

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

**IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:**

**CASE NO. 14116
ORDER NO. R- 12955-B**

**APPLICATION OF FASKEN OIL & RANCH
LTD. FOR AN ORDER AUTHORIZING AN
ADDITIONAL WELL IN THE "POTASH
AREA" AT AN UNORTHODOX WELL
LOCATION, LEA COUNTY, NEW MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 9:00 a.m. on June 27 and June 30, 2008, at Santa Fe, New Mexico, before Examiners David K. Brooks and Terry Warnell.

NOW, on this 27th day of March, 2009, the Division Director, having considered the testimony, the record and the recommendations of the Examiners,

FINDS THAT:

(1) Due notice has been given, and the Division has jurisdiction of the subject matter of this case.

(2) Fasken Oil and Ranch Ltd. ("Applicant" or "Fasken") seeks approval of an application for permit to drill (APD) for its proposed Laguna 16 State Well No. 2 (the proposed well), to be drilled at an unorthodox gas well location, 2135 feet from the North line and 2455 feet from the West line (Unit F) of Section 16, Township 20 South, Range 32 East, NMPM, (the proposed location), in Lea County, New Mexico.

(3) The Division's Hobbs district office rejected Applicant's APD pursuant to Ordering Paragraph G(3) of Commission Order No. R-111-P, issued in Case No. 9316 on November 6, 1980, because the district office received an objection to the proposed well

from Intrepid Potash – New Mexico, LLC (“Respondent” or “Intrepid”), a potash lessee holding leases within one mile of the proposed location. The district office determined that the proposed location is within the Life of Mine Reserves (LMR) designated by Intrepid pursuant to Order No. R-111-P, and that accordingly the APD could not be granted over Intrepid’s objection, unless the Division determined to grant an exception pursuant to finding paragraph (20) of that Order. Fasken filed this application seeking reversal of the district office’s denial of its APD.

(4) At the hearing, Applicant appeared through counsel and presented the testimony of landman, Sally Kvasnicka, Geologist, John Worrall, and drilling engineer, Tommy Taylor, in support of the application.

(5) Ms. Kvasnicka testified as follows:

(a) The proposed location is unorthodox for a deep gas well under Division rules because it is less than 660 feet from quarter section lines to the east and south. However, working and royalty interests are identical throughout Section 16.

(b) There are 19 wells in Section 16 that have penetrated the potash zones. One of these is Fasken’s Laguna 16 State Well No. 1 (API No. 30-025-36437), located 660 feet from the South and East lines of Section 16 (the existing well), which is a deep gas well that requires a one-half mile setback from potash mining operations under Order No. R-111-P. The remaining wells in Section 16 are shallow wells that require a one-quarter mile setback from potash mining operations under that order. Nearly all of Section 16 would be located within these prescribed setbacks from one or more of the existing wells.

(c) The potash mine workings in sections adjacent to Section 16 have been closed since the early 1980s, and there has been no further potash mining activity in the immediate vicinity since that time.

(d) After receiving Respondent’s objection, Fasken moved the proposed location to the south and east so that it would be greater than one-half mile from former mine workings owned by Respondent and situated in sections adjacent to Section 16.

(e) Section 16 is not leased for potash mining. The State Land Office determined not to lease Section 16 for potash mining due to oil and gas development.

(6) Mr. Worrall testified as follows:

(a) The primary objectives of the proposed well are the Morrow and Strawn, both of which are productive and economic in the existing well. The proposed location is more favorable structurally in these formations than the existing well. Secondary targets for the proposed well are the Delaware and Bone Spring. These zones are not productive in the existing well, but there is Delaware and Bone Spring production to the north and west. There is an approximately a fifty-fifty chance of economic production in each of the Morrow and Strawn formations at the proposed location.

(b) Drilling directionally to the proposed location in the Morrow and Strawn from the surface location of the existing well, as proposed by Respondent, would increase drilling costs of the proposed well from \$4.4 million to \$5.9 million. Additionally, there are significant technical problems involved in directional drilling.

(c) Many of the existing shallow wells in Section 16 were plugged a long time ago, are not plugged according to present-day requirements, and have no casing across the salt interval where potash deposits are located.

(7) Mr. Tommy Taylor testified as follows:

(a) It is not possible to drill a well through an area that has been mined for potash after the completion of mining operations due to risks associated with subsidence and caverns.

(b) Deviating a well the approximate 3,000-foot distance from the location of the existing well to the proposed location would involve substantial problems and risks.

(c) Based on Fasken's economic analysis, the proposed well would not be economic as a directional well, and Fasken would not drill it.

(8) Respondent appeared through counsel and presented the testimony of engineer and executive, Hugh Harvey, engineer, Leo Van Sambeek, geologist, James Lewis and economist, Kenneth Taylor, in opposition to the application.

(9) Mr. Harvey testified as follows:

(a) All of Section 16 is within the area identified on potash maps prepared by the United States Bureau of Land Management (BLM) as containing "measured ore." Section 16 would be a logical extension of Respondent's North mine, which has been inactive since 1982, but has accessible mine shafts penetrating Sections 9 and 17, adjacent to Section 16.

(b) The abandoned shallow oil wells in Section 16 do not present a problem for potash mining. If these wells are properly plugged, mining can safely be conducted up to 200 feet from the wellbores. If they are not properly plugged, respondent could re-plug them.

(c) All of Section 16 is within the one-half mile buffer zone adjacent to Respondent's LMR designated pursuant to Order No. R-111-P.

(d) Respondent has commissioned a feasibility study with respect to re-opening the North Mine, and has applied to lease Section 16 from the State Land Office. Respondent has the financial capability to re-open the North Mine.

(e) Deep gas wells, such as the proposed well, present a greater hazard for potash mining than shallow oil wells, due to high pressures in the deeper formations that increase the likelihood of gas escaping from the wellbore.

(10) Mr. Van Sambeek testified that:

(a) Properly plugged shallow oil wells do not present a problem for potash mining so long as at least a 200-foot radius pillar is left around the wells.

(b) Deep gas wells are a greater concern for mining operations, but one could certainly mine closer than one-half mile to a properly plugged deep gas well, perhaps as close as 300 to 400 feet.

(11) Mr. Lewis testified that:

(a) Respondent has extensively mapped potash deposits in Section 16 and adjacent sections, based on data from numerous core holes drilled through the potash in these sections and from oil and gas wells, as well as seismic data.

(b) Based on those studies, Respondent estimates that the one-half mile area around the proposed location (excluding safety pillars around plugged shallow wells) contains at least 824,214 tons of mineable potash, having a market value at the time of the hearing of \$438,481,735. These estimates are conservative because they are based on a cutoff of 40 "percent-feet" of potash, and areas containing lesser amounts of potash would be economical to mine at prices prevailing at the time of the hearing.

(c) Respondent further estimates that the portions of the one-half mile area around the proposed location that are in adjacent Sections 9 and 17, where Respondent holds potash leases, contain at least 53,494 tons of mineable potash, having a market value of \$27,926,620.

(d) When Respondent will actually mine these areas is dependent upon circumstances. There is no established timeline.

(12) Mr. Kenneth Taylor testified that:

(a) Recent, substantial increases in potash prices are well supported by fundamentals of supply and demand for potash, and current price levels are a reasonable basis for forecasting future potash prices.

(b) Based on the assumption that drilling of the proposed well would preclude potash mining in a one-half mile area around the proposed location, excluding pillars described by other witnesses around existing wells, the value of potash wasted as a result of drilling the proposed well would substantially exceed the value of oil and gas production expected from the well under Fasken's projections.

(c) Respondent has projected expected life of other mines in the vicinity to range from 28 years to 122 years, but does not have a projection for the North mine because the feasibility study on that mine has not been completed.

(13) Order No. R-111-P provides that no deep well shall be drilled within one-half mile of a potash miner's designated LMR, "unless a clear demonstration is made that commercial potash will not be wasted as a result of the drilling of the well." Order No. R-111-P, finding paragraph (20).

(14) In Orders No. R-12402-A and No. R-12403-A, issued in Cases 13367 and 13368, respectively, on July 13, 2006, the Oil Conservation Commission denied applications of Bass Enterprises Production Company (Bass) and Devon Energy Production Company (Devon) to drill wells in proximity to a potash mine's LMR prohibited by Order No. R-111-P, finding that Bass and Devon had not sufficiently demonstrated that their proposed wells would not cause undue waste of potash, nor excluded the possibility that oil and gas reserves could be developed by directional drilling from other locations.

(15) Bass and Devon appealed these orders to the District Court of Santa Fe County, which reversed the Commission's decision by written opinion issued on May 21, 2008 (*Bass/Devon*). The Court of Appeals of New Mexico granted *certiorari* to review the decision of the District Court of Santa Fe County. However, the Court of Appeals has not issued a decision.

The Division accordingly concludes as follows:

(16) At this time, the opinion of the District Court of Santa Fe County in *Bass/Devon* controls the decision of cases involving prevention of waste of potash that may result from oil and gas operations.

(17) Under *Bass/Devon*, the Division cannot deny an APD based solely on a presumption established by Order No. R-111-P that potash will be wasted because the proposed location is in an LMR or buffer zone. *Devon* at 19-22.

(18) The Division does not interpret *Bass/Devon* as invalidating the procedural policies the Division has established for processing APDs in the potash area, whereby APDs for locations within an LMR or buffer zone will be granted only after hearing.

(19) The Division does, however, interpret *Bass/Devon* as mandating that, at the hearing, an objecting potash lessee has the burden to demonstrate that granting of the APD will "have the effect unduly to reduce the total quantity of the commercial deposits of potash that may reasonably be recovered in commercial quantities or . . . interfere unduly with the orderly commercial development of potash deposits." NMSA 1978, Section 70-2-12.B(17). *Bass/Devon* at 22.

(20) Although respondent presented evidence indicating that large amounts of commercially mineable potash exist in the vicinity of Applicant's proposed well, the evidence does not demonstrate that the quantities of potash existing in Section 16 or elsewhere within one-half mile of the proposed location, or any ascertainable quantity of potash, will actually be wasted, for the following reasons:

(a) The vast majority of the potash that Respondent claims will be wasted (1,038,966 tons out of a total of 1,091,460 tons that Respondent's experts testified is located within one-half mile of Applicant's proposed well and is otherwise mineable) is in Section 16, where Respondent does not have a potash lease.

(b) *Bass/Devon* indicates that a potash lessee's testimony that potash which it does not have the right to mine will be wasted is of little, if any, value in establishing a probability of waste of potash "which may reasonably be recovered in commercial quantities." NMSA 1978, Section 70-2-11.F; *Bass/Devon* at 23.

(c) Even if *Bass/Devon* does not preclude the Division from considering evidence of waste of potash for which Respondent does not have a lease, the evidence that 1,091,460 tons of potash will be wasted is based on that quantity of potash being located within one-half mile of the proposed well. The presumption that potash within one-half mile of the well cannot be mined arises from Order No. R-111-P and is not supported by any finding the Commission made in that order, or by the evidence in this case. Respondent's expert testified

that, at least after plugging and abandonment of a deep gas well, potash could be mined much closer than one-half mile to the wellbore, perhaps as close as 400 feet, or even closer. Respondent did not present evidence of the amount of potash that would be contained within a 400-foot pillar immediately around the proposed well.

(d) The 52,494 tons of mineable potash that Respondent's evidence indicates exist within one-half mile of the proposed well in Sections 9 and 17, where Respondent does have potash leases, are located at least several thousand feet from the proposed well, and thus would be mineable after plugging and abandonment of the proposed well even if the actual safety pillar required around the proposed well (after it is plugged and abandoned) were substantially greater than indicated by the testimony of Respondent's expert.

(e) In this case, as in *Bass/Devon* (See *Bass/Devon* at 24-25), Respondent did not establish any specific timeframe within which it actually planned to mine in Sections 9 or 17, much less in Section 16 where it does not even have a lease. Thus, the Division cannot conclude that the potash which Respondent's evidence indicates is present in those sections would otherwise be mined during the time that the proposed well is likely to be active.

(f) Furthermore, Respondent's computations of the amount of potash that would be wasted by drilling of the proposed well were expressly premised on leaving only a 200-foot buffer around abandoned shallow wells. The testimony that a 200-foot buffer would suffice was premised on those wells being properly plugged. In view of evidence that many of the shallow wells were abandoned more than 50 years ago, and all casing had been removed, the record as a whole fails to establish that these wells could be successfully located, re-entered and satisfactorily plugged, rendering Respondent's estimates of mineable potash dubious.

(21) Respondent also did not establish that the proposed well would "interfere unduly with the orderly commercial development of the potash deposits", because:

(a) The North mine is not currently being mined, and no mining operations are currently in progress with which the proposed well would interfere.

(b) In this case as in *Bass/Devon*, the potash operator's testimony failed to show a specific timeline for commencement of potash mining operations in the vicinity of the proposed well.

(c) The evidence indicated that when an area is mined out and sealed it would not be feasible to re-enter the mine workings to produce potash left behind

due to the presence of an active oil or gas well. However, the evidence did not establish any timeframe within which the North mine might be mined out and sealed. Accordingly, the Division cannot conclude that this would probably occur prior to plugging and abandonment of the proposed well.

(22) The Court in *Bass/Devon* also held that the Commission erred in holding that issuance of an APD within a buffer zone of a potash LMR was precluded by evidence that the well at issue could have been drilled directionally in view of evidence that directional drilling would have been uneconomic.

(23) The Division construes the holding of *Bass/Devon* in regard to the reasonableness of the directional drilling alternative as a fact-specific decision based on the particular evidence in that case.

(24) In the present case, since the Division has concluded that the evidence does not establish that the drilling of a vertical well at the proposed location would result in undue waste of potash, the Division need not address whether directional drilling would be a reasonable alternative.

(25) Applying the principles announced by the District Court of Santa Fe County in *Bass/Devon*, Applicant's APD should be granted.

(26) Because the proposed unorthodox location encroaches only toward internal subdivision lines within Section 16, and oil and gas ownership is identical for all of Section 16, and because the well-density requirements applicable to Section 16 are not exceeded, the proposed unorthodox location should be approved.

(27) Due to the importance of the case and the Commission has not had an opportunity to address the implications of *Bass/Devon*, approval of the APD should be deferred for 30 days from issuance of this Order to allow Respondent, if it elects to file a *de novo* appeal, to petition the Commission for a stay of this Order.

(28) Portions of the hearing in this case were closed to the public, and portions of the testimony and exhibits offered at the hearing were admitted under seal pursuant to the request of Respondent because the information was confidential proprietary information of respondent.

(29) NMSA 1978, Section 71-2-8 provides that "confidential information required or possessed by the energy, minerals and natural resources department shall be held confidential by the department upon written request of the party supplying it" and that "[n]otwithstanding the provisions of Sections 10-15-1 through 10-15-4 NMSA 1978 or any other act requiring meetings of public bodies to be open, the department may close

that part of any meeting where confidential information covered by this section is discussed by the department."

(30) With respect to the portions of the testimony and exhibits admitted under seal at the hearing, Respondent offered evidence that information contained in the sealed testimony and exhibits is confidential information, not available in the public domain, and which are of value to Respondent in its business.

(31) The portions of the transcript of the hearing that were sealed, and the exhibits admitted under seal, constitute confidential information possessed by the energy, minerals and natural resources department, and should remain sealed and not subject to public inspection unless and until otherwise ordered by the Division or the Commission after notice to Respondent and opportunity for a hearing.

IT IS THEREFORE ORDERED THAT:

(1) The application of Fasken Oil and Ranch Ltd. ("Applicant" or "Fasken") for approval of an application for permit to drill (APD) its proposed Laguna 16 State Well No. 2 (the proposed well), at an unorthodox gas well location, 2135 feet from the North line and 2455 feet from the West line (Unit F) of Section 16, Township 20 South, Range 32 East, NMPM, (the proposed location), in Lea County, New Mexico, is hereby approved.

(2) The proposed unorthodox location of the Laguna 16 State Well No. 2 Well is hereby approved.

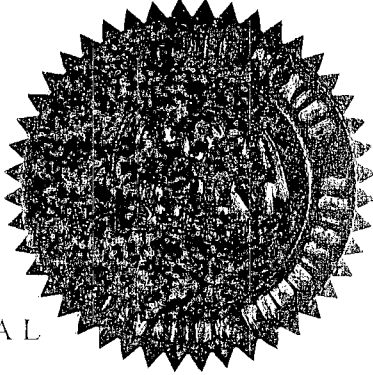
(3) Applicant shall not commence drilling the proposed well until 30 days after the issuance of this order.

(4) The portions of the transcript of the hearing in this case that was sealed at the time of the hearing, and the exhibits that were admitted at the hearing under seal, shall remain sealed pursuant to NMSA 1978, Section 71-2-8, and shall not be available for public inspection.

(5) If the Division receives a request pursuant to NMSA 1978, Sections 14-2-1 through 14-2-12, to inspect any of the records sealed pursuant to this Order, the Division shall furnish at least 30 days written notice to Respondent at its registered address for service of process in the State of New Mexico, prior to making any of the sealed records available for inspection. If Respondent so requests within 30 days after the date such notice is mailed, the Division shall hold a hearing prior to unsealing any of the sealed portions of the transcript or exhibits in this case.

(6) Jurisdiction of this case is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



SEAL

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


MARK E. FESMIRE, P.E.
Director