has been divided horizontally, operators shall have the right to develop the individual ownership as follows:
  - b. Operators of tracts with no horizontal severance of ownership within the designated interval for the Luling-Branyon Field AND operators of the shallow rights above a horizontal severance of ownership within that same interval shall permit wells under Field ID Number 55679001.
  - c. Operators with ownership of deep rights below a horizontal severance within the designated interval for the Luling-Branyon Field shall permit wells under a Field ID Number to be assigned in this docket (Field ID No. 55679100). This field number for the Luling-Branyon Field shall be labeled "Luling-Branyon R 40 Exc" in the Commission's records.

- d. Any operator using the Field ID Number for "deep rights" certifies, by use of that number, that the ownership of the oil and gas rights is divided horizontally on the tract for which the drilling permit is sought.
- e. Where the ownership of oil and gas is horizontally divided, the Field Rules for the Luling-Branyon Field will apply separately to wells drilled under Field ID Number 55679001 and wells drilled under the Deep Field Number (Field ID No. 55679100), such that proration units on a tract above and below the horizontal division of ownership are independent and may overlap.
- 3. To accomplish the Rule 40 exceptions, North South requests creation of the Luling-Branyon R 40 Exc Field for operators with ownership of deep rights below a horizontal severance and to permit those deeper interval wells. In conjunction to the request for Rule 40 exceptions, North South filed an application to amend the Field's field rules to allow operators in the Field with ownership of the deeper rights below a horizontal severance to permit those deeper interval wells in the Luling-Branyon R 40 Exc Field.
- 4. A hearing was held on March 5, 2018 regarding North South's requests to amend the field rules for the Luling-Branyon Field, for Statewide Rule 40 exception for 35 of its wells and to create the proposed Luling-Branyon R40 Exc Field. The Statewide Rule 40 exceptions, creating the proposed Luling-Branyon R 40 Exc Field and transferring the wells to the proposed Luling-Branyon R 40 Exc Field was severed from the field rule amendment application and given its own docket number, Oil and Gas Docket No. 01-0311764.
- 5. Commission Oil and Gas staff ("Staff") filed an *amicus curiae* identifying an area of concern in the request to amend the field rules with a field-wide Statewide Rule 40 exception that could potentially result in waste by allowing the double assignment of acreage to multiple wells within a common, conventional, pressure/water drive reservoir.
- 6. The Luling-Branyon Field produces from conventional reservoirs, the Austin Chalk interval and the Edwards interval. However, the Austin Chalk and the Edwards intervals are not connected and are not in communication.
  - a. The Edwards and Austin Chalk Formations are separated by two major shale formations (Eagle Ford and Del Rio), which are present throughout the Luling-Branyon Field area. There may be natural fractures within the individual productive zones, as there could be natural fractures within the Austin Chalk, and there could be natural fractures within the Edwards, but these natural fractures do not extend to cause communication between these two formations.
  - b. The Bureau of Economic Development (BEG) addresses the Austin Chalk portion of the Luling-Branyon Field separately from the Edwards portion of

the Luling-Branyon Field. Per the BEG Atlas of Major Texas Reservoirs, the Austin Chalk Formation portion of the Luling-Branyon Field is a solution gas drive reservoir. The Edwards Formation portion of the Luling-Branyon field is a water drive reservoir.

- c. The Edwards Formation in the Luling-Branyon Field now produces from residual oil saturation that can only be produced by creating a significant pressure drawdown between the reservoir and wellbore to make a portion of the residual oil mobile.
  - i. The only way to do this economically is to land horizontal laterals in the Edwards Formation to create this drawdown over as much reservoir volume as possible.
  - ii. The residual oil production comes with very large volumes of water, as expected from producing the residual oil trapped in the pore space.
  - iii. The residual oil will go unrecovered if it cannot be produced with horizontal wells in the Edwards Formation. There is no other way to produce these recoverable hydrocarbons within the Edwards Formation at this time if operators are not authorized to develop the Edwards Formation in the Luling Branyon Field, specifically with horizontal wells.
- 7. A correlative interval for the Luling-Branyon Field was designated in Final Order No. 01-0262944 and the Luling-Branyon Field is defined as the entire correlative interval from 1,620 feet to 2,164 feet as shown on the log of the Texas Petroleum Investment Co. J. E. Allen "A" Lease, Well No. 46 (API No. 42-187-33111). This interval is designated as a single reservoir for proration purposes and includes both the Austin Chalk and Edwards Formations.
- 8. There is a difference in mineral ownership within the Luling-Branyon Field. There are shallow rights, which is typically the Austin Chalk Formation. North South is only interested in developing deeper mineral rights within the Luling-Branyon Field, namely the Edwards Formation.
  - a. The Edwards Formation is located at the very base of the correlative interval for the Luling-Branyon Field.
  - b. If North South is not authorized to develop the Edwards Formation in the Luling Branyon Field, specifically with horizontal wells, waste will occur as there is no other way to produce these recoverable hydrocarbons within the Edwards Formation at this time.

- c. This residual oil in the Luling-Branyon Field will go unrecovered if it cannot be produced through this particular technology of drilling horizontal wells and producing the horizontal; wells in the Edwards Formation at high water cuts.
- 9. Statewide Rule 40 prohibits the "double assignment" of acreage to non-stacked lateral, horizontal wells in the same field.
- 10. North South has received Statewide Rule 40 violation letters from the Commission that have resulted in oil overproduction due to the inability to assign an oil allowable to several of North South's leases.
- 11. North South has leased the rights to develop below the base of the Austin Chalk on the leases with current Statewide Rule 40 double assignment of acreage violations in the Luling-Branyon Field. In total, North South is requesting to transfer 35 wells to the proposed Luling-Branyon Statewide Rule 40 exception field. The 35 wells are unable to be assigned an allowable due to the double assignment of acreage with wells that are completed in the Austin Chalk Formation.
- 12. The Luling-Branyon Field was discovered on August 8, 1922 at a depth of 1,900 feet. The field has been producing for almost 100 years and the field is currently on 2-acre density. As of March 2018, there were 1,536 total wells on the proration schedule for the Luling-Branyon Field. Of these 1,536 wells, 131 were horizontal wells.
- 13. Horizontal wells drilled in the Edwards Formation are not hydraulically fracture stimulated. The wells are open-hole completions that produce simply by creating a new pressure sink in the immediate vicinity of the pore spaces and produce a lot of water.
- 14. In this case, amending the field rules for the Luling-Branyon Field and permitting wells in the Luling-Branyon R40 Exc Field where there is a depth severance of minerals within the correlative interval for the field is necessary for North South to produce its fair share of the hydrocarbons and prevent waste.
- 15. In the past, the Commission has granted exceptions to Statewide Rule 40 and approved the Spraberrry (Trend Area) R40 Exc Field in Oil and Gas Docket No. 7C-0283443 to prevent waste.
- 16. The Commission granted an exception to Statewide Rule 40 in Oil and Gas Docket No. 08-0309365.
- 17. A Statewide Rule 40 exception is necessary in order to allow North South to obtain an allowable to produce its wells in the Luling-Branyon Field where there is a depth severance of minerals within the correlative interval for the field.

18. North South agreed, that, pursuant to the provisions of Texas Government Code §2001.144(a)(4)(A), this Final Order shall be final and effective on the date a Master Order relating to this Final Order is signed.

#### **CONCLUSIONS OF LAW**

- 1. Proper notice was issued as required by all applicable statutes and regulatory codes.
- 2. All things have occurred and been accomplished to give the Commission jurisdiction in this matter.
- 3. Amending the field rules for the Luling-Branyon Field will allow operators in the field to recover additional reserves and prevent waste.
- 4. Pursuant to §2001.144(a)(4)(A), of the Texas Government Code, and the consent of the applicants, this Final Order is final and effective when a Master Order relating to this Final Order is signed.

#### **EXAMINERS' RECOMMENDATION**

Based on the above findings of fact and conclusions of law, the Examiners recommend that the Commission amend the field rules for the Luling-Branyon Field in Caldwell and Guadalupe Counties, Texas.

Respectfully submitted,

Karl Caldwell

Technical Examiner Administrative Law Judge