RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

October 7, 2016

RULE 37 CASE NO. 0299507
STATUS NO. 813402
DISTRICT 02

APPLICATION OF DOUBLE PLAY OIL & GAS, INC. FOR AN EXCEPTION TO STATEWIDE RULE 37 FOR THE MCNEILL (BROOKS) LEASE, WELL NO. 2, WILDCAT FIELD, LIVE OAK COUNTY, TEXAS

PROPOSAL FOR DECISION

HEARD BY: Jennifer Cook – Administrative Law Judge
Karl Caldwell – Technical Examiner

PROCEDURAL HISTORY:

Application Filed:	January 21, 2016
Notice of Application:	January 28, 2016
Protest Filed:	February 15, 2016
Hearing Request Form Filed:	March 31, 2016
Notice of Hearing:	April 6, 2016
Hearing Date:	May 2, 2016
Hearing Resumed:	July 15, 2016
Transcript Received:	July 28, 2016
Record Closed:	July 28, 2016
Proposal for Decision Issued:	October 7, 2016

APPEARANCES:

FOR APPLICANT:
Mr. Michael E. McElroy
McElroy, Sullivan, Miller, Weber & Olmstead, L.L.P.

APPLICANT:
Double Play Oil & Gas, Inc.

FOR PROTESTANTS:
Mr. David Nelson
Gross and Nelson Attorneys at Law
Lorie McGuffin Bertoncini
Lisa Milpass
Wane Dirks

PROTESTANTS:
McGuffin family heirs

Table of Contents

I. Statement of the Case[1]

Double Play Oil & Gas, Inc. ("Double Play" or "Applicant") filed an application ("Application") with the Railroad Commission ("Commission" or "RRC") seeking a lease line spacing exception permit under the provisions of 16 TEX. ADMIN. CODE § 3.37 ("Statewide Rule 37" or "Rule 37"). Applicant seeks an exception to drill a well closer than the 467 feet minimum lease line distance limit in Statewide Rule 37 for the McNeill (Brooks) Lease ("Lease"), Well No. 2 ("Well") in the Wildcat Field, Live Oak County, Texas because the proposed location of the Well is closer than allowed by rule to tracts external and adjacent to the Lease. The Application is protested by the McGuffin family heirs, ("Protestants" or "the McGuffins"), who are undivided interest owners in the unleased acreage due north of the proposed Well.[2]

The Administrative Law Judge and Technical Examiner (collectively "Examiners") respectfully submit this Proposal for Decision ("PFD") and recommend the Commission approve the Application and grant the Rule 37 exception. There are unusual local conditions—namely a water drive fault trap reservoir at the lease line—such that the proposed Well location is necessary to prevent waste.

II. Background

Applicant filed the Application seeking a spacing exception permit under the provisions of Statewide Rule 37. Applicant seeks an exception to the minimum lease line distance requirement in Statewide Rule 37 because the Well as proposed will be closer than allowed to tracts external to the Lease; the proposed Well is 102 feet from Protestants' adjacent external tract. A copy of the drilling plat showing the Lease, Well and tracts is attached as Appendix A.[3]

The Well will be a new vertical well in the Field located in the Jane Curry Survey, Abstract No. A-143 ("Survey") in Live Oak County, approximately 2.2 miles in a southwest direction from the town of Dinero, Texas. The surface location of the Well is 102 feet from the northwest line of the Lease boundary and 587 feet from the southwest line of the Lease boundary. It is 102 feet from the northwest line of the Survey boundary and 13,411 feet from the southwest line of the Survey boundary.[4]

The Well is to be drilled in the Wildcat Field. There are no special field rules for the Wildcat Field so the statewide 467 feet minimum lease line spacing distance in Statewide Rule 37 applies.[5]

Protestants own undivided unleased mineral interests in the tract just north of the proposed Well.[6] While it was not specified at the hearing, the only tract directly north of the Well is identified as Tract 3 in the J. Poitevent Survey, Abstract No. A-508.[7]

---

[1] The hearing transcript in this case will be referred to as "Tr. at [pages:lines]." Applicant's exhibits will be referred to in the PFD as "Applicant Ex. [exhibit no.]." Protestants offered no exhibits.
[2] Tr. at 7:19 to 7:24.
[3] Appendix A is a copy of page two of Applicant Ex. 1.
[4] Applicant Ex. 1.
[5] 16 TEX. ADMIN. CODE § 3.37(a)(1).

III. Jurisdiction and Notice

Rule 37 is authorized pursuant to sections 81.051 and 81.052 of the Texas Natural Resources Code, which provide the Commission with jurisdiction over all persons owning or engaged in drilling or operating oil or gas wells in Texas and the authority to adopt all necessary rules for governing and regulating persons and their operations under the jurisdiction of the Commission.[8]

Rule 37 contains provisions regarding notice of the application for a spacing exception and notice of any hearing on an application. Regarding notice of the application, Rule 37 requires:

> When an exception to only the minimum lease line spacing requirement is desired, Applicant shall file a list of the mailing addresses of all affected persons, who, for tracts closer to the well than the greater of one-half of the prescribed minimum between-well spacing distance or the minimum lease line spacing distance, include:
>
> (i) the designated operator;
>
> (ii) all lessees of record for tracts that have no designated operator; and
>
> (iii) all owners of record of unleased mineral interests.[9]

Notice of the Application was provided as required.[10]

After notice of the Application was provided, the Commission received the protest by Protestants, thereby necessitating a hearing on the Application. Rule 37 requires that notice of hearing be given to the same persons who were provided notice of the Application.[11] The Commission's Hearings Division sent notice of the hearing to all persons provided notice of the Application.[12]

IV. Applicable Legal Authority

Statewide Rule 37 provides statewide well spacing limits for all fields that do not have special field rules. In this case, there are no special field rules for the Field so the minimum lease line distance of 467 feet in Rule 37 applies.[13] Rule 37 also applies to applications for an

---

[6] Tr. at 7:19 to 7:24.
[7] Applicant Ex. 1 at 2.
[8] TEX. NAT. RES. CODE §§ 81.051 and 81.052; *see, e.g.*, 29 Tex. Reg. 8271 (August 27, 2004).
[9] 16 TEX. ADMIN. CODE § 3.37(a)(2)(A).
[10] *See* Notice of Application issued by the Commission's Oil and Gas Division on January 28, 2016.
[11] 16 TEX. ADMIN. CODE § 3.37(a)(3).
[12] *See* Notice of Hearing issued on April 6, 2016.
[13] 16 Tex. Admin. Code § 3.37(a)(1).

exception to spacing limits. Rule 37 provides that the Commission may grant an exception to the spacing limits in Rule 37 as follows:

> [T]he commission, in order to prevent waste or to prevent the confiscation of property, may grant exceptions to permit drilling within shorter distances than prescribed in this paragraph when the commission shall determine that such exceptions are necessary either to prevent waste or to prevent the confiscation of property.[14]

Rule 37 further provides:

> At any such hearing, the burden shall be on Applicant to establish that an exception to this section is necessary either to prevent waste or to prevent the confiscation of property.[15]

In sum, in order for Applicant to obtain an exception to the 467 foot minimum lease line distance limit, Applicant has the burden to prove the exception is necessary to either prevent waste or prevent the confiscation of property.

V. Discussion of Evidence

Applicant provided the testimony of one witness and eleven exhibits. Protestants provided the testimony of one witness and no exhibits.

A. Summary of Applicant's Evidence and Argument

Applicant maintains that the proposed Well is necessary to prevent waste and to protect correlative rights.[16]

In sum, the Applicant provided evidence that the target reservoir for the Well is a water drive fault trap reservoir. Hence, in order maximize the recovery of hydrocarbons it is imperative to drill at the structurally highest location, which is approximately 100 feet from the fault. The trapping fault happens to be located right along and coincide with the lease line of Protestants' adjacent tract. The Well is a conventional vertical well to be drilled at a total depth of 5,400 feet. The proposed location is 102 feet from the lease line of Protestants' adjacent tract.[17]

Applicant's witness was Christian Dohse. Mr. Dohse is a consulting geologist with One Apex Energy and also performs work for Double Play. He attended the University of Texas at Austin and received a degree in geology in August 2007. He has since worked as a petroleum geologist almost exclusively regarding the Gulf of Mexico Basin, which is where the proposed Well is to be located. He prepared a study of the reservoir at issue in this case.[18]

---

[14] 16 TEX. ADMIN. CODE § 3.37(a)(1).
[15] 16 TEX. ADMIN. CODE § 3.37(a)(3).
[16] Tr. at 10:4 to 10:9; Applicant Ex. 1.
[17] Tr. at 13:1 to 13:19.
[18] Tr. at 10:24 to 12:17.

Mr. Dohse provided an overview of the reservoir traits Applicant is interested in pursuing. Applicant proposes to drill into the Hockley Sand and Yegua Formation, but primarily seeks to drill the Well in the Hockley Sand, which is in the Upper Eocene Jackson Group stratigraphic units of the Gulf Coast Basin. Mr. Dohse stated that the paleontological marker *Textularia hockleyensis* is an indicator of the reservoir sand Applicant is targeting. In addition, for exploration purposes, Applicant wants to drill the Well a little deeper than the Hockley Sand to see into the *Discoribis yeguaensis* and the *Eponides yeguaensis*, which are the biomarkers for the Yegua Formation that is in the Middle Eocene stratigraphic units. Applicant seeks to drill into the Yegua Formation primarily to look for other similar faults for future exploration. The majority of the work Mr. Dohse has done over the past eight years has been in these two formations—the Jackson Group and the Yegua Formation.[19]

Mr. Dohse also described how the sedimentology of the formations of interest were derived and the depositional environment of the reservoirs that Applicant targets. He provided a diagram of the Texas Gulf Coast containing a Yegua-Jackson structure development study submitted to the Texas Water Board. The diagram shows the different features of the onshore portion of the Gulf of Mexico Basin in Texas. In Live Oak County, where the Well will be drilled if permitted, is on the northern flanks of the Rio Grande Embayment where the predominant sediment sources are from the Rio Grande River and also from the Paleo-Nueces River. The sediment source flow is from the northwest down toward the basin. The Hockley Sand of the Jackson Group was deposited around 36 to 38 million years ago. At that time, it would have been a shallow marine environment. The Rio Grande Embayment had a substantial longshore current, similar to what is now on the southern Gulf Coast, where you have wave-dominated deposition laying the sands parallel with the coastline.[20]

He explained that this type of depositional environment led to faulting that is well known in the area. As the shoreline prograded, growth faults developed due to the release of pressure caused from continuous sedimentary loading. As a consequence, there is a sequence of what Mr. Dohse refers to as "down-to-the-coast" growth faults. In response to those growth faults, "up-to-the-coast" antithetic faults developed as well. There is significant faulting that runs parallel with the shoreline. Those faults created different unique traps along the Gulf Coast. Most of the oil and gas discovered along the Gulf Coast has been in these fault traps.[21]

Mr. Dohse provided a map developed in the 1990s of an area of Live Oak County where Applicant is focused on finding productive fault traps. It shows northeast-southwest faulting in the area that Mr. Dohse described as being parallel to the shoreline and what he states are 'up-to-the-coast faults." Mr. Dohse's objective with the map is to show the regional fault trending in the area of the Well's proposed location and similar fields in the area that produce from up-to-the-coast fault traps. Examples Mr. Dohse identified are the C A Winn Field, the Buckeye Knoll

[19] Tr. at 13:23 to 14:23; Applicant Ex. 2.
[20] Tr. at 14:25 to 17:1; Applicant Ex. 3.
[21] Tr. at 17:2 to 17:25.

Field, and the Paisano Creek Field. Mr. Dohse testified that he has worked on a substantial number of drilling projects in this area, such as in the C A Winn Field. Mr. Dohse uses this map in his work and has found it to be very useful in finding productive fault traps similar to one where the Well's proposed location is.[22] The specific location for the proposed Well is just on the northwest side of the Nueces River, on the north side of Lake Corpus Christi in Live Oak County, which is in south Central Texas.[23]

Mr. Dohse also provided a series of maps to demonstrate the need to drill in the most updip location in this type of fault trap reservoir. The series of maps are prior new field submissions provided to the Commission in the area of the proposed Well. He provided a map for each of the three similar field examples discussed above in Live Oak County—the Buckeye Knoll Field, the Paisano Creek Field, and the C.A. Winn Field. The three examples show arched fault trap reservoirs with productive wells drilled in updip locations and unproductive wells drilled in lowerdip locations. Mr. Dohse described these as typical up-to-the-coast arced fault trap reservoirs with downdip wet wells below the oil-water contact point. He testified that this kind of structure in this sand is typically associated with a water drive reservoir. Consequently, the most optimal locations to drill are the highest structural locations, as indicated by the structural maps provided.[24]

Mr. Dohse provided a horizon map he developed of the Main Hockley Sand that Applicant is targeting for this Well. It is a time structure map based on a three-dimensional survey of the area of the Lease at issue. The map shows the fault trap reservoir where the Well will be located. It identifies the updip area where the hydrocarbons are expected to be and the downdip areas, which are expected to be unproductive or "wet." The map also shows other similar structural up-to-the-coast fault trap reservoirs as well as another fault defining the reservoir trap where the proposed Well is to be located. The fault trap reservoir at issue is at the intersection of two faults creating a triangular reservoir that Mr. Dohse described as a classic water drive reservoir; consequently the drive of the water puts upward pressure on the hydrocarbons toward the most structurally high location in the reservoir. Mr. Dohse has experience with similar wells in the area and their production is from water drive reservoirs. Applicant has already drilled one well on this Lease aiming to produce this reservoir but it was at a downdip location and thus, unproductive. With the proposed Well, Applicant wants to move updip in this reservoir. In order to produce the most hydrocarbons from the Well, Applicant seeks to drill at the highest structural location in the reservoir. Mr. Dohse testified that a legal location, 467 feet from the lease line, would be just barely updip of the unsuccessful downdip well; Applicant seeks an exception to drill further updip aiming for the structural high of that feature. The trapping fault coincides with the lease line of Protestants' adjacent tract.[25]

Mr. Dohse explained that in this type of water drive reservoir, it is necessary to drill at the highest structural location to produce the most hydrocarbons and prevent waste. He testified that if you drill downdip in this type of reservoir, only hydrocarbons below the well will be recovered; nothing updip of the well will be recoverable. Consequently, if Applicant were to drill

---

[22] Tr. at 18:1 to 22:9.
[23] Tr. at 24:14 to 25:11.
[24] Tr. at 22:11 to 24:12; Tr. at 78:12 to 80:3.
[25] Tr. at 25:13 to 30:12; Applicant Ex. 7 at 1.

a well 467 feet from Protestants' lease line in accordance with Rule 37, the Well would be downdip of the structural highest location in this reservoir, and approximately one to two thirds of the hydrocarbons in the reservoir would be unrecoverable and wasted.[26]

In support of his assessment of this reservoir and where the faults are located, Mr. Dohse relied on multiple seismic three-dimensional cross-sections,[27] two-dimensional seismic data,[28] well logs,[29] as well as his experience and knowledge and familiarity with other wells and fields in the area.[30]

Mr. Dohse provided a structure map that is a combination of all of the data sources that he used in evaluating this area and the proposed Well location. In the structure map, he combined the three-dimensional seismic data with structural points of each of the wells that have been drilled in that area, and fault cuts that he found in the wellbore logs and the two-dimensional line data. The map shows where he estimates the location of the faults and the top of the Hockley Sand. One of the faults is located along the lease line between the Lease and Protestants' tract. The top of the Main Hockley Sand in this fault trap reservoir is at a depth of 4,100 feet. The oil/water contact depth is at just below 4,140 feet. The map shows the unsuccessful downdip well[31] in the reservoir at a depth of approximately 4,155 feet. The map shows the proposed Well location is at the top of the Main Hockley Sand and 102 feet from the lease line, which coincides with where the fault is. Mr. Dohse further testified that if Applicant is required to drill the Well 467 feet from the lease line in accordance with Rule 37, the Well will be structurally low in this potential reservoir and all hydrocarbons updip of the Well would be unrecoverable and wasted. He opined that the Well at the proposed location is necessary to prevent waste and necessary to allow the Lease mineral owners and lessees a chance to recover their recoverable reserves from this Main Hockley Sand. This is a function of the structure and that it is a water drive reservoir. The water fills in from the downdip portions of this sand and pushes up the oil to the very top of the reservoir.[32] He estimates the accuracy of the location of the faults is within 100 feet.[33]

Mr. Dohse provided two well logs that he utilized in his study: (1) the Apex No. 1 in the McNeill (Brooks) Lease, which is the well that was drilled downdip in the reservoir of the Well, and (2) the Apex No. 1A in the McNeill (Brooks) Lease, which is a productive well produced in a fault trap similar to the one where the proposed Well is to be drilled. The well log from the Apex No. 1 shows good sand but also shows that the sand is wet; with water drive reservoirs, it is not atypical for a well to have wet sand. That combined with the fault indicates a potential reservoir that can be drilled updip. The well log of the Apex No. 1A is from a well that is productive in the Main Hockley Sand, near the proposed Well's location. It is also producing from a fault trap, similar to the fault trap where the proposed Well is to be located. Applicant is hoping to accomplish what was accomplished with the Apex No. 1A with this Well, and wants to move updip from the unsuccessful well in an effort to drill a productive well above the oil/water

---

[26] Tr. at 30:13 to 31:19.
[27] Tr. at 31:20 to 39:23; Applicant Ex. 7 at 2-3; *see also* Tr. at 122:24 to 123:21.
[28] Tr. at 39:25 to 49:21.
[29] *See, e.g.*, Tr. at 53:19 to 58:19; Applicant Exs. 10A and 10B.
[30] *See, e.g.*, Tr. at 50:4 to 50:20; Tr. at 104:23 to 108:22.
[31] The unproductive downdip well is the Apex No. 1 on the map.
[32] Tr. at 49:24 to 53:18.
[33] Tr. at 90:10 to 92:19.

contact area in the reservoir. Both logs indicate good sand development—high permeability and high porosity.[34]

Mr. Dohse provided a calculation of the potential reserves in the target reservoir. The estimate is based on a typical volumetric calculation derived from the American Association of Petroleum Geologists. In the calculation, Mr. Dohse assumes 25 acres of potential reservoir area, 20 feet of reservoir, a porosity of 26.4 percent and a water saturation of 53.9 percent. These amounts are based on the study he performed and the data sources he utilized. Using this calculation, the original oil in place equals approximately 248,468 barrels. Using a 60% recovery factor, which is the typical recovery factor based on Mr. Dohse's experience and the reserves estimation guideline of the American Association of Petroleum Geologists for water drive reservoirs, the estimated potential recovery from this reservoir is 149,080 barrels if the Well is drilled at the proposed location. However, if the Well is drilled 467 feet from the lease line, which is further downdip in the reservoir, 14 of the estimated 25 acres could not be produced, wasting about 83,485 barrels that would remain unrecoverable in the reservoir.[35] Moreover, if the Well is drilled 467 feet from the lease line, it would be just 110 feet from the unsuccessful downdip well.[36]

B. Summary of Protestants' Evidence and Argument

Protestants' only witness was Mr. Wayne Dirks. He has a degree in geological engineering from Texas A&M and has been in the petroleum exploration and production business for approximately 50 years. While he did not do any study in preparation for his testimony, he did provide expert testimony in response to the presentation of evidence by Applicant.[37]

Mr. Dirks has worked in the field of seismology. He agrees that the faults are present, but disagrees with the certainty of being able to estimate the exact location of the faults.[38] He does not agree that the fault locations can be estimated within an accuracy of 100 feet based on the data provided. When asked the basis for this opinion he states:

> Well, I just believe that you have -- you have several factors that you have to deal with when you're picking the fault to -- the two dimensions, the vertical and the horizontal position. You don't know exactly where these -- the top of these events are. And so you try to -- to place the fault where each of these events terminate in vertical positions. And I think it's kind of rough with an amplitude of -- it looks to me like there's probably maybe 30, 40 milliseconds. To position the faults, you know, within a hundred feet, I think would be very challenging.[39]

---

[34] Tr. at 53:19 to 58:19.
[35] Tr. at 58:20 to 62:1; Tr. at 95:6 to 99:10.
[36] Tr. at 123:24 to 125:5.
[37] Tr. at 109:20 to 112:1.
[38] Tr. at 112:2 to 113:11.
[39] Tr. at 113:20 to 114:6.

He concluded with stating that "possibly" the fault estimates could be off as much as 200-300 feet or even more.[40] When asked for clarification for the basis of his opinion, he states:

> JUDGE COOK: It does. I'm just not clear of what -- on what you base that opinion on. Why do you believe that it's hard to position the faults?
>
> THE WITNESS: Well, in looking at these -- the 2D seismic exhibits, they are a lot better to work with than what he's done here, because this has only been processed to do -- to look at the Hockley. But in this case, the reason that it's hard to do is because -- I can't -- I'm 82 years old, and I have trouble finding the right words sometimes. But where the faults -- because of the event, it's hard to determine because the sine wave that is exhibited in the -- the section is exhibited by is a convolution of when the sound wave comes back to the -- to the surface, when it bounces down and comes back. Well, it's -- it's presented in a sine wave. Well, the sine wave is about 60 milliseconds -- or 30 -- 30 or 60 milliseconds in thickness. And so that's -- you don't know exactly where this event was terminated. In other words, you're working with something that's this big when you really -- when it came back, it was only this big, the seismic reflection. And so because of that, it makes it hard to determine exactly where you might place the fault. In my opinion, generally, you would take and put the termination of the event at the peak of the sine wave. And so if you look at these, you know, you can see that they would move. I maybe didn't say that correctly, but that's -- it's difficult because you're dealing with not finite reflections.[41]

It appears his opinion is based on the general notion that seismic reflections are imprecise.

Mr. Dirks also disagreed that the Well needs to be located at the highest structural position in the fault trap. His main point was that if there is a gas cap at the top of the reservoir it will push the oil down as oil is removed and the gas expands. In this situation, he testified that the Well should be perforated in the lower part of the oil reservoir.[42] For these reasons, he opined that even if the Well were moved to a regular location, it would still be productive and give the operator and the Lease mineral interest owners a reasonable opportunity to recover the oil reserves in the reservoir.[43]

On cross-examination, Mr. Dirk acknowledged he was retained the day before the hearing and had not worked on this case prior to the hearing. He acknowledged that his deceased wife was a first cousin of one of the Protestants.[44] He also acknowledged that if no gas cap was present, it is important to drill structurally high in a water drive reservoir.[45]

---

[40] Tr. at 113:12 to 114:11; Tr. at 114:12 to 115:25.
[41] Tr. at 121:2 to 122:7.
[42] Tr. at 116:1 to 116:22.
[43] Tr. at 116:23 to 117:5.
[44] Tr. at 117:11 to 118:14.
[45] Tr. at 118:15 to 119:18.

Mr. Dirks had no opinion as to whether or not there is a gas cap and stated he relied on Mr. Dohse's testimony on this issue.[46] However, based on data available about the area and the type of reservoir involved, Mr. Dohse testified that it is his opinion that a gas cap is unlikely.[47] Mr. Dirks also pointed out that seismic data is subject to interpretation by the person analyzing it and that Mr. Dohse was not the person who collected all of the data utilized.[48] Protestants provided no data or analysis of their own.

Protestants pointed out that Applicant is seeking to drill deeper than the Hockley Sand down to a total depth of 5,400 feet. Mr. Dohse explained that Applicant plans to look at some lower zones mainly looking for potential new faults that do not appear on the seismic data for potential future development. The Hockley Sand is at approximately 4,150 feet.[49] It is typical to see small faults in wells that you did not see in the seismic analysis. With seismic data, typically the larger faults are visible and smaller ones are not.[50] Well logs give more concrete data in establishing whether the fault exists and for locating smaller faults not captured by seismic studies.[51]

Protestants filed the protest because they are concerned, as offset unleased mineral interest owners, that the Well is going to be drilled 100 feet from their property line, and potentially have the chance of draining reserves under their property. They believe reserves are under their property and they want those reserves protected. Protestants characterized Applicant's evidence as speculative and based on an interpretative science.[52]

C. Summary of Applicant's Response to Protestants

In response to Protestants' case, Applicant asserts that all pertinent facts are undisputed and the facts support granting the Application. Applicant presented evidence of the history of the development along the Gulf Coast. Applicant presented evidence of well-known conditions, depositional environments, and structures in the area that have been present where there are productive reservoirs. None of this information was challenged by Protestants' witness. There is no dispute about the conditions and the types of reservoirs and where you need to drill in these reservoirs. Applicant's witness testified that every one of the Hockley wells that they have drilled in this area on this trend has been a water drive reservoir. Protestant provided no controverting evidence. Protestants did not do a study or provide evidence to contradict the information Applicant provided. There is no evidence challenging the interpretation of the data that Applicant provided.[53]

---

[46] Tr. at 119:22 to 120:13.
[47] Tr. at 71:17 to 73:19.
[48] Tr. at 66:7 to 66:23; Tr. at 86:18 to 88:14.
[49] Tr. at 66:24 to 68:24.
[50] Tr. at 68:25 to 69:7.
[51] Tr. at 70:8 to 70:22.
[52] Tr. at 125:25 to 129:9.
[53] Tr. at 129:11 to 132:7.

VI. Examiners' Analysis and Recommendation

The Examiners recommend granting Double Play's application for an exception to the lease line minimum spacing limit such that the Well can be drilled at the proposed location.

A. There is sufficient evidence that the Well is necessary to prevent waste.

Rule 37 authorizes exceptions to prevent waste or prevent confiscation.[54] Applicant maintains that the Well is necessary to prevent waste. In order for Applicant to prevail, Applicant must show: (1) localized unusual conditions exist such that an exception to spacing limits is necessary to recover hydrocarbons that would otherwise not be recovered by a regular well, and (2) the amount of hydrocarbons that would otherwise not be recovered is substantial.[55] The evidence in this case was sufficient to show that localized unusual conditions exist, there is no regular location that can recover the hydrocarbons the Well is anticipated to recover, and if the exception is not granted, there will be waste of a substantial volume of hydrocarbons. Applicant met its burden of proof to show that drilling the Well at the proposed location is necessary to prevent waste and protect correlative rights.

The term 'waste' means the ultimate loss of oil; if a substantial amount of oil will be saved by the drilling of a well that otherwise would ultimately be lost, the permit to drill such well may be justified under the exception provided in Rule 37 to prevent waste.[56]

In order to obtain an exception to Rule 37, Applicant must demonstrate localized unusual conditions not common with the rest of the Field. As stated by the Texas Supreme Court:

> The waste exception clause in Rule 37 has no application where ordinary or usual conditions prevail. To justify an exception under that clause it is necessary to show that the conditions affecting the drainage of wells on a particular tract are so peculiar, unusual and abnormal that it is removed from the same category of the surrounding area to which the general rule applies. When those peculiar and unusual conditions are found to exist in a localized area, exceptions may then be granted for the drilling of additional wells to the extent necessary to offset the abnormality and place it on parity, from the standpoint of efficient drainage, with other areas where the ordinary and usual reservoir conditions prevail.[57]

There is precedent for determining that unusual subsurface reservoir conditions warrant an exception; in fact, unusual subsurface reservoir conditions is perhaps the most typical situation warranting an exception.[58]

---

[54] 16 Tex. Admin. Code § 3.37(a)(1).

[55] *Hawkins v. Texas Company*, 209 S.W.2d 388, 342-348 (1948); *Wrather v. Humble Oil & Refining Company*, 214 S.W.2d 112, 117 (Tex. 1948); *Gulf Land Co. v. Atlantic Refining Co.*, 131 S.W.2d 73, 70 and 80 (Tex. 1939) ; *see also Exxon Corporation v. R.R. Comm'n of Tex.*, 571 S.W.2d 497 (1978); *Schlachter v. R.R. Comm'n of Tex.*, 825 S.W.2d 737 (Tex. App.—Austin 1992, writ denied); Tex. R.R. Comm'n, *Discussions of Law, Practice and Procedure* 32 (April 1991); Vol. 2 Ernest E. Smith and Jacqueline Lang Weaver, *Texas Law of Oil and Gas* §§ 9.5 (LexisNexis Matthew Bender 2015).

[56] *Gulf Land Co. v. Atlantic Refining Co.*, 131 S.W.2d 73, 80 (Tex. 1939).

[57] *Wrather v. Humble Oil & Refining Co.*, 214 S.W.2d 112, 117 (Tex. 1948).

[58] *See, e.g., Letwin v. Gulf Oil Corp.*, 164 S.W.2d 234, 236 (Tex. Civ. App.—Austin 1942, writ ref'd) (citing *R.R. Comm'n v. Shell Oil Co.*,161 S.W.2d 1022 (Tex. 1942) and requiring unusual subsurface conditions to prove waste); *but see also Exxon*

Applicant provided sufficient evidence to establish unusual localized conditions affecting drainage. Applicant provided evidence that a fault coincides with the lease line between the Lease and Protestants' adjacent tract. Applicant provided evidence of a potential water drive fault trap reservoir and showed the necessity of drilling at the structurally highest location in the reservoir to recover the maximum amount of hydrocarbons and any hydrocarbons located updip of the drilled will be unable to be recovered.

Protestants' witness agrees that the lease line fault exists but opines the location is more approximate than suggested. However, Protestants provided no specific data or information in support of the opinion and provided no alternative locations. Protestants did not contest that the reservoir where the Well to be located is a water drive reservoir. Protestants' witness did state that if there were a gas cap on the reservoir, drilling at a lower location would be ideal. However, Protestants' witness had no opinion about whether it is a gas cap reservoir and Applicant's witness provided evidence that it is not a gas cap reservoir, based on other reservoirs in the area that also do not contain gas caps. Protestants' witness agreed that if there is no gas cap, drilling at the highest structural location in the reservoir is the most ideal location.

Applicant's evidence of a 100 feet margin of error as to the location is bolstered by the fact that there is a substantial financial incentive to be as precise as possible to identify the best location or risk drilling on the unintended side of the fault. Applicant provided evidence that there is no anticipated hydrocarbons on the other side of the fault and Protestants provided no evidence of hydrocarbons on its side of the fault. So, Applicant's incentive to avoid drilling on the wrong side of the fault is high. Applicant's substantial investment in reliance on the 100-foot margin bolsters the Applicant's evidence from an expert in evaluating these types of fault reservoirs in this area and who provided multiple sets of data used to establish the location of the proposed Well.

For these reasons, the Examiners find that Applicant's description of the reservoir conditions is persuasive.

In addition to proving localized unusual conditions, Applicant must prove that the Well is necessary to prevent waste of a substantial quantity of hydrocarbons. The Examiners conclude that there is sufficient evidence that failing to grant the requested exception will result in a substantial volume of waste. Based on data, there is 248,468 barrels of oil in place in this reservoir. The Well at the proposed location is estimated to produce 149,080 barrels. At a regular location, a well would not recover 83,485 barrels of oil that would otherwise be recoverable at the Well's proposed location. 83,485 barrels of oil equates to a substantial amount of hydrocarbons. Because none of these hydrocarbons would be recovered by a regular well, this substantial amount of hydrocarbons would be wasted without the requested exception and the

---

Corporation v. R.R. Comm'n of Tex., 571 S.W.2d 497 (Tex. 1978) (court finds economic conditions can be considered stating, "[E]conomic factors were relevant to BTA's application and were properly considered by the commission in determining whether a Rule 37 exception was necessary to prevent the waste of oil."); *Anadarko E & P Co., L.P. v. R.R. Comm'n of Tex.*, 2009 WL 47112 (Tex. App.—Austin 2009, no pet.) (mem. op.) (court affirms Commission's consideration of local lease geometry in Rule 37 waste analysis).

Lease mineral owners and lessees would not obtain their fair share[59] of hydrocarbons if the Well were not drilled. Protestant did not present any evidence or otherwise contradict Applicant's evidence as to the amount of hydrocarbons that would be unrecoverable.

The Examiners conclude that the Well is necessary at the proposed location to prevent waste of a substantial amount of hydrocarbons and protect correlative rights.

B. The Examiners recommend granting Applicant's application for an exception to the 467-foot minimum lease line spacing distance as proposed.

The Examiners recommend granting Applicant's request for a well spacing limit exception to allow the Well to be drilled at the proposed location as shown on the drilling plat attached to the Application,[60] which is attached to this PFD, and described as follows:

- A new vertical well in the Wildcat Field located in the Jane Curry Survey, Abstract No. A-143 ("Survey") in Live Oak County, approximately 2.2 miles in a southwest direction from the town of Dinero, Texas;
- The surface location of the Well is 102 feet from the northwest line of the Lease boundary and 587 feet from the southwest line of the Lease boundary;
- It is 102 feet from the northwest line of the Survey boundary and 13,411 feet from the southwest line of the Survey boundary; and
- The Well is 102 feet from Protestants' adjacent external tract.

VII. Conclusion, proposed findings of fact and proposed conclusions of law

Based on the record in this case and evidence presented, the Examiners recommend that the Application be approved, the requested exception to drill the Well at the proposed location be granted, and that the Commission adopt the following findings of fact and conclusions of law.

FINDINGS OF FACT

1. Double Play Oil & Gas, Inc. ("Double Play" or "Applicant") filed an application ("Application") for an exception to the 467 foot minimum lease line distance limit for the McNeill (Brooks) Lease ("Lease"), Well No. 2 ("Well") in the Wildcat Field ("Field"), Live Oak County, Texas.

2. Applicant is an operator registered with the Railroad Commission ("Commission") and assigned Commission designated operator number 224880.

---

[59] *See, e.g., Texaco, Inc. v. R.R. Commission*, 583 S.W.2d 307 (Tex. 1979) (discussing the "elementary rule of property that a landowner is entitled to an opportunity to produce his fair share of oil from a common reservoir").

[60] The attached plat is copy of page two of Applicant Ex. 1.

3. Notice of the Application was sent by mail to the addresses of the designated operator, all offset operators, all lessees of record for tracts that have no designated operator, and all owners of record of unleased mineral interests.

4. The Commission received a protest to the Application necessitating a hearing.

5. The Notice of Hearing was sent by mail to the addresses of the designated operator, all offset operators, all lessees of record for tracts that have no designated operator, and all owners of record of unleased mineral interests.

6. Protestants ("Protestants"), the McGuffin family heirs, and Applicant appeared at the hearing on this matter. Protestants are undivided interest owners in the unleased acreage due north of the proposed Well.

7. The Well will be a new vertical well in the Field located in the Jane Curry Survey, Abstract No. A-143 ("Survey") in Live Oak County, approximately 2.2 miles in a southwest direction from the town of Dinero, Texas. The surface location of the Well is 102 feet from the northwest line of the Lease boundary and 587 feet from the southwest line of the Lease boundary. It is 102 feet from the northwest line of the Survey boundary and 13,411 feet from the southwest line of the Survey boundary. The Well is to be drilled to a total depth of approximately 5,400 feet.

8. There are no field rules for the Wildcat Field, so the statewide 467 feet minimum lease line spacing distance in Statewide Rule 37 applies. *See* 16 TEX. ADMIN. CODE § 3.37(a)(1).

9. There are unusual localized conditions affecting drainage in the reservoir where the Well is to be drilled. A fault coincides with the lease line between the Lease and Protestants' adjacent tract. The reservoir is a water drive fault trap reservoir and it is necessary to drill at the structurally highest location in the reservoir to recover the maximum amount of hydrocarbons, and any hydrocarbons located updip of the drilled Well be unable to be recovered. The Well's proposed location is the structurally highest location in the reservoir. There is no regular well that would be capable of producing all of the hydrocarbons that the Well is expected to produce at the proposed location.

10. There is 248,468 barrels of oil in place in the reservoir where the proposed Well is to be located. The Well at the proposed location is estimated to produce 149,080 barrels. The Well is expected to recover 83,485 barrels of oil that would otherwise be unrecoverable if a well were drilled at a location 467 feet from the lease line. If the exception were not granted, a significant amount of hydrocarbons would not be produced, causing waste. The exception is necessary to prevent waste. Additionally, the operator and leased interests in the Lease would not be able to achieve their fair share of production if the exception is not granted; the exception is necessary to protect correlative rights.

CONCLUSIONS OF LAW

1. Proper notice was issued in accordance with all applicable statutes and regulatory codes. *See* 16 TEX. ADMIN. CODE §§ 3.37(a)(2) and (a)(3), and 1.46.

2. All things have occurred and been accomplished to give the Commission jurisdiction in this matter pursuant to TEX. NAT. RES. CODE ch. 81. *See, e.g.*, TEX. NAT. RES. CODE § 81.051.

3. An exception is needed because the Well is closer than allowed to external tracts of the Lease, pursuant to 16 TEX. ADMIN. CODE § 3.37.

4. Applicant has met its burden of proof and satisfied the requirements of Statewide Rule 37. 16 TEX. ADMIN. CODE § 3.37.

5. Granting the Application and approving the requested exception to Statewide Rule 37 is necessary to prevent waste and protect correlative rights.

EXAMINERS' RECOMMENDATION

The Examiners recommend that the Commission grant Applicant's application for an exception to Statewide Rule 37 for the proposed well location in the McNeill (Brooks) Lease, in the Wildcat Field of Live Oak County, Texas.

The proposed location is shown on the attached drilling plat, in the Application and described as follows:

- Being a new vertical well in the Wildcat Field located in the Jane Curry Survey, Abstract No. A-143 ("Survey") in Live Oak County, approximately 2.2 miles in a southwest direction from the town of Dinero, Texas;

- Having a surface location of 102 feet from the northwest line of the Lease boundary and 587 feet from the southwest line of the Lease boundary;

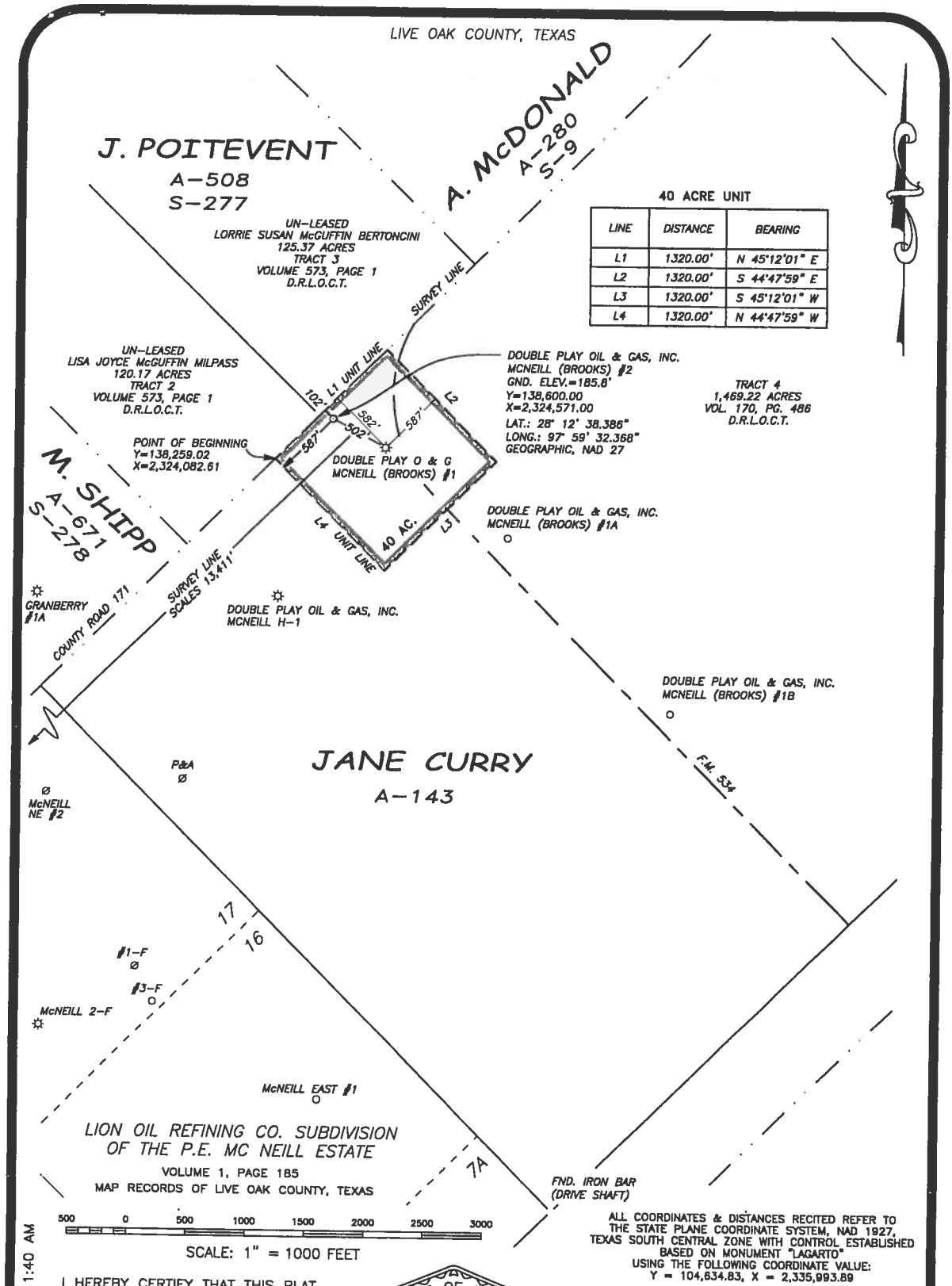
- Being 102 feet from the northwest line of the Survey boundary and 13,411 feet from the southwest line of the Survey boundary; and

- Being no less than 102 feet from Protestants' adjacent external tract.

Respectfully,

Jennifer Cook
Administrative Law Judge

Karl Caldwell
Technical Examiner



40 ACRE UNIT

LINE	DISTANCE	BEARING
L1	1320.00'	N 45°12'01" E
L2	1320.00'	S 44°47'59" E
L3	1320.00'	S 45°12'01" W
L4	1320.00'	N 44°47'59" W

ALL COORDINATES & DISTANCES RECITED REFER TO THE STATE PLANE COORDINATE SYSTEM, NAD 1927, TEXAS SOUTH CENTRAL ZONE WITH CONTROL ESTABLISHED BASED ON MONUMENT "LAGARTO" USING THE FOLLOWING COORDINATE VALUE: Y = 104,634.83, X = 2,335,993.89

I HEREBY CERTIFY THAT THIS PLAT CORRECTLY SHOWS THE SUBJECT LOCATION AS STAKED ON THE GROUND, JANUARY 04, 2016.

STATE OF TEXAS
REGISTERED
TREY L. McDERMETT
5652
PROFESSIONAL
LAND SURVEYOR

TREY L. McDERMETT
R.P.L.S. # 5652

BLACK GOLD SURVEYING & ENGINEERING
Land Surveying Firm No. 100141-00
Engineering Firm No. F-7632
Land & Oilfield Surveying
2711 West Front St. P.O. Box 3416
Alice, TX 78333
blackgoldsurveying@sbcglobal.net
(361) 668-9200 Fax (361) 668-9204

PLAT OF:

A WELL LOCATION FOR:

DOUBLE PLAY OIL & GAS, INC.

McNEILL (BROOKS) #2

SITUATED IN A CALLED 40 ACRE UNIT, BEING OUT OF A CALLED 1,469.22 ACRE TRACT, DESCRIBED AS TRACT 4 IN VOLUME 170, PAGE 486 IN THE DEED RECORDS OF LIVE OAK COUNTY, TEXAS. SAID WELL BEING SITUATED IN THE JANE CURRY SURVEY, ABSTRACT NO. 143 AND BEING LOCATED APPROXIMATELY 2.2 MILES, S 57°37' W OF DINERO IN LIVE OAK COUNTY, TEXAS.

Completion Date: 01-06-16		File Name:	160101
Scale:	1"=1000'	Surveyed by:	TM/PG
Drawn by:	TM	Checked by:	TM

PLOT DATE: 01-08-16 11:40 AM

JOB #: 160101