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PRODUCTION IN PAYING QUANTITIES IN OKLAHOMA IN THE TWENTY-FIRST CENTURY

RAYMOND B. (“RAY”) ROUSH*

Syllabus

This paper will attempt to refine what cost items may be considered in a production-in-paying-quantities (“PPQ”) analysis under a set of facts that deals specifically with a tract of leasehold ostensibly held by production from one or more wells on the leasehold or lands pooled therewith. Whether the subject well or wells is or are shut in is not material to the discussion at hand and will not be discussed. This paper will not consider the “equitable circumstances” that may preserve an oil and gas lease notwithstanding a preliminary finding of failure to PPQ over a reasonable period, nor will it attempt to define a reasonable period. Also, this paper will not discuss revenues, the presumption being that prices applied to, and

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* I graduated from Louisiana Tech University with a petroleum engineering degree, and after three years toiling as an engineer, entered, and graduated from, the OCU School of Law. My fifty-two-year career has been spent entirely in the oil and gas business, much of it as a lawyer involved in litigation involving the issue of lease termination for failure to produce in paying quantities during the secondary term, and just as much in oil and gas operations, both as an engineer and as a lawyer. I am licensed in the state courts of Oklahoma, Louisiana (recently having taken Inactive status), and Texas (also recently having taken Inactive status), and in several federal district courts in these states, and previously in the Fifth Circuit Court of Appeals. I have been a Registered Professional Engineer in Oklahoma since 1984. While I have delivered three CLE presentations at the Mineral Law Institute in Baton Rouge, this is my first attempt at writing anything of this paper’s scope or magnitude..

amounts paid for production do not rise to the level of argument or controversy in a PPQ analysis. The author draws on Oklahoma jurisprudence when Oklahoma jurisprudence provides meaningful authority on the subject; he also draws on experience gained as a degreed petroleum engineer with considerable field experience in drilling, completion, and producing operations. It is hoped that several identified cost items—both specific and general—not currently designated in Oklahoma jurisprudence as inclusive (or exclusive) in determining PPQ will provide direction and clarity where desired.

Some Basic Science

Oil and gas deposits are contained in pore spaces and other such openings in rock matrices. These spaces are generally referred to as porosity. The accumulated oil and gas deposits are under pressure that varies in relation to variables such as depth and formation characteristics. Once a well is completed and perforations enter the rock, formation pressure carries the oil and gas into the tubulars (i.e., the wellbore) and eventually to the surface. The ability of the source rock to transmit the oil and gas interstitially is known as permeability. Production is thus primarily a function of porosity, permeability, and pressure, with other factors (such as oil, gas, and water saturation) also playing a part in a well's productivity. Importantly, porosity and permeability do not change during the life of a well, while reservoir pressure does. While wellhead pressure can be regulated by chokes and other wellhead devices, reservoir pressure declines from the first production. For example, think of a balloon filled with air. Once the air is released, however sparingly, the air pressure in the balloon only decreases. It never increases. With the notable exceptions of water drive reservoirs and waterflooding operations, the reservoir pressure is constantly declining with production. Once the hydrostatic pressure of the fluid column in the tubulars exceeds the reservoir pressure (after allowing for the friction pressure in the tubulars), artificial means of capturing oil and even gas must be employed to recover the maximum amount of oil and gas obtainable. Thus, the usage of artificial lift systems, such as pumping units, compression, gas lift (and intermittent gas lift), plunger lift, submersible pumps, and a few others is warranted.

As a general rule, the costs of operating a well in its early life are much lower than in the later life of a well, when the well becomes a low volume producer or stripper well. This latter-life scenario carries with it the reality of aging/aged equipment, which warrants increased repair or replacement.

This scenario does not mean that a well cannot be stimulated later in life (such as through an acid, frac, or chemical treatment) to improve production by reopening old perforations or cleaning out mineral deposits in the wellbore. However, such treatments, as well as adding artificial lift systems, do not increase pressure or the volume of hydrocarbons in the reservoir: they merely prolong the inevitable. Eventually, the well will become uneconomical, or as this paper suggests, fail to PPQ, generally because of pressure or hydrocarbon depletion, water influx, and the like, coupled with operating costs that exceed sales revenues.

Thus, it is usually the well that has depleted its pressure, and majority of hydrocarbon saturation, that is the subject of a PPQ analysis. With this admittedly oversimplified view of the pressure, porosity, and permeability regimes of a well considered, the next step is to consider the factors of a paying quantities analysis.

Historical

The earliest-reported decision in Oklahoma on the subject of PPQ is found in *Pelham Petroleum Co. v. North*, where the following ubiquitous phrase appears:

It has been held, and we think correctly, that the term ‘paying quantities,’ as employed in an oil lease granting the premises for a given term and as much longer thereafter as oil is produced in paying quantities, means in paying quantities to the lessee, and in such cases it is said that oil is found in paying quantities if the well pays the lessee a profit, however small, over operating expenses, although it may never repay the cost of drilling and the operation as a whole may result in a loss¹

The *Pelham* court did not expound on the analytics of a PPQ evaluation, saving that for the next major Oklahoma case on the subject: *Gypsy Oil Co. v. Marsh*.²

1. 1920 OK 105, 188 P.1069 (Citing cases from West Virginia, Pennsylvania, and Texas); It should be noted that the principal holding in *Pelham* is distinguishable from the PPQ case that typically deals with the “for (some period of time) and as long thereafter as . . .” habendum clause. Rather, *Pelham* dealt with an implied covenants subject matter (as was reduced to writing in the oil and gas lease) that required the drilling of wells offsetting wells that allegedly had discovered oil in paying quantities. The *Pelham* court rejected the notion that the operation as a whole need not be able to produce at a profit in such an instance, referring to such a notion as preposterous. *Id.* ¶ 15.

2. 1926 OK 246, 248 P. 329, 48 A.L.R. 876.

In *Gypsy Oil*, the court contrasted only three items of expense against revenues from the sale of production: royalties, pumper wage, and fuel, noting in the process that well cleaning expenses the court spoke of as “necessary” could have been considered but were not required for a finding that the subject well failed to yield an operating profit over the 175 days prior to trial.³ Oklahoma courts have since dealt with the issue of PPQ in various factual scenarios, ranging from wells that have not ceased production but are alleged to have ceased to PPQ, to wells shut in for various reasons and alleged to have become incapable of PPQ—where the PPQ analysis is obscured in favor of a “capability” analysis.

From *Pelham*, *Gypsy Oil*, and the numerous Oklahoma cases that have followed, the PPQ analysis involves the application of those costs and expenses that may rightly be included in the analysis as against the revenue stream. A positive number will indicate the well is PPQ and will preserve the lease, while a negative number will not only indicate the well is not PPQ but will also serve as support that the underlying leases are not being maintained by PPQ in their secondary terms and are thus terminated.

It is unnecessary to cite every PPQ case that quotes the same or similar “yields a profit, however small” language. The paper will, however, reference those cases that identify noteworthy expenses that may be applied against production revenues and will also propose other costs and expenses items and categories of same that the author suggests are applicable as well as inapplicable in a PPQ analysis.

What Exactly Are We Dealing with Here? What Is a PPQ Analysis?

To understand what a PPQ analysis is, one must first know *when* a PPQ analysis comes into play, and how it should be applied. This requires a basic understanding of the life of a well. While others may have differing thoughts or opinions, the author believes there are three major and distinct phases in the life of the well: (1) planning and development; (2) drilling and completion; and (3) producing (or, if you prefer, production). For purposes of this work, the planning and development phase does not require further discussion. Nor does the drilling and completion phase, except to make it clear that drilling precedes completion, and completion ends when production commences. In Oklahoma, this latter transition is marked by the well’s OCC Form 1002A. Among many other things, the 1002A identifies

3. The net revenue (at 0.875 NRI) over the period was calculated at \$4.60 per day; 8/8 expenses were calculated at \$5.00 per day. Thus, over the evaluation period the well was determined to operate at an average loss of \$.40 per day. *Gypsy Oil*, 1926 OK 246, ¶ 23.

when completion ends, and production commences. Also, for purposes of this work, the PPQ analysis will be presumed to take place after the expiration of the primary term of the oil and gas lease, even if production might (as is often the case) initiate during the primary term.

The importance of knowing when a well commences production is critical and cannot be overstated. In *Stewart v. Amerada Hess Corp.*, the court held that “[t]he cost of drilling a producing well, i.e., the expense incurred before oil is actually lifted from the ground, is not an item to be considered in computing production in paying quantities”⁴ Adding to its rationale by stating further, “[O]nly those expenses which are directly related to lifting operations can be included in determining if *Amerada’s* lease remained in force beyond its primary term”⁵ The court identified certain costs items^{6,7}, but it is important to note that this list is not all-inclusive.⁸ It is also important to note that, while *Stewart* spoke only of oil being produced, the same rationale must apply to gas production (whether as casinghead gas from an oil well or from a predominantly gas well). There is no basis for a distinction between the two in a PPQ analysis.

At the point our hypothetical well crosses the imaginary line from “Completed Well” to “Producing Well” we know which costs are not to be included in a PPQ analysis—obviously those costs expended in the drilling and completion of the well, and of course even the planning and development of the well. These costs are conveniently presented to us in the Authorization for Expenditure (“AFE”)⁹ that is generated by the operator and presented to partners for ratification before the well is spud. The AFE is also a key exhibit in any forced pooling proceeding before the Oklahoma Corporation Commission (“OCC”). In the context of this work, the author submits that the AFE ought to serve as the basis for exclusion of any costs that might otherwise be argued as producing (or production) costs: if an

4. 1979 OK 145, 604 P.2d 854 (citing *Gypsy Oil*, among others).

5. *Id.*

6. *Id.* FN 11. (“We have held that lifting expenses may include: costs of operating the pumps, pumpers’ salaries, costs of supervision, gross production taxes, royalties payable to the lessor, electricity, telephone, repairs and other incidental lifting expenses.”).

7. See *Mason v. Ladd Petroleum Corp.*, 1981 OK 73, 630 P.2d 1283, 1286; also ref. to FN2.

8. *Stewart*, 1979 OK 145, FN 11 (as stated in opinion: “and other incidental lifting expenses”).

9. As used in this paper, the term “AFE” is meant to apply to the original drill and complete AFE, and any supplemental AFE to cover a cost overrun.

item or service is included in the drill-and-complete AFE, there is a strong presumption that it may not be used as an item of cost in a PPQ analysis.

Getting back to the highlighted rhetorical questions above, we can see that a PPQ analysis involves the application of post-completion costs and expenses to the revenue stream of a well to determine, over the appropriate period, if the well is PPQ. The next question is, how have Oklahoma courts enumerated and dealt with some of these costs?

Costs and Expenses from Reported Cases

As an initial thought, there are far fewer enumerated cost and expense items in the reported cases than there are cost and expense items acknowledged by the practicing bar to be includable in a PPQ analysis. The author suggests that common sense and a thorough working knowledge of the oil and gas business accounts for an understanding reached by opposing counsel on previously unreported expense items. Also, it follows that there has not seemed a desire on the part of the courts to deal with any item of cost or expense not presented by the parties before the courts. This is understandable, as courts do not like to render advisory opinions. Also missing in the opinions, however, is a methodology, or perhaps structure is a better word, of analyzing the applicability *vel non* of certain expenses and costs to a PPQ case. To kill as many birds with one stone as he can, the author will propose a costs classification methodology that he hopes will assist plaintiffs, defendants, and the courts in arriving at a satisfactory result in a PPQ analysis context. One thing the author hopes a reader will keep in mind, is the basic concept of what should constitute a cost item as being worthy of inclusion in—or exclusion from—a PPQ analysis. The author submits that a simple rule ought to govern whether a cost or expense is includable, or excludable: if the cost or expense is required by law or agreement, or related to well operations, directly or indirectly, or incurred as a matter of general prudence in the attempt to maintain the lease in question in a profitable state (e.g., producing in paying quantities), then the cost or expense should be deemed includable, and be treated as such unless and until a contra argument prevails. As will be discussed *infra*, not all such costs and expenses are easily or readily discernable as such. Often a deeper investigation will be required to make the ultimate determination of includable or excludable.

But first, here are well production costs that heretofore have been dealt with expressly by Oklahoma courts:

Includable as items for revenue offset:

- Gross Production Taxes¹⁰
- Pumpers Salary¹¹
- Lessor Royalties¹²
- Pump Operating Costs¹³
- Supervision Costs¹⁴
- Electricity¹⁵
- Telephone¹⁶
- Repairs and Other Incidental Lifting Expenses¹⁷
- Depreciation¹⁸
- Salt Water Disposal¹⁹
- Compression²⁰
- Amortization²¹

10. *Stewart*, 1979 OK 145, FN 11; *Mason*, 1981 OK 73, ¶ 5; *Smith v. Marshall Oil Corp.*, 2004 OK 10, 85 P.3d 830, FN 5.

11. *Stewart*, 1979 OK 145, FN 11.

12. *Stewart*, 1979 OK at 145; *Mason*, 1981 OK 73, ¶ 5; *Smith*, 2004 OK 10, FN 5.

13. *Stewart*, 1979 OK at 145; *Mason*, 1981 OK 73, ¶ 5.

14. *Stewart*, 1979 OK at 145; *Mason*, 1981 OK 73, ¶ 5; *Smith*, 2004 OK 10, FN 5.

15. *Stewart*, 1979 OK at 145; *Mason*, 1981 OK 73, ¶ 5; *Smith*, 2004 OK 10, FN 5; but better enumerated as “fuel,” to also include produced gas (where applicable as an enumerated cost item) and propane.

16. *Stewart*, 1979 OK at 145; *Mason*, 1981 OK 73, ¶ 5; *Smith*, 2004 OK 10, FN 5. (As applicable to telephone repairs) (*see*, however, *Mason*, 1981 OK 73, ¶ 9 (where telephone expense is classed as an item of Administrative Overhead and thus excludable (*see* below))).

17. *Stewart*, 1979 OK 145, FN 11; *Mason*, 1981 OK 73, ¶ 5.

18. *Mason*, 1981 OK 73, ¶ 11; *Duerson v. Mills*, 1982 OK CIV APP 14, ¶¶ 21-23, 648 P.2d 1276 (but *see* further discussion, *infra*); *Smith*, 2004 OK 10, FN 5, ¶ 14.

19. *Smith*, 2004 OK 10, ¶ 14.

20. *Concorde Res. Corp. v. Williams Prodn. Mid-Cont. Co.*, 2016 OK CIV AP 37, 379 P.3d 1157 (*see* also *infra*)

21. *Duerson*, 1982 OK CIV APP 14, ¶¶ 14-20 (also discussed *infra*).

Excludable as items for revenue offset:

- Overriding Royalty Interests²²
- Administrative Overhead²³
- District Expense²⁴
- Depreciation²⁵
- Amortization²⁶

Review of “Includable” Versus “Excludable” from Prior Cases

A thorough reading and consideration of the PPQ cases that have dealt with a fraction of items and categories loosely defined as “lifting costs” or “operating costs” (or operating expenses) does not provide the guidance today’s courts need for a PPQ determination. The above items mostly predate today’s technological advances and the sophistication level necessary for a well to maintain its oil and gas lease(s) in the secondary term. Said differently, the above list is lacking a comprehensive treatment of what ought and ought not be considered in a modern PPQ analysis. The following discussion might serve as a useful tool for the courts to properly, or at least comprehensively, delineate a PPQ resolution. The first order of business is giving the baby a name.

22. *Hininger v. Kaiser*, 1987 OK 26, ¶¶ 7-8, 738 P.2d 137, 141 (“Overriding royalties are not charged with the cost of development or production. Overriding royalties are not royalties payable to the lessor under [*Mason*], therefore they cannot be charged as lifting costs against the working interest owners” *Id.* ¶¶ 5-8, the Court relying in part on 2 E. Kuntz, *Law of Oil & Gas*, p. 273, §26.7(1) (1964)).

23. *Hininger*, 1987 OK 26, ¶¶ 9-11; *Mason*, 1981 OK 73, ¶¶ 9-10 (As noted above in the “includable” section, telephone expense is regarded in *Mason* as a specific item of administrative overhead and is thus excludable. The author suggests the treatment of telephone expense in *Mason* is the better classification of telephone expense.); *Duerson*, 1982 OK CIV APP 14, ¶ 6 (see discussion *infra*).

24. *Mason*, 1981 OK 73, ¶¶ 7-8; *Duerson*, 1982 OK CIV APP 14, ¶ 6 (The Court in *Duerson* treated District Expense as included within the framework of Administrative Overhead).

25. *Stewart*, 1979 OK 145, ¶¶ 7-9; *Mason*, 1981 OK 73, ¶ 11; *Duerson*, 1982 OK CIV APP 14, ¶¶ 14-22.

26. *Duerson*, 1982 OK CIV APP 14, ¶¶ 14-22 (The *Duerson* court further included amortization as a part of its discussion of depreciation).

Nomenclature

As previously stated, the first item of business would be settling on the best name to give the costs under consideration. The PPQ cases refer to the costs as “lifting costs” and “operating costs” (or “operating expenses”). The term “lifting costs” is antiquated, and usually not applicable where a gas well is concerned, since the term “lifting costs” is associated with pumps “lifting” oil to the surface. The term offers a very narrow application, as seen in the cases covering only pump repairs, pumpers’ salaries, lease fuel, and other incidental lifting expenses.²⁷ The term excludes by its definition such recognizable items as royalties, supervision costs, depreciation, salt water disposal, and a few others, which by their very names are not included in any operation designed to transport oil to the surface. The word “lifting” further excludes expenses predominantly associated with gas wells, which flow and do not require lifting equipment (except for the occasional need to pump off salt water to decrease the hydrostatic head that restricts the flow of gas) and may need compression to produce or meet purchaser line pressure. The Court likewise seems troubled with the term: “The term defies a more precise definition.”²⁸ Thus, “lifting costs” is simply not broad enough for either oil or gas well application.

“Operating costs” (or expenses) gets us close. However, there are costs that are applicable as deductions against the revenues that are not true *operating* costs or expenses²⁹. While the argument can be made, “What difference does it make if we all know what we’re talking about?”, the author suggests that organization solves more problems than it creates, and there is a need to organize a PPQ presentation that is standardized for everyone’s benefit.

With this idea in mind, the author respectfully suggests that the industry (“industry” to include not only operators and non-operators, but lawyers and the judiciary as well) adopt the term “lease and well expense” (or, simply, “LWE”) in place of the current nomenclature. The “lease and well” component brings into play the full, global spectrum of costs and expenses to be considered, including anything relevant to both the well and the lease. “Expense” speaks to operating costs and all other such expenses tied to the lease and well under evaluation, many of which have nothing to do with actual operations but bear heavily on the bottom line of a PPQ analysis,

27. *Stewart*, 1979 OK 145, FN 11.

28. *Hininger*, 1987 OK 26, ¶ 12.

29. The common acronym “LOE,” meaning lease operating expense fits this shortcoming.

because the expense is incurred in the attempt to maintain the lease in a positive PPQ status.

Importantly, these costs will typically appear on the operator's monthly joint interest billing ("JIB") or lease operating statement ("LOS"), which usefully serve as a starting point in any PPQ analysis

Subdivisions

In a PPQ analysis, there are several sources of overhead, including: (1) costs required under the oil and gas lease, the surface damages agreement, or some other relevant private agreement³⁰; (2) costs required by regulatory agencies; (3) "pure" operating costs required by day-to-day operations, including peripheral costs; and (4) remedial, sporadic costs required to maintain profitability. Each source is treated separately. Administrative Overhead is also identified in reported cases as District Expense. The "Combined Fixed Rate" charge (identified with the JOA) is used in industry parlance and is the equivalent of Administrative Overhead.

Administrative Overhead

Administrative overhead is not includable as an expense in a lease termination action employing a PPQ analysis.³¹ In *Mason*, the Oklahoma Supreme Court held that "indirect expense attributable to the cost of accounting, interest, postage, office supplies, telephone, depreciation of office equipment, and all the other direct expense of the company regarding production . . . leads us to the conclusion that . . . such administrative overhead expenses should be excluded."³² However, the *Hininger* court held that "administrative expenses are not beyond judicial scrutiny because they may be designated as lifting expenses" and "the heading 'administrative expense' should not be used as a tool used by producers to avoid lifting expenses rightly attributable to determining production in paying quantities by merely dumping such expenses in the accounting

30. PPQ analysis does not include reference to the Joint Operating Agreement ("JOA"). See *Hininger*, 1987 OK at 41 (citing *Mason*, 1981 OK 73, ¶ 12) "It is, therefore, unnecessary to examine the terms of the [JOA] because that agreement will have no effect on what expenses are, or are not to be, deducted as lifting costs." See *infra*, "Remedial Costs," p. 12.); *Hininger*, 1987 OK 26, ¶ 12.

31. See *Mason*, 1981 OK 73, ¶ 7; *Hininger*, 1987 OK 26, ¶ 11.

32. *Mason*, 1981 OK 73, ¶ 7.

column.”³³ Such dumping requires a diligent and focused discovery effort to expose it.

Costs Required by Agreement

In an oil and gas lease, the royalty payment to the lessor is by far the most critical element of this cost category. Oil and gas lease purchasers typically deduct royalty after deducting the severance tax or gross production tax, and before the payment of a net proceeds check to the operator, or to the individual working interest owners if the operator does not distribute proceeds pursuant to a 100% division order. As *Stewart* and others tell us, the royalty is includable as a cost item in a PPQ analysis.³⁴

There are basic cost items in an oil and gas lease that are implied, such as equipment necessary to produce oil and gas from the well.³⁵ However, agreement-prescribed costs may also arise during the producing life of the well. Similarly, the surface damages agreement (“SDA”) can prescribe certain obligations. For instance, where the Agreement—whether an addendum to the oil and gas lease or the SDA—provides that the lessee build and maintain a lease road or cattle guard, fence a portion of the surface, or clean and fill the reserve pit under a time constraint that preempts the OCC-required six-month period, the costs associated with such contractual obligations—so long as the costs are incurred during the producing life of the lease and well in question—are includable in offsetting sales revenues. As described, agreement costs are those that routinely appear on the monthly JIB or LOS but are not included in the drill and complete AFE. Such agreement-related expenses are includable in the PPQ analysis.

The lease and well-overhead costs that are required by agreement are primarily intangible maintenance costs. However, these costs may include tangible costs such as fencing or cattle guards.

Agreement-related costs may overlap with regulatory-related costs. For example, where the OCC requires that location roads be maintained in a certain way, an agreement might impose a stricter requirement. Regardless of which source these costs are billed, the obligation to maintain the road is a cost item that is includable in a PPQ analysis. These agreement costs

33. *Hininger*, 1987 OK 26, ¶ 11.

34. *Stewart*, 1979 OK 145, FN 11.

35. These are almost exclusively AFE-denominated costs spent on equipment during the completion phase which are necessary for a well to recover, measure, contain, and transport production to a point of sale. These costs are excludable in a PPQ analysis.

should not be included in or a part of the administrative overhead costs in a JIB or LOS; as described, nothing about these costs is of an administrative category as they bear directly on the production regime of a well. A typical line entry on an LOS or JIB might come under the “location” heading, followed by further explanation.

Regulatory-Related Costs

By far the most recognizable and applicable regulatory-related cost is the gross production tax (“GPT”) paid to the State of Oklahoma. As noted, this cost item was includable in a PPQ analysis from the earliest reported cases. Nothing in the author’s research or mindset suggests that a change is due for the GPT.

OCC rules and regulations impose certain requirements on location integrity and cleanup.³⁶ The drill and complete AFE should provide an allowance for such costs at the end of both the drilling and the completion phases; however, where the JIB or LOS bill such costs post-completion, the costs must be presumed to be a part of the lease and well overhead, and thus includable in a PPQ analysis. Expenses such as trash cleanup, signage changes (following a transfer of operator), firewall maintenance, and minor spill cleanup, among others, are includable.

The same can be said for additions to lease and well equipment that account for other OCC-related requirements, such as H₂S detection and/or monitoring, where the expenditure is not in the drill and complete AFE. The critical element to consider where such equipment additions are concerned is whether the item is included in the drill and complete AFE. If the item is included in the AFE, it is excludable; if the item is not in the AFE, and the item is designed to maintain profitability, it is includable.

The OCC imposes upon Oklahoma operators a requirement termed generally as a plugging bond, also known as a surety bond or similar device to cover the plugging of wells. While this one-time cost is related to well operations, and is functionally appropriate to be applied against revenues, the practicality of apportioning the cost as a part of the total number of wells operated by the operator is beyond the scope of this work. Suffice to say that the OCC surety requirement is an allowable overhead item to be applied against well revenues, however that might be accomplished. The author suggests that, in this day of sophisticated computers and equally

36. See OAC 165:10-3-17.

sophisticated programming, a way is available to allocate this charge over an operator's entire number of operated wells.³⁷

The OCC is not the only regulatory agency with requirements that bear on includable costs. If the well(s) in question can conceivably discharge effluent wastewater into the navigable waters of the United States, the EPA requires a Spill Prevention Control and Countermeasure (SPCC) plan for each applicable well. The SPCC plan must be certified by a registered engineer. While larger operators might have qualified staff personnel who can prepare an SPCC plan and thus absorb (and frankly, hide) the cost into the administrative overhead of the company, many smaller operators rely instead on outside consulting firms for the preparation and certification of such plans. While not directly related to day-to-day operations, this item is a required and essentially includable cost in a PPQ analysis. All such agency-required, well-specific requirements are properly deductible against revenues in a PPQ analysis.

Most municipalities impose annual fees for well operations within their corporate limits. While these costs are not true regulatory agency-imposed costs, these fees nevertheless are includable in a PPQ analysis. In the author's opinion, such costs more directly relate to lease and well overhead and are not proper cost items to be included as administrative overhead. These annual assessments may or may not be made on a per well basis but should easily be able to be apportioned on a per well basis for a PPQ analysis.

The author's suggested rule of thumb for this type of expense is: if a regulating authority requires it, and it applies or can be applied, uniquely to a particular well, it is includable in a PPQ analysis.

Pure Operating Costs

The costs designated by the author as "Pure Operating Costs" include those recurring costs and expenses unique to most daily operations, not all of which necessarily show up each month on a JIB or LOS, but which are likely to occur one or more times per year. These costs are associated with prudent operation and are necessary for generating or maintaining production. These costs are primarily associated with the actual producing

37. The well surety requirement can hardly be thought of as worthy of concern at the outset of production, when producing rates are generally higher and expenses are generally lower. However, in the later life of a well, a well transfer (via OCC Form 1073) may occur when production is nominal, and costs are at their highest. The author suggests that the surety may become a more important cost item to consider in this late-life scenario.

mechanics of a well; but can also include related costs: such as insurance. Insurance is another item that is, like the OCC well surety requirement, spread over all the operator's wells, but insurance costs too can be apportioned on a per well basis.

Other such pure operating costs include, but are not limited to pumper's charges; fuel; SWD expense; supervision; chemical additives; hot oiling flowlines and tubing; minor oil or saltwater spill cleanup; minor equipment repair and replacement; cleaning and painting; gas meter testing and calibration; gas (or predominantly gas) well "post-production charges" (as they are commonly referred to), such as treating, compression, dehydration, transportation, and marketing, but only when incurred in connection with a lease facility (whether the lease facility serves only a single well or more than one well); low volume fees imposed by the gas purchaser; well testing, such as bottom-hole pressure buildup testing and other diagnostic wireline operations; and routine equipment maintenance, such as, for instance, new belts for a pumping unit, engine motor oil, miscellaneous gauges, valves and fittings, and the like. Some additional commentary is necessary for a few of the above-listed expense items:

Pumpers Charges

Pumpers charges are includable as an expense by extant caselaw.³⁸ Typically, pumpers charges amount to a relatively simple number to identify if the pumper is a contract pumper. The typical contract pumper charges a flat monthly rate per well, which includes his truck maintenance, truck repair, fuel, liability, collision, workers comp insurance, and other work-related necessities. The contract pumper is a true independent contractor. However, what if the pumper is a salaried company employee? This can present a problem correctly identifying the pumper's wage on a per-well basis. The company pumper is not paid a salary on a per-well basis, nor is he assigned a set number of wells to look after. The company pumper typically receives a pickup truck (which can also be available for personal use) with fuel, tires, batteries and other accessories, insurance, repairs, and maintenance included. And what about the "hidden paycheck"? How does the PPQ analysis treat such things as vacation time, medical and health coverage, incentive bonuses, retirement, and other benefits the salaried pumper receives? The author suggests the salaried company pumper's wage must consider these additional components to remain on a

38. *Stewart*, 1979 OK 145, FN11 (citing *Gypsy Oil*, 1926 OK 246. ¶ 23, where the monthly salary of the pumper was added to other monthly operating expenses).

comparable level with the contract pumper. The PPQ analyst must be prepared to compute what amounts to a hybrid charge, perhaps a daunting task.

Fuel

This component covers the type of fuel required to power the pumping unit and any lease compression, and is typically restricted to electricity, propane, or produced (lease) gas. Electricity is usually purchased directly from a rural co-op or a municipality, and propane is usually purchased straight from a dealer. These charges are billed by use and are usually passed directly to well owners through the JIB or LOS. Lease gas is another matter. The author suggests that a fuel charge for lease gas used for any operation in connection with the well(s) is subject to an imputed cost component. This is true even if the oil and gas lease authorizes the free use of lease gas. The oil and gas lease may permit the free use of gas, but it does not speak of such free gas use in any context relative to the capability of a well to produce in paying quantities and almost always speaks to such free use by the lessor, not the lessee. The two subjects are separate and distinct and should be treated differently in the context of a PPQ analysis. Note that lease gas may also be used in connection with such other sundry operations as gas lift and compressor fuel and the like. As a heads up, the author—to be as comprehensive as he can—recalls reading in an industry publication several years ago that efforts are underway to utilize windmill and solar energy to manufacture electricity at the lease level. The technology is currently available; it's only a matter of economics. Such non-standard (by today's measure) fuel costs may one day replace the conventional fuel costs in place in today's world.

Supervision

Caselaw dictates that first-level supervision is treatable either as a district expense or as an item of administrative overhead charge, and thus it is an excludable cost.³⁹ However, where a well requires direct supervision (at the physical wellsite, usually by a consulting professional), the additional supervision charge is an includable item in a PPQ analysis. Moreover, as it happens in numerous instances, where a contract pumper does double duty and supervises well operations of any significance in addition to his routine tank gauging and pressure readings, the pumper's supervision charges are likewise includable as part of a PPQ analysis. If a company pumper does

39. *Mason*, 1981 OK 73, ¶ 5.

double duty as a wellsite operations supervisor and receives no additional compensation, the author suggests that a fair wellsite consultant fee may be imputed to the overall costs of the non-routine operation. Additionally, in the exceedingly rare instance where a well is owned and operated on a 100% working interest basis, there is no justification for the operator—who does not bill out costs and expenses to other owners—to receive a “credit” for first-level supervision on the applicable well. In such an instance, all costs attributable to the subject well are producing-related and includable in a PPQ analysis.

Post-Production Charges

As an initial observation, the PPQ analysis must first get past the dichotomy where these costs are not chargeable against the royalty but are chargeable against the working interest owners’ revenues (and thus includable in the PPQ analysis).⁴⁰ If equipment associated with these charges was included as a part of the drill and complete AFE, only monthly operating and maintenance fees associated with the equipment will need to be applied. These operating charges do not typically appear on the JIB or LOS but may appear on the gas purchaser’s statement or are otherwise determinable from the operator’s or purchaser’s records. The charges may be in the form of the netback price paid to the producer-operator, such as with a percentage-of-proceeds (or, POP) contract with the first purchaser, in which case the charges may be deemed to already have been applied. Such operating charges relate directly to not only the day-to-day operation of the well, but also to the ability of the well to generate revenues. Otherwise, it stands to reason that a prudent operator would not be utilizing the charges-generating equipment. Where the necessary equipment is purchased during the producing life of the well, the acquisition costs potentially become includable in the PPQ analysis. The PPQ analysis becomes slightly more complicated where the equipment is charged once, as a direct expense, as opposed to being leased or rented equipment or amortized as a capital

40. See *Middlestaedt v. Santa Fe Minerals*, 1998 OK 7, 954 P.2d 1203; also, in a historical progression, *Johnson v. Jernigan*, 1970 OK 180, 475 P.2d 396, *Wood v. TXO Prodn. Corp.*, 1992 OK 100, 854 P.2d 880, and *TXO v. CLO*, 1994 OK 31, 903 P.2d 259. (This collection of cases stands generally for the proposition that post-production costs are not chargeable as against the royalty; the opinions do not state or suggest that the post-production charges are not allocable to the working interest. Where the post-production charges are spoken of in the cited case opinions as relative to marketing (as required under the oil and gas lease), in the PPQ analysis these charges are necessary to derive revenue—and maintain the leases—and are thus necessary components in a PPQ analysis.)

expense item. Said differently, owned equipment may be subject to amortization, while lease or rental charges will usually be the subjects of a monthly billing statement from the vendor, whose charges should be a JIB or LOS direct pass-through to the working interests. Regardless of how the charges are treated by the operator in its accounting practices, it is a certainty that such post-production costs are properly includable in a PPQ analysis, whether treated as a direct expense or amortized.

The author at this point would like to clarify one perceived gray area where post-production charges are concerned, to-wit: compression. In *Concorde Res. Corp. v. Williams Prodn. Mid-Cont. Co.*, the court contemplated a PPQ analysis where the well had been shut in over a long period of time but had secured a market and employed compression where delivery of the gas was concerned.⁴¹ Plaintiff argued that compression was required for the transportation of gas to market, rather than to produce the gas, while Defendant maintained the compressor was necessary for production.⁴² Without agreeing or disagreeing with either contention, the trial court found that it would have been foolish to purchase the compressor without a market in place; the Oklahoma Court of Civil Appeals agreed.⁴³ The author submits that whether compression was necessary to assist in the production of the gas or to transport the gas, is immaterial. Under the facts in *Concorde*, without compression, the gas would not have been sold. The test should be that if compression at the lease is necessary to get the gas off the lease (for example, to the plant or a pipeline connection), then compression is necessary to maintain the lease and is includable as against the revenues to determine PPQ status. Likewise, if wellhead compression is required to lift the gas from the producing zone and up the tubing to the surface, the compression expense is also includable. Under the latter application, the compression is comparable to the lifting aspect of the pumping unit, where getting oil to the surface is concerned. There is no distinction in the two means of recovering otherwise unrecoverable oil or gas, other than the nature of the produced hydrocarbon. It is not clear from the *Concorde* opinion that either the trial or appellate court reached this conclusion; the author submits that neither court found it necessary, given that other arguments in the case were more persuasive of the PPQ issue. Suffice to say, compression at any point upstream of the tailgate of the plant when necessary to produce oil or gas, and thus revenues needed to maintain

41. 2016 OK CIV APP 37, 379 P.3d 1157.

42. *Id.* ¶ 12.

43. *Id.* ¶¶ 51-53.

the oil and gas lease is a necessary and includable component in a PPQ analysis.

SWD Charges

The mechanics of salt water disposal are quite simple: produced salt water is stored onsite until the tank(s) set aside for storage is/are ready for unloading, at which time a transport hooks up to the tank(s) and takes on a load (typically 110 to 120 barrels) from the tanks into the transport, which then delivers the load to a licensed disposal site. Thus, a typical SWD vendor ticket will illustrate transport charges (an hourly rate regulated by the OCC) and a disposal fee at a free-market rate. It is somewhat a minor point, but some operators maintain one or more transports capable of hauling salt water to the various disposal sites. If these transport-owning operators do not bill the working interest owners directly for the transport charges and only bill for the disposal fee, the PPQ analysis must impute a transport charge for the operation, utilizing the operator's internal records and applying the OCC hourly rate for the hauling.

In sum, these recurring charges are typically found in the JIB or LOS, but some may also be hiding in the operator's accounting records. Regardless, they relate to the ability of the well to produce oil and gas and are incurred to maintain the lease and generate hopefully positive revenues and are thus includable in the PPQ analysis.

Remedial Costs

The author classifies remedial costs as non-recurring yet essential costs that either maintain or improve production or decrease operating overhead, or both. Remedial costs can apply to both tangible and intangible subject matter. It bears emphasizing that remedial costs will always present themselves during the producing life of the well. Such costs lend themselves to being further subdivided, as follows: non-minor surface equipment repairs; non-minor surface equipment enhancement or replacement; downhole equipment repair or replacement; workovers; and recompletions. Each is separately discussed below.

Non-Minor Surface Equipment Repairs

This cost is rather obvious. Smaller surface equipment repairs are covered above, under "Pure Operating Costs", and might include a replacement belt for the pumping unit, or a new bridle for the horse's head. A non-minor equipment repair might include a new engine for the pumping unit, or a new sheave for the same pumping unit. Such an expense might

include a cleanout operation or internal repair on an oil-gas separator or heater treater. This category subdivision would also include repairs to oil or salt water storage tanks, or to flowlines, or to the wellhead. Important to note here is, these are examples of non-minor surface equipment repair costs, which by the classification will involve a significantly greater cost than for the pure operating costs discussed above.

Non-Minor Surface Equipment Enhancement or Replacement

Non-minor surface equipment enhancement or replacement costs will be those substantial costs such as, for example, a new pumping unit to replace a worn or incorrectly sized unit, or a new oil-gas separator or heater treater, rather than a simple cleanout operation on either. Consider as well, a new stock tank to replace an old (irreparable) or badly damaged one, or perhaps a downsized compressor where line pressure is not the issue it once was. This type of expenditure may be a Capital Expenditure (CapEx), and the operator may be entitled under either the JOA or certain accounting procedures to amortize the equipment enhancement or replacement insofar as billing to partners is concerned; however, to qualify as an amortized expense⁴⁴ under a PPQ analysis, the equipment enhancement or replacement must pass the Court's test established in *Duerson*.⁴⁵

Under the *Duerson* test for amortization in a PPQ analysis, "We [the Court] would apply the 'prudent operator rule' and leave the determination whether the expense of replacing lifting equipment should be spread over the life of the well or taken all at one time to the trial court's judgment In all cases, the court must first be satisfied that the expense in question is not a maintenance item but clearly a replacement of original lifting equipment occasioned by catastrophic failure or justified by improved production technology. Moreover, it must be factually justified by the technological and economic proof, having due regard for the remaining recoverable reserves and reasonable market expectations."⁴⁶

44. As presented in this work, there is not a distinction between enhancement and replacement, either of which relates to damaged or otherwise worn-out equipment. *Duerson* involved replacement of a worn-out tool with a newer, more efficient tool, hence an upgrade, or enhancement. The newer tool thus is applicable under either a replacement or enhancement situation.

45. For a comprehensive treatment about the *Duerson* test and accounting principles generally, see, Richard D. Koljack Jr., *Determination of Paying Quantities: An Accounting Perspective*, 18 Tulsa L. J. 475 (2013).

46. *Duerson*, 1982 OK CIV APP 14, ¶ 18.

Special Case: The Gathering System

In the case of a gathering system to which a well is connected, the PPQ analyst will need to allocate costs to the well in question as a part of the whole that is being charged by the operator to the various owners of and in the system. The system itself will be presumed to be in place at the time of the PPQ analysis. Likewise, such costs are not to be confused with post-production costs discussed above. Such costs will typically be passed through on the JIB or LOS. Suffice to say, where a gathering system is in place, and needs servicing, repairs, equipment enhancement, reduction in scope, or other such operation that generates costs, the costs are includable in the PPQ analysis for the reasons that the expenses occur during the producing life of the well, and the expenses are necessary to either reduce overhead or generate more income (by way of an increase in production) in the secondary term of the applicable oil and gas lease.

Not all such non-minor equipment enhancements or replacements may appear on the JIB or LOS. The operation may be proposed under the JOA, and the operator (or other proposing party) may elect to proceed under the JOA with a written proposal and AFE to the partners.⁴⁷ It is suggested that the equipment item(s) might be paid for outside the JIB or LOS. Therefore, these includable costs may not be obvious to the PPQ analyst, who will need to probe deeper into the operator records to identify the costs. The drilling (or operations) reports and pumper gauge sheets are potential sources of this information, as are the engineering or operations well files.

Downhole Equipment Repair or Replacement

As suggested by its “downhole” characterization, this item of expenditure will require a well servicing unit, commonly referred to as a rig, to facilitate the operation. The use of a rig will significantly affect costs, perhaps again triggering partner approval and an AFE, as discussed in the prior category. While not usually classified as a CapEx item, this type of

47. The A.A.P.L. Form 610 Model Form Operating Agreement (1982) provides, under Art. VII.D.3, that projects estimated in good faith to cost a certain amount (or less) not otherwise authorized under the JOA shall not be undertaken by the Operator without the consent (in advance) of all parties to the JOA. The term “operation” is not defined in the Model Form JOA, and the author submits that any effort that is estimated to exceed the threshold amount in Art. VII.D.3 is subject to a written proposal by the Operator and an AFE requiring partner approval. As is universally applied, the actual and reasonable costs of the proposed operation will control over the AFE-estimated costs.

operation can involve equipment depreciation.⁴⁸ The PPQ analysis for this downhole category is subject to similar commentary as the preceding category. Examples of downhole operations covered by this topic include but are not limited to repairs and/or replacement of worn, damaged, or parted rods or tubing; squeeze cementing operations to patch casing; and repairs and/or replacement of packers, tubing anchors, and/or other downhole tools.

A typical invoice for rig usage will appear likely as an a la carte presentation as opposed to a single-cost presentation. Typical charges would include the rig's hourly rate, supervision by a rig superintendent, hourly charges for rig personnel, fuel, miscellaneous rig supplies, insurance, and other such charges. Note that some charges on the rig invoice may be applicable to the rig and not to the operation. It is fair and reasonable to deduct such inapplicable charges from the rig bill in a PPQ analysis. Examples of such charges include permits and licenses for oversized loads, or road use charges imposed by municipalities. The PPQ analysis should also include a review of the rig invoice to determine which enumerated costs are or are not deductible.

In addition to the cost of the equipment, equipment charges applicable to downhole operations will likely include a delivery charge, an hourly rate for the delivery person, sales tax, and other such items. These items can be included in the PPQ analysis, and the invoice will typically be a straight pass-through to the JIB or LOS.

On a final note, for reviewing invoices for the rig and equipment charges: in certain cases, the date or dates of the operation might be critical. Accordingly, care will need to be exercised by the PPQ analyst to note the date(s) of such operations.

Workovers

A workover is an operation on a producing zone (active or inactive) to restore or enhance production. The same definition applies to a dual or multi-zone commingled completion. The scope of a workover may be stated as remedial stimulation (both acidizing and fracturing), re-perforating, a plugback operation (where one or more open zones will remain), or any operation on a producing zone in a well to restore or enhance production—or, said differently, to maintain the applicable oil and gas lease(s) in the secondary term.

48. *Duerson*, 1982 OK CIV APP 14, ¶¶ 14-20 (where a newer, more advanced downhole tool replaced a previous model).

Workovers generally require a written proposal, an AFE, and partner approval. These requirements are certainly needed where the well is subject to a JOA, and even if not. Again, if the expenditure exceeds the Art. VII.D.3 JOA limitation, the operation might not appear as a JIB or LOS item. If so, the expenditure proposal should be in the records of the operator or proposing partner. The workover, as set out in this work, will not be subject to amortization or depreciation.

One form of workover atypical of this category is the remedial acid or frac treatment of the applicable open zone. The proposal and AFE will typically include estimated costs allocated for the road and location, a rig, possible perforating/reperforating, acid and frac operations, requisite rental equipment, chemicals, labor and supervision, and other miscellaneous costs. The components will be billed separately by the individual vendors. As previously noted, actual costs rather than AFE-estimated costs should be applied in the PPQ analysis.

At least one person, who has seen a forerunner to this paper, has suggested that the author is confused by the term “workover” and that the more precise, correct term should be “rework.” The author suggests that any such contention is simply semantics. Yes, the author concedes that the term rework appears in most oil and gas leases in either the continuous operations clause or cease to produce clause, and even in most of the model form operating agreements. However, in his fifty-plus years as a petroleum engineer, having worked for a significant number of both oil and gas operators and non-operators, the author has no recollection of having encountered the term rework in connection with a well operation. The author has, rather, dealt with virtually innumerable AFEs dealing exclusively with the “Recompletion/Workover” headings. Not to belabor the issue, but if the nomenclature bothers you, look at Caleb Fielder’s excellent article, “Marginal Wells and the Doctrine of Production in Paying Quantities,” where Fielder discusses not only the nomenclature disparity but whether the workover is an includable or excludable expense.⁴⁹ The

49. Caleb A. Fielder, “Marginal Wells and The Doctrine of Production in Paying Quantities,” 57 *Landman Magazine* 2, March/April 2011, where at page 7 the discussion on “Reworks” (versus “Workovers”) commences. Interestingly, at page 9, Fielder says: In contrast and by way of illustrating the myriad of operations which are potentially encompassed by the term, the Oklahoma Tax Commission Rules include a detailed (and as such quite rare) definition which states in part:

“Workover” . . . includes, but is not limited to, acidizing, reperforating, fracture treating, sand/paraffin removal, casing repair, squeeze cementing, installation of compression on a well or group of wells or artificial lifts on oil, gas, or oil

author submits that the rework vs. workover nomenclature disparity is a non-starter.

In conclusion, the workover category is applicable—includable—in the PPQ analysis for the same reason as the other categories: the workover is necessary to produce revenues sufficient to maintain the oil and gas lease(s) in their secondary term(s). It is invalid to argue against inclusion just because a workover is unsuccessful; the mere attempt at the workover is all that is necessary.

Recompletions

The distinguishing feature of a recompletion from a workover is that the workover is conducted on an open zone in the well, while a recompletion is attempted in a zone not theretofore open, an operation in which a rig is almost always required. In this work, the term recompletion also includes deepening, an operation always requiring a rig. Deepening involves drilling out the cemented base of the casing in the existing wellbore and bottoming out in a lower zone. Both operations are conducted in efforts to create or improve production from the well and they almost always involve abandoning the theretofore producing zone or zones in the well. As with the workover category, the recompletion or deepening effort does not need to be successful to be includable in the PPQ analysis.

The recompletion or deepening operation will almost always require a proposal to partners under the JOA, and an AFE, and not unlike prior discussed operations, may not appear on a JIB or LOS and will thus require additional scrutiny of the operator's records.

In addition to a rig, the recompletion or deepening operation will require other equipment and services, such as a power swivel and bits for any drillout operation, perforating, stimulation (either or both acidizing or fracturing), packers and retrievable bridge plugs, cast iron (or permanent) bridge plugs, cementing services, water and chemicals, supervision, and the like. All these services are billed separately by the applicable vendor, and should appear on the JIB or LOS, unless treated as an internal cost by the operator.

and gas, wells, including plunger lifts, rod pumps, submersible pumps and coiled tubing velocity strings; downsizing existing tubing to reduce well loading; downhole commingling; bacteria treatments; upgrading the size of pumping unit equipment; setting bridge plugs to isolate water producing zones from oil or gas productive zones, or any combination thereof.
Okla. Admin. Code §710:45-9-41 (2010).

The author concedes an argument can be made that either (or both) of the recompletion or deepening operation does not constitute a producing overhead operation. There are similarities to a drilling and completion phase in the life of the well, such as, for example, drilling, cementing, perforating, and stimulation. However, in defense of the proposition that the recompletion and deepening operations are a part of the producing overhead, the author suggests: (1) they occur in the producing life of the well (i. e., post-OCC 1002A); (2) they are not on the drill and complete AFE; and (3) they represent efforts to restore, enhance, or otherwise create production—and thus sales and revenues—needed to maintain the lease in the secondary term. Additionally, in the instance a cease to produce clause is present in the oil and gas lease, a recompletion or deepening operation would likely be undertaken to reestablish PPQ and thus maintain the lease.

The Misfits

Some classes of expense/cost don't seem to fit a general or even a specific category. These charges are what the author loosely refers to as “paper charges,” that is, they do not originate mechanically (think: related to tangible equipment), nor do they relate directly to production operations. Four such expense items come quickly to mind: depreciation (and/or amortization, discussed supra); plant-charged low volume fees; legal costs; and insurance. These, and perhaps others that a reader might think of, relate peripherally to operations—but importantly, they nevertheless are relative to producing operations and thus are valid deductions against revenues in a PPQ analysis. Each of these is discussed below.

Depreciation Versus Amortization

As shown above, depreciation as an item of expense may be includable or excludable. Whether to include or exclude depreciation as a mandatory cost item was an issue of first impression in *Stewart*. The *Stewart* court said: “Depreciation of [lifting equipment] is regarded as production expense in some states. The rationale for this rule is that . . . production-related equipment does have value that is being reduced through its continued operation. We adopt this reasoning as sound and hold that depreciation should be mandatorily included as an item of lifting expense in determining whether there is [PPQ].”⁵⁰ In *Mason*, the Court was faced with deciding the depreciation issue as to two groups of equipment: casing, tubing, and Christmas tree; and a line heater and low-pressure separator. As to the

50. *Stewart*, 1979 OK 145, ¶ 9.

former, the Court declined to find the tubular and wellhead depreciable, stating that they were items closely related to completion operations and not directly related to lifting costs.⁵¹ As to the latter, the Court found that the line heater and separator had been placed on the well but found no evidence they had ever been intended for use in lifting operations and declined to find these two items of equipment susceptible to depreciation.⁵² With all respect to the Court, tubulars and the wellhead are instrumental in the production of oil and gas; without them, production will not occur. The same can be said for the line heater and separator, if the well in question utilizes the equipment. Interestingly, both classes of equipment most certainly were included in the tangibles section of the drill and complete AFE under Completion Expense. Under the evidence in *Mason*, in the author's opinion the Court reached the correct result as to the line heater and separator—because they were not utilized in producing operations—and reached an incorrect result as to the tubulars and wellhead—because they were utilized in producing operations.⁵³

The *Duerson* court held that, under *Stewart*, a proper determination of PPQ could not be made without considering depreciation.⁵⁴ The author suggests that depreciation is unquestionably includable in a PPQ analysis; the cases are uniform in this regard. However, in computing the depreciation of applicable equipment, the calculation should consider the equipment that is used in producing operations. This suggested rule or standard should apply to owned rather than rented or leased equipment and should apply to all in-service equipment at the time of the PPQ analysis. Thus, under the author's idea of depreciable equipment, it will not matter if the equipment was or was not included on the drill and complete AFE, nor will it matter if the equipment has moving parts or not. A pumping unit should be just as depreciable as an oil stock (storage) tank, so long as both are utilized in production operations. This is a simple, two-pronged test: Is the equipment currently utilized in producing operations?

51. *Mason*, 1981 OK 73, ¶ 10.

52. *Id.* ¶ 11.

53. *Id.* (see footnote 59 for guidance).

54. *Duerson*, 1982 OK CIV APP 14, ¶ 22.

- Is the equipment in service during the PPQ period under evaluation?
- Both prongs must be answered in the affirmative for the equipment to be susceptible to depreciation, and thus includable in the PPQ analysis.

Plant-Charged Low Volume Fees

While not always present in a PPQ analysis, nevertheless this fee item does appear as, and is likely to continue as, a charge to be reckoned with in a PPQ analysis. One or more gas processing plants are known to charge a low volume fee when gas deliveries do not meet the plant's minimum volume level. While the author prefers to treat this type of charge as a lease operating expense (as with other plant charges such as dehydration and compression to name but two), it has been suggested that the charge may be better treated as a revenue deduction, which the author believes also has merit. Either way, a low volume fee is not an administrative charge, and is something directly related to the operating expense (or, net revenue) of a well, and must be factored into the PPQ analysis.

Legal Fees

If the legal cost under scrutiny is incurred to maintain the lease, then it should be includable as a cost against revenues in a PPQ analysis. Such applicable legal fees might relate to OCC-related matters, title-related matters, even litigation costs involving rights asserted under the lease(s) in question. It is doubtful every attorney fee incurred during the producing life of a well will be an includable cost in a PPQ analysis; however, if the cost relates to maintaining the oil and gas lease, it should be includable.

Insurance

The oil and gas industry is a big money business. Property damage costs related to perils and negligence often involve numbers six and seven figures to the left of the decimal point. Most of the damages spoken of are insurable and can be minimized if not avoided if proper insurance exists. While not a true operating expense, the cost item is one a prudent operator will absorb into its operating costs. The author is aware that several attorneys and industry personnel (and judges) do not subscribe to the notion of insurance as a deductible item. However, when considering the scope of insurance coverage for which a deduction against revenues is called for, the deduction should become apparent. What the author means by, and includes in, the insurance category is pure liability coverage, with all the necessary

riders, repurchased exclusions, and special clauses that govern and cover the perils associated with oilfield operations, chiefly among them: fire; explosion; spills; contamination (surface and subsurface); and premises liability *at the property level* (not otherwise covered as an item under Workers Compensation, itself not includable as an insurance deductible), all of which are covered under negligence or Acts of God theories. All these perils are related to oil and gas operations, and these operations most certainly should be covered by insurance. Granted, many larger operators self-insure up to a certain comfortable limit and acquire umbrella or similar type excess coverage over their safety or comfort limits. The author suggests that if any item of insurance is billed to partners as an item of cost on the JIB or LOS, it should be treated as a deductible cost in a PPQ analysis, subject to the exclusion of any part of the coverage that does not relate to an insured peril.

One might ask, Should the cost of oil and gas operations coverage be assigned to the Administrative Overhead category? The author sees nothing “administrative” about the subject of operations-related insurance coverage. Workers Comp, Unemployment Compensation, Premises Contents, and Automobile, sure. But not pure coverage for operations-related perils. Admittedly, there does not seem to be a reported Oklahoma case on point. Nevertheless, the way seems clear to include operations-related coverage as an item of includable subject matter in the PPQ analysis.

Conclusion

This article is a compendium of information that seasoned practitioners, experts, and jurists are already familiar with, albeit in one work and not in a dozen or more opinions. Additionally, the author has injected a few opinions of his own; however, they are supported by prior court rationale and years of hands-on, relevant experience. Any errors in these opinions thus are the authors. The author appreciates any readership and comments.

Supplement

The bulk of this paper was completed in February 2020, with minor revision in mid-2020 to add “The Misfits” category. This is a third revision, made in August 2021 and February 2022, based on an opinion of the COCA (not released for publication, thus arguably of little or perhaps no persuasive authority, but worthy of mention in any event) and on additional research by the author following several representations of clients in PPQ litigation.

In *Stamps Bros. O&G, LLC v. Western O&G Dev. Corp.*, following a lengthy discussion, the COCA found that, under the facts and evidence presented, expenses for the preparation of an SPCC report, for a plugging bond, and for weed control and mowing were deductible as expenses applicable to revenues (as required under regulatory authority), and that insurance costs were likewise deductible (as applicable to the well being operated, and an expense that a prudent operator would incur).⁵⁵ The author submits that the *Stamps* court's reasoning is sound in all respects in connection with these expense items, as found elsewhere in this paper.

The *Stamps* opinion also restated the rule that "the appropriate time period for determining a well's profitability is a time appropriate under all the facts and circumstances of each case," citing with approval *Fisher*, and thereby affirming the reasonable period that expenses and revenues are contrasted.⁵⁶

55. Nos. 117,608, 118,024 (Okla. Civ. App. Jan. 29, 2021), <https://oklegal.onenet.net/sample.basic.html> (choose "OK Court of Appeals Opinions" from Database Menu; then choose "Citation" from Field Menu and search for "Unpublished Opinion No. 117,024").

56. *Id.* ¶ 7.