United States Department of the Interior

OFFICE OF NATURAL RESOURCES REVENUE
Washington, DC 20240
SEP 13 2016

ONRR-12-0003-O&G	:	Federal Oil and Gas Leases
	:	
Amerada Hess Corporation	:	Appeal of Order to Report and Pay Additional Royalties
Appellant	:	
	:	**APPEAL DENIED; ORDER MODIFIED**

Following an audit of royalty payments on carbon dioxide (CO_2) produced from federal leases in the Bravo Dome Unit in Harding, Quay, and Union Counties New Mexico (Unit)[1] for the period January 1, 2002, through November 30, 2010 (Audit Period), the Office of Natural Resources Revenue (ONRR)[2] issued Amerada Hess Corporation (Hess) a December 19, 2011 Order to Report and Pay Additional Royalties of $1,874,524.54 (Order). ONRR based its Order on an audit the State of New Mexico (State) conducted under 30 U.S.C. § 1735 (2006).

Frequently, ONRR regulations require a lessee to value its gas – including CO_2 – on the gross proceeds it receives for the sale of that gas. And, under no circumstances, can a lessee value its gas production on a value that is less than those gross proceeds.

Because Hess transports the majority of its federal CO_2 production to West Texas to use in its Enhanced Oil Recovery (EOR)[3] operations, it does not sell its CO_2. Therefore, there are no gross proceeds for Hess to use to value the majority of its federal CO_2 production. To value its

[1] Federal Agreement No. 891-018438-0 and federal lease nos.: 030-019514-0; 030-019555-0; 030-019694-0; 030-019695-0; 030-019696-0; 030-019697-0; 030-019698-0; 030-019699-0; 030-019702-0; 030-019703-0; 030-019704-0; 030-019706-0; 030-019707-0; 030-019708-0; 030-019709-0; 030-019712-0; 030-019713-0; 030-019715-0; 030-019716-0; 030-019717-0; 030-021991-0; 030-021992-0; 030-021993-0; 030-021995-0; 030-021996-0; 030-023344-0; 030-023345-0; 030-022351-0; 030-023801-0; 030-024703-0; 030-024704-0; 030-025995-0; 030-026033-0; 030-027427-0; 030-027899-0; 030-027900-0; 030-027901-0; 030-027905-0; and 030-066803-0.

[2] In this decision, references to ONRR include Minerals Management Service (MMS) for period prior to October 1, 2010.

[3] EOR is the use of various techniques to increase the amount of crude oil producers extract from an oil field.

EXHIBIT 1

CO_2 production, for royalty purposes, Hess used a volume-weighted average price provided by the Unit operator (Unit Average).

The Order concluded Hess improperly used the Unit Average because ONRR cannot verify the price meets federal valuation requirements. Instead, the Order required Hess to use varying measures of value, including a formula price that resulted from an arbitration that Hess participated in (Hess Arbitration)[4], the gross proceeds Hess received for the sale of a small volume of its production, and the price at which Hess purchased CO_2 from other lessees in the Unit to use in its EOR operations. The Order also concluded Hess improperly deducted costs to place its gas in marketable condition. And the Order required Hess to correct its royalty reports to report CO_2 volumes based on a pressure base of 14.73 pressure per square inch absolute (psia).

Hess appealed the Order under 30 C.F.R. Part 1290, Subpart B (2012). In its appeal, Hess claims it properly (1) calculated its royalties based on the Unit Average price, and (2) deducted costs of compression because the costs were solely to transport the CO_2, not place it in marketable condition. *See generally* Hess Statement of Reasons (SOR).

This Decision finds the Order: (1) reasonably established a minimum value for Hess to use to calculate the value of its federal CO_2 production based on the Hess Arbitration, Hess's gross proceeds, and the price Hess purchases CO_2 from other lessees; and (2) properly denied any transportation deductions that included costs to place the CO_2 in marketable condition. This Decision also modifies the order to require Hess to value its CO_2 with a pressure base of 15.025 psia.

I. BACKGROUND

Hess produces CO_2 from numerous federal leases in Harding, Quay, and Union Counties in Northern New Mexico (Leases). Under the terms of the Leases, Hess agreed to pay the United

[4] This Decision discusses the Hess Arbitration in detail in part III(a)(4) below.

States, as lessor, "12 ½ percent royalty on the production removed or sold from the leased lands computed in accordance with the Oil and Gas Operating Regulations (30 C.F.R. Pt. 221)." Leases, Sec. (d)(1). The Leases further state that "the Secretary of the Interior [Secretary] may establish a reasonable minimum value for purposes of computing royalty on any or all . . . gas . . . due consideration given to the highest price paid for a part or for a majority of production of like quality in the same field, to the price received by the lessee, to posted prices, and to other relevant matters and, whenever appropriate, after notice and an opportunity to be heard." Leases, Sec. (d)(2).

a. The Bravo Dome Unit

The Unit is located in Northeastern New Mexico. It was formed in 1980 to consolidate and coordinate CO_2 production from a number of leases. The Unit comprises of approximately 1,174,000 acres of land, of which 73,601.71 acres, or eight percent, are federal lands. The remaining acres are state, fee, or patented lands.

The Unit was formed under the Bravo Dome Carbon Dioxide Unit Agreement (Unit Agreement). The original unit operator was Amoco Production Company (Amoco). During the Audit Period, Occidental Petroleum Corporation (Oxy or the Unit Operator) is the operator of the Unit. Both the Unit Operator and Hess are also lessees in the Unit. Hess has owned approximately ten percent of the working interest[5] in the Unit since it was formed.

Under the terms of the Unit Agreement, once the operator allocates CO_2 to each tract in the Unit, each working-interest owner remits payment to its royalty-interest owners. Unit Agreement § 6.3. The Unit Agreement states that "there is no preeminent market for Carbon

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[5] A working-interest owner is someone who "owns the right to work on the leased property to search, develop and produce oil and gas as well as pay all costs." *Black's Law Dictionary*, (10th Ed. 2014). The working-interest owner has the right to explore, drill, and produce the gas. Generally, a working-interest owner is also the lessee. But sometimes lessees assign the working interest in the lease to other parties.

Dioxide Gas." *Id.* Because there is no preeminent market for CO_2, the Unit Agreement attempted to modify the royalty clauses in the leases that were committed to the Unit in two ways: First, royalty is due on CO_2 at "standard conditions of measurement of natural gases, which are at 60° Fahrenheit (F) and 15.025 pounds per square inch absolute pressure base." Unit Agreement § 6.2. Second, the Unit Agreement attempted to amend the royalty clauses to base royalty payments on the higher of "(a) the net proceeds derived from the sale of Carbon Dioxide Gas at the well whether such sale is to one or more of the parties to this agreement or to any other party or parties; or (b) a minimum value at the well of twelve cents per thousand cubic feet ($0.12/mcf) . . . ." Unit Agreement § 6.3.

The Unit Agreement also incorporates the federal oil and gas operating regulations: "all valid pertinent regulations, including operating and unit plan regulations heretofore issued thereunder are accepted and made a part of this Agreement as to Federal lands, provided such regulations are not inconsistent with the terms of this Agreement." The Unit Agreement further states that it is "subject to all applicable federal, state, and municipal laws, rules, regulations, and orders." Unit Agreement § 15.1.

The United States Geological Survey's (USGS) approval was required for the Unit Agreement to be effective.[6] Amoco submitted the Unit Agreement to the USGS in early 1980 for approval. The USGS Conservation Manager approved the Unit Agreement on August 29, 1980. Certification – Determination, Contract No. 14-08-0001-18438 (Aug. 29, 1980) (Determination).

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[6] In 1980, when the Unit was formed, the regulations under 30 C.F.R., Part 226 required a supervisor, including a Conservation Manager, of the USGS to approve unit agreements. The Conservation Manager was to make a determination that the unit was necessary or advisable in the public interest and is for the purpose of conserving the natural resource. 30 U.S.C. § 226.8 (1980). Once the Conservation Manager makes such a determination, he or she will issue a certificate that is attached to the agreement.

In the Determination approving the Unit, the USGS certified that the Unit Agreement modified the leases' terms and applicable regulations: "the drilling, producing, rental, minimum royalty, and royalty requirements of all Federal leases committed to said agreement are hereby established, altered, changed, or revoked to conform with the terms and conditions of the [Unit Agreement]."[7] Yet the USGS excluded some provisions of the Unit Agreement from its approval, including Article 6.3(b) – the twelve cents per thousand cubic feet minimum value. The Determination states "the provisions of Article 6.3(b) shall not apply to the Federal lands and the United States reserves the right to establish higher minimum values for Federal substances." Determination at 1.

b. Transportation from Unit to West Texas

Hess transports the CO_2 it produces 16.1 miles along the Rosebud Pipeline from the Unit to the Sheep Mountain Pipeline. The CO_2 then travels along the Sheep Mountain Pipeline for 224.5 miles to a hub in Denver City, Texas (Denver Hub). At the Denver Hub, Hess transfers the CO_2 into two other pipelines, the Hanford and Adair Pipelines, for delivery into the EOR fields in the Permian Basin (EOR Delivery Pipelines).

The pressure of the CO_2 in the Unit has a wellhead pressure that ranges from 16 to 78 pounds per square inch gauge (psig). Order at 6. On the Unit, Hess gathers the CO_2 and compresses it to meet the pressure necessary to enter the Rosebud Pipeline – 1,850 psig. The pressure of the CO_2 at the interconnect between the Rosebud Pipeline and Sheep Mountain Pipeline is 1,925 psig. The pressure of the CO_2 at the outlet of the Sheep Mountain Pipeline at the Denver Hub is 2,150 psig. Hess's sales contracts and purchase contracts show the pressure

[7] Where the federal land or resource accounts for less than fifty percent of the acreage or resource in a unit agreement, with USGS approval, the unit agreement can make portions of the oil and gas operating regulations inapplicable. 30 C.F.R. § 226.8 (1980).

requirements to enter the EOR facilities downstream of the Denver Hub range from 1,900 to 2,500 psig.

Hess owns the Rosebud Pipeline and the EOR Delivery Pipelines. Hess has ownership interests, which it shares with Exxon and ARCO, in the southern segment of the Sheep Mountain Pipeline.

*c. **Sales and Purchase Contracts***

Hess sells a small percentage of the CO_2 it produces from the Unit at the wellhead to Fasken Oil and Ranch, Ltd. (Fasken). Carbon Dioxide Sale and Purchase Contract, by and between Fasken Oil and Ranch, Ltd. and Amerada Hess Corp., dated Jan. 1, 1997 (Fasken Contract). Fasken purchased the CO_2 for use in its Hanford East San Andres EOR Unit (Hanford Unit) in West Texas. *Id.* at 1. Under the terms of the Fasken Contract, Hess agreed to deliver a maximum daily quantity of CO_2 (during the Audit Period) of 1,000 million cubic feet (Mcf) of CO_2 to Fasken at the Hanford Unit's facilities in Gaines County, Texas. *Id.* at § 9.1. The Fasken Contract requires Hess to deliver the CO_2 at a minimum pressure of 1,900 psig and a maximum pressure of 2,100 psig. *Id.* at § 9.2. The price of the CO_2 is a formula price based on the price of oil. *Id.* at § 6.1.

Hess is also a working interest owner and operator to some of the EOR units in West Texas – specifically the Seminole San Andres Unit (SSAU) and Adair San Andres Unit (ASAU). As an EOR unit working interest owner, Hess purchases a large amount of CO_2 from the Unit to use in its EOR operations (Hess Purchase Contracts). Hess purchased CO_2 from ExxonMobil Corporation (ExxonMobil), Apache Corporation, and Chaparral Oil, LLC. (Chaparral)[8] to use in

[8] ExxonMobil, Apache and Chaparral also have a working interests in the Adair EOR Unit. The contracts with Chaparral are (1) a contract to transport CO_2 volumes from the Unit to the Adair EOR Unit and (2) for Hess to use Chaparral's volumes as its unit participation share of CO_2 required for use in the EOR project. *See* Hess Contract Nos. G-0845 (Carbon Dioxide Transportation Agreement, by and between Chaparral Oil, LLC and

EOR operations in the ASAU. Hess purchased CO_2 from KinderMorgan CO_2 Company, L.P. (KinderMorgan) and Oxy to use in EOR operations in the SSAU.[9]

The Hess Purchase Contracts use a variety of pricing schemes that result in a range of prices. The delivery points under the contracts included the Adair CO_2 Pipeline, Seminole San Andres CO_2 Pipeline, or the EOR facilities themselves. The Hess Purchase Contracts did not provide minimum pressure requirements, but did include maximum pressure requirements that range from 1,900 psig to 2,500 psig.[10] The Hess Purchase Contracts required the CO_2 to meet certain quality specifications for CO_2, water vapor (dehydration), hydrogen sulfide, sulfur, oxygen, nitrogen, and hydrocarbons. These specifications also varied depending on the contract. The table below provides the quality specifications and their range:

Content	Specification
CO_2	95 - 97 percent CO_2 by volume
Water vapor	15 - 30 lbs per 1,000 Mcf
Hydrogen Sulfide	10 parts per 1,000,000 parts
Sulfur	No more than 35 grains per 100 cubic feet CO_2
Oxygen	10 parts per 1,000,000 parts CO_2
Nitrogen	No more than 1% to 4%
Hydrocarbons	No more than 2% to 5%

d. Enhanced Oil Recovery

Hess uses the majority of the CO_2 it produces from the Unit exclusively for EOR projects it operates in the Permian Basin in West Texas and New Mexico. Producers use CO_2 in EOR projects to improve the flow of oil by mixing CO_2 with the oil to move the oil from the reservoir rock to a producing well. For CO_2 to work in EOR, operators have to increase the pressure of

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Amerada Hess Corporation, dated Nov. 1, 2002) and G-0846 (Carbon Dioxide In-Kind Delivery Contract by and between Chaparral Oil, LLC and Amerada Hess Corporation, dated Nov. 1, 2002).

[9] Oxy owns a thirty-nine percent working interest in the SSAU along with others.

[10] At least one of the Hess Purchase Contracts has a lower maximum pressure than the maximum pressure of the injection wells for the field the CO_2 in the Hess purchase contract is to be delivered. *See e.g.*, Injection/Disposal Permit Detail Information, API No. 42-165-30248 in the ASAU (indicating well's maximum gas injection pressure is 2,350, which is up to 450 psi less than the maximum pressure in the Hess Purchase contract with ExxonMobil that also involves the Adair EOR project).

the CO_2 to transform it into a critical phase. Essentially, the increased pressure liquefies the CO_2. The liquefied CO_2 enters the pore space of the reservoir rock and mixes with the oil. The liquefied CO_2 and oil mixture increases the viscosity of the oil, which allows the oil to flow. Producers then inject high-pressured water behind the CO_2 to push the oil and CO_2 mixture to the producing well, which brings the oil and CO_2 mixture to the surface. At the surface, the CO_2 is separated from the oil. The oil is sold and the CO_2 reused again in the EOR reservoir. This means the CO_2 is part of a continual process and is not sold. Because Hess uses the CO_2 it does not sell to Fasken in its EOR operations, Hess has no other sales of CO_2.

e. Hess Royalty Payments

The record shows Hess has paid federal royalties on the Unit Average since at least 1989.[11] And, during the Audit Period, Hess paid royalties based on the Unit Average that the Unit Operator, provided lessees on a monthly basis using a "netback approach." Under the netback approach, the Unit Operator determined this value by taking the price or value lessees in the Unit received for their sale of the CO_2 at the Denver Hub. The Unit Operator then deducted transportation costs from those values and prices to arrive at a value for the CO_2 at the Unit. Hess reported these prices as the basis of its royalty payments throughout the Audit Period.[12] Beginning in March 2004, Hess began deducting costs it incurred to compress and dehydrate its CO_2 production as a transportation allowance. Order at 6.

f. Order

The State audited Hess's royalty reports and payments. On September 22, 2009, the State issued Hess an Audit Issue Letter (Issue Letter) that outlined the issues it found during the

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[11] *See* Letter from Hess to MMS noting Hess paid royalties to MMS on a unit-weighted average price during 1989-1993 Unit Audit, dated May 18, 1995.

[12] Hess claims the Unit Operator has used a different formula price to value federal production in the Unit since 2005. SOR at 7. However, nothing in the record supports this claim.

audit. The Issue Letter stated Hess underreported royalty volumes because it incorrectly reported its CO_2 volumes with a pressure base of 15.025 psia, instead of 14.73 psia. Order, encl. 18 at 3. The Issue Letter further stated that Hess improperly valued its CO_2. In the Issue Letter, the State used the formula under the Fasken Contract to determine the value for Hess to use to calculate royalties on its federal CO_2 production. *Id.* at 4.

On February 1, 2011, the State issued a Revised Issue Letter to Hess (Revised Issue Letter). Order, encl. 17. In the Revised Issue Letter, the State valued all Hess's federal CO_2 production – except that which Hess sold under the Fasken Contract – based on a formula price that came from the Hess Arbitration (Hess Arbitration Price).[13] *Id.* at 4. The State used the Hess Arbitration Price as the value of Hess's federal CO_2 production based on 30 C.F.R. § 206.152(c)(2) (2002), which provides for "a value determined by consideration of other information relevant in valuing like-quality gas. . ." *Id.* at 3. The Hess Arbitration was the result of litigation that accused Hess of undervaluing royalties because, as a purchaser in the Hess Purchase Contracts, it intentionally negotiated lower prices for the CO_2.

The Revised Issue Letter also stated that Hess could not deduct any costs incurred to compress the CO_2 up to 2,000 psig. *Id.* at 4.

Hess responded to the Revised Issue Letter on March 11, 2011 (Hess Response). In its response, Hess disagreed with the State's findings in the Revised Issue Letter. Hess argues it properly applied the Unit Average because ONRR instructed Hess to use it to value its CO_2. Order, encl. 10 at 1. Hess also claimed there was no regulatory authority that would allow the State to use the formula price from the Hess Arbitration. *Id.* at 1-2. Last, Hess disagreed with

[13] *Smithson et al. v. Amerada*, No. CIV-06-00624 MCA/RLP, Arbitration and Award Decision, Sept. 11, 2009 (Hess Arbitration).

the State's finding that it could not deduct the costs of compression that the State found were necessary to place the CO_2 in marketable condition. *Id.*

After receiving the Hess Response, the State reevaluated how it should value the CO_2. The State concluded a volume-weighted average price based on the Fasken Contract and the Hess Purchase Contracts (Hess Average) was a more reliable indicator of the value of CO_2 than the Unit Average. Order at 2. The State found the Hess Average was more reliable because the Fasken Contract and Hess Purchase Contracts (1) used a variety of pricing mechanisms, such as fixed prices, variable prices, escalating prices, and prices attached to oil prices; (2) represented the sales of a high volume of CO_2 in the Unit; and (3) were verifiable. Order at 4. The State used the Hess Average less transportation costs as the value of Hess's federal CO_2 production. Order, encl. 7.

But the Hess Arbitration found that Hess intentionally negotiated a lower price for its CO_2 as a purchaser from October 2003 through March 2008. So the State concluded the lower prices made the Hess Purchase Contracts unreliable for production that occurred between October 2003 and March 2008. For this period, the State used the formula price set forth in the Hess Arbitration to determine the value of Hess's federal CO_2 production. The State reduced the formula price for transportation. Order, encl. 7.

The Order also found Hess deducted compression and dehydration costs from March 2004 through the end of the Audit Period. Order at 6. The State found these costs were not allowable costs because they were costs necessary to place the CO_2 in marketable condition. Order at 6.

II. ISSUES

a. Whether ONRR could use the Hess Average and the Hess Arbitration Price to establish the value of Hess's CO_2 under the Unit Agreement and Leases.

b. Whether the federal valuation regulations support ONRR's use of the Hess Average and the formula price as to the value of Hess's federal CO_2 production if the valuation regulations governed the value of Hess's CO_2 production.

c. Whether Hess can deduct costs it incurs to compress its CO_2 when compression is necessary to place the CO_2 in marketable condition.

d. Whether Hess must calculate its CO_2 volumes using a 14.73 psia pressure base, as the federal gas regulations require, or a 15.025 psia pressure base, as the Unit Agreement requires.

e. Whether ONRR must use the Unit Average to calculate the value of Hess's federal CO_2 production from the Unit because it has previously used the Unit Average in guidance and audit findings.

III. ANALYSIS

a. Because the Secretary retained the right to establish a minimum value for federal CO_2 production in the Unit in its approval of the Unit Agreement, ONRR could use the Hess Average and Hess Arbitration Price to establish a reasonable minimum value.

At issue in this appeal is CO_2 that Hess produced in the Unit, but did not sell. Hess argues it properly used the Unit Average to value its federal CO_2 production. SOR at 11.

Under the Leases, the Secretary has the authority to establish a reasonable minimum value:

> It is expressly stated that the Secretary of the Interior may establish a reasonable minimum value for purposes of computing royalty on any or all . . . gas . . . due consideration given to the highest price

> paid for a part or for a majority of production of like quality in the same field, to the price received by the lessee, to posted prices, and to other relevant matters and, whenever appropriate, after notice and an opportunity to be heard.

Leases, Sec. (d)(2).

The Unit Agreement, as approved, requires federal lessees to pay royalties on the higher of either: (1) the net proceeds derived from the sale of CO_2 gas at the well or (2) a minimum value established by the United States. *See* Unit Agreement § 6.3 (setting royalty standards as the higher of either the net proceeds at the well or a $0.12 per Mcf minimum value) and Determination (stating the United States reserves the right to establish higher minimum values for federal substances).

Because Hess did not sell the production at issue in this appeal, the issue here is whether ONRR and the State properly established a reasonable minimum value, after giving Hess notice and an opportunity to be heard, taking into account (1) the highest price paid for a part or for a majority of production of like-quality in the same field, (2) the price Hess received for the CO_2, (3) posted prices, and (4) other relevant matters.

1. <u>ONRR considered the highest price paid for a part or for a majority of production of like-quality CO_2 in the same.</u>

ONRR considered "the highest price paid for a part or for a majority of production of like-quality production for a part or for a majority of production of like quality in the same field." The United States holds less than ten percent of an interest in the Unit. And federal lessees sell less than one percent of the CO_2 produced from the federal lands. Federal lessees use the remainder in their EOR operations. ONRR only has data for the federal CO_2 production. And ONRR considered that data set, but reasonably concluded the data set was too small to accurately establish a minimum value.

As discussed more thoroughly in part iii below, ONRR also considered the Hess Purchase Contracts in establishing its reasonable minimum value. The Hess Purchase Contracts included a variety of prices for a part of the production from the same field – the Unit. But, because ONRR did not have access to all of the sales and prices lessees in the Unit received for the sale of their CO_2, ONRR could not determine whether such contracts represent the "highest price paid" for a part or majority of production from the Unit and, so, ONRR did not consider these prices under the first factor.

2. ONRR considered the prices Hess received for its CO_2 production and included those prices in the Hess Average.

ONRR did consider the prices Hess received for its CO_2 for the small volumes of CO_2 Hess sold to Fasken. These sales accounted for less than one percent of the total volumes of Unit CO_2 production Hess delivered during the Audit Period.[14] Hess reported and paid royalties on these volumes based on its gross proceeds under the Fasken Contract and those payments are not at issue in this appeal.

Because these sales represented a very small fraction of Hess's federal CO_2 disposition, ONRR did not rely solely on these prices alone. But ONRR did use the prices Hess received under the Fasken Contract in the Hess Average it calculated. Therefore, ONRR properly considered the prices Hess received for its CO_2 and relied on those prices as part of its minimum value.

3. Because there were no posted prices for CO_2 in the Unit during the Audit Period, ONRR could not consider posted prices.

[14] The Order at Enclosure 2 shows a total volume of Hess Unit deliveries of 14,575,515 Mcf. Of these deliveries, Hess delivered 121,706 Mcf, or less than one percent of the total volumes, to the Hanford Unit under the Fasken Contract.

ONRR could not consider posted prices for CO_2 production because there were no posted prices for CO_2 in the Unit during the Audit Period.

4. In considering other relevant matters, ONRR considered the Fasken Contract, Hess Purchase Contracts, Unit Average, and the Hess Arbitration Price to establish a reasonable value.

ONRR did turn to "other relevant matters" to establish a reasonable value. ONRR considered the (1) Unit Average; (2) prices at which Hess purchased CO_2 under the Hess Purchase Contracts; and (3) pricing mechanisms used in settlement and arbitration.

First, ONRR considered the Unit Average Hess used to report the value of its federal CO_2 production for royalty purposes. The State and ONRR reviewed the Unit Average as part of the audit and evaluated its reliability as an indicator of value against the other relevant information discussed below.

Second, ONRR looked to Hess's Purchase Contracts to determine the value of Hess's federal CO_2 production. ONRR determined these prices are a reliable indicator of value because they show what Hess, as a purchaser, is willing to pay for CO_2.

Third, ONRR looked to the pricing mechanisms that have grown out of litigation between the Unit's non-federal lessors and lessees. Specifically, although ONRR is well-aware of limitations placed on the use of settlement agreements, ONRR reviewed (1) the settlement agreement that concluded litigation in *Feerer et al. v. Amoco Production Co.*, Civ. No. 95-0012 JC/WWD (D.N.M.) (*Feerer*); (2) the arbitration decision and award (Hess Arbitration) that was a part of *Smithson et al. v. Amerada*, No. CIV-06-00624 MCA/RLP (*Smithson*); and (3) the settlement agreement stemming from *Hess Corporation Heimann v. Oxy USA, Inc.*, D-818-CV-200400024 (N.M. 8th Judicial District (2004)) (*Heimann*).

In *Feerer*, a class of non-federal lessors sued the lessees, including Hess, for violating various duties under the Unit Agreement and underlying lease terms. The parties settled the case and the court approved the settlement on April 1, 1998 (Feerer Settlement). The Feerer Settlement outlines how the lessees were to calculate royalty value due non-federal lessors for the period of time in dispute in the litigation. The parties agreed that lessees would pay their lessors royalties based on a volume-weighted average price, with some limitation, beginning January 1, 1998.

In *Smithson*, the same non-federal lessors sued Hess because Hess, as a working-interest owner in the EOR fields in West Texas, purposefully negotiated lower prices for its purchases of CO_2, which the royalty-interest owners claimed was a violation of the Feerer Settlement. Hess Arbitration at 1-2. Hess then used those prices as the basis of its non-federal royalty payments from October 2003 through December 2008. *Id.* Hess's lessors filed a lawsuit alleging Hess breached the Feerer Settlement and the implied duties to market and of good faith and fair dealing. *Id.*

During the *Smithson* litigation, the court ordered the parties to engage in arbitration to determine whether Hess breached the Feerer Settlement and, if so, calculate the damages – or royalty payments – due to the lessors because of the breach. An arbitration panel issued its decision finding Hess breached its duty of good faith and fair dealing by seeking and obtaining the lowest fixed price possible for CO_2 it purchased and using that price to value its in-kind sales for royalty purposes. *Id.* at 3-4. The arbitrators determined that "nothing prevented Hess from obtaining the lowest price possible for its CO_2 purchases, but Hess failed to give appropriate consideration to the [royalty owner's] interest . . . when choosing that fixed price to calculate its royalty payments." *Id.* at 2.

To calculate the damages for the underpaid royalties, the arbitration panel used a formula price linked to the price of oil because Hess ultimately used the CO_2 to recover oil. *Id.* at 4. The formula accounts for both Hess's assertion that a flat per Mcf price should be used to value CO_2 and the plaintiff's claim it should be based on a percentage of the price of oil. *Id.* The formula price the arbitrators used was price per Mcf = [$0.30 +$0.30(West Texas Sour (WTS)/ $28.00)] (Hess Arbitration Price).[15] *Id.*

In *Heimann*, the royalty interest owners (Heimann Class) filed suit against Oxy as the Unit Operator –alleging it breached the Feerer Agreement with respect to how it valued CO_2 produced in the Unit. Oxy denied the allegations. The parties entered into a settlement agreement, which the court approved on November 17, 2005 (Oxy Settlement). The Oxy Settlement provided that Oxy would pay the Heimann Class future royalties based on a formula price: $0.55 + [the "Monthly Average WTI[16] price" - $25.00)x.01] per MCF" (Oxy Settlement Price). Oxy Settlement at 6. In no event can the Oxy Settlement Price be less than $0.55 per Mcf. *Id.*

In sum, under "other relevant factors," ONRR considered the Unit Average, Hess Purchase Contracts, Hess Arbitration Price, and the Oxy Settlement Price to establish a reasonable minimum value.

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[15] The lessors also claimed Hess's transportation deductions were too high. When the court sent the issues to arbitration, the transportation claims remained with the court for the parties to litigate. The arbitration panel awarded the plaintiffs $3,165,255 in damages, of which $1,055,085 was for the underpayment of royalties under the Feerer Settlement. Hess Arbitration at 6. Hess filed a motion to vacate the award and the plaintiffs filed a motion to confirm the award. The motions were pending when the parties reached a settlement agreement. Under the settlement agreement, Hess agreed to pay the plaintiffs $4,555,000 to release any claims pertaining to improper transportation deductions and royalty underpayments under the Feerer Settlement and for the claims at issue in the Hess Arbitration.

[16] The "Monthly Average WTI price" means the monthly average of the Wall Street Journal's reported oil price, Domestic-f spot market for West Texas Intermediate for each trading day. Oxy Settlement at 6.

5. <u>After considering the prices Hess received for its CO_2 production and other relevant matters, ONRR properly established a reasonable minimum value for Hess's CO_2 production during the Audit Period.</u>

ONRR has the discretion under the Leases' terms and Unit Agreement to establish a reasonable minimum value. After considering all of the factors in the Leases' terms, ONRR properly concluded it could not establish a reasonable minimum value based only on the highest price paid for a part or majority of production from the same field. ONRR also properly determined there were not posted prices for it to consider. Therefore, ONRR relied on the remaining two factors: the price the lessee receives for the sale of its production and other relevant information.

ONRR used the Hess Average to determine the value of Hess's CO_2 production during the Audit Period. The Hess Average included the price Hess received under the Fasken Contract, which is the price it received for the sale of its CO_2 production. ONRR also included the price Hess paid under the Hess Purchase Contracts, which it considered as "other relevant information." ONRR then reduced the Hess Average for transportation. ONRR used this price to value Hess's federal CO_2 production from January 2002 through September 2003 and April 2008 through November 2010. ONRR's calculated price showed Hess purchased CO_2 at a price that was consistently higher than the Unit Average.

For production occurring between October 2003 and March 2008, ONRR determined the Hess Contracts were not a reliable indicator of value. ONRR based its finding on the Hess Arbitration, which concluded that Hess, as a purchaser, negotiated the lowest possible price for its CO_2 purchases. During this period, ONRR used the Hess Arbitration Price to establish a reasonable minimum value.

Hess argues ONRR improperly relied on the Hess Average and Hess Arbitration Price for three reasons: First, Hess argues the Unit Average is the most appropriate value for its CO_2 production. Second, Hess disagrees with ONRR's use of the Hess Arbitration Price. Hess claims ONRR should use the Oxy Settlement Price instead. Third, Hess claims there is insufficient evidence to support ONRR's use of the Hess Average and Hess Arbitration Price to determine the value of Hess's federal CO_2 production.

As to Hess's first argument, ONRR did not use the Unit Average to determine the value of Hess's CO_2 production because (1) ONRR has found it very difficult to verify the Unit Average is consistent with federal gas valuation regulations, (2) the Unit Average results in a value that is lower than the price Hess pays to purchase CO_2 from the Unit, and (3) the Unit Average likely includes non-arm's-length CO_2 sales.

Since Hess began using the Unit Average, ONRR has found it difficult to verify the Unit Operator's calculations supporting that price. Hess claims ONRR has the full authority to verify the Unit Average by requesting the information and reviewing the records in the Unit Operator's possession. SOR at 12.

The Federal Oil and Gas Royalty Management Act and its implementing regulations give ONRR the authority to require an operator to provide records that it used to calculate federal royalties. *See* 30 U.S.C. § 1713(a) (requiring a lessee or operator to "establish and maintain any records, make any reports, and provide information that the Secretary may, by rule reasonably require" and make such records available on request); 30 C.F.R. § 212.50 (2002) (requiring a lessee or operator to make and retain accurate and complete records to demonstrate royalty payments are in compliance with lease terms or regulations). Therefore, Hess is correct – ONRR can require the Unit Operator to provide the records it used to calculate the Unit Average. And ONRR can review those records.

But requesting those records and drilling down into the pricing schemes is extremely difficult, especially since federal lands make up less than ten-percent of the Unit. The remaining lands are private and state lands subject to royalty terms that might differ greatly from federal royalty terms. This means ONRR cannot easily verify that the values these state and private lessees report to the Unit Operator are consistent with federal valuation requirements. Nor can ONRR ensure these values are appropriate for federal lessees to use to calculate the value of their federal royalty payments. Since ONRR cannot verify the basis of the values or the appropriateness of their use, ONRR did not use the Unit Average in establishing a reasonable minimum value.

Even if ONRR could ensure the sales volumes and values that make up Unit Average were consistent with federal valuation requirements, the discrepancy between the higher price at which Hess purchased the CO_2 and the lower price it used as a basis to value its royalties keenly demonstrates ONRR's reluctance to rely solely on the Unit Average. *See California Co. v. Udall*, 296 F.2d 384, 388 (D.C. Cir. 1961) (*Udall*) (stating the Secretary is a guardian of the public interest and, "[t]o protect the public's royalty interest may determine that minerals are being sold at less than reasonable value").

And Hess has not provided any documentation showing the Unit Average does not include non-arm's-length contracts. ONRR has consistently embraced the arm's-length contract as the most reliable indicator of value because such contracts are entered into by independent parties with opposing interests in the contracts. 30 C.F.R. § 206.151 (defining arm's-length contract as "a contract or agreement that has been arrived at in the marketplace between independent, nonaffiliated persons with opposing economic interests regarding that contract"). ONRR allows a lessee to use its arm's-length contract to value its federal lease production because arm's-length sales prices typically reflect the fair and real prices in the marketplace as long as the parties to the contract have opposing interests. But in a non-arm's-length contract, the parties have some shared interests in the contract, which makes the price and other terms of the contract unreliable as indicators of market value. *See Shell Oil Co.*, 20 GFS Royalty Valuation Mgmt. (RMMLF), MMS-95-0563-O&G (June 17, 1998) at 4 (noting that a lessee's posted price may not truly reflect the value of the production at issue because the lessee's refining business created the posted price). Because there is no information in the record on whether the Unit Average includes arm's-length or non-arm's-length sales, ONRR does not consider the Unit Average as reliable as the Hess Average.

Next Hess argues ONRR should use the Oxy Settlement Price to establish a minimum value instead of the Hess Average and the Hess Arbitration Price. SOR at 12. Both the Hess Arbitration and Oxy Settlement provide formula prices ONRR considered to establish a reasonable minimum value. After considering both, ONRR relied on the Hess Arbitration Price to establish a reasonable price for the period October 2003 through December 2008, and not the Oxy Settlement Price.

In the Oxy Settlement, Oxy explicitly denies any wrong doing or that the Oxy Settlement Price is an admission of liability. Further, the Oxy Settlement does not provide any information on what was at issue, how the parties came to the formula price, or how that price pertains to Hess's CO_2 purchases or sales. Instead, the Oxy Settlement explicitly states the agreement "is not intended to, and shall not, confer any rights or remedies upon any person or entity other than the Class Plaintiffs, their counsel, the Heimann Class, Oxy, and the Released Parties."

In contrast, unlike the Oxy Settlement where the parties deny any wrongdoing, in *Smithson*, an arbitration panel made a legally-binding conclusion that Hess breached the Feerer Settlement by negotiating lower fixed prices for its CO_2 purchases and then using those prices to value the CO_2 for royalty purposes. Also, Hess was a party to the *Smithson* case. As a party, Hess had the full opportunity to challenge and offer alternatives to the method the arbitration panel used to calculate value and damages. Indeed, the arbitration panel used a formula price that took into account Hess's argument for a flat price. Hess Arbitration at 4. Thus, ONRR relied on the Hess Average and Hess Arbitration Price to determine a reasonable minimum value.

Last, Hess argues ONRR does not have a reasonable basis to require Hess to value its CO_2 production on the Hess Average and Hess Arbitration Price. Hess argues the Order does not include any evidence to support its findings and insufficiently explains why the Hess Average and Hess Arbitration Price are the best representation of value. SOR at 16-19.

ONRR has the discretion to determine a reasonable minimum value for Hess's federal CO_2 production in the Unit. Under the Leases' terms, ONRR must consider various factors when establishing that minimum value. ONRR evaluated the Unit Average, Fasken Contract, Hess Purchase Contracts, Hess Arbitration Price, and Oxy Settlement Price. ONRR considered these factors and concluded the Fasken Contract, Hess Purchase Contracts, and Hess Arbitration Price are the best indicators of value for Hess's CO_2 production during the Audit Period. There is ample evidence in the record supporting this conclusion.

Hess has the burden of showing ONRR's finding is in error. *See ASARCO, Inc.*, 152 IBLA 20, 27 (2000) (stating, "It is not enough to show that the agency's method is or may be susceptible to error; an appellant challenging a valuation must also show that the error in fact occurred"). Hess has not provided any information that shows ONRR's use of the Hess Average or Hess Arbitration Price was in error.

6. Because the State sent the Hess Issue Letters and the Order provided Hess appeal rights, ONRR provided Hess notice and an opportunity to be heard.

ONRR and the State provided Hess ample notice that it was establishing a different value than the Unit Average. The State sent Hess two Audit Issue Letters that indicated the Unit Average was not an appropriate basis for Hess to use to value its federal CO_2 production. Hess had the opportunity to respond to each letter and took that opportunity in 2011. In its response, Hess disagreed with the State's use of the Hess Arbitration Price to value Hess's federal CO_2 production for the entire Audit Period. In fact, Hess's response led the State to modify its findings to use the Hess Arbitration Price only for the period of time that the arbitration panel found the Hess Purchase Contracts to be too low. For the remainder of the Audit Period, the State used the Fasken Contract and Hess Purchase Contracts (which account for large volumes of CO_2 sold in the Unit) to calculate the Hess Average. Thus, the State provided notice and an opportunity to be heard, which resulted in the State changing the minimum value. The Order provides further notice of ONRR establishing a reasonable minimum value.

Also, ONRR's appeal process provides Hess the opportunity to be heard. Hess appealed the Order under 30 C.F.R. Part 1290. With its appeal, Hess provided additional information, including the Oxy Settlement. ONRR considered the additional information as part of the appeal process and as part of establishing a minimum value.

In sum, under the Unit Agreement and Leases' terms, ONRR used its discretion to determine a reasonable minimum value of Hess's federal CO_2 production during the Audit Period. ONRR did not use the Unit Average because (1) it results in a value that is less than the price Hess was willing to pay for CO_2, (2) ONRR finds it extremely difficult to verify the values in the Unit Average are consistent with federal valuation requirements, and (3) it is likely the Unit Average includes prices from non-arm's-length sales. For these reasons, ONRR properly used the Hess Average and Hess Arbitration Price instead of the Unit Average to determine the value of Hess's federal CO_2 production. Therefore, Hess's appeal of this issue is denied.

b. The result would be the same even if the federal gas valuation regulations controlled because ONRR considered pricing mechanisms listed in the regulations to determine the value and concluded the Hess Average and the Hess Arbitration Price were the appropriate indicators of value.

As stated above, the Leases and Unit Agreement govern the value of Hess's CO_2 for federal royalty purposes. However, the result would be the same even if the federal gas royalty valuation regulations controlled the outcome of this case.

For federal gas royalties paid in value, where a lease, communitization agreement or unit agreement does not provide otherwise, 30 C.F.R. Part 206, subpart D, explains how a lessee must value its gas production for royalty purposes. The regulations apply different valuation methods for federal gas production depending on whether: (1) the gas is ever processed, and (2) the lessee sells or disposes of its gas at arm's-length. *See* 30 C.F.R. §§ 206.152-206.153 (2004). Section 206.152 applies "to the valuation of all gas that is not processed and all gas that is processed, but is sold or otherwise disposed of by the lessee pursuant to an arm's-length contract prior to processing." 30 C.F.R. § 206.152(a)(1) (2004).

Here, the gas is not processed, so if the regulations were controlling, 30 C.F.R. § 206.152 would apply. Under 30 C.F.R. § 206.152(a)(2), the value of production is the value of the unprocessed gas, less any applicable allowances. The value of the unprocessed gas depends on whether the lessee sells the gas under an arm's-length contract. 30 C.F.R.

§ 206.152(b)(1)(i) (2004).[17] If the lessee sold its unprocessed gas under an arm's-length contract, the value of unprocessed gas, in most instances, is the gross proceeds accruing to the lessee under the arm's-length contracts. *Id.*

Hess did sell a small volume of CO_2 to Fasken for Fasken to use in its own EOR operations. Hess reported and paid royalties on these volumes based on its gross proceeds under the Fasken Contract and those payments are not at issue in this appeal.

Where a lessee does not sell its unprocessed gas under an arm's-length contract, the lessee must then use 30 C.F.R. § 206.152(c) to determine the value of gas. Under 30 C.F.R. § 206.152(c), value is determined under the first applicable benchmark. Here, because Hess uses its federal CO_2, § 206.152(c) would govern how it should value the CO_2 at issue.

The first benchmark is the "gross proceeds accruing to the lessee pursuant to a sale under its non-arm's-length contract . . . , provided that those gross proceeds are equivalent to the gross proceeds derived from, or paid, under comparable arm's-length contracts for purchases, sales, or other dispositions of like-quality gas in the same field (or, if necessary to obtain a reasonable sample, from the same area)." 30 C.F.R. § 206.152(c) (2004). When looking at whether non-arm's-length sales are comparable to other arm's-length sales, a lessee must look to the following factors: (1) price; (2) time of execution; (3) duration; (4) market or markets served; (5) terms; (6) quality of the gas; (7) volume; and (8) other factors as may be appropriate to reflect the value of gas. 30 C.F.R. § 206.152(c)(1) (2004).

If the first benchmark is not applicable, a lessee must use the second benchmark, if applicable. The second benchmark is set out in 30 U.S.C. § 206.152(c)(2). Under 30 C.F.R.

[17] Section 206.152(b) also applies to situations where a lessee sells its gas to a marketing affiliate and that marketing affiliate then sells the gas under an arm's-length contract. A marketing affiliate is an affiliate of the lessee whose function is to acquire only the lessee's production and to market that production." 30 C.F.R. § 206.151 (2004). Because Hess does not sell the majority of its CO_2, it does not first sell the production to a marketing affiliate.

§ 206.152(c)(2), the value of a lessee's gas production is "a value determined by consideration of other information relevant in valuing like-quality gas . . . ." The relevant information a lessee must consider includes the following factors: (1) the gross proceeds under arm's-length contracts for like-quality gas in the same field or nearby fields or areas; (2) posted prices; (3) prices received in arm's-length spot sales; (4) other reliable public sources of price or market information; and (5) other information particular to a lease operation or saleability of the gas. 30 C.F.R. § 206.152(c)(2) (2004).

If the first two benchmarks are not applicable, a lessee must use the third benchmark, which is "a net-back method or any other reasonable method to determine value" of its CO_2. 30 C.F.R. § 206.152(c)(3) (2004).

In this case, if the regulations were applicable, for the first benchmark – set out in 30 C.F.R. § 206.152(c)(1) – to apply, there must be gross proceeds accruing to Hess under non-arm's-length contracts as well as comparable arm's-length purchases, sales, or other dispositions of like-quality gas in the same field or area. Gross proceeds are "the total monies and other consideration accruing to an oil and gas lessee for the disposition of the gas . . . produced." 30 C.F.R. § 206.151 (2004). But there are no gross proceeds accruing to Hess under non-arm's-length contracts for the disposition of the gas. Hess does not sell its gas under any non-arm's-length contracts. Instead, outside of the small volume of CO_2 it sells to Fasken under an arm's-length contract, Hess uses the CO_2 for its EOR operations. Hess receives gross proceeds from the sale of oil from its EOR operations, but reuses the CO_2 throughout the process. Therefore, there are no CO_2 sales or gross proceeds for the disposition of CO_2 that ONRR can use to compare under the first benchmark. Hess does not dispute that ONRR cannot use the first benchmark.

Under the second benchmark in 30 C.F.R. § 206.152(c)(2), the value of a lessee's gas production is "a value determined by consideration of other information relevant in valuing like-quality gas . . . ," taking into consideration the five factors enumerated above. 30 C.F.R. § 206.152(c)(2) (2004). Here, the record does not include any evidence of posted prices or prices received in arm's-length spot sales. Therefore, ONRR could not have evaluated any of these factors.

In its regulatory analysis to determine the value of Hess's federal CO_2 production, ONRR evaluated the (1) gross proceeds under arm's-length contracts for like quality gas, including the arm's-length contract between Hess and Fasken; (2) "other reliable public sources of price or market information," including the formula prices articulated in the Hess Arbitration and Oxy Settlement; and (3) "other information particular to a lease operation or saleability of the gas," including the Hess Purchase Contracts and the Unit Average that Hess used as the basis for its royalty payments.

As discussed in Part III(a)(2), ONRR considered Hess's arm's-length gross proceeds that Hess received under the Fasken Contract as an important indicator of value of Hess's CO_2. ONRR included those gross proceeds in the Hess Average that it calculated to determine the value of Hess's federal CO_2 production during the Audit Period. The Fasken Contract is the only contract in the record ONRR could verify as an arm's-length contract.

ONRR considered the Hess Arbitration Price and Oxy Settlement Price as a means to determine value as "other reliable public sources of price or market information." For the reasons discussed in Part III(a)(4), ONRR determined the Hess Arbitration Price was a more appropriate indicator of value than the Oxy Settlement Price for the period October 2003 through December 2008.

Although ONRR could not verify that the Hess Purchase Contracts were arm's-length, it evaluated these contracts as "other information particular to a lease operation or saleability of the gas." ONRR also considered the Unit Average under this same factor. For the reasons discussed in Part III(a)(4), ONRR ultimately concluded the Hess Purchase Contracts were a more appropriate indicator of value for Hess's federal CO_2 production than the Unit Average. ONRR used the Hess Purchase Contracts as part of the Hess Average for production occurring from January 2002 through September 2003 and April 2008 through November 2010..

c. ***Hess cannot deduct compression costs as part of its transportation allowance because they were costs necessary to place the CO_2 in marketable condition.***

Federal oil and gas leases require the lessee to pay the United States, as lessor, a percentage of the value of oil and gas produced from the lease as royalty. The royalty clause in the Leases at issue states that the lessee agrees "to pay the Lessor a royalty of 12 ½ percent royalty on the production removed or sold from the leased lands computed in accordance with the Oil and Gas Operating Regulations (30 C.F.R. Part 221)." Leases at Section 2(d)(1).

ONRR requires a lessee to value its oil and gas production based on volumes measured at a central accumulation point or royalty measurement point on or near the lease where the oil or gas is produced. Often, a lessee determines the value of its oil or gas on or near the lease by starting with the sales price or value the lessee receives for the sale of its oil and gas downstream from the lease. ONRR regulations allow a lessee to deduct some, but not all, costs of transporting the oil or gas from the lease to the downstream location. Where the lease is one of multiple leases that have joined together to produce oil and gas as a unit, the same principles apply, except that the value of unit production, for royalty purposes, is the value at the central accumulation point or royalty measurement point for the unit, rather than for the lease.

Here, the Unit Agreement expressly notes "there is no preeminent market for Carbon

Dioxide Gas." Unit Agreement § 6.3. To account for the lack of a preeminent market, the Unit Agreement, as approved, modifies the royalty terms of the leases committed to the Unit to require royalty payments on the higher of (1) the net proceeds derived from the sale of CO_2 at the well or (2) a minimum value. *Id.* As discussed previously, with the exception of the CO_2 Hess sells under the Fasken Contract, Hess does not have any net proceeds at the well. And as discussed previously, the Determination and Leases provide the Secretary with the authority to determine a minimum value. Under ONRR regulations and case law, a reasonable minimum value will not include any costs that a lessee must incur to place gas in marketable condition.

Generally, ONRR allows a lessee that transports its gas off the lease or unit to deduct the "reasonable, actual costs" of transporting the oil or gas from the lease or unit to a point off the lease or unit, subject to certain limitations. *See generally* 53 Fed. Reg. 1,230 (Jan. 15, 1988) (adding 30 C.F.R. § 206.156 to allow lessees to deduct the reasonable, actual costs of transportation and stating it has been Departmental "policy since 1961 to grant transportation allowances when production is moved to a sales point off the lease in order to calculate the value of the product at the lease."). But a lessee must place its gas in marketable condition and market the gas for the mutual benefit of the lessee and lessor at no cost to the federal government. *Udall*, 296 F.2d at 388, *Mesa Operating Ltd. Partnership v. Dep't. of the Interior*, 931 F.2d 318 (5th Cir. 1991) (*Mesa*); 30 C.F.R. § 206.152(i) (1988). Marketable condition "means lease products which are sufficiently free from impurities and otherwise in a condition that they will be accepted by a purchaser under a sales contract typical for the field or area." 30 C.F.R. § 206.151 (1988). Treating gas to put it in marketable condition includes gathering (transporting gas from individual wells to a central accumulation point or RMP on or near the lease or unit), compression (increasing the pressure of gas), dehydration (removing water), and sweetening (removing acid gases, such CO_2 and hydrogen sulfide (H_2S)). *Id.*; *see, e.g.*, *Devon Energy Corp. v. Kempthorne*, 551 F.3d 1030 (D.C. Cir. 2008), *cert. denied* 130 S. Ct. 86 (2009) (*Devon*); *Amoco Production Co. v. Watson*, 410 F.3d 722 (D.C. Cir. 2005) (*Amoco*); *Amerada Hess Corp. v. Dep't. of the Interior*, 170 F.3d 1032 (10th Cir. 1999); *Mesa*, 931 F.2d at 326-27; *Shoshone & Arapaho Tribes v. Hodel*, 903 F.2d 784 (10th Cir. 1990) (*Shoshone*); *Udall*, 296 F.2d at 388.

The actual distance between the royalty measurement point and the point of sale is not a factor in determining whether a specific cost is a non-deductible marketable condition cost or a deductible transportation cost. *See Amoco*, 410 F.3d at 728 (holding that the government may apply the marketable condition rule as far downstream as costs are incurred to place the production in marketable condition); *Devon*, 551 F.3d at 1037 (holding that there is no geographic limitation to the marketable condition rule).

ONRR looks to pipeline specifications to determine marketable condition. *Amoco*, 410 F.3d at 729 (holding that lessees must treat gas to pipeline CO_2 requirements to serve distant markets into which it is sold); *Devon*, 551 F.3d at 1036-1037 (holding that gas must be in marketable condition for the market it serves, so it must be at the pressure needed to enter the pipeline taking it to market); *Shoshone*, 903 F.2d at 788 (denying deductions for compression costs because they increased the gas flow pressure to the level necessary to pass through the pipeline and, ultimately, to the purchaser of the gas); *R.E. Yarbrough Co*, 122 IBLA 217, 221 (1993) (holding that compression, dehydration, and gathering costs are necessary to place gas in marketable condition for delivery to a pipeline buyer); *The Texas Co.*, 64 I.D. 76 (1957) (denying deductions for the cost to compress low pressure gas to the pressure required to enter the purchaser's pipeline).

In this case, Hess uses its federal CO_2 production for its EOR operations in West Texas.

Because the ultimate use of Hess's CO_2 production is to inject the CO_2 into the EOR facility, the EOR Delivery Pipelines represent the pressure and quality requirements for Hess's CO_2 to be in marketable condition. Therefore, to be in marketable condition, Hess's federal CO_2 production must meet the minimum pressure requirements for the EOR Delivery Pipelines, or, if there are no minimum delivery requirements, the monthly average pressure of the CO_2 entering the EOR Delivery Pipelines.

Hess, as lessee, is responsible for the costs to gather, compress, dehydrate, and remove any impurities to meet the marketable condition requirements. *Shoshone*, 903 F.2d at 784. Yet Hess included compression and dehydration costs in its transportation allowance. The record shows CO_2 at the wells in the Unit ranges in pressure from 16 to 78 psig. The record also shows the pressure requirement of the Rosebud Pipeline is 1,850 psig and pressure requirement of the Sheep Mountain Pipeline is 1,925 psig. The Sheep Mountain Pipeline delivers the CO_2 to the Denver Hub at 1,925 psig. And the record shows the pressure necessary to enter the EOR Delivery Pipelines ranges from 1,900 psig to 2,500 psig. Because the pressure necessary to enter the EOR Delivery Pipelines reflects the pressure of Hess's federal CO_2 production in marketable condition, Hess cannot deduct any costs it incurs to get the pressure of the CO_2 to the pressure required to enter the EOR Delivery Pipelines.

Hess argues that the compressors operate to place the CO_2 in a super critical state for transport and do not function to place the gas in marketable condition. Yet the compressors also operate to meet the pressure specification of the EOR Delivery Pipelines. Therefore, even though the compressors operate to put the CO_2 in a super critical state for transportation, they also operate to place the CO_2 in marketable condition. Because a lessee cannot deduct costs to place CO_2 in marketable condition, it can deduct such costs "only if such services are required for transportation and *exceed the services necessary to place production into marketable condition*." *Burlington*, 183 IBLA 333, 355 (citation and internal quotes omitted), *aff'd Burlington Res. Oil & Gas Co. Lp. v. United States DOI*, No. 13-CV-0678-CVE-TLW, 2014 WL 3721210, * 20 (N.D. Okla. July 24, 2014). The State's disallowance of Hess's compression costs as costs it must incur to place the CO_2 in marketable condition was consistent with the cases governing marketable condition.

And the record shows Hess must meet the quality specifications for the EOR Delivery Pipelines that take the CO_2 from the Denver Hub to the EOR operations, including CO_2, water vapor, hydrogen sulfide, sulfur, oxygen, nitrogen, and hydrocarbons specifications. *See* Hess Purchase Contracts. To the extent Hess has incurred any costs to remove any impurities to meet these specifications, Hess cannot deduct those costs because they are costs incurred to place the gas in marketable condition.

d. Because the Unit Agreement requires Hess to report its CO_2 volumes at a pressure base of 15.025 psia, this Decision modifies the Order to require Hess to report its gas at 15.025 psia.

The Order requires Hess to change its reporting and pay additional royalties on CO_2 volumes at a pressure base of 14.73 psia. *See* Order, encl. 2 (modifying volumes to reflect 14.73 psi pressure base). Hess reported and paid royalties on a pressure base of 15.025 psia. The Order relies on the regulation in 30 C.F.R. § 202.152, which requires lessees to "report gas volumes and Btu heating value at a standard pressure base of 14.73 psia and a standard temperature base of 60°F." Yet the Unit Agreement requires lessees to pay royalties based on standard conditions of measurement of natural gases which are identified as 60° F and 15.025 psia. Unit Agreement at § 6.2. Thus, the regulations and Unit Agreement are in conflict.

In 1980, when the USGS approved the Unit Agreement, the regulations required lessees to base royalty payments on "10 ounces above an atmospheric pressure of 14.4 pounds to the square inch, regardless of the atmospheric pressure at the point of measurement." 30 C.F.R. § 221.44 (1980). The regulation requires lessees to adjust their royalty computation to those standards, "unless otherwise authorized in writing by the supervisor." *Id.*

Because the Determination approved, in writing, the Unit Agreement and that Unit Agreement required lessees to remit royalties on CO_2 volumes at a pressure base of 15.025 psia, Hess must report and pay royalties on volumes at the 15.025 psia pressure base. This Decision finds the Order improperly required Hess to calculate its volumes based on a 14.73 psia pressure base. Therefore, this Decision reduces the amount due in the Order from $1,874,524.54 to $1,820,652.66, a difference of $53,891.88, which reflects the amount due as a result of requiring Hess to report its CO_2 volumes on a 14.73 psia pressure base.

e. Any previous guidance or orders Hess received that support Hess using the Unit Average to calculate its royalties on its federal CO_2 production are not germane to this appeal.

Hess argues ONRR has consistently required Hess to use the Unit Average to value its CO_2. SOR at 14. Hess argues the Unit Average originated from an Amoco proposal to ONRR on how Amoco should value its federal CO_2 production from the Unit.[18] In 1984, Amoco sought guidance on how it should value its federal CO_2 production. Over the next two years, Amoco and ONRR went back and forth to determine an appropriate value of CO_2 when Amoco did not sell its CO_2 or sold its CO_2 production under non-arm's-length contract. *See* Royalty Management Program: Royalty Valuation & Standards Division, Findings and Conclusions on

[18] The Unit volume-weighted average price also appears as part of the Feerer Settlement. Under the Freer Settlement, the parties agreed that, from January 1, 1998 forward, Hess and Amoco would pay royalties based on the volume-weighted average of their respective prices, subject to some limitations, for CO_2. Feerer Settlement at 22-23. However, the parties did not agree that other benchmarks could not be used as a basis for royalty payments. *Id.*

Amoco Production Company's Request for a Determination of Royalty Value for Carbon Dioxide Gas Produced from the Bravo Dome Carbon Dioxide Unit, Union County, New Mexico (Jan. 7, 1987) (Amoco Guidance).

Eventually, Amoco sent a proposal to ONRR to value its federal CO_2 production from December 1984 forward based on a non-arm's-length sale from Amoco Production Company to Amoco Oil Company and "on the information furnished to us by other working-interest owners relating to their volumes and values." Letter from Amoco Corp. to MMS, Apr. 23, 1986 (Amoco Letter). ONRR accepted Amoco's valuation proposal to use the prices it received under a non-arm's-length contract because ONRR found those prices to be comparable to other arm's-length sales that took place in the Unit at that time. Amoco Guidance at 8. ONRR did not explicitly endorse the use of working-interest owners' information relating to volumes and values to calculate the value of CO_2. But ONRR did state in its cover letter to its guidance that Amoco's proposals were acceptable for Amoco to use to value its federal royalty production. *Id.* Eventually, this guidance became the foundation Hess uses to support the Unit Average. *See* SOR at 4.[19]

On September 5, 1995, ONRR also issued an order that required Hess to pay additional royalties based on the Unit Average (Previous Order). In the Previous Order, ONRR ordered Hess to report and pay royalties on the Unit Average because Hess changed its royalty basis from that price to a price it received under an arm's-length contract for one year. Previous Order at 3. However, Hess did not notify ONRR that it changed its method of reporting royalties, as the 1994 regulations required at 30 C.F.R. § 206.152(e)(3). *Id.* Based on the lack of notice, ONRR

[19] Hess cites to an order ONRR sent to Amoco in 1995. That order indicates Amoco has paid royalties on the Unit volume-weighted average since ONRR approved that method in 1986 – ONRR acceptance of the proposal in the Amoco Letter. *See* SOR, ex. 2 at 3. The State accepted the Unit volume-weighted average price as the basis for Amoco's royalty payments. Amoco did not appeal that order.

determined Hess did not correctly report and value its CO_2 production and required Hess to use the Unit Average to value its CO_2 during the year it used the arm's-length sales price. *Id.*

Hess did not dispute this finding and agreed to pay the additional royalties. *Amerada Hess Corp.*, 19 GFS Royalty Valuation & Mgmt. (RMMLF) (*Hess Director's Decision*), MMS-95-0661-O&G (May 7, 1997). Hess appealed the Previous Order, but did not contest the Previous Audit's finding that it must use the Unit Average. *Id.* at 2. The *Hess Director's Decision* denied Hess's appeal and Hess appealed the Decision to the Interior Board of Land Appeals (IBLA). While at the IBLA, Hess and ONRR entered into a settlement agreement resolving the appeal.

During the settlement negotiations, Hess requested a valuation and transportation guidance letter for future production in the Unit. ONRR issued that letter on May 28, 2002 (Hess Guidance). The Hess Guidance advised Hess to value its CO_2 based on the regulations governing unprocessed gas at 30 C.F.R. § 206.152. Hess Guidance at 1. For transportation, the Hess Guidance advised Hess that it can deduct costs to transport its CO_2 from the Unit to the sales point or point of value determination under the regulations in 30 C.F.R. §§ 206.156-157. *Id.* at 2. The Hess Guidance did note that some costs of compressing CO_2 may be allowable but only if those costs were not costs necessary to place the CO_2 in marketable condition. *Id.*

Hess argues the Amoco Guidance, Previous Order, and Hess Guidance preclude ONRR from requiring Hess to pay royalties on a basis other than the Unit Average. Hess's argument fails for numerous reasons.

First, the Amoco Guidance requires Amoco to pay royalties based on the price it receives under a non-arm's-length contract, not a volume-weighted average price. Amoco Guidance at 5. The Amoco Guidance states: "Amoco's proposal that royalty settlement beginning with

December 1984 be based *on the price specified in its contract with Amoco Oil Company is acceptable*." *Id.* ONRR issued this guidance after a comprehensive review of Amoco's non-arm's-length contract as well as other arm's-length contracts for the sale of CO_2 in the Unit. *Id.* ONRR concluded that the price Amoco received under its non-arm's-length contract was comparable to those other arm's-length contracts. *Id.*

In its valuation proposal, Amoco did state it would use "other information furnished to us by other working interest owners relating to their volumes and values." Amoco Letter at 2. Although ONRR concluded Amoco's proposal was acceptable, the Amoco Guidance never states Amoco should pay its federal CO_2 royalties based on unit-wide volume-weighted average price. Indeed, there is no evidence in the record showing how the statement in that proposal, along with the Amoco Guidance, became a requirement that Amoco and other lessees use the Unit Average as the basis of their federal royalty payments. Therefore, nothing in the Order or this Decision conflicts the Amoco Guidance.

Second, even if the Amoco Guidance required Amoco to report and pay on the Unit Average, that guidance is not binding on ONRR in determining the outcome of Hess's appeal. The Amoco Guidance was issued to Amoco, not Hess, based on a thorough review of the CO_2 sales contracts in the Unit at the time – 1984. ONRR issued the Amoco Guidance over thirty-years ago based on the facts Amoco provided to ONRR. ONRR's guidance was limited to the facts presented to it at the time and the record here does not include the same contracts and sales.

Third, the Amoco Guidance provided Amoco with appeal rights, but Amoco did not appeal the guidance. Thus, this Decision finds the Amoco Guidance is neither binding nor germane to the outcome of this appeal.

Fourth, because Hess did not appeal the Previous Order's requirement to use the Unit Average, the *Hess Director's Decision* never touched the issue as to whether or not the Unit Average was an appropriate value for Hess to use to calculate its royalties. *Id.* Thus, the *Hess Director's Decision* is not precedent germane to this dispute.

And the Order's alleged inconsistency with ONRR's failure to make the same finding in a prior audit or review does not dictate the outcome here. In *Phillips Petroleum Co. Phillips 66 Natural Gas Co.*, the IBLA held:

> The fact that royalty may have been accepted in the past without objection to the method of calculation royalty does not obviate [ONRR's] duty to ensure proper payment or waive its authority to later subject the payments to audit. Nor does declining to continue to accept payments on the previous basis constitute the retroactive application of a new rule.

121 IBLA 278, 283 (1991). Therefore, ONRR's failure to reject Hess's royalty calculations in advance of this audit is not controlling. Here, ONRR properly determined the Unit Average is not as reliable as the Hess Average to determine a minimum value for Hess's federal CO_2 production.

Fifth, Hess alleges the Hess Guidance expressly allows Hess to deduct the cost of compression. SOR at 15. Yet the Hess Guidance merely required Hess to value its federal CO_2 production under the federal gas valuation regulations in 30 C.F.R. §§ 206.150-155 (2001). Hess Guidance at 1. And although the Hess Guidance recognized that lessees must compress CO_2 to put it in a single-phase flow for transportation, it also expressly stated any deduction for compression must be "solely to keep the CO_2 in a single-phase flow for transportation through a large diameter pipeline to a sales point remote from the lease. *If compression is performed to place the* CO_2 *in marketable condition ... [ONRR] will not allow any deductions for compression.*" *Id.* at 2 (emphasis added).

The Order deducts some transportation costs from both the Hess Average and Hess Arbitration Price. But the Order disallows costs associated with compression. Because the State correctly determined the compression costs Hess deducted as transportation were to place the CO_2 in marketable condition and not just to transport the CO_2, the Order does not conflict with the Hess Guidance.

IV. CONCLUSION AND ORDER

Hess's appeal is denied because ONRR properly established a reasonable minimum value for Hess's federal CO_2 production under the Unit Agreement and Leases' terms. ONRR considered the Unit Average as a basis for royalty payments, but rejected it because it (1) results in a value that is less than the price Hess is willing to pay for CO_2, (2) is extremely difficult to verify the prices under the Unit Average are consistent with federal valuation requirements, and (3) likely includes prices from non-arm's-length sales.

The Order is modified to reduce the amount due from $1,874,524.54 to $1,820,652.66, a difference of $53,891.88, which reflects the difference in the amount due as a result of Hess reporting its CO_2 volumes on a 15.025 psia pressure base instead of a 14.73 psia pressure base.

Hess shall comply with this decision no later than 30 days after receipt of this decision, unless the Director of ONRR grants it a written extension of time to comply or unless Hess appeals the decision to the IBLA in accordance with 30 C.F.R. § 1290.108 (2015).

Hess may appeal this decision to the IBLA pursuant to 30 C.F.R. Part 1290 (2015) and 43 C.F.R. Part 4, Subpart E (2015).

If Hess chooses to appeal this decision, it must file its notice of appeal and any statement of reasons, written arguments, or briefs within 30 days after the date of service of the decision at the following address:

U.S. Department of the Interior
Director
Office of Natural Resources Revenue
1849 C Street NW – MS 4211
Washington, DC 20240

Hess must also file copies of the notice of appeal and any statement of reasons, written arguments, or briefs with the:

U.S. Department of the Interior
Regional Solicitor
Rocky Mountain Region
755 Parfet Street, Suite 151
Lakewood, CO 80215

and with the Department of the Interior, Office of Natural Resources Revenue, at:

Mailing Address
U.S. Department of the Interior
Office of Natural Resources Revenue
Program Manager, Appeals
P.O. Box 25627, MS 60200B
Denver, CO 80225-0627

Physical Address
U.S. Department of the Interior
Office of Natural Resources Revenue
Program Manager, Appeals
West 6th Avenue and Kipling Street,
Bldg. 53, Entrance E-20
Lakewood, CO 80225

Gregory J. Gould
Director