

Chapter 13

Thinking Horizontally in a Vertical World: Practical Considerations for Practitioners Advising Clients on Horizontal Development in the Marcellus and Big Sandy Fields

Joel E. Symonds

EQT Production Company
Charleston, West Virginia

Natalie N. Jefferis

EQT Gathering, LLC
Pittsburgh, Pennsylvania

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§ 13.01. Introduction.

In 1991, Rex Burford and John H. Johnston authored *Legal and Developmental Issues Involving Horizontal Drilling in the Appalachian Basin* to “encourage discussion about horizontal drilling and the developing body of law emerging from this rapidly advancing technology.”¹ At the time of publication, horizontal drilling was a rapidly advancing technology in the western part of the United States, but only a few test wells had been drilled in the eastern United States.

After nearly 18 years, horizontal drilling is beginning to take hold in the Appalachian Basin (Basin). Last year, 459 horizontal wells were permitted in West Virginia and Kentucky alone.² The vast majority of these wells were drilled in the Huron Shale, but the technology has also been applied to the development of the Marcellus Shale and coalbed methane.³ Although Mr. Burford’s chapter may have seemed far-reaching at the time of publication, today it is applicable. While technology has advanced, the oil and gas regulations discussed in his chapter have not.

As we will discuss further, the current oil and gas statutes, case law, and real property laws that exist in the Appalachian Basin do not always provide adequate guidance for the legal questions that arise when drilling horizontal wells. This chapter is intended to help practitioners think horizontally within the current framework of laws and leases based on conventional vertical drilling technology. As such, it is essential for all practitioners to have a basic understanding of the geology and technology associated with horizontal drilling, as well as a firm understanding of the property laws in the state within which their client operates.

§ 13.02. Drilling Horizontal Wells.

[1] — Why Drill Horizontally?

Due to the recent increase in the use of horizontal drilling in the Appalachian Basin, it is worthwhile to understand why there has been such an

¹ Rex Burford and John Johnston, “Legal and Developmental Issues Involving Horizontal Drilling in the Appalachian Basin,” 12 *E. Min. L. Inst.* ch. 21 (1991).

² Phone conversation with Kentucky Division of Oil and Gas Conservation and West Virginia Division of Oil and Gas on May 10, 2009.

³ Horizontal drilling is being used increasingly in the development of coalbed methane gas; however, for the purposes of this chapter we have limited our discussion to the production of natural gas.