

**OIL AND GAS DOCKET NO. 10-0259183**

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**THE APPLICATION OF CREST RESOURCES, INC. TO CONSIDER ASSIGNMENT OF ACREAGE FOR ALLOWABLE PURPOSES ON ITS DAVIS LEASE WELL NO. 361 AND TO CONSIDER AMENDMENT OF THE ALLOCATION FORMULA FOR THE STILES RANCH, SOUTH (MORROW, LO) FIELD, WHEELER COUNTY, TEXAS**

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**HEARD BY:** Donna K. Chandler, Technical Examiner  
James M. Doherty, Hearings Examiner

**APPEARANCES:**

**Applicant:**

George Neale  
Jimmy Hall  
Glenn Hudgens

**Representing:**

Crest Resources, Inc.

**Protestant:**

Mike McElroy  
Edwin Wallace

Petro-Hunt L.L.C.

Glenn Johnson  
Randal Maxwell

Samson Lone Star, LLC

Clark Jobe

St. Mary Land & Exploration Co.

**PROCEDURAL HISTORY**

Request for Hearing:	September 29, 2008
Notice of Hearing:	September 30, 2008
Date of Hearing:	November 20, December 12, 2008
Transcript Received:	January 5, 2009
Record Closed:	January 22, 2009
Proposal For Decision Issued:	March 4, 2009

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### **EXAMINERS' REPORT AND PROPOSAL FOR DECISION**

#### **STATEMENT OF THE CASE**

Crest Resources, Inc. ("Crest") requests that the Commission determine the number of acres to be assigned to its Davis No. 361 for allowable purposes in the Stiles Ranch, South (Morrow, Lo) Field. Crest also requests that the allocation formula for the Stiles Ranch, South (Morrow, Lo.) Field be amended to include two factors, 50% acreage and 50% deliverability. Allocation in the field is currently based on 100% acreage.

This application was protested by Petro-Hunt, L.L.C. ("Petro-Hunt"), Samson Lone Star, LLC ("Samson") and St. Mary Land & Exploration Co. ("St. Mary"). All three protestants are working interest owners in Section 61 where the proposed well is located. Petro-Hunt is the operator of the existing well in Section 61, the G. C. Davis No. 1-61. St. Mary did not present a direct case but supports the positions of Samson and Petro-Hunt.

#### **Motion to Dismiss**

On October 24, 2008, Samson Lone Star, LLC filed a motion to dismiss Crest's application. In the motion, Samson asserted that the Commission should dismiss the application because the Commission lacks jurisdiction to "abrogate the private contractual relationships of the parties" under a Joint Operating Agreement ("JOA") pertaining to the Davis Lease, "no jurisdiction at all to reallocate property rights," and no jurisdiction to analyze and interpret the JOA. Samson contended that the working interests created by the JOA are property rights, and the Commission has no jurisdiction to take property rights of Petro-Hunt and Samson and give them to Crest. Samson also contended that the Crest application should be dismissed because the JOA prohibits a party to the JOA from drilling a well at an irregular location unless all parties to the JOA have consented, and such unanimous consent has not been given.

In Rule 37 Case No. 0249662, *Application of Crest Resources, Inc. for a Rule 37 and Rule 38 Exception for Its Davis No. 361 Well, Stiles Ranch, South (Morrow, Lo), Stiles Ranch (Granite Wash), Stiles Ranch (Atoka), Ivester (Atoka) and Stiles Ranch (Morrow) Fields, Wheeler County, Texas* (Final Order dated May 30, 2008), the Commission concluded that granting of an exception permit to Crest for the drilling of the Davis Lease, Well No. 361 in the Stiles Ranch, South (Morrow, Lo) and Stiles Ranch (Morrow) Fields was necessary to prevent waste and confiscation. Petro-Hunt, a protestant in Rule 37 Case No. 0249662, has assigned all 640 acres of the Davis Lease to a proration unit for the Davis Lease, Well No. 1-61 in the Stiles Ranch, South (Morrow, Lo) Field. Statewide Rule 40(d) provides that acreage assigned to a well for drilling and development, or for allocation of allowable, shall not be assigned to any other well or wells projected to or completed in the same reservoir. An issue in this case is whether Crest is entitled to an assignment of acreage for allowable purposes in the Stiles Ranch, South (Morrow, Lo) Field for its Davis Lease, Well No. 361, considering that under Statewide Rule 40(d) any

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such assignment will necessitate a corresponding reduction in the number of acres presently assigned to the Petro-Hunt Davis No. 1-61.

There is conflict between Samson's positions that the Commission has no jurisdiction to analyze and interpret the Davis Lease JOA, but, on the other hand, should conclude that the JOA provides for assignment of all of the Davis Lease acreage to the Petro-Hunt No. 1-61 and prevents Crest from drilling its Davis No. 361 well at the irregular location permitted in Rule 37 Case No. 0249662 because not all parties to the JOA have consented to this location. Samson is correct that the Commission is not authorized ultimately to declare, as would a court, the contractual rights of the parties under the JOA. But to decide this case, the Commission need not determine, as a matter of law, the contractual rights of the parties or any question of title. The Commission has the jurisdiction to determine for regulatory purposes whether Crest has at least a good faith claim of right to an assignment of acreage for allowable purposes, so that it may produce the well that the Commission previously found to be necessary to prevent waste and confiscation. *Sun Oil Company v. Railroad Commission*, 390 S.W.2d 803, 806-808 (Tex. Civ. App.-Austin 1965, writ ref. n.r.e.); *Magnolia Petroleum Co. v. Railroad Commission*, 170 S.W.2d 189, 191 (Tex. 1943).

Crest is the owner of a working interest in the Davis Lease. Exhibit G to the JOA provides that it is the express purpose and intent of the parties that their ownership in the contract and the rights and property acquired in connection therewith shall be as tenants in common. As a general proposition, any cotenant of the oil and gas in place can explore, drill, and produce them regardless of the consent of other cotenants. *Burnham v. Hardy Oil Co.*, 147 S.W. 330 (Tex. Civ. App.-San Antonio 1912), *aff'd* 195 S.W. 1139 (Tex. 1917); *Tynes v. Mauro*, 860 S.W.2d 168, 176 (Tex.App.-El Paso 1993, writ denied); *Cox v. Fagadau Energy Corp.*, 68 S.W.3d 147, 157 (Tex.App.-Eastland 2001, pet. denied). However, the reciprocal rights and obligations of cotenants may be modified by agreement, and in this case, Crest is a successor-in-interest to the JOA pertaining to the Davis Lease. Samson's position that the JOA entitles Petro-Hunt to assign all of the Davis Lease acreage to the Petro-Hunt No. 1-61 well is not well taken. It is true that the "unit area" and "drilling unit" defined in the JOA is the 640 acres comprising the Davis Lease, but the JOA is silent about assignment of acreage for allowable purposes to any particular well on the contract area. The JOA has provisions clearly contemplating development of the contract area by drilling of additional wells, which conflict with Samson's contention that the JOA creates a property right of Petro-Hunt and Samson to the assignment for allowable purposes of all of the Davis Lease acreage to the Petro-Hunt No. 1-61 that cannot be "abrogated."

While the Commission may not ultimately determine the contractual rights of the parties under the JOA, the terms of the JOA may be considered in determining the good faith claim issue for the Commission's regulatory purposes. Articles VI.B.1 and VI.B.2 of the JOA state that any party to the JOA, Crest included, may propose to drill a well, other than the initial well, on the contract area, and if the JOA operator is a non-consenting party, any of the consenting parties may drill such a well.

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Crest has, at least, a good faith claim of sufficient interest in the Davis Lease, and under the terms of the JOA, to propose that its Davis Lease, Well No. 361 be assigned acreage for allowable purposes. In reaching this conclusion, the examiners have considered the JOA provision in Article VI.B.2 that states that without the mutual consent of all parties, no wells shall be completed in or produced from a source of supply from which a well located elsewhere on the contract area is producing, unless such well conforms to the then-existing well spacing pattern for such source of supply. However, the issue here is the right of Crest's well to an allowable, not the right to drill the well at a particular location.

The Commission has heretofore issued a permit to drill the well at an irregular location pursuant to valid order finding the well necessary to prevent waste and confiscation. Crest has argued that because it has obtained an exception permit pursuant to valid Commission order to drill its Well No. 361, it has entitlement to drill the well under the terms of the JOA. Article XV.H of the JOA states that the parties recognize the agreement shall be subject to all valid and applicable State and Federal laws, rules, regulations and *orders*, and the operations conducted under the JOA shall be performed in accordance with said laws, rules, and regulations and orders. Article XV.H states further that in the event the JOA or any of its provisions is, or the operations contemplated by the JOA are, found to be inconsistent with or contrary to any such laws, rules, regulations or orders, the latter shall be deemed to control and the JOA shall be regarded as modified accordingly. Being mindful of Samson's admonition regarding limitations on the Commission's jurisdiction to issue a legally binding interpretation of the JOA, the examiners cannot conclude that Crest's good faith claim of right to assignment of acreage for allowable purposes is defeated by the JOA provision in Article VI.B.2.

The Commission has jurisdiction to consider whether Crest is entitled to assignment of acreage for its Davis Lease, Well No. 361 and whether a corresponding adjustment to the acreage assigned to Petro-Hunt's Well No. 1-61 well should be ordered as necessary to prevent waste or to protect correlative rights.

Section 81.051 of the Texas Natural Resources Code ("Code") provides that the Commission has jurisdiction over all oil and gas wells in Texas and persons owning or engaged in drilling or operating oil or gas wells in Texas. Section 85.053(a) of the Code provides that if a rule or order of the Commission limits or fixes in a pool or portion of a pool the production of oil, or the production of gas from wells producing gas only, the Commission, on written complaint by an affected party or on its own initiative and after notice and an opportunity for hearing, shall distribute, prorate, or otherwise apportion or allocate the allowable production among the various producers on a reasonable basis if the Commission finds that action to be necessary to prevent waste or adjust the correlative rights and opportunities of each owner of oil or gas in a common reservoir to produce and use or sell the oil or gas as provided in Chapter 85 of the Code. Section 85.201 of the Code provides that the Commission shall make and enforce rules and orders for the conservation of oil and gas and preventing waste of oil and gas. Section 85.202(b) of the Code provides that the Commission shall do all things necessary for the conservation of oil and gas and

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prevention of waste of oil and gas and may adopt rules and orders as may be necessary for these purposes. Section 86.042 of the Code provides that the Commission shall adopt and enforce rules and orders to conserve and prevent the waste of gas. Section 86.081(a) of the Code provides that for the protection of public and private interests, the Commission, on written complaint by an affected party or on its own initiative and after notice and an opportunity for hearing, shall prorate and regulate the daily gas well production from a common reservoir if the Commission finds that action to be necessary to prevent waste or adjust the correlative rights and opportunities of each owner of gas in a common reservoir to produce and use or sell the gas as permitted in Chapter 86 of the Code.

Consideration of Crest's application for assignment of acreage for allowable purposes will not violate any vested property right of Petro-Hunt or Samson. Article XIV.A of the JOA acknowledges that the JOA is subject to the conservation laws of the state, to the valid rules, regulations, and orders of any duly constituted regulatory body of the state, and to other applicable federal, state, and local laws, ordinances, rules, regulations and orders. Statewide Rule 40 relating to Assignment of Acreage to Pooled Development and Proration Units itself recognizes that proration units may be reformed and adjusted. Rule 40(d) provides that the prohibition against duplicate assignment of acreage for allocation of allowable shall not prevent the reformation of proration units so long as no duplicate assignment of acreage occurs. Thus, if Petro-Hunt, rather than Crest, were proposing to drill the Davis Lease, Well No. 361, Petro-Hunt could not legitimately claim that it had an unalterable property right to maintain a 640-acre proration unit for Well No. 1-61, if it proposed to assign some of the same acreage to Well No. 361.

Rules 40(b) and 40(c) are further evidence that the Commission has assumed jurisdiction to require reformation of proration units where necessary to protect correlative rights. Under these rules, if a pooled unit contains a leased tract with a non-pooled undivided interest, the entire tract can be included in a proration unit for a well, except that the owner of the non-pooled interest retains any existing right to seek development of his tract, and if a well is drilled on this tract, the entire interest in the tract must be allocated to that well. The operator who has pooled the other fractional interests in the tract into a unit must reassign the tract's acreage to the well drilled by the non-pooled owner. Smith & Weaver, *Texas Law of Oil and Gas*, Vol. 2, Chapter 10, §10.2A at page 10-21 (Matthew Bender 2007).

Regulation of production of oil and gas is a valid exercise of the police power of the State. Generally, conservation laws and rules that prevent waste and protect correlative rights have been upheld by the courts against "takings" claims, and these types of laws and rules often have been characterized as classic examples of the state's police power to regulate property for the health, safety and welfare. Smith & Weaver, *Texas Law of Oil and Gas*, Vol. 2, Chapter 8, §8.5(A) at page 8-80.4 (Matthew Bender 2007). Production from a well is always subject to the Commission's authority to prorate production and adjust the amount of oil or gas produced by each operator or landowner. An operator's or landowner's property right in the oil and gas beneath a tract is subject to the Commission's rules promulgated under the conservation laws. *Seagull Energy E & P v. Railroad Com'n*,

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99 S.W.3d 232, 238 (Tex. App.-Austin 2003), affirmed 226 S.W.3d 383 (Tex. 2007). No landowner or operator acquires any vested right to continue to produce the same amount of oil or gas during the life of a well as fixed by the proration schedule in force when the well was drilled. *Railroad Commission v. Aluminum Co. of America*, 380 S.W.2d 599, 602 (Tex. 1964); *Chenowith v. Railroad Commission*, 184 S.W.2d 711, 715 (Tex.Civ.App.-Austin 1944, error ref'd.). When Railroad Commission orders are supported by evidence establishing that they are necessary to prevent waste or to protect correlative rights, the fact that the application of the order may result in some economic loss to some does not warrant a finding that there has been deprivation of property without due process of law. *Railroad Commission of Texas v. Manziel*, 361 S.W.2d 560 (Tex. 1962).

The examiners conclude that the Commission has jurisdiction to consider Crest's application for an assignment of acreage to the Davis Lease, Well No. 361 for allowable purposes and recommend that the Samson motion to dismiss be denied.

### **DISCUSSION OF THE EVIDENCE**

#### **Applicant's Evidence**

The G. C. Davis No. 1-61 operated by Petro-Hunt is the only well which has ever produced from the Stiles Ranch, South (Morrow, Lo.) Field ("subject field"). Crest acquired its interest in Sections 60, 61 and 65 several years ago from Hunt Petroleum, and Crest is a working interest owner in Petro-Hunt's No. 1-61 well. Crest proposed the drilling of the No. 361 to all owners under the JOA. At the time the well was proposed, there was no contention by any working interest owner that Crest did not have the right to propose a well on Section 61, even without the consent of all working interest owners. The JOA includes provisions for proposing a well under such circumstances.

At the time the well was proposed to the working interest owners in Section 61, the subject field operated under Statewide Rules and the location would have been regular with respect to both Rule 37 and Rule 38. The field rules requiring 640 acres were adopted by the Commission at the request of Petro-Hunt in 2006, after the No. 361 well was proposed by Crest. Crest was not notified of the field rule hearing because it was not an operator in the field at the time.

On January 7, 1997, in Docket No. 10-0214147, the Commission approved Petro-Hunt's application for new field designation and field rules for the subject field. The No. 1-61 well had been completed in 1981 with perforations between 17,722 feet and 17,782 feet. The well was placed in the Stiles Ranch (Morrow) Field for proration purposes. In 1996, additional perforations were added between 17,782 feet and 17,800 feet. Petro-Hunt requested a new field designation for the No. 1-61 after adding these perforations. A hearing was required on the new field application because the proposed designated interval for the new field included multiple stratigraphic accumulations of hydrocarbons. In such fields, allocation of allowable must be based on at least two factors. In this instance, the

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Commission adopted an allocation formula based on 95% deliverability and 5% per well. No spacing or density rule was adopted at the time and the field continued to operate under Statewide spacing and density rules of 40 acres and 467'-1,200' well spacing.

On August 22, 2006, in Docket No. 10-0248372, the Commission approved Petro-Hunt's unprotested application to amend the field rules for the subject field. The rules adopted by the Final Order in that docket are summarized as follows:

1. Designation of the field as the correlative interval from 17,700 feet to 17,812 feet as shown on the log of the G. C. Davis No. 1-61;
2. 1,867'-3,735' well spacing;
3. 640 acre density;
4. Allocation based on 100% acreage.

Crest believes that the change in allocation formula to a single component was in error and proposes that the allocation formula be changed again to include two factors as required by statute. Crest proposes allocation based on two factors, preferably a combination of acreage and deliverability, because the designated interval for the field is comprised of multiple stratigraphic accumulations of hydrocarbons, namely the Morrow "E" and Morrow "F" sands.

The Final Order approving the Rule 37/38 exception for the subject well (Case No. 0249662) included adoption of the following Finding of Fact No. 11, which Crest relies on to support its request for assignment of acreage to its well:

The Davis Well No. 1-61 has currently drained 290 acres in the Stiles Ranch, South (Morrow, Lo) Field and will ultimately drain only 333 acres, roughly half of the 640 acre Section 61. There are 456 productive acres in the "E" Sand in Section 61 and 516 productive acres in the "F" sand in Section 61. An additional well is necessary to recover the remaining reserves under Section 61.

Crest submitted essentially the same isopach and structure maps as were submitted in the Rule 37/38 hearing to illustrate the productive limits referred to in Finding of Fact No. 11 above. The No. 1-61 produces from both the "E" and "F" sands and has produced 17.9 BCF of gas. Current production is about 900 MCFD. With some additional production since the Rule 38/38 hearing for the No. 361 well, Crest estimates from decline analysis that the No. 1-61 well will ultimately recover 20.4 BCF, which is slightly more than

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previously estimated.<sup>1</sup> The drainage area for the No. 1-61 based on this slightly higher ultimate recovery will be 335 acres, as opposed to 333 acres indicated in the previously adopted Finding of Fact No. 11. This estimate of ultimate recovery is in good agreement with material balance (P/Z) estimates of recovery made by both Samson and Petro-Hunt.

Crest submitted plats showing 335 acres around the No. 1-61 well. Crest would assign 181 acres to its proposed well, which is the difference between 516 productive acres in Section 61, and 335 acres which will be drained by the No. 1-61 well. Crest believes it is Petro-Hunt's obligation to reduce the acreage assigned to the No. 1-61 well based on the fact that some of the acreage assigned to the well is unquestionably non-productive.

### **Protestants' Evidence**

#### **Petro-Hunt**

In the event that the Commission requires Petro-Hunt to assign less acreage to its No. 1-61 well, Petro-Hunt requests that the Commission limit allowable in the field to 1.1 MMCFD per well.

Petro-Hunt contends that the reservoir limits for the subject field can't be determined with any level of confidence due to lack of geologic control. Petro-Hunt relies on its P/Z data to demonstrate that the No. 1-61 well will drain the entire reservoir. Petro-Hunt's interpretation of the pressure data suggests that original gas-in-place in the reservoir is 26 BCF and the No. 1-61 will recover 85%, or 22.3 BCF. Petro-Hunt submitted isopach maps of the "E and "F" sands which demonstrate a possible depiction of reservoir limits which contain approximately 26 BCF of gas. This maps differ significantly from the maps submitted by Crest and Petro-Hunt argues that Crest's maps depict too large a reservoir.

Petro-Hunt contends that the estimated ultimate recovery for the No. 1-61 well is at least 22 BCF, based on the most recent production data which Petro-Hunt believes exhibits hyperbolic decline instead of exponential decline. Petro-Hunt believes that the well's production performance is consistent with it's theory that gas is being produced from outer edges of the reservoir which are less permeable, resulting in a flattening of the production rate. Petro-Hunt asserts that withdrawals from the reservoir must be limited at this stage of depletion in order to maximize recovery. If the No. 1-61 is produced at a higher rate to compete with the new No. 361 well, Petro-Hunt believes that the well will begin to exhibit exponential decline again and recover up to 2 BCF less gas than if the rate is restricted to 1.1 MMCFD.

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<sup>1</sup> In the Rule 37/38 hearing for the No. 361 well, Crest had estimated an ultimate recovery of 20.2 BCF for the No. 1-61. The 200 MMCF increase is due to the well being put on compression subsequent to the previous hearing.

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### Samson

Samson concurs with Petro-Hunt that Crest's mapping of the reservoir and engineering analysis are both inaccurate. Samson also concurs that allowable for wells in the field should be limited to 1.1 MMCFD per well, regardless of the allocation formula. Further, Samson does not believe that a two factor allocation formula is required for the subject field.

Regarding the need for a two factor allocation formula, Samson asserts that the Commission requires 30 feet of separation between productive zones for the two factor formula requirement to be implemented. Samson sees less than 20 feet of separation between the Morrow "E" and "F" zones, with thinning toward the edges of the sands. Samson believes the two sands may actually be in communication with each other in some places. Samson suggests that allocation be based on the volume of reservoir that each well will drain (acre-feet). Alternatively, Samson suggests that allocation be based on 10% per well and 90% acre-feet.

Samson performed several reservoir models based on both Crest and Petro-Hunt's maps, varying the permeability among each model. Samson concludes from the modeling that if Crest's maps are correct, the permeability in the outer portions of the reservoir is so low that gas will not flow from those areas. On the other hand, the modeling based on Petro-Hunt's maps results in a much better match of the well's production history, without the need to include such a drastic change in permeability throughout the field. Samson believes that Crest's mapping is flawed in that the maps indicate a much larger reservoir by including acreage as productive which has very little permeability. Therefore, any determination of acre-feet in the reservoir should not be based on Crest's maps, because they indicate too large a reservoir.

Samson believes that Crest erred in its calculation of water saturation in the reservoir because of an inaccurate value of water resistivity. Samson believes a water resistivity of 0.03 is appropriate while Crest used a water resistivity of 0.1 in its calculations.<sup>2</sup> Samson submitted Pickett Plots for each of three wells which Crest believes are below the water contact in the field. A Pickett Plot uses a comparison of porosity and log resistivity readings to determine water resistivity. On the plots constructed using 0.03 water resistivity, the water saturation values for the three wells are 100% or less. On the plots constructed using the Crest 0.1 water resistivity, the water saturation values are, for most points plotted, greater than 100%. Such values are not possible and Samson believes that Crest's water resistivity value is wrong, resulting in inaccurate calculations of water saturation values, and improper interpretation of a water contact on Crest's maps.

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<sup>2</sup>Crest's value for water resistivity is based on measurement of a water sample from a nearby well producing from the Morrow formation

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Samson also performed production analysis of the Davis 1-61 using four different models, beginning with production after the well was fracture-stimulated. The model which best matched the production performance of the well is for a circle-shaped reservoir. Crest's maps do not depict this shape and Samson believes that Crest's maps are therefore wrong. Samson believes that Petro-Hunt's maps should be used for assignment of productive acres to wells in the field. Samson's modeling based on Crest's maps results in an area of 361 acres for the permeable portions of the reservoir which can contribute to production, including the "E" and "F" sands. This area increases to 541 acres if the low permeability areas at the edges of the reservoir are included.

Samson further believes that the Davis 1-61 will ultimately recover about 20 BCF of gas and that the reservoir contains about 22.5 BCF of gas. Samson's P/Z interpretation is that the Davis No. 1-61 will adequately drain the entire reservoir. However, if proration units must be determined and all acreage is not assigned to the No. 1-61 well, Samson supports a determination that the No. 1-61 be assigned 335 acres and the proposed No. 361 be assigned 26 acres. Even though Samson suggested that acre-feet be a factor in the allocation formula for the field, Samson did not submit its values for acre-feet to be assigned to the wells.

Lastly, Samson supports an allowable of 1 MMCFD for each well in the field. Samson's modeling indicates that remaining recovery from field, assuming both wells produce at capacity, will be 1.369 BCF of gas. With a limit on production, remaining recovery from the field will be 1.665 BCF of gas. This difference is the result of a larger pressure differential created by two wells producing simultaneously.

### **EXAMINERS' OPINION**

At the hearing and in its written closing statement, Samson has invited the examiners to reconsider findings of fact and conclusions of law made by the Commission in its final order dated May 29, 2008, in Rule 37 Case No. 0249662 that Petro-Hunt's Well No. 1-61 will not drain all of the recoverable reserves in the Stiles Ranch, South (Morrow, Lo) Field under the Davis Lease and drilling of Crest's proposed Well No. 361 is necessary to prevent waste and confiscation. In this regard, Samson cites cases which have held that the Commission has authority to reconsider its own orders upon a showing of changed circumstances or to correct "mistakes." But the issue here is not whether the Commission has authority to reconsider its own orders to address changed circumstances or to correct a mistake. The issue here is whether protestants are precluded, under principles of collateral estoppel and conclusiveness of judgments, from asserting that the Petro-Hunt Well No. 1-61 will drain all of the recoverable reserves in the subject field or that Crest's Well No. 361 is not necessary to prevent waste and confiscation. The examiners believe they are.

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The doctrine of collateral estoppel (or issue preclusion) bars relitigation of any ultimate issue that was litigated and essential to the judgment in a prior action and (1) the issue sought to be litigated in the second action was fully and fairly litigated in the first action; (2) the issue was essential to the judgment in the first action; and (3) the parties were cast as adversaries. *Southwest Guar. Trust Co. v. Providence Trust Co.*, 970 S.W.2d 777 (Tex.App.-Austin 1998, pet. denied); *Texas Dept. of Public Safety v. Petta*, 44 S.W.3d 575 (Tex. 2001). The issues of whether the Petro-Hunt Well No. 1-61 will drain all of the recoverable reserves in the subject field under the Davis Lease and whether Crest's Well No. 361 is needed to prevent waste and confiscation were fully and fairly litigated in Rule 37 Case No. 0249662, and the Commission's findings and conclusions on these issues were essential to disposition of Crest's application in that docket. Furthermore, Petro-Hunt and Samson were cast as Crest's adversaries in Rule 37 Case No.0249662.<sup>3</sup> Under these circumstances, the Commission is not required to relitigate these issues here.

The examiners recommend that the allocation formula in the subject field be amended to include two factors, as required by Sections 85.053 and 86.081 of the Texas Natural Resources Code. It is apparent that the two factors are required for allocation purposes in this field. The new field discovery application was approved in 1997, only after notice and hearing. The application could not be approved administratively because Commission staff determined that the proposed new field contained separate accumulations of hydrocarbons. The fact that the allocation formula was amended in 2006 and based on only one factor was apparently in error. This error should now be corrected with the adoption of two factors.

The No. 1-61 well has produced from the Morrow since 1981. Petro-Hunt made no effort to assign 640 acres to the well until 2006, after Crest had proposed its No. 361 well. The well was produced under Statewide Rules from 1996, when the new field designation was approved, until 2006, when the field rules were adopted. Petro-Hunt was able to obtain field rules for the field without notice to Crest because Crest was not an operator in the field at the time of the request for field rules. In fact, Petro-Hunt was the only operator and only participant in the 2006 hearing.

The examiners believe that allocation based on 50% acreage and 50% deliverability, as requested by Crest, satisfies the statutory requirement for combining multiple, stratigraphic or lenticular accumulations of oil or gas into a single field. The only other

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<sup>3</sup> St. Mary Land & Exploration Company was provided notice of Crest's application in Rule 37 Case No. 0249662, but did not appear. Collateral estoppel does not require mutuality. It binds the parties against whom estoppel is sought and those in privity with such parties. Parties are in privity for purposes of collateral estoppel when their interests are represented by a party to the action. *HECI Exploration Co. v. Neel*, 982 S.W.2d 881, 889-890 (Tex. 1998). St. Mary is a party in privity with Petro-Hunt because it is a non-operating working interest owner in the JOA contract area, whose interest is represented by Petro-Hunt, the JOA operator of the contract area. The JOA, to which St. Mary is a successor party, provides that the operator shall be responsible for the conduct of hearings before governmental agencies for the securing of pooling or spacing orders.

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suggestion for allocation was Samson's request that allocation be based on acre-feet. Allocation to a well based on acre-feet cannot be accomplished in a situation such as this where there is no lease boundary between the producing wells. The examiners recommend that Petro-Hunt's well be assigned 335 acres for allowable purposes and that the No. 361 well be assigned 181 acres for allowable purposes, upon completion of the No. 361 in the subject field. These areas are based on the Commission's previous determination of the drainage area for the No. 1-61 well, with a very slight adjustment based on recent production data. Crest Exhibits 21 and 22 depict these acreage assignments for each well.

Samson and Petro-Hunt supported a limit on daily production from wells in this field. The examiners do not believe the evidence supports such limitation. Petro-Hunt based its request for such limitation on its interpretation that the No. 1-61 well is now exhibiting a hyperbolic decline in production, as opposed to an exponential decline in its earlier life. Petro-Hunt argues that this change indicates that the well will ultimately recover more gas than previously estimated. However, this well is now being produced with compression and the examiners do not believe that the very recent production data is reliable for determination of ultimate recovery. Since the Rule 37 hearing, there has been no new pressure data and therefore the previous estimate of 20 BCF ultimate recovery from the No. 1-61 well, based on material balance data, is the most reliable data. There is no reason to limit production from the field. It would only serve to penalize Crest for drilling a well which the Commission has already determined is necessary.

### **FINDINGS OF FACT**

1. At least ten days notice of the hearing in this docket was provided to all interested persons.
2. Crest Resources, Inc. ("Crest") requests that the Commission assign acreage for allowable purposes to Crest's Davis Lease, Well No. 361, Stiles Ranch, South (Morrow, Lo) Field, Wheeler County, Texas.
3. Crest also requests the Commission to amend the allocation formula for the Stiles Ranch, South (Morrow, Lo) Field to include two factors, 50% acreage and 50% deliverability.
4. The Crest application is opposed by Petro-Hunt LLC ("Petro-Hunt"), Samson Lone Star, LLC ("Samson"), and St. Mary Land & Exploration Co. ("St. Mary").
5. Crest, Petro-Hunt, Samson, and St. Mary are working interest owners in the 640-acre Davis Lease and successors-in-interest to a May 16, 1980 Operating Agreement ("JOA") covering this 640 acres. Petro-Hunt is the successor operator of the G. C. Davis No. 1-61 on the 640-acre lease.
6. Currently, there is one well on the Davis Lease in the Stiles Ranch, South (Morrow, Lo) Field, the Petro-Hunt G. C. Davis No. 1-61, which is the only well in the field.

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7. The G. C. Davis No. 1-61 was granted new field designation on January 7, 1997, in Oil & Gas Docket No. 10-0214147.
  - a. A hearing was required on the application for new field designation because Commission staff determined that a two-factor allocation formula was necessary.
  - b. The Commission adopted an allocation formula based on 95% deliverability and 5% per well. No spacing or density rule was adopted in this docket, so that statewide rules applied.
  - c. The G. C. Davis No. 1-61 has produced since 1981 but a new field designation was not requested until 1996 when additional perforations were added in the well.
8. Pursuant to the JOA, Crest proposed to other working interest owners the drilling of Well No. 361 on the 640-acre Davis Lease in the Stiles Ranch, South (Morrow, Lo) Field, to which Petro-Hunt and certain other working interest owners did not consent.
9. Articles VI.B.1 and VI.B.2 of the JOA state that any party to the JOA may propose to drill a well, other than the initial well, on the contract area, and if the JOA operator is a non-consenting party, any of the consenting parties may drill such a well.
10. After learning of Crest's intention to drill the Davis Lease, Well No. 361, Petro-Hunt filed with the Commission an application to amend the field rules for the Stiles Ranch, South (Morrow, Lo) Field to provide for 1,867'/3,735' well spacing and 640 acre density, with allocation based on 100% acreage.
11. In Oil & Gas Docket No. 10-0248372, by order dated August 22, 2006, the Commission adopted the field rules proposed by Petro-Hunt for the Stiles Ranch, South (Morrow, Lo) Field.
  - a. Petro-Hunt's application for these field rules was uncontested.
  - b. Crest was not provided notice of the proposed field rules because it was not an operator in the field.
12. After adoption of the current field rules for the Stiles Ranch, South (Morrow, Lo) Field, Petro-Hunt assigned all 640 acres of the Davis Lease to Petro-Hunt's G. C. Davis No. 1-61. A portion of this acreage is non-productive, based on the interpretations of all parties.

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13. Under the field rules adopted in Oil & Gas Docket No. 10-0248372 for the Stiles Ranch, South (Morrow, Lo) Field, Crest's proposed Davis Lease, Well No. 361 became irregular to lease lines and the Petro-Hunt G. C. Davis No. 1-61.
14. Petro-Hunt's assignment of 640 acres to the proration unit for the Petro-Hunt G. C. Davis No. 1-61 left no acreage for assignment to a proration unit for Crest's proposed Davis Lease, Well No. 361 in the Stiles Ranch, South (Morrow, Lo) Field because of the Statewide Rule 40 prohibition against duplicate assignment of acreage.
15. By application filed on November 8, 2006, in Rule 37 Case No. 0249662, Crest requested that the Commission grant Rule 37 and Rule 38 exceptions for its Davis Lease, Well No. 361 in the Stiles Ranch, South (Morrow, Lo) and Stiles Ranch (Morrow) Fields.
  - a. This application was protested by Petro-Hunt and Samson, who were parties to this contested case proceeding and cast as Crest's adversaries.
  - b. St. Mary was provided notice of the Crest application, but did not participate, except to the extent that its interest as a non-operating working interest owner was represented by the operator of the G. C. Davis No. 1-61, Petro-Hunt.
16. By final order in Rule 37 Case No. 0249662 signed on May 29, 2008, the Commission granted the Rule 37 and Rule 38 exceptions requested by Crest for the Davis Lease, Well No. 361 in the Stiles Ranch (Morrow, Lo) and Stiles Ranch (Morrow) Fields.
  - a. In its final order, the Commission made the following findings of fact, among others, which were essential to its decision:
    - "5. The Stiles Ranch, South (Morrow, Lo) Field, "E" and "F" Sands, consists of either channel fills or alluvial fans oriented in a NE/SW direction, dipping down to the SW. The greatest permeability and porosity is along the axis of both sands, creating an unusual condition. The southerly productive limit of each sand is defined by a water contact south of Section 61. These sands have been winnowed, with permeability and porosity falling off to the edges of the structures."
    - "9. The lowest credible estimate of recoverable gas in the Stiles Ranch, South (Morrow, Lo) Field, provided by Samson, is 22.72 BCF. Assuming ultimate recovery of 19.9 BCF of gas by the existing Davis Well No. 1-61, almost 3 BCF would remain unrecovered."

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- “10. The high side and low side estimates of remaining unrecovered reserves in the Stiles Ranch, South (Morrow, Lo) Field at abandonment of Davis Well No. 1-61, 13.5 BCF and 3 BCF of gas, are substantial quantities of hydrocarbons.”
  - “11. The Davis No. 1-61 has currently drained 290 acres in the Stiles Ranch, South (Morrow, Lo.) Field and will ultimately drain only 333 acres, roughly half of the 640 acre Section 61. There are 456 productive acres in the “E” sand in Section 61 and 516 productive acres in the “F” sand in Section 61. An additional well is necessary to recover the remaining reserves under Section 61.”
  - “17. Due to the field rules in place for the Stiles Ranch, South (Morrow, Lo) Field since 2006 [1867 foot leaseline spacing and 3735 foot between well spacing on 640 acre units], and due to the location of the Davis Well No. 1-61, there is no regular location available for the proposed Crest Davis 3-61.”
  - “18. The proposed location of the Crest Davis Well No. 3-61 is along the axis of the depositional system in the Stiles Ranch, South (Morrow, Lo) Field, which is the area of greatest porosity and permeability, and also will access the most feet of pay in the “E” (20+ feet) and “F” (55+ feet) Sands. This location will afford Crest the greatest opportunity to recover the remaining recoverable reserves in place under Section 61 and is reasonable.”
- b. In its final order, the Commission made the following conclusions of law, among others, which were essential to its decision:
- “3. An exception to Statewide Rule 37 at Crest’s applied-for location is necessary to prevent waste in the Stiles Ranch, South (Morrow, Lo) Field.”
  - “4. An exception to Statewide Rule 37 at Crest’s applied-for location is necessary to prevent confiscation in the Stiles Ranch, South (Morrow, Lo) Field.”
  - “5. An exception to Statewide Rule 38 for Crest’s applied-for well is necessary to recover the remaining hydrocarbons in place under Section 61 in the Stiles Ranch, South (Morrow, Lo) Field.”
17. The issues of whether the Petro-Hunt - G. C. Davis No. 1-61 will drain all of the recoverable reserves in the subject field under the Davis Lease and whether Crest’s Davis Lease, Well No. 361 is needed to prevent waste and confiscation were fully and fairly litigated in Rule 37 Case NO. 0249662.

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18. Without an assignment of acreage for allowable purposes to Crest's Davis Lease, Well No. 361, Crest cannot produce the well in the Stiles Ranch, South (Morrow, Lo) Field.
19. To prevent a duplicate assignment of acreage prohibited by Statewide Rule 40, assignment of acreage for allowable purposes to Crest's Davis Lease, Well No. 361 in the Stiles Ranch, South (Morrow, Lo) Field, once the well is drilled and completed, will require a corresponding reduction in acreage now assigned to the Petro-Hunt G. C. Davis No. 1-61 in the same field.
20. Under current conditions as reflected in the record of this docket, the Petro-Hunt G. C. Davis No. 1-61 has a drainage area of 335 acres in the Stiles Ranch, South (Morrow, Lo) Field.
21. Reformation of the proration unit for the Petro-Hunt G. C. Davis No. 1-61 to the acreage being drained by this well in the Stiles Ranch, South (Morrow, Lo) Field is reasonable and will fairly allocate allowable production to the well in the circumstances of this case.
22. Assignment for proration purposes in the Stiles Ranch, South (Morrow, Lo) Field of the remaining 181 productive acres of the Davis Lease to Crest's Davis Lease, Well No. 361, after the well is drilled and completed, will enable Crest to produce the well, is reasonable, and will fairly allocate allowable production to the well in the circumstances of this case.
23. Adoption of an allocation formula for the Stiles Ranch, South (Morrow, Lo) Field based on two factors is necessary because the field contains multiple, lenticular accumulations of hydrocarbons, namely the Morrow "E" and Morrow "F" sands. Allocation based on 50% acreage and 50% deliverability will fairly allocate allowable in the field.
24. Protestants did not establish that limiting production from wells in the field is necessary to prevent waste.
  - a. Extrapolation of the well's current production rate to determine ultimate recovery is not reliable because the well is produced with compression.
  - b. The decline for the Petro-Hunt - G. C. Davis No. 1-61 does not change from exponential decline to hyperbolic decline if the well is produced at 1.0-1.1 MMCFD.

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**CONCLUSIONS OF LAW**

1. Proper notice of hearing was timely issued to appropriate persons entitled to notice.
2. All things necessary to the Commission attaining jurisdiction have occurred.
3. Crest Resources, Inc., has a good faith claim to a right to assignment of acreage for allowable purposes in the Stiles Ranch, South (Morrow, Lo) Field for its Davis Lease, Well No. 361 when the well is drilled and completed.
4. The issues of whether Petro-Hunt LLC's G. C. Davis No. 1-61 will drain all of the recoverable reserves in the Stiles Ranch, South (Morrow, Lo) Field under the Davis Lease and whether drilling and completion of Crest Resources, Inc.'s Davis Lease, Well No. 361 is necessary to prevent waste and confiscation were decided by the Commission in Rule 37 Case No. 0249662 (Final Order signed May 29, 2008), and cannot be relitigated in this docket under principles of collateral estoppel.
5. Assignment for proration purposes in the Stiles Ranch, South (Morrow, Lo) Field of 181 productive acres to Crest Resources, Inc., Davis Lease, Well No. 361 is necessary to apportion or allocate allowable production among producers on a reasonable basis and is necessary to prevent waste and adjust and protect the correlative rights and opportunities of each interest owner in the reservoir.
6. Pursuant to Statewide Rule 40(d) [Tex. R.R. Com'n. 16 TEX. ADMIN. CODE §3.40(d)], development or proration units may be reformed so long as no duplicate assignment of acreage occurs and such reformation does not violate other conservation regulations.
7. Reformation for proration purposes in the Stiles Ranch, South (Morrow, Lo) Field of the proration unit for the Petro-Hunt G. C. Davis No. 1-61, once the Crest Resources, Inc., Davis Lease, Well No. 361 has been drilled and completed in the Stiles Ranch, South (Morrow, Lo) Field, to include 335 productive acres is necessary to apportion or allocate allowable production among producers on a reasonable basis and is necessary to prevent waste and adjust and protect the correlative rights and opportunities of each interest owner in the reservoir.
8. Reformation for proration purposes in the Stiles Ranch, South (Morrow, Lo) Field of the proration unit for the Petro-Hunt G. C. Davis No. 1-61, once the Crest Resources, Inc., Davis Lease, Well No. 361 has been drilled and completed in the Stiles Ranch, South (Morrow, Lo) Field, to include 335 productive acres is necessary to prevent a duplicate assignment of acreage prohibited by Statewide Rule 40(d) and will not violate any other conservation regulations.

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9. Adoption of a two-factor allocation formula for the Stiles Ranch, South (Morrow, Lo) Field is necessary and appropriate pursuant to Sections 85.053(b)(ii) and 86.081(b)(ii) of the Texas Natural Resources Code.
10. Adoption of a two-factor allocation formula for the Stiles Ranch, South (Morrow, Lo) Field is necessary and appropriate to prevent waste and adjust and protect the correlative rights and opportunities of each owner of gas in the reservoir.
11. Allocation based on 50% acreage and 50% deliverability will fairly allocate allowable in the Stiles Ranch, South (Morrow, Lo) Field, prevent waste and adjust and protect the correlative rights and opportunities of each owner of gas in the reservoir.

**EXAMINERS' RECOMMENDATION**

Based on the above findings and conclusions, the examiners recommend that the allocation formula in the Stiles Ranch, South (Morrow, Lo) Field be amended to provide for allocation based on 50% acreage and 50% deliverability. The examiners also recommend that Petro-Hunt be required to reduce the acreage assigned to its No. 1-61 well from 640 acres to 335 acres, upon completion of the No. 361 well and that upon such completion, the No. 361 well be assigned 181 acres for allowable purposes.

Respectfully submitted,

Donna K. Chandler  
Technical Examiner

James M. Doherty  
Hearings Examiner