BEFORE THE IDAHO DEPARTMENT OF LANDS

IN THE MATTER OF THE APPLICATION) OF AM IDAHO, LLC, AND ALTA MESA) SERVICES. LP TO ESTABLISH A FINDINGS OF FACT,) SPACING UNIT AND FOR **CONCLUSIONS OF LAW**) INTEGRATION OF ALL UNCOMMITTED) AND ORDER OWNERS IN THE PROPOSED UNIT) CONSISTING OF THE SE¼ OF SECTION) 10, THE SW14 OF SECTION 11, THE NW14) Docket No. OF SECTION 14 AND THE NE¹/₄ OF CC-2016-OGR-01-005) SECTION 15, TOWNSHIP 8 NORTH,) RANGE 5 WEST, BOISE MERIDIAN, } PAYETTE COUNTY, IDAHO.) AM Idaho, LLC, and Alta Mesa Services. LP.) Applicant.)

I. PROCEDURAL BACKGROUND and PARTIES

By Application dated November 16, 2016 (the "Application") AM Idaho, LLC and Alta Mesa Services, LP ("Applicant") requested an order establishing a spacing unit ("Proposed Spacing Unit") and integration of certain unleased mineral interest owners for the following real property located in Payette County, Idaho:

> Township 8 North, Range 5 West Section 10: SE¼ Section 11: SW¼ Section 14:¹ NW¼ Section 15: NE¼

("Subject Lands").

Pursuant to Notice of Hearing dated November 21, 2016, a hearing in the abovecaptioned matter was held on Wednesday, December 14, 2016, at 9 a.m., and continued on

¹ On January 10, 2017, the Applicant submitted its "Request to Amend Spacing Application," requesting that the spacing order be issued as follows: "restricted as to stratigraphic interval in the NW¼ of Section 14 only, to include only what was identified during the hearing as 'Sand D.'" This is discussed further, herein.

December 15, 2016 (the "Hearing") in the State Capital Lincoln Auditorium, WW02, Lower Level, West Wing, 700 W. Jefferson St., Boise, Idaho. Mr. Thomas M. Schultz, Jr., Director, Idaho Department of Lands ("Director Schultz") appointed Kelly Williams as hearing officer and presiding officer ("Hearing Officer") in the above-captioned matter by Notice of Appointment of Hearing Officer and Presiding Officer dated November 21, 2016.

Director Schultz was present at the hearing. Mr. Michael Christian ("Mr. Christian") represented the Applicants, AM Idaho, LLC and Alta Mesa Services, LP ("Applicant"). Mr. David M. Smith ("Mr. Smith"), Vice President – Exploration for AM Idaho, LLC and Mr. David Pepper ("Mr. Pepper"), Senior Landman for AM Idaho, LLC provided affidavits in support of Applicant and participated in the Hearing. Mr. J. Morgan Minton, Idaho Deputy Attorney General ("Mr. Minton") appeared on behalf of the Idaho Department of Lands and Mr. James Thum, Oil and Gas Program Manager for the Idaho Department of Lands ("Mr. Thum"), who also participated in the Hearing. One mineral interest owner, Mr. Russell Ruff ("Mr. Ruff"), Member, Superior Properties, LLC, and the owner of a mobile home community and an 11.81-acre parcel of real property located on the Subject Lands at 2750 Alden Road, Fruitland, Idaho 83619, provided a written response to the Application. Mr. Ruff did not participate in the Hearing.

Certain public witnesses attended the Hearing and provided statements, some of which were directed at the Application in Docket No. CC-2016-OGR-01-005, and to Docket Nos. CC-2016-OGR-001-004 and -006. Although those public statements were included in the official transcript of the Hearing and are part of the record, they do not serve as the basis for any conclusions contained in the Findings of Fact, Conclusions of Law or Order for this docket. Prior to the Hearing, on December 8, 2016, at 1:30 p.m., a prehearing conference was held via telephone ("Prehearing Conference"). In the interest of administrative economy, for purposes of the Prehearing Conference only, the Prehearing Conference consolidated the above-captioned matter with Docket Nos. CC-2016-OGR-01-004 and -006 (collectively, "Consolidated Prehearing Docket"); and on December 9, 2016, the Hearing Officer issued a Prehearing Order for the same.

Also prior to the Hearing, Mr. Minton submitted the Idaho Department of Lands' ("IDL") Prehearing Brief dated December 7, 2016 ("IDL Prehearing Brief"), in which IDL summarized Idaho law governing spacing units and integration, and took no position on the request made in the Application.

During the Hearing, Exhibits AM-1, AM-2, and AM-3 were admitted into evidence and are included in the record.

All parties, interested persons, and public witnesses who wished to participate in the Hearing were provided with an opportunity to present testimony and evidence. The Parties to the proceedings also were provided the opportunity present opening and closing statements, cross examine witnesses, offer rebuttal testimony and re-direct witnesses. Director Schultz and the Hearing Officer also asked questions and examined the evidence submitted.

Director Schultz, having considered the testimony presented and the exhibits received into evidence at the Hearing, being fully advised, and for good cause, hereby makes the following findings of fact, conclusions of law, and order in this matter.

II. FINDINGS OF FACT

1. Pursuant to IDAPA 04.11.01.602, the Hearing Officer takes judicial notice that as required by Idaho Code § 47-324(c)(iii), IDL mailed a copy of the Application and Notice of

Hearing, by certified mail, return receipt requested, to the last known addresses provided in the Application for all those uncommitted mineral interest owners identified by the Applicant as owning interests in the Proposed Spacing Unit.

2. Notice of the time, place, and purposes of the Hearing were duly published in the Independent Enterprise, a weekly newspaper of general circulation in Payette County, pursuant to the requirements of Idaho Code § 47-324(c)(iii).

3. This Findings of Fact, Conclusions of Law and Order incorporates by reference the entire record in this matter, including the Application and accompanying exhibits, correspondence from mineral owners and public witnesses, correspondence and documents from personnel with the Idaho Department of Lands ("IDL"), notices, pleadings, responses from the parties, and the hearing transcript.

4. The record reflects that AM Idaho, LLC and Alta Mesa Services, LP filed the Application with IDL on November 16, 2016; and by letter dated November 22, 2016 ("IDL Letter"), IDL notified the Applicant that its Application was administratively complete as described in Idaho Code § 47-322.

5. The IDL Letter also states that IDL's "acceptance of the applications for filing is only the initial step in the hearing process and should not be construed as preventing IDL or the hearing officer from determining that additional information may be needed in order to grant the application."

A. SPACING

1. The Applicant seeks an order establishing a 640-acre spacing unit for a vertical well in, and the production of oil, gas and other hydrocarbons from, the Poison Creek and Chalk Hills formations of the Idaho Group underlying the Proposed Spacing Unit.

2. At the Hearing, Mr. Smith and Applicant's counsel acknowledged that the portion of the Subject Lands located in Section 14 already were subject to an integration order of the spaced unit in Docket No. 2016-OG-01-001 ("Existing Order 001").

3. Upon questioning regarding the overlap of Existing Order 001 with the Proposed Spacing Unit, Mr. Smith testified that the reservoir targeted in the Proposed Spacing Unit is located in "Sand D," at a deeper depth and stratigraphically differentiated from the reservoir targeted in Existing Order 001.

4. Applicant's counsel stated during the Hearing that the Applicant did not request a stratigraphic limitation in the Proposed Spacing Unit "because there is no explicit provision for it in the law and it's something that we – because of the location of the proposed wells, we didn't think it was necessary."

5. Nevertheless, Mr. Christian proffered that the Application could be amended to "condition the spacing order on a depth restriction and in the northwest quarter section of [Section] 14 to include only Sand D, which is illustrated on Exhibit AM-2 and [as] Mr. Smith described."

6. Subsequently, the Applicant submitted Applicant's Request to Amend Spacing Application, dated January 10, 2017 ("Amended Application"), in which it identifies the formation to be utilized for spacing purposes, and further describes the following stratigraphic interval:

That sand identified on the triple-combination log for the Bridge Energy Inc. May 1-13 well at 3650' to 3690' measured depth.

("Spaced Interval").

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7. The Amended Application includes the Supplemental Affidavit of David M. Smith ("Supplemental Affidavit") in which Mr. Smith states, "[s]eismic data indicates that Sand D is located in a separate fault block from the primary sand targeted in the existing spacing unit covering the entirety of Section 14 [Existing Order 001]. The target sand to south is separated by a fault with approximately 150' to 200' of throw, as clearly delineated by 3-D seismic."

8. The Amended Application was submitted with proof of service to the Hearing Officer, Director Schultz, and IDL's attorney, Mr. Minton. It was not served on any of the uncommitted mineral interest owners within the proposed unit, nor other parties who initially were included in the Certificate of Service for the Notice of Hearing and Notice of Appointment of Hearing Officer, dated November 22, 2016 ("Notice of Hearing Certificate of Service").

9. By email to Mr. Christian dated January 10, 2017, the Hearing Officer directed Applicant to provide service of the Amended Application and Supplemental Affidavit, as well as future pleadings, to the parties included in the Notice of Hearing Certificate of Service. As of the date of the Findings of Fact, Conclusions of Law and Order ("Order"), the Applicant has not provided notice of service to all parties in the Notice of Hearing Certificate of Service.

10. IDAPA Rule 305 permits amendments and corrections to pleadings, and states that "[p]leadings will be liberally construed, and defects that do not affect the substantial rights of the parties will be disregarded."

11. For purposes of this Order, Applicant's Amended Application was accepted for inclusion in the record, and the Applicant was directed to supply the parties included in the Notice of Hearing Certificate of Service with copies of the Amended Application and all future pleadings it submits in this matter.

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12. In order to ensure that all parties have adequate notice and opportunity to respond to the Amended Application, those individuals and entities identified in the Notice of Hearing Certificate of Service who did not receive the Amended Application, shall be permitted to file responsive pleadings within ten (10) calendar days of the date of this Order.

13. The uncommitted minerals underlying the Proposed Spacing Unit are owned by private individuals and entities. The Applicant is the owner of working interests in the Subject Lands, and the Applicant has obtained a lease for the proposed drill site.

14. The Application includes an exhibit containing a plat depicting the sections in which the quarter-quarter sections proposed for spacing and integration are located, and individual owners are identified by corresponding tract numbers.

15. Based on the Affidavit of Mr. Smith included in the November 16, 2016 Application ("First Smith Affidavit") and testimony he provided during the Hearing, the Proposed Spaced Interval beneath the Subject Lands is a presumed structural trap with fluvial and lacustrine sands deposited in the Western Snake River Plain as it began downwarping and faulting. The seal for the reservoir appears to be claystones and tuffaceous silts of the Glenn's Ferry formation that overlays the trap.

16. Mr. Smith stated in his first affidavit that "[p]otential source rocks are dark gray carbonaceous shales and coals found in some of the deeper area wells (Chevron James #1, Champlin Deer Flat #11-19, etc.)."

17. Mr. Smith testified that the information used to form his conclusions about the location of the reservoir was based primarily on interpretation of geophysical seismic data used in conjunction historical well logs from wells located between two and six miles away from the Proposed Spacing Unit.

18. Mr. Smith stated in his first affidavit that "local well control suggests significant variability of porosity, permeability and sand thickness in the target section." He stated in his testimony that wells within the area may give some idea about conditions within the target areas, but because no wells had produced in the area, well data was not available to establish a basis for determining how large an area a proposed well might drain.

19. The Applicant did not provide evidence of well logs or interpretations of well logs during the Hearing.

20. In the Supplemental Affidavit, Mr. Smith explained that "[t]he primary sand to be targeted in the proposed unit correlates with 40' sand encountered in the Bridge May #1-13 well (1.9 miles east of the proposed target) between 3650' and 3690' measured depth. The sand targeted in the proposed unit is identified by Applicants internally, and I described [it] in my earlier testimony in this matter, as 'Sand D.' The sand correlating to Sand D geologically is reflected and identified in an excerpt from the May #1-13 well attached hereto as Exhibit A."

21. Mr. Smith testified regarding conclusions he made about the possible size and location of the reservoir based on seismic data he had examined; however, the Application did not include seismic data and evidence of seismic data was not provided at the Hearing.

22. Mr. Smith testified regarding Exhibits AM-1 and AM-2, explaining that the exhibits were depictions of conclusions he had drawn from seismic data obtained in the area. Mr. Smith testified that based on his interpretation of the data, the Applicant could estimate the most productive location to drill because the strength of the reflection from sand in the seismic data indicated there also may be an accumulation of gas.

23. Mr. Smith testified that "seismic . . . [data] is a tool and it's a bit of a gross tool, but it's our best estimate or best interpretation at this time as where we think the gas may be. And when you get around the boundaries and the edges, there is a certain amount of uncertainty. So this is the best we can say at this point, barring new drilling." Mr. Smith testified that he also had examined well logs acquired after drilling in the Willow Hamilton field.

24. Mr. Smith testified that his confidence in the seismic interpretation he completed for the Harmon Area at issue in this proceeding was based on his prior experience with interpreting similar data from the Willow Hamilton field.

25. Mr. Smith testified that based on his interpretation of the seismic data, the target reservoir for the Proposed Spacing Unit occurred in the same type of "lake basin" as the Willow Hamilton area.

26. Mr. Smith testified regarding the process by which the Applicant correlates seismic data with data obtained from other sources, to reach the conclusions relied upon to locate the potential target reservoir as follows:

So what we've done here is we've merged two different surveys that we've acquired, one in this new area we're proposing these units [Proposed Spacing Unit] with previously acquired data in the Willow [Hamilton] area, and we've processed them together. And the basic procedure to understand is that if you find a sand in the subsurface in the wells – and so we'll do field work around the basin, and we look at all the previously drilled wells over the last hundred years to try and establish patterns of how the sands are distributed. And then we incorporate that into our seismic data. And for example, in this prospect, that May well there is sands that that well found.

27. Mr. Smith testified that the well in the Willow Hamilton area from which data was derived to correlate with seismic data in the Proposed Spacing Unit, was located approximately six (6) miles east of the Proposed Spacing Unit.

28. Upon questions from the Hearing Officer regarding which wells and which geophysical information the Applicant used to draw the conclusions used as the basis for establishing the reservoir location, Mr. Smith testified as follows:

As geoscientists we try to honor all the data that is available. And the fact of the matter is, is that this is an exploration play. And so there is very scattered points of what we call control, subsurface control. That's sort of our ground truth. And in this area it's the May [1-13] well, which is in this section. And then approximately two or three miles west of here there's a – well, it was drilled in the early 80's as a geothermal test that the Department of Energy funded in the town of Ontario. And that well went to about 10,500 feet, I believe. Something like that. And it found predominately shell [sic, shale] but it also found some sands. And the two logs look very different between two or three miles to the west and then this May well. So it tells you that the sands vary in quality and thickness and presence and that sort of thing. So that's what we use the 3-D seismic for.

29. IDL did not take a position on the Application in its Prehearing Brief, but in that brief reserved the right to do so and to "provide additional evidence and analysis based on information or evidence that may be introduced at the hearing in this matter."

30. At the Hearing, Mr. Thum testified that he had spent an extensive amount of time doing a technical review of information the Applicant made available at its offices, including the well information from the May 1-13 Well, the seismic information for the general area of the Subject Lands and the well logs for some of the Applicant's producing wells in the adjacent, Willow Hamilton field.

31. The Applicant made the geologic materials available on a geologic work station that enabled Mr. Thum to examine different seismic profiles and orientations. Mr. Smith also provided to Mr. Thum a detailed explanation of his findings and reasoning for identifying the Proposed Spacing Unit.

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32. IDL supported the stratigraphic limitation based on the information described at the hearing.

33. The Proposed Spacing Unit is located in an area that remains largely undeveloped and wildcat in nature; and as such, the seismic data and limited well data from surrounding land is the best evidence available for determining the location of a reservoir at this time.

34. As described in the Application, "[b]ecause of the wildcat nature of the proposed activity, the specific subsequent operations are unknown at this time." Based on the Application and Mr. Smith's testimony, the purpose of operations on the Subject lands is exploratory and if a successful well is developed, operations would be "similar to the operations found at the previously drilled and completed wells in the Little Willow area, such as the ML 1-3, ML 2-3, Kauffman 1-34, and Kauffman 1-9."

35. Lastly, Mr. Smith stated in his first affidavit and testimony that 640 acres is not smaller than the maximum area that can be efficiently and economically drained by a vertical well completed and produced from the Spaced Interval.

B. INTEGRATION

1. In addition to requesting an order spacing the Subject Lands, the Applicant requests that the lands and mineral interests encompassed in the Proposed Spacing Unit be integrated ("Proposed Integration Interests").

2. The Application includes Exhibit H, a list of names and last known addresses of proposed uncommitted mineral interest owners, identified by tract numbers that correspond with parcels of the Proposed Spacing Unit that are to be integrated. The parcel numbers are identified on the Plat that is attached as Exhibit A to the Application. Exhibit H also details the efforts made to contact uncommitted owners and reach an agreement for leasing.

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3. The Application includes evidence of certified mail addressed to each uncommitted mineral interest owner, and an example of the letter containing the Applicant's offer to lease. It also includes an affidavit of publication intended to give notice of the Applicant's intention to develop the mineral resources to those who were no longer at the last known address, or otherwise unlocatable. The letter and publication evidence the Applicant's compliance with Idaho law that requires an attempt to give mineral owners actual prior notice of the intent to develop the mineral resource. Idaho Code § 47-322(d)(x).

4. Exhibit E to the Application is the Affidavit of Mr. Pepper ("Pepper Affidavit"), in which he stated that the Applicant had obtained leases for 92.66% of the mineral interest acres in the Proposed Spacing Unit. During his testimony, Mr. Pepper indicated that the percentage of leased individuals had increased in the time since he made the statement in his affidavit, but he did not know the precise revised percentage number increase at the time of the Hearing.

5. Mr. Pepper testified regarding his efforts prior to submission of the Application and the Hearing, and his ongoing efforts to reach an agreement with individuals who might agree to speak to him.

6. The Applicant ceased making efforts to reach an agreement with those individuals who had refused to speak with the landmen or engage in any negotiation from the outset, and who had requested that the Applicant not contact them again. Mr. Pepper stated in his affidavit and during his testimony that the highest bonus he had paid in the Proposed Spacing Unit was \$100 per acre.

7. During the Hearing, Mr. Pepper testified that mineral owners who extended their leases pursuant to the option to extend, would be paid the same bonus of \$100 per mineral acre, rather than the \$50 per mineral acre as indicated in the Application.

8. The Application describes the five options for participating in the Proposed Spacing Unit as provided by Idaho law. Under Idaho Code § 47-322(c)(i)-(iv), a mineral interest owner may choose one of the following options: a) become a working interest participant and bear a proportionate cost of participating in a well as provided for in the joint operating agreement; b) become a nonconsenting working interest owner as provided for in the joint operating agreement, ultimately recovering as a proportionate share of the proceeds attributable to production from the well, as a carried interest, after incurring up to a 300% risk penalty; c) become a lessee, and agree to lease a mineral interest for a certain dollar amount as a bonus and receive a one-eighth (1/8) royalty on the share of production attributable to the mineral acres leased; d) become an objector, and be deemed to have leased the mineral interest in exchange for a 1/8 royalty interest attributable to the net mineral acreage; and e) become a mineral interest owner who does not make an election in response to the notice of integration, in which case a party will be deemed to have leased their interest in exchange for a 1/8 royalty interest attributable to the net mineral acreage and bonus equal to what is paid by the operator to the other mineral interest owners in the Proposed Spacing Unit prior to issuance of any integration order.

9. The Application includes a proposed joint operating agreement form ("JOA") as Exhibit C and a lease form as Exhibit D, and Mr. Pepper testified that the Applicant was seeking a 300% risk penalty to be applied to nonconsenting working interest owners. The Applicant's JOA is the same JOA used with its partners.

10. The lease form attached to the Application as Exhibit D is the same form of lease, including bonus and royalty amounts, that has been offered to and signed by other mineral owners in the area.

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11. In his affidavit and testimony, Mr. Pepper explained that the basis of the 300% penalty imposed on nonconsenting working interest owners is that "[t]he well to be drilled in the unit is a 'wildcat' well in an area of limited knowledge of and experience with the geology, entailing higher risk to Applicant than a well drilled in a fully developed area."

12. Mr. Pepper's affidavit describes additional risk factors justifying the 300% risk penalty, including the "technically complex" targeted conventional sand; lack of "developed infrastructure for making product from a successful well market ready and transporting product[;]" and "the frontier nature of the play in which the unit is located," making sourcing of drilling contractors and rigs more expensive.

13. By letter dated January 4, 2017, and addressed to Mr. Thum, Mr. Christian submitted three (3) revisions to the JOA as follows:

a. On page 5, Article VI.A, "Initial Well," will be returned to its original form without deletion, and the added sentence regarding no initial well and the Participation Agreement between AM Idaho, LLC and Bridge will be deleted.

b. On page 7, Article VI.B.2(b)(ii) and (c), the penalty for nonconsent for the items listed in those subparagraphs will be reduced from 500% to 300%.

c. On page 17b, Article XVI.D.1, the opening phrase will be amended to read, "Except as to the Initial Well, notwithstanding anything in this Operating Agreement to the contrary."

14. The revisions to the JOA are fair and reasonable, and in line with standard industry practice in the greater geographic region.

15. With the exception of Mr. Ruff, none of the mineral interest owners identified in the Application as Proposed Integration Interests provided comments prior to the Hearing; and none of the mineral owners identified as Proposed Integration Interests attended the Hearing or otherwise participated in the proceedings.

III. <u>CONCLUSIONS OF LAW</u>

1. The Idaho Oil and Gas Conservation Act ("Act") applies to all matters affecting oil and gas development on all lands located in the state of Idaho. Idaho Code § 47-319.

2. The Idaho Administrative Procedures Act codified at Title 67, Chapter 52 of the Idaho Code, and the Idaho Rules of Administrative Procedure of the Attorney General, IDAPA 04.11.01, *et. seq.*, also apply to the proceedings, to the extent that neither is superseded by the Act.

3. Under Idaho law, the Oil and Gas Conservation Commission ("Commission") is "authorized to make and enforce rules, regulations, and orders reasonably necessary to prevent waste, protect correlative rights, to govern the practice and procedure before the commission, and otherwise administer [the Act]." Idaho Code § 47-319(8). IDL is the administrative instrumentality of the Commission and the Director of IDL has authority over these proceedings pursuant to Idaho Code § 47-322(a) and 47-324(c).

4. Idaho law requires that "[a]n order establishing spacing units shall specify the size and shape of the units . . . [that] will, in the opinion of [IDL], result in the efficient and economical development of the pool as a whole." Idaho Code § 47-321(2).

5. Under Idaho law, "[i]f at the time of a hearing to establish spacing units, there is not sufficient evidence to determine the area that can be efficiently and economically drained by one (1) well, the department may make an order establishing temporary spacing units for the orderly development of the pool pending the obtaining of information required to determine what the ultimate spacing should be." Idaho Code § 47-321(2)(a).

6. Thus, the Applicant must show sufficient evidence, geologic or otherwise, to establish that the Proposed Spacing Unit can be efficiently and economically drained by one (1) well.

7. Pursuant to the Idaho Administrative Procedures Act, a court shall affirm an agency's action unless the decision is "not supported by substantial evidence on the record as a whole; or [the decision is] arbitrary, capricious, or an abuse of discretion." Idaho Code § 67-5279(3)(d)-(e).

8. Based on evidence and testimony presented at the Hearing and in the Application, the record does not reflect sufficient evidence that the Proposed Spacing Unit can be efficiently drained by one well.

9. Nevertheless, sufficient evidence was presented to support establishing a temporary spacing unit, in furtherance of orderly development of the pool until information can be obtained to establish appropriate spacing pursuant to Idaho Code § 47-321(2)(a).

10. While many jurisdictions have grappled with the lack of information available in new areas of oil and gas development, most have erred on the side of requiring more than one scientific tool in ascertaining the physical characteristics and reservoir dynamics necessary to determine the extent of correlative rights and protect the same. *See e.g., Hystand v. Industrial Commission,* 389 N.W.2d 590 (N.D. 1986); *Larsen v. Oil & Gas Conservation Commission,* 569 P.2d 87, 92 (Wyo. 1977) (the Wyoming Supreme Court held that minimum findings include "(1) the amount of recoverable oil in the pool; (2) the amount of recoverable oil under the various tracts; (3) the proportion that #1 bears to #2; and (4) the amount of oil that can be recovered

without waste."); Grace v. Oil Conservation Commission of New Mexico, 531 P.2d 939 (N.M. 1975); and Continental Oil Co. v. Oil Conservation Commission, 373 P.2d 809 (N.M. 1962).

11. As evidence of the location and size of the target reservoir, the Applicant presented a summary of geophysical readings from seismic studies, correlated with unspecified information that was not provided in the Application or at the Hearing regarding "a 40' sand encountered in the Bridge May # 1-13 well (1.9 miles east of the proposed target) between 3650' and 3690' measured depth[,]" and unspecified inference "based on the similarity of the characteristics of the seismic data acquired in the area of the Willow-Hamilton field[.]" approximately six miles away.

12. At hearing, the Applicant did not provide evidence of any of the well logs it reviewed, or charts or depictions of the structures into which it intended to drill. Because the area is undeveloped, this is an exploration play, and seismic is an uncertain and limited tool without drilling, all of which were established through the Applicant's testimony, the size, shape, and drainage area of the pool all require significant speculation. Further, the Applicant's evidence and testimony confirmed that absent information obtained from a producing well located in close proximity to the Proposed Spacing Unit, establishing the location and size of the target reservoir requires significant speculation.

13. The lack of specific information or evidence beyond assertions from the Applicant regarding the location and extent of the Proposed Spacing Unit is particularly problematic because of the existing spacing unit covering all of Subject Section 14 in the Proposed Spacing Unit.

14. The Applicant asserts that "[s]eismic data indicates that Sand D is located in a separate fault block from the primary sand targeted in the existing spacing unit covering the

entirety of [Subject] Section 14[.] The target sand to south is separated by a fault with approximately 150' to 200' of throw, as clearly delineated by 3-D seismic."

15. Exhibit A to the Supplemental Affidavit depicts a "copy of the relevant portion of the well log for the nearby May 1-13 well, on which the subject sand is identified." However, no exhibit depicting the seismic data, or other demonstrative evidence is included to support Applicant's conclusion regarding the separation between stratigraphic zones in Section 14.

16. Due to the distance between the reservoir in the Proposed Spacing Unit and the reservoir from which drilling data had been obtained and analyzed by the Applicant, and the significant variability of the thickness and porosity of the targeted sands within the area, correlation between the two production areas could be improved with additional development of wells in the area.

17. Furthermore, absent sufficient evidence supporting the claim of geologic separation between stratigraphic zones within the already-spaced Section 14, the Proposed Spacing Unit cannot be approved without violating the Existing Order 001.

18. The evidence and testimony presented established the likelihood of a productive pool underlying the Proposed Spaced Unit sufficient to support establishing a temporary spacing unit to facilitate the orderly development of the Proposed Spaced Unit until further development can occur that that will help define the target reservoir and establish delineation between the stratigraphic zones, as claimed.

19. Once development occurs, additional information from well logs, interpretation of core samples, mud logs, or other means of establishing the source of production and the nature of the structure in which it occurs, may be used to confirm the location and extent of the reservoir underlying the Proposed Spacing Unit.

20. Such development must precede establishing the Proposed Spacing Unit as currently requested and proposed.

21. An eighteen-month time frame for achieving production, or establishing some other means of acquiring sufficient evidence of the reservoir size and location will provide the Applicant with the opportunity to pursue the Proposed Spacing Unit and proceed with orderly development of the Harmon field.

22. During the pendency of the temporary spacing unit, the Applicant also must establish production or other data sufficient to establish the stratigraphic limitation requested in the Amended Application.

23. Idaho law provides that "in the absence of voluntary integration, the department, upon the application of any owner in that proposed spacing unit, shall order integration of all tracts or interests in the spacing unit for drilling of a well or wells, development and operation thereof and for the sharing of production therefrom." Idaho Code § 47-322(a).

24. Under Idaho law, the Applicant is required to obtain an agreement to lease from owners of at least fifty-five percent (55%) of the total mineral interest within the Proposed Spacing Unit. Idaho Code § 47-322(d)(viii).

25. Based on the evidence provided at the Hearing and in the Application, and subject to the temporary term of the Proposed Spacing Unit, the Director concludes that the Application meets the minimum requirements for integration.

26. Based on the evidence presented, the Director concludes that it is appropriate to integrate the uncommitted mineral interest owners pursuant to Idaho Code § 47-322, with the express condition that said integration will be temporary for the same period of time as the temporary spacing.

27. The five alternatives for the uncommitted mineral interest owners to participate in the spacing unit are just and reasonable. The Applicant's proposed lease form contains just and reasonable terms to govern the relationship between the Applicants and uncommitted mineral interest owners who lease, fail to make an election, or choose to be objectors. The joint operating agreement with its revised terms contains just and reasonable terms to govern the relationship between the Applicants and the uncommitted mineral interest owners who elect to participate as working interest owners or nonconsenting working interest owners. As Mr. Pepper testified, the terms in the proposed lease and the joint operating agreement are reasonable and are standard in the industry throughout the greater geographic region.

28. Given that the drilling of these proposed wells are speculative exploratory wells entailing a higher degree of risk; and the significant distance of the well sites from well service contractors and the significant mobilization costs for transporting a drill rig, a 300% risk penalty is just and reasonable. Thus, the Applicant shall be entitled to recover from the interest of any nonconsenting working interest owner three hundred percent (300%) of the nonconsenting working interest owner's share of the cost of drilling and operating the well.

IV. <u>ORDER</u>

For the reasons stated above, pursuant to Idaho Code §§ 47-321 and 47-322 and based on the evidence in the record, the Director HEREBY GRANTS the Integration Applications in Docket No. CC-2016-OGR-01-005 according to the terms and conditions requested by the Applicants *as modified by the terms and conditions contained herein*.

A. The Proposed Spacing Unit shall be granted for a temporary term of eighteen months from the date of this Order.

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B. By or before the last day of the seventeenth month within in the eighteen-month period, the Applicant shall file an Application in this matter seeking a permanent spacing unit, under Idaho Code § 47-321.

C. In requesting the spacing unit as provided for herein, the Applicant shall provide additional production data, well logs, or other demonstrative evidence sufficient to establish the location of the Proposed Spacing Unit and the extent of the pool underlying the Subject Lands that one well will drain.

D. The Applicant also shall provide sufficient evidence that the stratigraphic limitation referred to in the Amended Application will adequately protect the other stratigraphic zones in Section 14 from drainage in contravention of Existing Order 001.

E. Such evidence must be more than merely asserting conclusions based on summaries of evidence not provided to IDL.

F. IDL should be provided with an opportunity to make an assessment of the evidence, and upon examination of the evidence, IDL should be prepared to provide the Director or other fact-finder with information that will assist in assessing the sufficiency of the evidence, from a technical perspective.

G. If the Applicant fails to file an Application to establish a spacing unit pursuant to Idaho Code § 47-321, the temporary unit ordered herein shall expire, and the Subject Lands, and all leased and unleased parties within the temporary unit shall be released from the temporary unit.

H. If and when production from the Subject Lands is achieved, proceeds attributable to production from lands within the temporary spacing unit shall be held in suspense until such

time as a hearing on an application for a spacing unit can be held to determine whether sufficient evidence exists to confirm the Proposed Spacing Unit.

I. Proceeds attributable to production from the temporary spacing unit shall be paid into an interest-bearing account administered by a third party, escrow agent, or similar fiduciary; and shall be available for release to the Applicant for payment to the appropriate party immediately upon Applicant obtaining a spacing order under which each mineral interest owner's proportionate share can be determined and allocated.

J. Only one (1) well shall be drilled to and produced in this temporary spacing unit. The well must be drilled with a minimum setback of six hundred sixty (660) feet from the unit boundary.

K. Furthermore, any well drilled within the temporary spacing unit that is completed to produce from a pool underlying portions of the Subject Lands located in Section 14, must be limited to production from the stratigraphic zone identified herein as "Sand D," more specifically depicted in Exhibit A to the Supplemental Affidavit, and described therein as sand that "correlates with a 40' sand encountered in the Bridge May #1-13 well (1.9 miles east of the proposed target) between 3650' and 3690' measured depth."

L. Alta Mesa Services, LP is the designated Operator of the well to be drilled within this temporary spacing unit, and has the exclusive right to drill, equip, and operate the well within the temporary spacing unit. Accordingly, all separate tracts within the spacing unit are HEREBY INTEGRATED for the purpose of drilling, developing, and operating a well in the temporary spacing unit, and for the sharing of all production therefrom in the temporary spacing unit, in accordance with the terms and conditions of the above-captioned order. M. Operations on any portion of a spacing unit will be deemed for all purposes the conduct of operations upon each separately owned tract in the spacing unit.

N. Production allocated or applicable to a separately owned tract included in the spacing unit shall, when produced, be deemed for all purposes to have been produced from that tract by a well drilled on that tract.

O. IT IS HEREBY ORDERED that from and after this date all production from this spacing unit be integrated and allocated among the interest owners therein according to the proportion that each mineral interest owners' net mineral acreage bears.

ALL UNCOMMITTED INTEREST OWNERS IN THE TEMPORARY SPACING UNIT ARE HEREBY NOTIFIED that they have 30 days from and after the date of the issuance of the above-captioned Order to make known to the Operator, Alta Mesa Services, LP, which of the following options they select for participation in the integrated spacing unit. This selection shall be made in writing, and addressed to:

Alta Mesa Services, LP 15021 Katy Freeway, Suite 400 Houston, TX 77094

by first class mail. Uncommitted mineral interest owners may either choose to participate as: a working interest owner; a non-consenting working interest owner; a leased interest; or as an objector.

A failure to notify the Operator, Alta Mesa Services, within 30 days of this order shall result in that owner's interest being deemed leased. Consistent with Idaho Code § 47-322(c)(i) - (v), the available participatory options are:

Participate as a working interest owner and pay the proportionate share of the actual costs of drilling and operating a well allocated to the owner's interest in the spacing unit. Working interest owners who share in the costs of drilling and operating the well are entitled to their respective shares of the production of the well. The operator of the integrated spacing unit and working interest owners shall enter into the joint operating agreement approved by the department in this order.

Participate as a nonconsenting working interest owner, who refuses to share in the risk and actual costs of drilling and operating the well, but desires to participate as a working interest owner. Nonconsenting working interest owners are entitled to their respective shares of the production of the well, not to exceed one-eighth (1/8) royalty, until the operator of the integrated spacing unit has recovered three hundred percent (300%) of the nonconsenting working interest owner's share of the cost of drilling and operating the well under the terms set forth in joint operating agreement approved by the department in this order. After all the costs have been recovered by the consenting owners in the spacing unit, the nonconsenting owner is entitled to his respective shares of the production of the well, and shall be liable for his pro rata share of costs as if the nonconsenting owner had originally agreed to pay the costs of drilling and operating the well. The operator of the integrated spacing unit and nonconsenting working interest owners shall enter into a joint operating agreement approved by the department in this order.

Enter into a lease with the operator of the spacing unit under the terms and conditions in the proposed lease Alta Mesa provided. The owner shall receive one-eighth (1/8) royalty and \$100 per net mineral acre bonus payment and another \$100 bonus for an extension on the lease term.

Object to any participation or involvement of any kind in the unit. An objecting owner's interest will be deemed leased under the terms and conditions in the integration order. The owner shall receive one-eighth (1/8) royalty. An objecting owner may elect to have any funds to which he or she is entitled to transferred to the STEM action center.

If an owner fails to make an election within the 30 days set forth in this order, such owner's interest will be deemed leased under the terms and conditions in this order. The owner shall receive one-eighth (1/8) royalty and a \$100 per net mineral interest acre bonus payment and another \$100 bonus for an extension on the lease term.

If one or more of the owners shall drill, equip, and operate, or operate, or pay the costs of drilling, equipping, and operating, or operating, a well for the benefit of another person as provided for the order, then such owners or owner shall be entitled to the share of production from the spacing unit accruing to the interest of such other person, exclusive of a royalty not to exceed one-eighth (1/8) of the production, until the market value of such other person's share of

the production, exclusive of such royalty, equals the sums payable by or charged to the interest of such other person. The terms and conditions of the above-described orders are hereby determined to be just and reasonable.

Each owner will have thirty days (30) from issuance of this order to make an election and communicate his election in writing to Alta Mesa.

PROCEDURES & REVIEW

Pursuant to Idaho Code § 47-324(c) the above-captioned order shall not be subject to any motion to reconsider or further review, except for appeal to the Idaho Oil and Gas Conservation Commission. Pursuant to Idaho Code § 47-324(d), this order may be appealed to the Commission by the applicant or any owner who filed an objection or other response to the application within the time required. An appeal must be filed with the Director within fourteen (14) calendar days of the date of issuance of the Director's written decision. The date of issuance shall be January 20, which is three (3) calendar days after the Director deposits the decision in the U.S. mail. Such appeal shall include the reasons and authority for the appeal, and shall identify any facts in the record supporting the appeal. Any person appealing shall serve a copy of the appeal materials on any other person who participated in the proceedings below, by certified mail, or by personal service. Any person who participated in the proceeding below may file a response to the appeal within five (5) calendar days of service of a copy of the appeal materials. The appellant shall provide the Director with proof of service of the appeal materials on other persons.

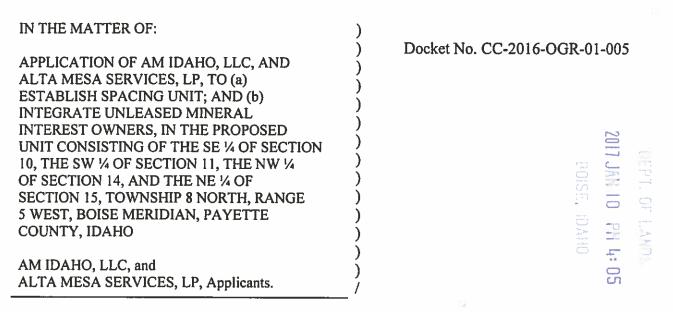
If no appeal is filed within the required time, this decision shall become the final order. Idaho Code § 47-324(f). DATED this 17th day of January, 2017

KELLY A. WILLIAMS Hearing Officer

the

THÓMAS M. SCHULTZ, JR. Secretary to the Commission and Director of the Idaho Department of Lands

BEFORE THE IDAHO DEPARTMENT OF LANDS



APPLICANTS' REQUEST TO AMEND SPACING APPLICATION

Applicants AM Idaho, LLC, and Alta Mesa Services, LP, request to amend their

spacing application as follows:

Applicants request that the order establishing a spacing order for the SW ¹/₄ of 1. Section 10, the SE ¼ of Section 11, the NW ¼ of Section 14 and the NE ¼ of Section 15, Township 8 North, Range 5 West be restricted as to stratigraphic interval in the NW 1/4 of Section 14 only, to include only what was identified during the hearing as "Sand D." Sand D is described in the Supplemental Affidavit of David M. Smith filed contemporaneously herewith, as follows: That sand identified on the triple-combination log for the Bridge Energy Inc. May 1-13 well at 3650' to 3690' measured depth. Attached to Mr. Smith's Supplemental Affidavit is a copy of the relevant portion of the well log for the nearby May 1-13 well, on which the subject sand is identified. As set forth in Mr. Smith's Supplemental Affidavit, based on his experience and his review of seismic data gathered in the area of the proposed unit, Sand D appears to be located in a separate fault block from the primary sand being targeted in the existing spacing unit covering Section 14, Township 8 North, Range 5 West (Docket No. CC-2016-OGR-01-001). As set forth in Mr. Smith's Supplemental Affidavit, Sand D is separated from the target sand to south in the NW ¼ of Section 14 by a fault with approximately 150' to 200' of throw, which fault is clearly delineated by 3-D seismic.

2. Applicants request that the order include the condition that no well for the requested spacing unit will be drilled in the NW ¼ of Section 14, such that production from a well drilled into Sand D from the remainder of the unit will be allocable pro rata to the NW ¼ of Section 14 (by virtue of the pooling clauses in the leases in the NW ¼ of Section 14), but such



production will not be allocable to the remainder of Section $14.^1$ This condition will remain unless and until the existing spacing order for Section 14 (Docket No. CC-2016-OGR-01-001) is amended to exclude Sand D in the identified fault block, or Applicants obtain other appropriate permission from the Director.

3. While Applicants do not believe based on the information currently available that Sand D will communicate with other sands targeted in the existing spacing unit covering Section 14, Applicants request that the order include the further condition that should Applicants develop information based on production that such communication does exist, Applicants shall enter into a mutually acceptable production sharing agreement between Applicants and the operator of the existing spacing unit covering Section 14 (Docket No. CC-2016-OGR-01-001), or obtain other appropriate permission from the Director.

In addition to his testimony given at the previous hearing and his Supplemental

Affidavit, Mr. Smith will be available to testify at the continued hearing on Docket No. CC-

2016-OGR-01-005 in order to further explain the technical basis for the requested restriction as

necessary.

Dated this 10^{+1} day of January, 2017.

Michael Christian (ISB #4311) Attorneys for Applicant Marcus, Christian, Hardee & Davies, LLP 737 North 7th Street Boise, ID 83702 Telephone: (208)342-3563 Fax: (208)342-2170 Email: mchristian@mch-lawyer.com

¹ The leases for all of Section 14 provide that the lessee may "at any time and from time to time to unitize the Leased Premises or any portion or portions thereof, as to all strata or any stratum or strata, with any other lands as to all strata or any stratum or strata." Such leases also provide: "Operations upon and production from the units shall be treated as if such operations were upon or such production were from the Leased Premises whether or not the wells are located thereon." Thus, for a well drilled in the proposed unit but outside the NW ¼ of Section 14, there will not be actual "operations upon and production from" Section 14, but production will be allocable pro rata to the NW ¼ of Section 14. Because there will not be actual "operations upon and production from such well, the production would not be allocable to the remainder of Section 14 for the existing spacing unit covering Section 14.

BEFORE THE IDAHO DEPARTMENT OF LANDS

IN THE MATTER OF: APPLICATION OF AM IDAHO, LLC, AND ALTA MESA SERVICES, LP, TO (a) ESTABLISH SPACING UNIT; AND (b) INTEGRATE UNLEASED MINERAL INTEREST OWNERS, IN THE PROPOSED UNIT CONSISTING OF THE SE ¼ OF SECTION 10, THE SW ¼ OF SECTION 11, THE NW ¼ OF SECTION 14, AND THE NE ¼ OF SECTION 15, TOWNSHIP 8 NORTH, RANGE 5 WEST, BOISE MERIDIAN, PAYETTE COUNTY, IDAHO AM IDAHO, LLC, and ALTA MESA SERVICES, LP, Applicants.

Docket No. CC-2016-OGR-01-005

PEPT. OF LANDA 017 JAN 10 PM 4:05 POISE, ICTATIO

SUPPLEMENTAL AFFIDAVIT OF DAVID M. SMITH

STATE OF TEXAS)
) ss
County of Harris)

David M. Smith, being duly sworn on oath, deposes and states:

1. I am Vice President – Exploration of Applicant AM Idaho, LLC. I refer the hearing officer to my first Affidavit filed in support of the above-docketed application for detail regarding my education, qualifications and experience, and other detail regarding the geologic support for the application.

2. The primary sand to be targeted in the proposed unit correlates with a 40' sand encountered in the Bridge May #1-13 well (1.9 miles east of the proposed target) between 3650' and 3690' measured depth. The sand targeted in the proposed unit is identified by Applicants



internally, and I described in my earlier testimony in this matter, as "Sand D." The sand correlating to Sand D geologically is reflected and identified in an excerpt from the May #1-13 well attached hereto as Exhibit A.

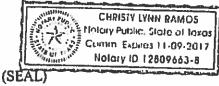
As I previously testified, based upon my review of the seismic data acquired in 3. the area of the proposed unit, and based upon the similarity of the characteristics of the seismic data to the characteristics of seismic data acquired in the area of the Willow-Hamilton field, in my opinion Sand D is likely prospective for hydrocarbons in the area of the proposed unit. In the area of the proposed unit, the top of the prospective section is expected to be approximately 3590' TVD.

Seismic data indicates that Sand D is located in a separate fault block from the 4. primary sand targeted in the existing spacing unit covering the entirety of Section 14, Township 8 North, Range 4 West. The target sand to south is separated by a fault with approximately 150' to 200' of throw, as clearly delineated by 3-D seismic

Dated this 30th day of December, 2016.

Donal M. S-

SUBSCRIBED AND SWORN TO before me this _____ day of January, 2017.



iding at My Commission Expires:

SUPPLEMENTAL AFFIDAVIT OF DAVID M. SMITH - Page 2

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