

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

ORDER OF THE SUPERVISOR OF WELLS

IN THE MATTER OF:

THE PETITION OF W.B. OSBORN OIL & GAS)
OPERATIONS, LTD, FOR AN ORDER FROM THE)
SUPERVISOR OF WELLS AUTHORIZING AN EXCEPTION)
TO THE SPACING PATTERN FOR WELLS SET BY) ORDER NO. 10-2014
R 324.301 FOR THE BIGFORD 1-8 WELL, AND)
COMPULSORY POOLING ALL INTERESTS INTO THE)
DRILLING UNIT LOCATED IN FORK TOWNSHIP,)
MECOSTA COUNTY, MICHIGAN.)

OPINION AND ORDER

This case involves the Petition of W.B. Osborn Oil & Gas Operations, LTD (Petitioner), to drill a well (the Bigford 1-8 well) within a 40-acre drilling unit to test the stratigraphic interval known as the Dundee Formation. The Petitioner is requesting an exception to the spacing pattern set by R 324.301 for the proposed Bigford 1-8 well, and compulsory pooling of all interests into the drilling unit pursuant to R 324.304. The proposed unit consists of the SW 1/4 of NW 1/4 of Section 8, T16N, R7W, Fork Township, Mecosta County, Michigan.

Jurisdiction

The development of oil and gas in this state is regulated under Part 615, Supervisor of Wells, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, MCL 324.61501 *et seq.* The purpose of Part 615 is to ensure the orderly development and production of the oil and gas resources of this state. MCL 324.61502. To that end, the Supervisor may establish drilling units and compulsory pool mineral interests within said units. MCL 324.61513(2) and (4). However, the formation of drilling units by compulsory pooling of interests can only be effectuated after an evidentiary hearing. 1996 MR 9, R 324.302, and R 324.304.

The evidentiary hearing is governed by the applicable provisions of the Administrative Procedures Act, 1969 PA 306, as amended, MCL 24.201 *et seq.* See

1996 MR 9, R 324.1203. The evidentiary hearing in this matter was held on June 27, 2014.

FINDINGS OF FACT

The Petitioner seeks an order of the Supervisor authorizing a well location for the proposed Bigford 1-8 Dundee Formation well as an exception to the spacing pattern for wells set by R 324.301 along with a location exception that is less than 330 feet from the unit line. The Petitioner also requests that the Supervisor issue an Order that:

1. Requires compulsory pooling of all tracts and mineral interests within the proposed drilling unit that have not agreed to voluntary pooling.
2. Names the Petitioner as Operator of the Bigford 1-8 well.
3. Authorizes the Petitioner to recover certain costs and other additional compensation from the parties subject to the compulsory pooling order.

The Administrative Law Judge determined that the Notice of Hearing was properly served and published. No answers to the Petition were filed. Therefore, the Petitioner is the only Party to this case. The Supervisor designated the hearing to be an evidentiary hearing pursuant to R 324.1205(1)(c) and directed evidence be presented in the form of verified statements. In support of its case, the Petitioner offered the verified statement of Mr. P.K. Roberts, Petroleum Geologist and Exploration Manager for the Petitioner; Mr. Gary W. Palmer, Petroleum Engineer and Operations Manager for Petitioner; and Mr. Brian A. Benson, Senior Project Manager for Western Land Services, acting as Contract Landman for the Petitioner.

I. Drilling Unit

The spacing of wells targeting the Dundee Formation in Section 17 of Fork Township, Mecosta County, is governed by R 324.301. This rule establishes drilling units of 40 acres, more or less, and R 324.301(1)(b)(ii) provides, in part, that the bottomhole location of development wells be located in a pattern at the same relative position in each drilling unit as that of the discovery well, with the bottom hole location not more than 495 feet from the unit boundary. Prior wells drilled by the Petitioner have

established that the location for the proposed well would be in the northwest ten acres of the drilling unit. The Petitioner's proposed well location is in the northeast 10 acres of the drilling unit, 263 feet from the north line and 247 feet from the east line of the proposed drilling unit boundary. The Petitioner has applied for a permit to drill the Bigford 1-8 well.

Mr. Roberts' verified statement indicates a location 495 feet from the west unit boundary is not the optimum geological location for the proposed Bigford 1-8 well. Mr. Roberts submitted a map depicting the Dundee Formation in Section 8 of Fork Township. Mr. Roberts requests that the Petitioner be allowed to drill the optimum location so that it has the best chance of drilling a successful well and recovering the maximum amount of hydrocarbons from its well.

In addition, the Petitioner is requesting a location less than 330 feet from the drilling unit boundary to avoid drilling too near the Gulf Oil Ralph 1 well, which was drilled to the Richfield Formation and plugged in 1955. The location of the Ralph 1 well was 990 feet from the south line and 990 feet from the west line of the SW 1/4 of NW 1/4 of Section 8.

Mr. Roberts states that the terrain at the proposed location is higher and dryer than a 330-foot by 330-foot location. As depicted on Exhibit A to his verified statement, there are plugged wells to the north and east of the proposed well, all drilled to the top of the Dundee Formation. It was Mr. Roberts' opinion that the location exception would not result in any interference nor violate correlative rights of offsetting owners.

I find that the proposed well location exception to R 324.301 will prevent waste and protect correlative rights and, as such, is approved for the proposed well.

II. Drilling Unit Operator

Mr. Benson's verified statement indicates that the Petitioner owns oil and gas leases covering the majority of acreage in the proposed drilling unit. The Petitioner seeks to be designated as the Operator of the Bigford 1-8 well.

III. Compulsory Pooling

The Petitioner was unable to obtain the agreement of all mineral owners to gain

full control of the proposed unit. The Petitioner may not produce a well on the drilling unit without first obtaining control of all the oil and gas interests. In cases like this, it is necessary for the Petitioner to request compulsory pooling from the Supervisor. As discussed, a mineral owner who does not agree to voluntarily pool his or her interest in a drilling unit may be subject to compulsory pooling. 1996 MR 9, R 324.304. The compulsory pooling of an interest must be effectuated in a manner that ensures "each owner ... is afforded the opportunity to receive his or her just and equitable share of the production of the unit." *Id.* In addition to protecting correlative rights, the compulsory pooling must prevent waste. MCL 324.61502. An Operator must first seek voluntary pooling of mineral interests within a proposed drilling unit prior to obtaining compulsory pooling through an Order of the Supervisor.

Mr. Benson states that, as of the date of the hearing, the Petitioner holds effective oil and gas leases as to 37.6212 net acres. The unleased owners of oil and gas interests are identified in Mr. Benson's verified statement as:

<u>Owner</u>	<u>Net Mineral Acreage</u>
Barryton Methodist Church	0.1705
Edward N. Quirk	0.1667
Robert H. Drysdale	0.0556
Michael R. Drysdale	0.0556
Ann Drysdale Greenleaf	0.0556
Victor Climer	1.0000
Margaret Dixon	<u>0.2500</u>
TOTAL	1.7540

Based on the foregoing, I find, as a Matter of Fact:

1. The Petitioner was able to voluntarily pool all of the mineral interests in the proposed 40-acre drilling unit except for the owners described above.

2. Compulsory pooling is necessary to form a full drilling unit to protect correlative rights of unpooled lease owners and to prevent waste by preventing the drilling of unnecessary wells.

Now that it has been determined compulsory pooling is necessary and proper in this case, the terms of such pooling must be addressed. When pooling is ordered, the owner of the compulsory pooled lands (Pooled Owner) is provided an election on how he or she wishes to share in the costs of the project. 1996 MR 9, R 324.1206(4). A Pooled Owner may participate in the project or, in the alternative, be "carried" by the Operator. If the Pooled Owner elects to participate, he or she assumes the economic risks of the project, specifically, by paying his or her proportionate share of the costs, or giving bond for the payment. Whether the well drilled is ultimately a producer or dry hole is immaterial to this obligation. Conversely, if a Pooled Owner elects not to participate, the Pooled Owner is, from an economic perspective, "carried" by the Operator. Under this option, if the well is a dry hole, the Pooled Owner has no financial obligation because they did not assume any risk. If the well is a producer, the Supervisor considers the risks associated with the proposal and awards the Operator compensation, out of production, for assuming all of the economic risks.

In order for a Pooled Owner to decide whether he or she will "participate" in the well or be "carried" by the operator, it is necessary to provide reliable cost estimates. In this regard the Petitioner must present proofs on the estimated costs involved in drilling, completing, and equipping the proposed well. The Petitioner's Authorization for Expenditure (AFE) form for the Bigford 1-8 well (Exhibit E to the Petition) itemizes estimated costs to be incurred in the drilling, completing, equipping, and plugging of the well. The estimated costs are \$491,345.00 for drilling; \$127,500.00 for completion; and \$226,750.00 for equipping. The total estimated producing well cost for the Bigford 1-8 well is \$845,595.00. There is no evidence on this record refuting these estimated costs.

I find, as a Matter of Fact, the estimated costs are reasonable for the purpose of providing the pooled owners a basis on which to elect to participate or be carried.

However, I find actual costs shall be used in determining the final share of costs and additional compensation assessed against a Pooled Owner. The next issue is the allocation of these costs. Part 615 requires the allocation be just and equitable. MCL 324.61513(4). The Petitioner requests the actual well costs and production from the well be allocated based upon the ratio of the number of surface acres in the tracts of various owners to the total number of surface acres in the drilling unit. Established practices and industry standards suggest this to be a fair and equitable method of allocation of production and costs, and as used here, surface acreage refers to net mineral acreage. Therefore, I find, as a Matter of Fact, utilizing surface acreage is a fair and equitable method to allocate to the various tracts in the proposed drilling unit, each tract's just and equitable share of unit production and costs. I find that an owner's share in production and costs should be in proportion to their net mineral acreage.

The final issue is the additional compensation for risk to be assessed against a Pooled Owner who elects to be carried. The administrative rules under Part 615 provide for the Supervisor to assess appropriate compensation for the risks associated with drilling a dry hole and the mechanical and engineering risks associated with the completion and equipping of wells. 1996 MR 9, R 324.1206(4)(b). The Petitioner requests additional compensation of 300 percent for the costs of drilling, 200 percent of completing and 100 percent of equipping the Bigford 1-8 well.

Mr. Roberts' verified statement indicates the Bigford 1-8 well is significantly risky. Mr. Roberts states there is a geological risk that the reservoir, if proven by drilling, may be completely drained by offsetting wells. In addition, there is a significant risk that any remaining oil in the Dundee Formation may not be economically produced due to excessive water production. There is also an economic risk that, even if successful in establishing production of oil and/or gas, the recoverable reserves may not be of sufficient quantity to cover the costs of drilling, completing and equipping the well.

Mr. Palmer's verified statement indicates there are mechanical risks associated with drilling the proposed well that include: loss of drilling mud circulation, collapse of wellbore and/or casing, uncontrolled flow of subsurface hydrocarbons, and loss of

drilling equipment.

The Petitioner did present evidence to show that the risks associated with drilling, completing and equipping the well justify the penalty requested. Moreover, past experience shows that drilling results are not always a reliable indicator of whether completing and equipping costs can be fully recovered from eventual production revenues.

I find, as a Matter of Fact, the risk of the proposed Bigford 1-8 well being a dry hole supports the recoupment of costs plus additional compensation from the Pooled Owners of 300 percent of the actual drilling costs incurred. I find the mechanical and engineering risks associated with the well support additional compensation of 200 percent of the actual completing and 100 percent of the actual equipping costs incurred. Operating costs are not subject to additional compensation for risk.

CONCLUSIONS OF LAW

Based on the Findings of Fact, I conclude, as a matter of law:

1. The Petitioner was unable to voluntarily pool all mineral interests within the proposed drilling unit. The Supervisor may compulsorily pool properties when pooling cannot be agreed upon. Compulsory pooling is necessary to prevent waste and protect the correlative rights of the Pooled Owners in the proposed drilling unit. MCL 324.61513(4).
2. This Order is necessary to provide for conditions under which each mineral owner who has not voluntarily agreed to pool all of their interest in the pooled unit may share in the working interest share of production. 1996 MR 9, R 324.1206(4).
3. The Petitioner is an owner within the drilling unit and, therefore, is eligible to drill and operate the Bigford 1-8 well. 1996 MR 9, R 324.1206(4).
4. The Petitioner is authorized to take from each nonparticipating interest's share of production the cost of drilling, completing, equipping, and operating the well, plus an additional percentage of the costs as identified in the

Determination and Order section of this Order for the risks associated with drilling a dry hole, and the mechanical and engineering risks associated with the completion and equipping of the well. 1996 MR 9, R 324.1206(4).

5. Spacing for wells drilled in Mecosta County to the Dundee Formation is 40 acres as set by R 324.301. An exception to the well location established by R 324.301 is appropriate for the proposed well. Exceptions to R 324.301 may be granted by the Supervisor after a hearing.
6. The Supervisor has jurisdiction over the subject matter and the persons interested therein.
7. Due notice of the time, place, and purpose of the hearing was given as required by law and all interested persons were afforded an opportunity to be heard. 1996 MR 9, R 324.1204.

DETERMINATION AND ORDER

Based on the Findings of Fact and Conclusions of Law, the Supervisor determines that a location exception is appropriate for the proposed well and that compulsory pooling to form a full 40-acre drilling unit is necessary to protect correlative rights and prevent waste.

NOW, THEREFORE, IT IS ORDERED:

1. A spacing exception and well location exception is granted for the drilling of the Bigford 1-8 well, 263 feet from the north boundary and 247 feet from the east boundary of the drilling unit.
2. All properties, parts of properties, and interests are pooled into the drilling unit, consisting of the SW 1/4 of NW 1/4 of Section 8, T16N, R7W, Fork Township, Mecosta County, Michigan. This pooling is for the purpose of forming a drilling unit only.

3. Each Pooled Owner shall share in production and costs in the proportion that their net mineral acreage in the drilling unit bears to the total acreage in the drilling unit.
4. The Petitioner is named Operator of the Bigford 1-8 well. The Operator shall commence the drilling of the Bigford 1-8 well within ninety (90) days of the effective date of this Order, or the compulsory pooling authorized in this Order shall be null and void as to all parties and interests. This pooling Order applies to the drilling of the Bigford 1-8 well only.
5. A Pooled Owner shall be treated as a working interest owner to the extent of 100 percent of the interest owned in the drilling unit. The Pooled Owner is considered to hold a $\frac{1}{8}$ royalty interest, which shall be free of any charge for costs of drilling, completing, or equipping the well, or for compensation for the risks of the well or operating the proposed well including post-production costs.
6. A Pooled Owner shall have ten (10) days from the effective date of this Order to select one of the following alternatives and advise the Supervisor and the Petitioner, in writing, accordingly:
 - a. To participate, then within ten (10) days of making the election (or within a later date as approved by the Supervisor), pay to the Operator the Pooled Owner's share of the estimated costs for drilling, completing, and equipping the well, or give bond to the Operator for the payment of the Pooled Owner's share of such cost promptly upon completion; and authorize the Operator to take from the Pooled Owner's remaining $\frac{7}{8}$ share of production, the Pooled Owner's share of the actual costs of operating the well; or
 - b. To be carried, then if the well is put on production, authorize the Operator to take from the Pooled Owner's remaining $\frac{7}{8}$ share of production:
 - (i) The Pooled Owner's share of the actual cost of drilling, completing, and equipping the well.

- (ii) An additional 300 percent of the actual drilling costs, 200 percent of the actual completion costs, and 100 percent of the actual equipping costs attributable to the Pooled Owner's share of production, as compensation to the Operator for the risk of a dry hole.
 - (iii) The Pooled Owner's share of the actual cost of operating the well.
- 7. In the event the Pooled Owner does not notify the Supervisor, in writing, of the decision within ten (10) days from the effective date of this Order, the Pooled Owner will be deemed to have elected the alternative described in Paragraph 6(b). If a Pooled Owner who elects the alternative in Paragraph 6(a) does not, within ten (10) days of making their election (or within any alternate date approved by the Supervisor), pay their proportionate share of costs or give bond for the payment of such share of such costs, the Pooled Owner shall be deemed to have elected the alternative described in Paragraph 6(b), and the Operator may proceed to withhold and allocate proceeds for costs from the Pooled Owner's 7/8 share of production as described in Paragraph 6(b)(i),(ii), and (iii).
- 8. For purposes of the Pooled Owners electing alternatives, the amounts of \$491,345.00 for estimated drilling costs (dry hole costs); \$127,500.00 for estimated completion costs; and \$226,750.00 for estimated equipping costs are fixed as well costs. Actual costs shall be used in determining the Pooled Owner's final share of well costs and in determining additional compensation for the risk of a dry hole. If a Pooled Owner has elected the alternative in Paragraph 6(a) and the actual cost exceeds the estimated cost, the Operator may recover the additional cost from the Pooled Owner's 7/8 share of production. Within sixty (60) days after commencing drilling of the well, and every thirty (30) days thereafter until all costs of drilling, completing, and equipping the well are accounted for, the Operator shall provide to the Pooled Owner a detailed statement of actual costs incurred as of the date of the statement and all costs and production proceeds allocated to that Pooled Owner.

9. The Operator shall certify to the Supervisor that the following information was supplied to each Pooled Owner no later than the effective date of the Order:
 - a. The Order.
 - b. The AFE.
 - c. Each Pooled Owner's percent of charges from the AFE if the Pooled Owner were to choose option "a" in Paragraph 6, above.
10. A Pooled Owner shall remain a Pooled Owner only until such time as a lease or operating agreement is entered into with the Operator. At that time, terms of the lease or operating agreement shall prevail over terms of this Order.
11. The Supervisor retains jurisdiction in this matter.
12. This effective date of this Order is August 28, 2014.

DATED: August 18, 2014


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