

Geology article review example

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Introduction

The article, Marcellus Shale-Appalachian Basin Natural Gas Play, gives a detailed geological report about the latest discovery about the source of natural gas in Appalachian Basin. A renowned geologist, Hobart King, who has not only worked as a coal geologist but also as an economic geologist is its author. It gives the developments that have been made on the site to enhance the extraction of natural gas from 2003 up to date. The Appalachian basin has certain rocks that are have large natural gas deposits.

How the article relates to geology

Natural gas is one of the most valuable substances in any economy as it is used in the generation of electricity. The resources of the gas are scarce thus any new discoveries of a site or rock that could be a potential source of the commodity attracts the attention of many geologists. The geologists help in the identification of the rock besides providing the technical knowhow on how to carry out the extraction. They also help in the establishment of the economic value of the site. The article in question presents one of the most recent discoveries of a rock/site that has the potential of providing significantly high quantities of natural gas.

The article addresses some of the most important aspects concerning the extraction of natural gas from Marcellus shale. It gives the depth within which the shale is found: approximately one mile below the earth's surface. The article has maps that enhance better understanding of the phenomenon. Additionally, it gives an overview of the areas within the basin, which have the highest production potential. The well production rates as well as the

state in which natural gas occurs in the rock have also been explored within the article.

Reflection

In the introduction of the article, the author notes that very few geologists were interested in the possible availability of natural gas in the region. Such information would require statistical evidence as well as the reason behind the reluctance of many geologists to get involved in the project. King does not inform the readers the circumstances that led to the increase of the number of geologists involved in the project and how long it took to engage such geologists in the mining of natural gas in the Appalachian Basin.

The economic importance of the natural gas in any given area depends on its quantity as well as the cost of extracting it and converting it to the final product. The quantity of the gas has been provided based on the findings of a credible source i. e. the results of a geological survey. Through the survey, it was established that the Marcellus Shale contained nearly 2 trillion cubic feet of gas making the extraction of natural gas in the basin an economical venture. Despite the indirect approach that the author uses to give the rate of growth of the business, he provides the information required for one to understand the booming of the business venture. He notes that the “ first Marcellus gas production from the well began in 2005. Between then and the end of 2007 more than 275 gas wells with suspected Marcellus intent had been permitted in Pennsylvania” (King 5).

The article is comprehensible even to individuals who are not experts in geology. King gives a brief description of the shale, which is the source of the natural gas (Marcellus Shale) and the different places where it is found

namely Virginia, Ohio, New York, Kentucky, Tennessee and Pennsylvania among others. It also describes the different ways of the occurrence of the gas in the rock. Photos that enhance a better understanding of the phenomenon back up the explanation. It also provides the different methods that are used in the extraction of the natural gas from the shale with more emphasis on the method that enhances the maximum level of extraction of the gas-the horizontal drilling technique (Committee on U. S. Natural gas Demand and Supply Projections 56). Additionally, it gives the reasons that make the horizontal drilling technique as the most economical and effective method in the extraction of the natural gas.

Several factors contribute to the overall economic importance of a given region. King did not overlook this aspect. His research revealed the existence of another type of rock beneath the Marcellus shale, the Utica Shale, which is a potential source of natural gas. The significance of the Utica Shale in the region is that it will continue to provide natural gas even after the depletion of the Marcellus Shale. This aspect is based on the fact that natural gas is not renewable and the continued drilling of the Marcellus Shale will lead to its eventual depletion (Committee on U. S. Natural gas Demand and Supply Projections 85). Such an instance could be a potential threat to the supply of natural gas in the United States thus the need to exploit all the necessary natural resources. The extraction of natural gas from the Utica Shale would be more costly than its extraction from the Marcellus Shale because it lies “ a few thousand feet below the Marcellus” (King 30). The author did not overlook this aspect as he gives the approaches that could be not only

economical but also useful in the extraction of natural gas from the Utica Shale.

Conclusion

Hobart King's article, Marcellus Shale-Appalachian Basin Natural Gas Play, gives a detailed account of one of the latest developments in natural gas extraction in the United States. It gives the significance of expertise in geology in the development of the nation's economy. Geologists have been involved in the identification of the Marcellus Shale, which is current source of natural gas in the region. Upon its depletion, they have identified the Utica Shale that will serve the same purpose. The article is comprehensible and easy to understand due to the use of maps, illustrations and photos that give a clear picture of the aspect in question.

Works Cited

Committee on U. S. Natural gas Demand and Supply Projections. Summary of Workshop on U. S.

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February 2011. < <http://geology.com/articles/marcellus-shale.shtml>>.