Honorable Oil & Gas Commission State of New Mexico Santa Fe, New Mexico

Governor John E. Miles, Chairman

Honorable Frank Worden Land Commission Member

Honorable A. Andreas State Geologist March 21, 1940



IN RE: Revising, Modifying and Amending Existing Proration Plan for the Monument Field, Lea County, New Mexico.

Gentlemen:

Since the discovery of the Monument Field, the Barnsdall Oil Company has consistently requested the Conservation Commission of the State of New Mexico to write an Order that will comply with the law (Chapter 72, 1935 Session Laws); a law so drawn and designed as to give to each operator the oil in place under his property, so as to promote equity and justice toward all operators, so as to give each operator the use of his just and equitable share of the reservoir energy, the first paragraph of Section 12 thereof being quoted:

> "Section 12. Whenever, to prevent waste, the total allowable production for any field or pool in the state is fixed by the Commission in an amount less than that which the field or pool could produce if no restriction were imposed, the Commission shall prorate or distribute the allowable production among the producers in the field or pool. Such proration or distribution shall be made on a reasonable basis. The rules, regulations or orders of the Commission shall, so far as it is practicable to do so, afford to the owner of each property in a pool the opportunity to produce his just and equitable share of the oil and gas in the pool, being an amount, so far as can be practicably determined, and so far as such can be practicably obtained without waste, substantially in the proportion that the quantity of the recoverable oil and gas under such property bears to the total recoverable oil and gas in the pool, and for this purpose to use his just and equitable share of the reservoir energy.

The Barnsdall Oil Company respectfully submits that in the various hearings called for the purpose of considering a proration order for the Monument Pool three undisputed facts stand forth:

1. Oil does migrate from areas of high pressure to areas of low pressure.

2. There are areas of high pressure and areas of low pressure in the Monument Pool.

3. Oil is and has been migrating across property lines in the Monument Pool.

The witnesses on behalf of Barnsdall Oil Company endeavored to present their expert opinions in as candid and as straight-forward a fashion as was possible. We welcome a comparison of their attitude as expressed by their testimony with the testimony given by witnesses in opposition to Barnsdall.

The Monument Pool has been in existence for years. During those years several hearings as to proration plans have been held and representatives of all the companies have attended many engineers' committee meetings. Suddenly in March 1939 the Commission and operators were confronted with the "latest and most advanced theory", which had never been heard of before.

Mr. R. G. Schuehle, geologist for Shell Petroleum Corporation, testified that geological conditions in the Monument Pool were so complex that it was useless to endeavor to prorate the field on any basis other than straight acreage, although he was willing to give twenty per cent weight to the bottom hole pressure formula.

Mr. Schuehle based his suggestion on the theory that the Monument Pool was really three pools, i.e., three reservoirs separated one from the other by impervious, impenetrable strata of rock. He stated that there was no "appreciable" migration of oil between these three zones because of this impervious stratum between each of the three zones. At the same time and in the same breath, he very candidly testified that the oil deposits cut across these zones and through those strata, and that there had always been and is intercommunication between the zones, but that the amount of same was so small as to be "ineffective". This witness also very frankly stated that there were between 250 and 300 bore holes of between six and seven inch diameters which vertically connect these various zones, if they do exist. He also stated that there are possibilities of fractures in these allegedly impervious strata between the three zones. Finally, he stated that since there was a possibility of intercommunication to some extent, he would favor leaving the formula as is so that if such intercommunication existed no great hardship would be sustained.

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It was interesting to note that Mr. Schuehle testified that generally oil did migrate from high pressure areas to low pressure areas, yet Mr. George Card would not testify to that effect.

Messrs. A. P. Loskamp and E. A. Markley, District Geologist and Chief Geologist, respectively, for Barnsdall Oil Company, testified quite definitely that the Monument Pool was one common reservoir, intercommunicating and interconnecting in every respect. In this connection, it should be observed that Mr. Loskamp, the District Geologist who had spent so much time in the field, was not cross-examined, although an effort was then made to cross-examine and deride Mr. Markley, because he was Chief Geologist and as such relied on information and data accumulated by others rather than on actual field work.

So frequently have the beliefs and contentions of Barnsdall Oil Company been presented to the Commission, that we feel that no useful purpose would be served in burdening the Commission with a lengthy statement or brief. We only respectfully ask that the testimony be examined in order to ascertain whether the preponderance of the evidence shows that there is migration of oil across property lines in the Monument Pool which should be stopped by giving seventy-five per cent weight to the bottom hole pressure factor in the present Monument proration formula. We think that the candor, sincerity and lack of evasiveness of the various witnesses should be considered carefully. Further, we respectfully suggest that, even if Mr. Schuehle's new theory should be adopted, there is no reason why the proration plan suggested by Barnsdall should not also be adopted in order to prevent drainage of oil from one property to another within one zone. No one would be injured since, according to Mr. Schuehle, there could be no drainage from one zone into another.

In conclusion, we wish to reiterate that Barnsdall Oil Company does not wish to obtain one barrel of oil, nor one ounce of reservoir energy to which it is not entitled. However, this Company does believe that it is legally entitled to produce its own oil in place in so far as is possible, and that under the present Order of the Commission, known as Order No. 33, the oil rightfully belonging to Barnsdall Oil Company is being drained from

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beneath its leases, and that Barnsdall Oil Company is being deprived not only of its oil, but of its just and equitable share of the reservoir energy.

A legal and technically correct, as well as just and equitable, order can and should be written by the Commission by adopting the proposal submitted that twenty-five per cent of the field allowable be allocated on an acreage basis, and seventy-five per cent be allocated on the bottom hole pressure factor now included in the formula.

Respectfully submitted.

BARNSDALL OIL COMPANY Ba

Copy to Honorable Carl Livingston.