STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

ORIGINAL

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

APPLICATION OF WILLIAMS PRODUCTION CO., LLC FOR PRE-APPROVAL OF DOWNHOLE COMMINGLING IN THE ROSA UNIT, SAN JUAN AND RIO ARRIBA COUNTIES, NEW MEXICO

CASE NO. 14289

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REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID K. BROOKS, Legal Examiner
RICHARD EZEANYIM, Technical Examiner
TERRY G. WARNELL, Technical Examiner

March 19, 2009

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID K. BROOKS, Legal Examiner, RICHARD EZEANYIM, Technical Examiner, and TERRY G. WARNELL, Technical Examiner, on Thursday, March 19, 2009, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South Saint Francis Drive, Room 102, Santa Fe, New Mexico.

REPORTED BY: JOYCE D. CALVERT, P-03
Paul Baca Court Reporters
500 Fourth Street, NW, Suite 105
Albuquerque, New Mexico 87102

A P P E A R A N C E S

FOR THE APPLICANT:

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MR. EZEANYIM: At this point, we call Case No. 14289. This is the Application of Williams Production Company, LLC for a Pre-Approval of Downhole Commingling in the Rosa Unit, San Juan and Rio Arriba Counties, New Mexico.

Call for appearances.

MS. MUNDS-DRY: Good morning, Mr. Examiner. Ocean Munds-Dry of the law firm of Holland & Hart, here representing Williams Production Company, LLC this morning, and I have two witnesses.

MR. EZEANYIM: Any other appearances? Okay. May the witnesses stand up, and state your name to be sworn, please.

[Witnesses sworn.]

MR. EZEANYIM: Ms. Munds-Dry, you may proceed.

MORGAN VERNE HANSON

after having been first duly sworn under oath,

was questioned and testified as follows:

DIRECT EXAMINATION

BY MS. MUNDS-DRY:

Q. Would you please state your name for the record.

A. Morgan Verne Hanson.

Q. And where do you reside?

A. In Tulsa, Oklahoma.

Q. And by whom are you employed?

A. Williams Exploration and Production Company.

Q. And in what capacity?

A. I'm senior staff landman.

Q. Have you previously testified before the Division, and were your credentials made a matter of record and accepted?

A. Yes.

Q. And are you familiar with the application that Williams has filed?

A. Yes.

Q. Are you familiar with the status of lands that are the subject of this application?

A. Yes, I am.

MS. MUNDS-DRY: Mr. Examiner, at this time we would tender Mr. Hanson as an expert in petroleum land matters.

MR. EZEANYIM: Accepted.

Q. (By Ms. Munds-Dry): Mr. Hanson, would you briefly summarize what Williams Production Company, LLC seeks with this application?

A. We seek pre-approval of downhole commingling of production from the Dakota Mesaverde and the Mancos formations within the Rosa Unit.

Q. Thank you. Would you please turn to what's been marked as Williams Exhibit No. 1.

MS. MUNDS-DRY: And, Mr. Examiner, I did put a packet in front of you and Mr. Brooks and Mr. Warnell with our exhibits.

Q. (By Ms. Munds-Dry): Mr. Hanson, would you please identify Exhibit No. 1 for the Examiner?

A. Exhibit No. 1 is Order R-12991, which establishes a reference case for the Rosa Unit to provide for no notice to the interest owners for commingling of the Mesaverde and Dakota Formations -- or commingling of pre-approved formations within the unit and also commingling of non pre-approved notices with a C-107 being filed with Santa Fe on the pre-approved formations.

Q. Thank you. Would you please turn to what's been marked as Exhibit No. 2, and identify that for Mr. Ezeanyim.

A. Exhibit No. 2 is Order R-12984. This was the order which formed the Basin Mancos Pool, and it also denied downhole commingling of the Mancos -- pre-approved downhole commingling of the Mancos within the Mancos Basin Pool.

Q. And do you recall from that hearing and from this order why the commingling was denied at that time?

A. The Commission found that at that time there was not enough evidence presented at the hearing to approve the downhole commingling.

Q. And which pools under this application does Williams seek to commingle?

A. The Basin Dakota, the Blanco Mesaverde, and the Basin Mancos.

Q. Are any of these pools already pre-approved for

commingling?

A. Yes. The Basin Dakota and the Blanco Mesaverde.

Q. Do you recall the order number for that?

A. It's R-11363.

Q. Has Williams received any individual orders to commingle the Dakota and the Mancos or the Mesaverde and the Mancos?

A. We have received one order, and it's DHC-4085 for the Rosa Unit No. 77 well.

Q. Mr. Hanson, would you please turn to what's been marked as Exhibit No. 3 and review this for the Examiners?

A. Exhibit No. 3 is the map of the Rosa Unit showing the various types of lands in the Rosa. The gray would indicate the federal lands. The brown indicates the State lands, and the white would be the fee lands within the Rosa, which there is very little.

And there is also a non-committed tract up there between Sections 34 and 35 also, lying in between Sections 3 and 4. And then there is a partially committed tract in Sections -- that's 31 and 32 North 6 West.

There's a partially -- or two partially committed tracts within Sections 25 and 26, the NE/4 of both sections. And then the red hatching indicates the Dakota participating area.

Q. Thank you. Turn now to Exhibit No. 4, if you

would, please, and review this for the Examiners.

A. This is the same map with the same indications as far as colors and types of land, with the red hatching indicating the Mesaverde participating area.

Q. Are there any Mancos participating areas at this time?

A. There are none established.

Q. With that in mind, and keeping in mind the participating areas that we saw for the Dakota and Mesaverde participating areas, are the interest ownership -- is the interest ownership in the Rosa Unit different in the Mancos than it is for the Dakota and the Mesaverde?

A. It varies by tract within the Rosa Unit.

Q. Will interest ownership be adversely affected if these pools are pre-approved for commingling?

A. I don't believe it will.

Q. In your opinion, will this application result in the more efficient operation of the unit?

A. Yes.

Q. And in your opinion, will the approval of this application protect correlative rights and prevent waste?

A. Yes.

Q. Has Williams notified all interest owners in the unit of this application?

A. Yes, we have.

Q. And have you had any response to this application?

A. No.

Q. Have you discussed this application with the OCD District Aztec office?

A. Williams representatives have discussed this issue with the OCD office in Aztec.

Q. And what is Exhibit No. 5?

A. Exhibit No. 5 is a letter from Mr. Steven Hayden in support of our application.

Q. Have you also discussed this application with the Bureau of Land Management?

A. Yes, we have.

Q. And what is their position on this application, if you know?

A. The Bureau of Land Management is in support of this application.

Q. And is Exhibit No. 6 our Notice of Affidavit with a copy of the notice list, the notice of publication, and the green cards with return receipts?

A. Yes.

Q. Were Exhibits 1 through 6 either prepared by you or compiled under your direct supervision?

A. Yes, they were.

MS. MUNDS-DRY: At this time, Mr. Ezeanyim, we move

the admission of Exhibits 1 through 6 into evidence.

MR. EZEANYIM: Exhibits 1 through 6 will be admitted.

[Applicant's Exhibits 1 through 6 admitted into evidence.]

MS. MUNDS-DRY: And that concludes my direct examination of Mr. Hanson.

MR. EZEANYIM: Do you have any questions?

MR. BROOKS: No questions.

MR. WARNELL: No questions.

MR. EZEANYIM: No questions. You may sit down.

MS. MUNDS-DRY: Thank you. I'd like to call my next witness, Mr. McQueen.

MR. EZEANYIM: Go ahead.

KENLEY HAYWOOD MCQUEEN, JR.

after having been first duly sworn under oath,

was questioned and testified as follows:

DIRECT EXAMINATION

BY MS. MUNDS-DRY:

Q. Okay. Would you please state your full name for the record.

A. My full name is Kenley Haywood McQueen, Jr.

Q. And where do you reside?

A. I reside in Tulsa, Oklahoma.

Q. And by whom are you employed?

A. I'm employed by Williams Exploration and

Production Company.

Q. And in what capacity?

A. I'm the director of the San Juan Basin.

Q. And by training, what is your background?

A. I'm a petroleum engineer.

Q. Have you previously testified before the Division, and were your credentials accepted and made a matter of record?

A. I have, and they were.

Q. Are you familiar with the application that's been filed in this case?

A. I am.

Q. And have you made an engineering study of the lands that are the subject of this application?

A. I have.

MS. MUNDS-DRY: With that, Mr. Examiner, we would tender Mr. McQueen as an expert in petroleum engineering.

MR. EZEANYIM: Mr. McQueen is so qualified.

Q. (By Ms. Munds-Dry): Mr. McQueen, if you could, first, before we go to your exhibits, please explain to the Examiners why this application is important to Williams.

A. In the current economic environment of significantly reduced gas prices, we are looking at all opportunities that may provide opportunity to reduce costs so we can continue our drilling program in Rosa.

And, in particular, we see three major components of cost savings that could be achieved by approval of this application for commingling. The first of those relates to our drilling activities in the Rosa. With a commingling permit for these three zones in place, we would be able to complete the wells with 4 1/2-inch casing rather than 5 1/2-inch casing.

On the completion side, commingled completions allow us to run one tubing string rather than two tubing strings, and it also allows us to run one train of production equipment on the surface rather than two trains of production equipment.

And from an ongoing operational standpoint, we see significant work-over cost savings related to recovery of equipment downhole that are related to dual tubing strings in the well bore; in particular, recovery of packers that are required for a dual tubing system.

Q. Thank you, Mr. McQueen. If you could turn now to what's been marked as Williams Exhibit No. 7, and review this for the Examiners.

A. Exhibit 7 --

MR. EZEANYIM: I don't believe we have 7 in your packets.

MS. MUNDS-DRY: It should be. I apologize if there's some mix up there. It should be right after the notice packet.

MR. WARNELL: We've got it.

MR. BROOKS: I don't have it in mine. It is bradded

to Exhibit 6. It's there. It's just as though it were part of 6.

MS. MUNDS-DRY: We wanted to make you work to try to find it.

MR. WARNELL: It works.

THE WITNESS: I'm not sure I have 6. Is it in this package?

MS. MUNDS-DRY: I apologize for that confusion.

Q. (By Ms. Munds-Dry): Mr. McQueen, would you review this for the Examiners?

A. Exhibit 7 is a base map of our Rosa Unit showing current Mesaverde well spots, and I have highlighted on the map in red the eight wells which we have already completed commingling in the Mesaverde and the Dakota zones.

In addition to these eight wells that are highlighted on the map, we have three other wells in the Rosa Unit that are commingled in other zones.

Q. And so this shows really the west side of the Rosa Unit?

A. Basically, the Mesaverde in the Rosa Unit thins and becomes nonproductive on the east and northeast side of the unit. So that's why you see the bulk of the Mesaverde well penetrations are on the W/2 or W/3 of the Rosa Unit.

Q. Thank you. Mr. McQueen, what are the average recoverable reserves from the Mesaverde, Mancos, or Dakota

spacing unit?

A. We just completed our yearend reserve evaluation that follows SEC guidelines for determination of reserves, and rather than talk about reserves on a GPU, it's probably more meaningful to report what our average net reserve numbers are from the report that we just completed.

In the Mesaverde, we have booked net crude reserves of 229 million cubic feet of gas per well, and in the Dakota, we have 102 million cubic feet of net wells, average per well.

Q. And what about for the Mancos?

A. The Mancos, at this time we have insufficient production data to rationalize those reserves as proof at that point. We still have those booked as probable or possible reserves.

Q. What can you tell us about its production profile?

A. To date, what we see from the Mancos, and we have four wells in various stages of completion, is the production profile looks very much like what you would expect to see in a typical shale reservoir recovery. That is, the wells are hydraulically stimulated, and we see high rates, initially.

But the rates fall very quickly, and within a couple of months the pressures are down-riding our line pressures so that from a production volume standpoint they look very similar to the volumes that we see out of our Mesaverde wells.

Q. What is the average initial producing rate from a newly drilled well or re-completed well in the Mesaverde, Dakota, and Mancos?

A. The Dakota is 107 MCF per day initial potential. The Mesaverde is 450 MCF a day. Those are both 8/8's or gross numbers.

Again, the Mancos, we're very early in the evaluation process there. But after the flush production is produced in the Mancos completions, we see a significant falloff in rate, and those rates, after a couple of months, are comparable to what we're seeing in the Mesaverde wells.

Q. If this application is approved, how does Williams plan to produce these wells going forward?

A. We would plan to produce the Mancos, the Mesaverde, and the Dakota in a commingled well bore on a go-forward basis.

Q. And would you plan to produce each until you get the flush production?

A. That's correct. Our production completion scenario is:

Complete the Dakota, flow the Dakota back for some time, establish its production rate, set a bridge plug, come up hole; complete the Mancos, allow it to produce so that the flush production, the initial high rates, are produced, set a bridge plug, come up; produce the Mesaverde for a while.

After production is established in all three of the zones, then we would go back and knock out the bridge plugs and commingle zones together.

Q. Does the estimated ultimate recoveries and initial producing rates from each formation justify drilling the standalone wells?

A. Certainly with these low gas prices, Dakota standalones are not justified. The Mesaverde standalones are marginal. And the Mancos, the jury is still out on those since we are in the process of evaluating what we think the full potential of the gas production will be from the Mancos.

Q. So with the prices the way they are now in this current economic environment, it makes more economic sense to commingle or trimmingle these wells?

A. Trimmingling certainly offers us better economic returns in that we have three target zones to produce gas from, rather than one or two.

Q. And when we're looking at commingling, is the lower zone with 150 percent of the upper zone?

A. Yes.

Q. What allocation methods has Williams proposed?

A. We'll use the subtraction method initially. Then after we establish production from the zones, then we'll move to the allocation method.

Q. Can you please tell the Examiners what is the top

and bottom of the pay section for each formation, starting with the Mesaverde, if you have it?

A. The tops and bottoms of our reservoirs from surface in the Rosa vary quite markedly because we have quite a lot of topographical relief in the Rosa Unit. We see the Mesaverde as shallow as 5159 feet and as deep as 6386. We see the Mancos as shallow as 5838 and as deep as 7006 feet. And we see the Dakota as shallow as 7594 and as deep as 8730.

Q. And what method of production will be used?

A. We plan to initially flow all of these wells without artificial lift. At later points in their life when water production becomes an issue, then we would plan to add plunger lift to get the liquids out of the hole.

Q. Mr. McQueen, what is the average gas BTU for each formation?

A. In the Mesaverde, the average gas content is 1021 million BTU per MCF. In the Dakota it's 991 million BTU per MCF, and in the Mancos, it's 990 million BTU per MCF.

Q. And generally speaking, each zone, will it be production, shut-in, or will it be a new zone?

A. We actually have an ongoing effort to convert our existing Mesaverde and Dakota duals to commingling under the order that's in place. And on a go-forward basis with this order in place, we would also plan to complete the Mancos in a number of the wells.

Q. What about for new wells?

A. In the new wells, we would plan to complete all three zones much as I described earlier with the production scenario, starting with the Dakota at the bottom and coming up to the Mancos and then completing the Mesaverde.

Q. Could you please tell the Examiners what are the oil and gas and water rates of last production from the last month from each formation and from what date?

A. The last production date we have posted in our internal system at Williams is for December 2008. And the 8/8's or gross production for Mesaverde was 21.2 million cubic feet per day, and the Dakota was 7.5 million cubic feet per day, 8/8's or gross production.

And, then, on a per-well basis in the Mancos, the profiles that we are seeing very early in the Mancos are on a per-well basis and resemble what we would be seeing in the Mesaverde wells.

Q. Thank you. Could you turn to what's been marked as Exhibit No. 8, and review this exhibit for the Examiners.

A. Exhibit 8 simply reflects the numbers that I just presented, except that in addition to the December data, we show our gross production for the entire year of 2008. The Mesaverde production is shown in red, and the Dakota production is shown in blue.

Q. And the Mancos production history is not shown on

here. Do you have an opinion on that?

A. We have very little Mancos production at this point in time. Long-term our anticipation is, at least on a per-well basis, the Mancos production would resemble what we're seeing in the Mesaverde.

Q. Would you please identify and review the reservoir fracture pressure information for each formation?

A. The Mesaverde reservoir original pressure ranges from 1100 to 1400 PSI. Our estimate of current reservoir pressure is 300 to 800 PSI, and the frac rating is .6 to .7 PSI per foot. In Dakota the original pressures range from 3000 to 3400 PSI. The current reservoir pressures, we believe, range from 1600 to 2700 PSI. Frac rating there is 0.65 to 0.7 PSI per foot.

And in the Mancos, the original pressure we estimate at 3000 to 4500 PSI depending where you are in the formation; and, of course, we estimate the current pressure is the same as the original pressure since there has been very little production out of the zone to date. And the gradient we see there ranges from .68 to 1.12 PSI per foot.

Q. Mr. McQueen, will commingling result in shut-in or flowing well-bore pressures in excess of the fracture-parting pressure of any commingled pool?

A. No.

Q. In your opinion, will commingling result in a

permanent loss of reserves due to the cross flow between any of the well bores in the Rosa Unit area?

A. No.

Q. Are the fluids from each going to be commingled in a way that would result in compatibility problems or damage the pool?

A. No.

Q. Will commingling jeopardize the efficiency of present or future secondary recovery operations in the pools to be commingled?

A. No. In fact, we don't see any current technology that's available for secondary recovery in conventional gas reservoirs.

Q. Will commingling be done in a way that fluid-sensitive formations will be protected from contact with the liquids produced from other pools in the wells?

A. Yes.

Q. And will commingling cause any well bore damage?

A. No.

Q. Are any of the pools in this case prorated?

A. Yes. The Dakota pool is prorated.

Q. That being the case, will production exceed any of the allowables?

A. No.

Q. Would commingling reduce the value of the total

remaining production from this unit area?

A. No. In fact, we believe that because of reduced economic limit that will result from commingling operations, it will actually increase remaining reserves in the reservoir.

Q. In your opinion, will Williams' recommended methods of allocation protect the interest of all royalty and overriding interest owners in the Rosa Unit?

A. Yes.

Q. Does commingling protect correlative rights?

A. Yes, it does.

Q. How so?

A. We -- again, because of improved economics from an operational standpoint on a go-forward basis, that reduced economic limit will result in more reserves being booked that would ordinarily happen under the current scenario.

Q. And you touched on this earlier, Mr. McQueen. Does commingling improve efficiency in Williams' operations?

A. Absolutely. It decreases our repairs costs, decreases operational costs, decreases capital outlays.

Q. How many more existing wells can be commingled now if this application is approved?

A. We have at least 17 planned commingles if this application is approved.

Q. And how about new drills?

A. We see as many as 33 new drills in 2009 and 2010

that could benefit from this commingling application.

Q. And in your opinion, will commingling increase the ultimate recovery from this unit?

A. Again, yes, because of anticipated decreased economic cutoff.

Q. And will approval of this application be in the best interests of conservation, protection of correlative rights, and the prevention of waste?

A. Yes, absolutely.

Q. Were Exhibits No. 7 and 8 either prepared by you or compiled under your direct supervision?

A. Yes, they were.

MS. MUNDS-DRY: At this time, Mr. Examiner, we move the admission of Exhibits 7 and 8.

MR. EZEANYIM: Exhibits 7 and 8 will be admitted.

[Applicant's Exhibits 7 and 8 admitted into evidence.]

MS. MUNDS-DRY: And that concludes my direct examination of Mr. McQueen.

MR. EZEANYIM: Okay. Any questions?

MR. BROOKS: No questions.

MR. EZEANYIM: Terry?

MR. WARNELL: No questions.

MR. EZEANYIM: Mr. McQueen, I don't know if you were asked this question: Are you part of the applicant in this

Case No. 14133, Order No. R-12984? Were you part of the applicant at the time that case was presented to OCD?

THE WITNESS: Is that the Mesaverde Dakota?

MR. EZEANYIM: Yeah. You're asking for that whole commingling for Mancos, Dakota, and Mesaverde, and it was denied on --

THE WITNESS: Oh, Mr. Hayden, I believe, produced that case. We were not --

MS. MUNDS-DRY: Mr. Ezeanyim, we entered an appearance at the court of that application, but that was our only participation in that case.

MR. EZEANYIM: Why I'm asking that question, is there any new evidence now that you have, other than what was presented in the last case, that you're presenting today? Do you know? Any evidence that is different from the well that was presented in the last case?

MS. MUNDS-DRY: I honestly don't recall that Mr. Hayden presented much in the way of evidence. So what we've tried to do today would be more along the lines of what you should see to support that kind of application.

MR. EZEANYIM: So this is the initial evidence then?

MS. MUNDS-DRY: I believe so. And I don't mean to speak for Mr. Hayden.

MR. BROOKS: I was the examiner on that case, and as I recall, the determination that we made at the time was not

that there was any reason why it should not be -- why a reference case should be not be -- established, but just that the evidence that was presented in that case was not sufficient to meet all the regulatory requirements for such a case.

MR. EZEANYIM: You just made my point. That's what I'm saying, you know. If they couldn't present it at that time, did you present anything different today different from that?

MS. MUNDS-DRY: Again, I don't want to speak for what Mr. Hayden presented, but today we have offered you, as Mr. Brooks says, what's required under the rule to show in support of commingling for pre-approval.

MR. EZEANYIM: Okay. That's okay.

MS. MUNDS-DRY: And I would like to cite the new rule number to you, Mr. Ezeanyim, but I'm still learning them.

MR. EZEANYIM: You can cite the old one there. That's fine.

Most of these wells, are they marginal? They are not -- by your assessment, they are marginal, right? Most of these are marginal?

THE WITNESS: Well, on a go-forward basis, the wells we are trying to drill would be marginal on a standalone basis, and that's why we're trying to commingle the three zones together because it creates an economically viable opportunity for us.

MR. EZEANYIM: Okay. No further questions.

THE WITNESS: Thank you.

MS. MUNDS-DRY: And that concludes our case. We ask this be taken under advisement.

MR. EZEANYIM: Thank you. At this point Case No. 14289 will be taken under advisement.

* * *

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 14289 heard by me on 3/19/09.

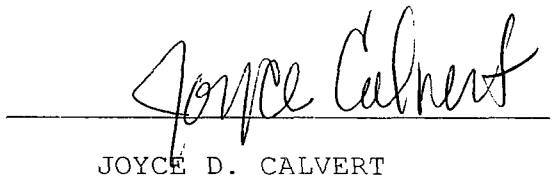
_____, Examiner
Oil Conservation Division

REPORTER'S CERTIFICATE

I, JOYCE D. CALVERT, Provisional Court Reporter for the State of New Mexico, do hereby certify that I reported the foregoing proceedings in stenographic shorthand and that the foregoing pages are a true and correct transcript of those proceedings and was reduced to printed form under my direct supervision.

I FURTHER CERTIFY that I am neither employed by nor related to any of the parties or attorneys in this case and that I have no interest in the final disposition of this proceeding.

DATED this 19th day of March, 2009.



JOYCE D. CALVERT
New Mexico P-03
License Expires: 7/31/09

STATE OF NEW MEXICO)
)
COUNTY OF BERNALILLO)

I, JOYCE D. CALVERT, a New Mexico Provisional Reporter, working under the direction and direct supervision of Paul Baca, New Mexico CCR License Number 112, hereby certify that I reported the attached proceedings; that pages numbered 1-24 inclusive, are a true and correct transcript of my stenographic notes. On the date I reported these proceedings, I was the holder of Provisional License Number P-03.

Dated at Albuquerque, New Mexico, 19th day of March, 2009.

Joyce D. Calvert
Provisional License #P-03
License Expires: 7/31/09

Paul Baca, RPR
Certified Court Reporter #112
License Expires: 12/31/09