

Respectfully submitted,



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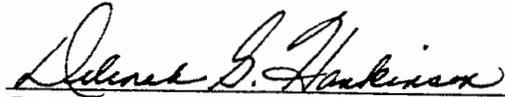
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CERTIFICATE OF SERVICE

The undersigned certifies that a copy of the foregoing was served upon the following attorneys of record for Plaintiffs and Intervenors in the above cause in accordance with Rule 21a of the Texas Rules of Civil Procedure, on this 19th day of February, 2010:

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Deborah G. Hankinson

market value at the well of one-eighth (1/8th) of the gas so sold or used, provided that on gas sold at the wells the royalty shall be one-eighth (1/8th) of the amount realized from such sale.”

(*Id.* ¶ 4(b))

2. On March 30, 1949, D. M. Cogdell and Johnny Cogdell, as lessors, entered into an Oil and Gas Lease with J. A. Chapman, as lessee (the “Cogdell Lease”). (PX 2; DX 2) Pursuant to ¶ 3 of the Cogdell Lease, “[t]he lessee shall pay to the lessor for gasoline or other products manufactured and sold by the lessee from the gas produced from any oil well, as royalty, ¼ of the net proceeds from the sale thereof, after deducting cost of manufacturing the same.” (*Id.* ¶ 3)

3. On July 1, 1954, the working interest owners (including the predecessors of Defendant Occidental Permian Ltd.) and the royalty interest owners (including the predecessors of Plaintiffs and Intervenor) entered into a Unitization Agreement to form the Cogdell Canyon Reef Unit (“CCRU”) to effectuate secondary recovery operations or pressure maintenance for oil and gas from the Canyon Reef underlying the Cogdell Field in Scurry and Ken Counties, Texas. (PX 3; DX 6; *see* 2 RR 207 [Gore]) Pursuant to article IX of the Unitization Agreement, the Unit Operator (initially The Texas Company) was granted “the exclusive right to develop and operate the unit area” and “to conduct secondary recovery and pressure maintenance operations therein.” (DX 6 at ¶ 21)

4. Under article X of the Unitization Agreement, the Unit Operator was granted the authority to “utilize such part, portion or quantity of the unitized substances produced and saved from the unit area, including, but not limited to, secondary recovery and pressure maintenance operations and the maintenance and operations of a camp and such other facilities as the working interest owners may deem necessary or advisable in the conduct of operations in the unit area.”

(*Id.* ¶ 23) In addition, the royalty owners granted “unto the working interest owners, at the working interest owners’ sole discretion, (a) the right to inject gas, extraneous gas, water, air or other substances, or any combination of two or more of them, in whatever amounts the working interest owners may deem expedient into the unit area.” (*Id.*) It was further agreed that “[a]ll unitized substances lost, consumed or used in connection with the operation or development of the unit area, in injection operations in the unit area, in the handling, treating or storing of unitized substances, in the transportation of unitized substances to or from a plant, or in furnishing gas to lessors . . . shall be deducted before the royalties, overriding royalties and other payments out of production payable to royalty owners hereunder are determined, calculated or paid; and no royalty, overriding royalty or other payment out of production shall be due or payable to any royalty owner hereunder on any unitized substances so lost, consumed or used.” (*Id.* ¶ 24)

5. Article XIV of the Unitization Agreement provides that “[t]he working interest owners shall have full discretion in determining if gas, extraneous gas, air, water or other substances, or any combination of two or more of them, should be injected into the unit area in connection with said secondary recovery and pressure maintenance operations.” (*Id.* ¶ 31)

6. Article III of the Unitization Agreement provides that “all leases and contracts, as modified hereby, covering lands within the unit area shall remain in full force and effect.” (*Id.* ¶ 6)

7. Texaco was the operator of the Fuller Lease until the early 1990s, when it sold to Apache. (2 RR 95 [Fort]) Apache operated the CCRU portion of the lease until January 1998 when it was acquired by Altura with a view to instituting a CO₂ project. (*Id.*; 2 RR 149-50)

[Stout]) Occidental Permian Ltd. (formerly called Altura) has served as the operator since 2000.
(2 RR 95 [Fort])

8. Plaintiffs Marcia Fuller French, Gillian Fuller, and French Capital Partners, Ltd. are all successors-in-interest to the interests of P. L. Fuller, W. M. Fuller, and Andrew P. Fuller, under the Fuller Lease. (PX 62 at ¶ 1)

9. Plaintiffs Lesa Oudt and Intervenors Connie Delle Cogdell, individually and as Trustee of the David M. Courtney Trust and as Trustee of the John Cogdell Courtney Trust, John Courtney, as Trustee of the Carol C. Courtney Disclaimer Trust, Penny Cogdell Carpenter, individually and as Co-Independent Executor of the Estate of William Munsey Cogdell and as Co-Trustee of the Cogdell Marital Estate, Billy Rank Cogdell, individually and as Co-Independent Executor the Estate of William Munsey Cogdell and as Co-Trustee of the Cogdell Marital Trust, Dick Munsey Cogdell, individually and as Co-Independent Executor of the Estate of William Munsey Cogdell and as Co-Trustee of the Cogdell Marital Trust, Jim David Cogdell, and Happy State Bank and Trust Company, as Trustee for the Martha Ann Cogdell Hospital Trust, are all successors-in-interest to the Cogdell Lease and the amendments thereto. (PX 59 at ¶ 1; PX 62 at ¶ 2)

10. Plaintiffs and Intervenors (collectively, "Plaintiffs") are all successors-in-interest to the Unitization Agreement for the CCRU and are bound by the terms thereof. (PX 62 at ¶ 4)

11. The respective ownership interests of Plaintiffs in the CCRU and production of oil and gas therefrom are as follows:

- a. Marcia Fuller French, and her successor in interest, French Capital Partners, Ltd.: 3.2013526537%, of which 3.1678626537% is derived from Tract 6 and 0.03349% from Tract 3;
- b. Gillian Fuller: 3.5228265957%, of which 3.4558365957% is derived from Tract 6 and 0.06699% from Tract 3;

- c. Lesa Oudt: pre-June 2008 - 0.5159429475% and June 2008 to present: 0.5567729321%;
- d. the Estate of William Munsey Cogdell: 1.5701028868%;
- e. Penny Cogdell Carpenter: 0.0250548333%;
- f. Billy Rank Cogdell: 0.0250548333%;
- g. Dick Munsey Cogdell: 0.0250548333%;
- h. Jim David Cogdell: 0.0250548333%;
- i. Connie Delle Cogdell: 0.8351611100%;
- j. Carol C. Courtney Disclaimer Trust: 0.5846127770%;
- k. David M. Courtney Trust: 0.1252741665%;
- l. John Cogdell Courtney Trust: 0.1252741665%; and
- m. the Martha Ann Cogdell Hospital Trust: 0.1338178058%.

(PX 59 at ¶ 2; PX 60; 62 at ¶¶ 6-8)

12. Defendant Occidental Permian Ltd. (“OPL”) is the successor-in-interest to the lessees and current lessee under the Fuller Lease and the Cogdell Lease. (PX 62 at ¶ 1)

13. OPL is also a successor-in-interest to, and bound by the terms of, the Unitization Agreement and is the current operator of the CCRU. (PX 62 at ¶ 4) Texaco was the operator of the Fuller Lease until the early 1990s, when it sold to Apache. (2 RR 95 [Fort]) Apache operated the CCRU portion of the lease until January 1998 when it was acquired by Altura with a view to instituting a CO₂ project. (*Id.*; 2 RR 149-50 [Stout]) OPL (formerly called Altura) in has served as the operator since 2000. (2 RR 95 [Fort])

B. The CCRU CO₂ Project

14. The CCRU is located in Kent and Scurry Counties of West Texas on the eastern portion of the Permian Basis. (DX 32) Since its initial production in December 1949, the

Cogdell Field has produced approximately 270 to 275 million barrels of oil. (2 RR 198-99 [Gore]; see PX 36; DX 30, 31) After the initial production, the production levels declined until January 1956 when secondary recovery operations through the use of water flooding were initiated. (2 RR 199-200 [Gore]; see 2 RR 150-51 [Stout]; DX 32)

15. In a water flood operation, extraneous sources of water are injected into the ground to increase pressure, the water is then separated on site and reinjected, and additional volumes of water are added to the flood as necessary to keep the project going. (2 RR 154-55 [Stout]) Through the use of water flooding, oil production levels increased in the Cogdell Field until the mid-1970s, at which time production again steadily declined over the next 20 years. (2 RR 200 [Gore]; PX 36) By the late 1990s, Apache did not see much value left in the field and wanted to get rid of it because it was producing a whole lot of water and very little oil. (3 RR 274 [Stout])

16. A CO₂ tertiary project is another method to enhance oil production from a known reservoir. (2 RR 155 [Stout]) In a CO₂ project, CO₂ is injected into the ground, which has the effect of being miscible with the oil and the water and making the displacement of oil more efficient than with a water flood. (*Id.*) As a result of this process, CO₂ comes to the surface, which then has to be separated out of the produced gas and reinjected into the ground. (*Id.*)

17. In a CO₂ flood, the producer injects the CO₂ to get the oil, not to get the gas. (3 RR 285 [Stout]) The sale of any gas is an added benefit for the producer and the royalty owners, but it is really just a part of the process to get the oil. (*Id.*)

18. By the late 1990s, the CCRU was in the latter stages of depletion, and without instituting a CO₂ project, production of oil at the CCRU would have ceased in the near future. (DX 32; 4 RR 64-65 [Stout])

19. Traditional gas processing plants cannot handle gas that contains high levels of CO₂ from an enhanced oil recovery project. (3 RR 277-78 [Stout]) As a result, when developing such an enhanced oil recovery project, one of the most important parts of the analysis is dealing with the high CO₂ casinghead gas. (3 RR 278)

20. As part of its evaluation of initiating a CO₂ flood in the CCRU, OPL looked at multiple options, including (1) injecting CO₂ and then reinjecting all of the produced gas, including 100% of the hydrocarbons, itself, (2) building its own refrigeration unit that would extract some natural gas liquids from the high CO₂ gas, leaving the remaining hydrocarbon gas and CO₂ for reinjection, and (3) contracting with a third-party to fully process the gas. (2 RR 160, 179-80 [Stout]; 3 RR 278-79 [Stout]) The concentrations of CO₂ reinjected into the ground (and thus, the effectiveness of the oil recovery) increases as a producer goes from reinjection to reinjection with refrigeration to full plant processing. (4 RR 63-64 [Stout])

21. In evaluating its options, OPL's biggest concern was the oil production because the value of the gas is relatively minor compared to oil. (2 RR 182-83 [Stout]) OPL thus had to make sure that it had some place to put the gas if it started a CO₂ flood because it could not produce oil if it was unable to find a home for the gas. (2 RR 182)

22. The first option -- reinjecting all of the gas right back into the ground -- was OPL's base case because it was the easiest and would allow OPL to have full control over the gas and its destiny as an operator. (2 RR 186 [Stout]; 3 RR 295 [Stout]; 4 RR 28 [Stout]) The other options had to be evaluated for their reliability because OPL wanted to make sure that it could produce oil 365 days a year. (2 RR 186-87) Because all of the gas is reinjected into the ground under the first option, no natural gas liquids ("NGLs") or residue gas remains to be sold.

23. Under the second option (using a refrigeration unit), a producer can only expect to receive about a third of the NGLs as it might receive from a major full plant processing. (3 RR 278-80 [Stout]; *see* 3 RR 292-93 [Stout]) No residue gas is produced under this option because all of the gas is reinjected into the ground. (3 RR 280)

24. If OPL had constructed a facility to knock out the CO₂ and clean up the gas before marketing, it could only have sold that gas to the Fuller Plant under the original 1952 casinghead gas contract because the gas would have then met the Fuller Plant specifications and the gas was dedicated for the life of the lease. (4 RR 142 [Terry]; *see* DX 16)

25. Although CO₂ injection is effective in increasing and prolonging oil production (and thus, maximizing the total revenues and royalties for both the working interest owners and the royalty owners), there are negative consequences from its use. In particular, it lowers the value of the casinghead gas produced from oil wells. (3 RR 41 [Kuss])

26. Casinghead gas is typically very rich in natural liquid content. (3 RR 21 [Kuss]) Before CO₂ injection, the casinghead gas at the CCRU was sweet gas, high quality, and very desirable for processing because it contained high liquids, high BTU content, and low MOL percentages. (3 RR 31-32, 50-52 [Kuss]) A gas stream that contains higher volumes of hydrocarbons that can be removed in the liquid form (*e.g.*, ethane, propane, and butane) is typically worth more than the value of the residue gas. (3 RR 36 [Kuss])

27. In contrast, the casinghead gas after CO₂-injection is acid gas and of poor quality because it has very low BTU content, decreased ethane, and increased carbon dioxide. (3 RR 41, 52-53 [Kuss]) In such state, the gas is “[p]retty bad,” will not burn, and is “tough to market”; the CO₂ must therefore be removed to restore value to the stream. (3 RR 41-42, 52-53) Further

complicating the matter, most transmission lines have a limit on the amount of CO₂ and nonhydrocarbons that they will accept for delivery into their pipeline. (3 RR 37-38 [Kuss])

28. Before the CO₂ flood operations, the carbon dioxide level of the gas at the CCRU was very low and typically ranged from 1-2%. (See PX 29; 2 RR 156-57 [Stout]; 4 RR 31 [Stout]) After OPL began CO₂ flood operations, the carbon dioxide level of the casinghead gas increased to over 85%. (See PX 30; 2 RR 157 [Stout])

29. As a result of the CO₂ flooding by OPL, there has been an incremental cumulative addition of over \$862 million in revenues from oil production alone, and Plaintiffs have received over \$100 million in additional oil royalties by virtue of the CO₂ flood. (4 RR 208 [George]; DX 31 at 11; DX 91A, 91B)

C. Gas Processing Contract

30. Beginning in the late 1990s, Altura (and later OPL) began discussions with a number of third parties with regard to processing the gas from the CCRU. (2 RR 159 [Stout]; 3 RR 284, 293-94 [Stout])

31. In 1999, Altura contacted PennzEnergy Exploration and Production Company about making a proposal to process the gas. (3 RR 296-97 [Stout]) In July 1999, PennzEnergy proposed processing the produced gas stream at its SACROC unit to recover the natural gas liquids, a residue gas stream, and a CO₂ permeate stream. (DX 33 at 3) As compensation for these services, PennzEnergy proposed retaining 58% of the natural gas liquids and 58% of the residue gas available for sale after shrinkage. (*Id.* at 4; 3 RR 297-99 [Stout])

32. Shortly thereafter, Devon Energy Corporation acquired PennzEnergy and made another proposal in September 1999 for processing the gas under which it would retain 42% of the natural gas liquids and 0% of the residue gas sales. (3 RR 300-02 [Stout]; DX 34) Devon

made yet another proposal in March 2000 under which it would retain 50% of the natural gas liquids and 50% of the residue gas. (3 RR 304; DX 38)

33. During this same period, Altura also had discussions with Mobil about using its Salt Creek facility for processing. (3 RR 302-03 [Stout]; *see* DX 35, 36)

34. After Oxy acquired Altura (and changed its name to OPL) and Kinder Morgan acquired Devon, discussions began between them in 2000 (*see, e.g.*, DX 40, 41, 52, 53, 54, 56-64), and OPL evaluated the competing options of reinjection with refrigeration versus the full plant processing (3 RR 308 [Stout]; DX 41, 43)

35. OPL also tried to do a deal directly with Torch. (3 RR 315 [Stout]; 4 RR 85-86 [Hines]) Torch, however, refused to make a proposal and instead informed OPL to talk with Kinder Morgan. (3 RR 315 [Stout]; 4 RR 56-58 [Stout]; *see* DX 48)

36. OPL could not have negotiated its own deal with Cynara for its facility because all of the capacity at that plant had already been dedicated to SACROC in a 1997 Service Agreement and its successor agreements and addendums. (4 RR 119-20 [Terry]; DX 11, 12, 13, 14, 15)

37. Reliability was a key to OPL's evaluation because it wanted to ensure that the oil would actually be available to produce every day. (4 RR 16-17 [Stout]) As a result, OPL was interested in getting a 20-year contract where the plant would never go uneconomic because the extra revenue made by processing through a plant was relatively minor compared to all the oil OPL was trying to make sure stayed on line. (4 RR 17)

38. As part of its analysis, OPL internally determined what the fixed cost for Kinder Morgan would be to return the CO₂ from the Cynara Plant back to the CCRU. (4 RR 16 [Stout]) The monetary fees that OPL agreed to pay Kinder Morgan were intended to cover these costs.

(*Id.*) After establishing Kinder Morgan's internal costs, OPL negotiated to get as much of the NGLs as possible. (4 RR 17) OPL was not as concerned about retaining an interest in the residue gas because it was of poor quality. (3 RR 127-28 [Kuss])

39. After evaluating and rejecting multiple offers, OPL ultimately agreed to do a 70/0 split with Kinder Morgan because, at that point, it was more favorable to do the full plant processing than something on the lease itself. (4 RR 17 [Stout]) Because the NGLs are more valuable than the residue gas and because OPL was not sure that there would be much residue gas left after fuel, OPL wanted to give incentive to the Snyder Gas Plant to get the NGLs in a liquid state because that would ultimately impact the tailgate sales of NGLs. (4 RR 22-23 [Stout])

40. On March 6, 2001, OPL, as operator of the CCRU, entered into a Gas Processing Agreement with Kinder Morgan CO₂ Company, L.P. ("Kinder Morgan"), as operator of the Sacroc Unit, to remove carbon dioxide from the Produced Gas Stream (*i.e.*, any and all of the gas produced from the Cogdell Unit that has been contaminated with CO₂), to process that gas, and to return the permeate gas stream consisting primarily of CO₂ that has been removed from the Produced Gas Stream back to the CCRU for reinjection. (PX 11; DX 8; *see* 2 RR 178-79 [Stout])

41. The Gas Processing Agreement contained a 20-year term and covered 100% of the Produced Gas Stream, which OPL agreed to deliver to Kinder Morgan at a defined delivery point located within the Cogdell Unit. (DX 8 at ¶¶ 2.2, 3.1, 4.4.1)

42. The Agreement further required Kinder Morgan to enter into a contract with Cynara for sufficient capacity expansion at the Cynara Facility to allow for the bulk removal of CO₂ from the Produced Gas Stream. (*Id.* ¶ 6.1) That processing at the Cynara Facility was

expected to remove approximately 90% of the CO₂ contained in the Produced Gas Stream. (*Id.* ¶ 6.2) The Agreement also contemplated that Kinder Morgan would enter into a separate processing agreement with the Snyder Gas Plant to remove additional CO₂ volumes at the SGP Amine Unit that were not removed by the Cynara Facility and to process the resulting stream within the Snyder Gas Plant into Plant Products, Fractionated Propane, and Residue Gas. (*Id.* ¶¶ 6.2, 6.3)

43. Under article 7 of the Agreement, Kinder Morgan agreed to cause 100% of the CO₂ volume that is removed from the Produced Gas Stream to be returned to the Cogdell Unit in the Permeate Stream. (*Id.* ¶ 7.1)

44. To compensate Kinder Morgan for its capital investment, operating expenses, and third party costs, OPL agreed to pay Kinder Morgan (1) in-kind compensation and (2) a processing fee as applied to each Mcf of Permeate Stream (*id.* ¶¶ 8.1, 8.2; *see* 2 RR 239-40 [Gore]) -- a term specifically defined as “the gas stream consisting primarily of CO₂ that has been removed from the Produced Gas Stream at the [Cynara Facility and SGP Anime Unit]” (DX 8 at art. 1). Initially, the processing fee was approximately 33 cents per Mcf of returned CO₂, but it decreases over time as Kinder Morgan recovers its capital investment. (*Id.* ¶¶ 8.2.1-8.2.5; 4 RR 87 [Hines]) The in-kind compensation retained by Kinder Morgan is 30% of the natural gas liquids and 100% of the residue gas. (PX 11 at ¶ 8.2.6)

45. The monetary fees were intended to compensate Kinder Morgan for the costs of stripping the CO₂ from the produced stream and returning it back to the lease (4 RR 46 [Stout]; 4 RR 87 [Hines]) and are based on the volume of permeate gas that is processed and returned to the CCRU (4 RR 134-35, 159 [Terry]; PX 11 at ¶¶ 8.2-8.2.5, Ex. C, Ex. E).

46. OPL has paid about \$85 million to Kinder Morgan in CO₂ return fees under the agreement, or approximately \$750,000 to \$1,000,000 per month. (3 RR 212 [Gore]; 4 RR 232-33 [George]) OPL does not charge the royalty owners for any of the monetary processing fees that it pays to Kinder Morgan, nor does OPL otherwise deduct those fees from Plaintiffs' royalties. (2 RR 133-34 [Fort]; 2 RR 251 [Gore]; 3 RR 212-13 [Gore]; 4 RR 135 [Terry])

47. The in-kind fees compensate Kinder Morgan for processing the hydrocarbon stream for the recovery of liquids. (4 RR 160 [Terry]) OPL retains 70% of the natural gas liquids extracted and delivered at the tailgate of the Snyder Gas Plant. (2 RR 163 [Stout])

48. OPL also pays for all of the CO₂ that is injected into the CCRU, and none of that cost is charged to the royalty owners. (2 RR 190 [Stout]) OPL retains ownership of the CO₂ throughout the process. (2 RR 191)

49. OPL currently reinjects the casinghead gas that Kinder Morgan is unable to accept due to capacity limitations. (3 RR 227 [Williams])

50. In accordance with ¶ 6.3 of its March 6, 2001 Gas Purchasing Agreement with OPL, Kinder Morgan entered into a Gas Processing Agreement with Torch Energy Marketing Inc. ("Torch"), as operator of the Snyder Gasoline Plant, on April 10, 2001 for further treatment, processing, and final removal of CO₂ of the Produced Gas after the bulk removal of CO₂. (PX 12) At the time of the agreement, Kinder Morgan had an ownership interest in the Snyder Gasoline Plant, and it is now the operator of the plant. (3 RR 124 [Kuss])

51. Under the Kinder Morgan-Torch Agreement, Kinder Morgan agreed to deliver 100% of the Produced Gas to Torch (with a CO₂ content of less than 10%), and Torch agreed to process and redeliver for final sale or disposition all Residue Gas and Plant Products attributable to the Produced Gas delivered by Kinder Morgan. (PX 12 at ¶¶ 2.1, 4.1, 4.2) Like the Gas

Purchasing Agreement between OPL and Kinder Morgan, this Agreement also had a 20-year term. (*Id.* ¶ 13.1)

52. As compensation for Torch's services, Kinder Morgan agreed to pay a unit processing fee of \$0.25 (that escalated over time) for each MCF of Hydrocarbon Gas delivered. (*Id.* ¶ 6.1)

53. At the end of the process, Torch agreed to deliver 70% of the saved Plant Products and Fractionated Plant Products attributable to the Produced Gas to OPL. (*Id.* ¶ 7.1)

54. The CCRU Phase I CO₂ Flood started on October 25, 2001. (PX 13; DX 82; 2 RR 95-96 [Fort]; 2 RR 201 [Gore]) Almost immediately, the oil production in the field increased dramatically. (2 RR 201-02; *see* PX 36)

55. OPL currently produces approximately 5,800 barrels of oil, 140,000 barrels of water, and 110 million cubic feet of CO₂ hydrocarbon gas per day from its operations at the CCRU. (3 RR 220 [Williams]) Without the CO₂ flooding project, oil production would have declined to approximately 200 barrels per day as of October 2009 and would not be economically viable. (5 RR 40-41 [George])

D. How the CCRU Casinghead Gas Is Transported and Processed

56. As the gas leaves the wellhead at the CCRU, there is a meter that measures the produced gas stream and a sample point to test the quality of the gas. (DX 8 at Ex. C; 4 RR 129-30 [Terry]) The gas, which is high in CO₂ content, then travels 15 miles to the Snyder Gasoline Plant inlet compression and next goes to the Cynara Membrane facility and a pretreat separation facility. (DX 8 at Ex. C; 4 RR 130-31) At Cynara, a significant portion of the NGLs are recovered. (4 RR 131 [Terry]; 4 RR 225-228 [George]) From there, the recovered natural gas liquids go straight to a stabilizer facility at the Snyder Gasoline Plant; the permeate gas stream

(i.e., the recovered CO₂ gas) is sent for CO₂ recompression; and gas that has less than 10% of CO₂ remaining flows to the Snyder Gas Plant for processing, where the CO₂ is returned to the permeate gas stream. (DX 8 at Ex. C; 4 RR 131-33) After the permeate gas stream goes through recompression, it goes through another meter and is returned to the CCRU for reinjection. (DX 8 at Ex. C; 4 RR 133-34)

57. The primary purpose of sending the gas south to Cynara and to Snyder was not for the purpose of extracting and returning the CO₂ because OPL could have easily reinjected the CO₂ on the lease itself. (4 RR 28 [Stout]; see 4 RR 74 [Stout]) Rather, the primary purpose of the Gas Processing Agreement with Kinder Morgan was to add value to the royalty owners and OPL by recovering the NGLs out of the process over and above the base case of OPL reinjecting the gas itself. (4 RR 28, 81 [Stout]; 4 RR 88 [Hines]) As a result of this decision, OPL and, in turn, the royalty owners, gained 70% of the NGL stream out of the Snyder Gas Plant. (4 RR 28) If OPL had chosen either of the other two options, all or most of the NGLs would have been reinjected on the lease, and neither OPL nor the royalty owners would have benefited from the additional revenues generated by the sales of NGLs after full plant processing. (4 RR 33 [Stout])

58. As a result of choosing the option full gas plant processing by Kinder Morgan, over \$100 million in liquids have been returned to the CCRU. (2 RR 252 [Gore])

59. Neither natural gas liquids nor gas residue may be sold without removing the CO₂ that comes from the CCRU. (2 RR 233-34 [Gore])

60. Plaintiffs acknowledge that post-production expenses are those expenses required to make the gas marketable (2 RR 249 [Gore]; 3 RR 196 [Gore]) and that post-production expenses are properly chargeable to them as the royalty owners. Plaintiffs likewise acknowledge that, in order to have marketable hydrocarbons in this case, the gas had to go through the bulk

removal system at Cynara and through the Snyder Gas Plant. (2 RR 249 [Gore]; 3 RR 120 [Kuss])

61. The residue gas at the tailgate of the Snyder Gas Plant contains high levels of nitrogen and is of poor quality. (3 RR 127-28 [Kuss]) Kinder Morgan has not sold any of the residue gas from the stream since July 2005. (4 RR 113 [Terry]) Instead, the residue gas at the tailgate of the Snyder Gasoline Plant is returned to Kinder Morgan to generate electricity for its facilities. (*Id.*; 3 RR 128 [Kuss])

E. The Marketing and Processing of Casinghead Gas

62. Casinghead gas in West Texas is typically marketed in West Texas under a Percentage of Proceeds or POP contract, under which the gas is sold to a plant based on the plant retaining a percentage of the value of the liquids and of the residue. (3 RR 42-43 [Kuss])

63. POP contracts are gas purchase contracts under which the plant owner usually takes title to the gas at the well, and thus gets to decide how much of the gas to turn to liquids, how much to turn to residue. (4 RR 125 [Terry]) Under this type of contract, the plant owner's only obligation at the end is to return a price that is typically based on a net amount of product sold at the prices it actually receives. (*Id.*)

64. Focusing only on the percentages in a POP contract does not tell anything about the price per MBTU of the hydrocarbon. (4 RR 126 [Terry]) There are a number of factors that influence the price, including the quality of the gas and the ability of a plant to actually recover the liquids and the residue. (4 RR 126-27)

65. In lieu of a POP contract, a producer may enter into a gas processing agreement to market casinghead gas under which the producer pays a fee to process the gas. (3 RR 43-45 [Kuss]) The fee may be monetary and/or in kind (*i.e.*, expressed in a percentage of the liquids and residue gas). (*Id.*)

F. How Royalties Paid

66. Plaintiffs agree that they have correctly been paid royalties on oil. (2 RR 138 [Fort])

67. Plaintiffs do not contest the price that OPL has received for the NGLs, and they agree that the values actually received by OPL at the tailgate is the market value of the NGLs. (See 6 RR 25, 30 [Grable])

68. Plaintiffs do not complain about the percentages paid under the Fuller Gas Plant Contract. (2 RR 129 [Fort])

69. Plaintiffs have been paid royalties on the gas produced from the CCRU based upon 70% of the plant products allocated to OPL under its Gas Purchasing Agreement with Kinder Morgan. (2 RR 177 [Stout]) Plaintiffs are not paid royalties on the 30% of the plant products and 100% of the residue gas retained by Kinder Morgan under that agreement. (2 RR 177-78)

70. Through the arrangement with Kinder Morgan, OPL has paid Plaintiffs gas royalties of \$23,781,700. (3 RR 190 [Gore])

71. Under the Cogdell Lease, Plaintiffs have properly been paid their respective gas royalty interests from the proceeds. (4 RR 275 [George]) OPL does not receive any proceeds from the residue gas or the 30% of NGLs retained by Kinder Morgan.

72. Plaintiffs do not complain about not being paid royalties on gas that is reinjected in the CCRU. (3 RR 188)

G. Market Value of the Casinghead Gas

73. In offering opinions of the "market value" of the casinghead gas at issue, Plaintiffs' expert did not value the gas that has actually been produced from the CCRU over the last several years. (3 RR 54, 120 [Kuss]) Instead, Plaintiffs' expert ignored the actual gas

quality of the gas produced at the wellhead in the CCRU after CO₂ injection began, assumed all of the gas produced was of the same quality and volume as the gas before CO₂ injection, and offered opinions regarding the market value of the casinghead gas with the injected CO₂ stripped out and treated for removal. (3 RR 51-54, 68, 108-09 [Kuss])

74. Before this case, Plaintiff's valuation expert, Charles Kuss, has never given an opinion of market value that ignored the actual gas quality. (3 RR 101-02 [Kuss]) Nor has he ever marketed or sold high-CO₂-content natural gas from a property that is a carbon dioxide flood. (3 RR 102-03)

75. In rendering his market value opinions, Plaintiffs' valuation expert, Charles Kuss, did not use any specific contracts as comparable sales. (3 RR 131-32 [Kuss]) There are sales of comparable gas (such as SACROC and Sharon Ridge raw gas that is commingled with the CCRU gas before treating and processing) that Plaintiffs could have analyzed. (3 RR 103, 107 [Kuss]; 4 RR 128, 149 [Terry]; 4 RR 276 [George]) Without any such contracts, there is no price to make a comparison to. (4 RR 127-28 [Terry])

76. Effective as of March 1, 2000, OPL entered into a Casinghead Gas Purchase Contract with WTG Gas Processing, L.P., as operator of the Fuller Gas Plant. (DX 17) That contract was for the purchase of gas on the Fuller Ranch on the Cogdell Unit that was not contaminated or enriched with CO₂ (4 RR 115 [Terry]), and the contract expressly excluded gas with a carbon dioxide content "found to be greater than naturally occurring levels contained in the Gas prior to the [March 1, 2000] Effective Date of this Contract" before CO₂ flooding began (DX 17 at art. VII) For that low-content CO₂ gas, WTG retained 50% of the NGLs and 10% of the residue gas. (*Id.* at art. VIII; *see* 4 RR 116-17 [Terry])

77. The gas covered by the Snyder Gas Plant contract covers the same gas as that from the CCRU only after removal of 90% of the CO₂. (3 RR 142 [Kuss])

78. Plaintiff's expert, Charles Kuss, conceded that an 85% CO₂ content gas stream is not comparable to a 10% CO₂ gas stream. (3 RR 142 [Kuss])

79. Plaintiff's expert did not perform a net back cost analysis. (3 RR 121 [Kuss])

80. Despite the fact that Plaintiffs' royalties are paid under different leases with different lease provisions, Plaintiffs' expert, Waymon Gore, used the same methodology to calculate their alleged damages. (3 RR 191 [Gore])

81. Plaintiffs' expert, Charles Kuss, did not do an appropriate market value study for the gas at issue in this case. (4 RR 117-18 [Terry])

82. Plaintiffs' expert, Charles Kuss, did not perform either a comparability study or a net-back study to determine the market value of the gas at issue under the Fuller Lease. (4 RR 185-87 [George])

83. Plaintiffs did not perform a market value study of the gas as produced from the CCRU with the high CO₂ content. (4 RR 277-78 [George])

84. In calculating Plaintiffs' alleged damages based on 100% of the value of residue gas and liquids at the tailgate of the Snyder Gas Plant, Plaintiffs' experts subtracted 25 cents per MCF for the cost paid at the Snyder Gas Plant by Kinder Morgan to Torch. (4 RR 188 [George]) Plaintiffs did not account for any cost attributed to the Cynara Membrane Facility or to take the gas back to the inlet compression at Sacroc or the wellhead. (4 RR 189, 256)

CONCLUSIONS OF LAW

85. OPL did not breach the express obligations of the Fuller Lease to pay royalties on the market value at the well of the casinghead gas.

86. There is no evidence that OPL breached the express obligations of the Fuller Lease to pay royalties on the market value at the well of the casinghead gas.

87. Plaintiffs were not damaged by the alleged breach of the Fuller Lease. There is no evidence of damages from the alleged breach of the Fuller Lease.

88. OPL did not owe Plaintiffs any implied duty to market gas under the Fuller Lease.

89. OPL did not breach the express obligations of the Cogdell Lease to pay royalties based on the proceeds that OPL received. Plaintiffs were properly paid all royalties under the Cogdell Lease based on the proceeds OPL received from the sale of gas products manufactured from the casinghead gas without deducting any monetary fees that OPL paid to Kinder Morgan.

90. There is no evidence that OPL breached the express obligations of the Cogdell Lease to pay royalties based on the proceeds OPL received from the sale of gas products manufactured from the casinghead gas.

91. Plaintiffs were not damaged by the alleged breach of the Cogdell Lease. There is no evidence of damages from the alleged breach of the Cogdell Lease.

92. OPL did not engage in any fraudulent or sham conduct in marketing the gas from the CCRU.

93. OPL did not breach any implied duty to market gas under the Cogdell Lease.

94. There is no evidence that OPL breached any implied duty to market gas under the Cogdell Lease.

95. Plaintiffs were not damaged by the alleged breach of any implied duty to market gas under the Cogdell Lease. There is no evidence of damages from the alleged breach of any implied duty to market gas under the Cogdell Lease.

96. To the extent necessary, each of the findings of fact shall be treated as a conclusion of law, and each conclusion of law shall be treated as a finding of fact.

SIGNED this ____ day of _____, 2010.

Ernie B. Armstrong, District Judge
132nd Judicial District Court