

MAGNETIC SURVEY -- CANYON LARGO PROPOSED UNIT

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This survey is in semi-detail for magnetic definition in the Canyon Largo Area. The geological interpretations are superimposed by use of conventional symbols.

The two synclinal axes (A) and (B) supporting the two plunging anticlinal noses (C) and (E) give us an obvious geological feature supported by (D) which is interpreted as the edge of a massive deep seated platform and may be extended into the sedimentary section as a base for lensing or some sharp facies change.

The axes (A) and (B) are accepted from the regional work in the area, as the most critical features and will make (C) and (E) a joint anomaly although the positions of (C) and (E) are slightly changed by the detail work, making (E) the sharper defined of the two noses and extending it a little farther east than originally mapped in the regional work.

The feature (D), considered as a platform edge or facies change is a unit in a major regional trend that lays in a general east-west direction from the Jicarilla Apache Reservation to the Navajo Reservation and in the writers opinion is a deepseated basement fold that is probably conforming as far up in the sedimentary section as the Upper Jurassic, in fact the Point Lookout in the Rincon-Largo Unit #1 Johnston in 30-27N-6W and in the Doswell Federal in 9-26N-6W on the opposite side of this same feature, show approximately 100 feet of relief supporting this magnetic anomaly, and at this point showing conformity into the Mesa Verde. This in turn makes the axis (E) a prime prospect for a Mesa Verde test and the (C) axis being higher on the flank of the (D) feature should be a better prospect for a Dakota test.

Assuming that the magnetics are critical from the basement system up into the sedimentary section as far as the Jurassic and perhaps the middle Cretaceous section, gives this area very definite boundaries for a two well unit.

The magnetics while generally used for regional expression only because of their relative values, are here used for a detail picture and principally to establish the boundaries of this unit.


Mark Whelan



Exhibit A.

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

JUN 6 1952

Superior Oil Company
First National Bank Building
Denver 2, Colorado

Gentlemen:

Reference is made to the three copies of a proposed unit agreement for the Canyon Largo unit agreement, Rio Arriba County, New Mexico, recently submitted to the Oil and Gas Supervisor, Roswell, for preliminary approval. Reference is also made to your letter of May 28, 1952, submitting certain revised pages to be inserted in the proposed draft as a result of conferences between your representatives and members of the Conservation Division here in Washington. You also expressed willingness to accept the revision of the unit area as discussed and as incorporated in your revised pages.

The form of agreement, including the revised pages, has been reviewed and found to follow substantially the 1950 standard form modified as applicable to State of New Mexico lands except for certain other provisions heretofore approved and except for deviations predicated upon a novel provision for creating participating areas, both for royalty and working interests, by dividing the unit area into one-half-section drilling blocks and establishing the first drilling block proved productive as the initial participating area, then by expanding said participating area by the addition of subsequent drilling blocks as they are proved productive. A similar approach has heretofore been approved in other areas. The drilling provisions and the time for proving all leases within the unit area are designed to expedite development and establishment of productive limits of the area. Automatic elimination of lands in leases not proved productive is also provided.

Accordingly, the form will be regarded as acceptable if modified as indicated in red pencil and attached riders. One copy so marked is returned herewith, one copy is being furnished to the Supervisor, and one copy is being retained. The unit area described in the form is considered desirable and Survey letter of November 27, 1951, is modified accordingly.

In the absence of any objections not now apparent, a duly executed agreement identical with said enclosure as modified will be approved if submitted within a reasonable period of time. However,

notice is hereby given that the right is reserved to deny approval of any executed agreement which, in the Survey's opinion, does not have the full commitment of sufficient lands to afford effective control of operations.

When the executed agreement is submitted to the Supervisor for approval, include the latest status of all Federal acreage, showing the current record owner and the effective date of leases issued, and the current status of all lease applications, if any.

Very truly yours,

Thomas B. Nolan

Acting Director

Enclosure