

SAN JUAN 30-6 UNIT #404
 NE/4 SEC. 23, T 30 N - R 7 W
 HIGH ANGLE FRUITLAND COAL WELL

BEFORE EXAMINER CATANACH
 OIL CONSERVATION DIVISION

Meridian EXHIBIT NO. 5

CASE NO. 9217

CEMENT

9 5/8" SURFACE CASING
 (200' TVD)

*7 in/d
 run to
 surface
 12° per 100'
 over 790'*

7" INTERMEDIATE CASING
 (2910' TVD)

6 1/8"

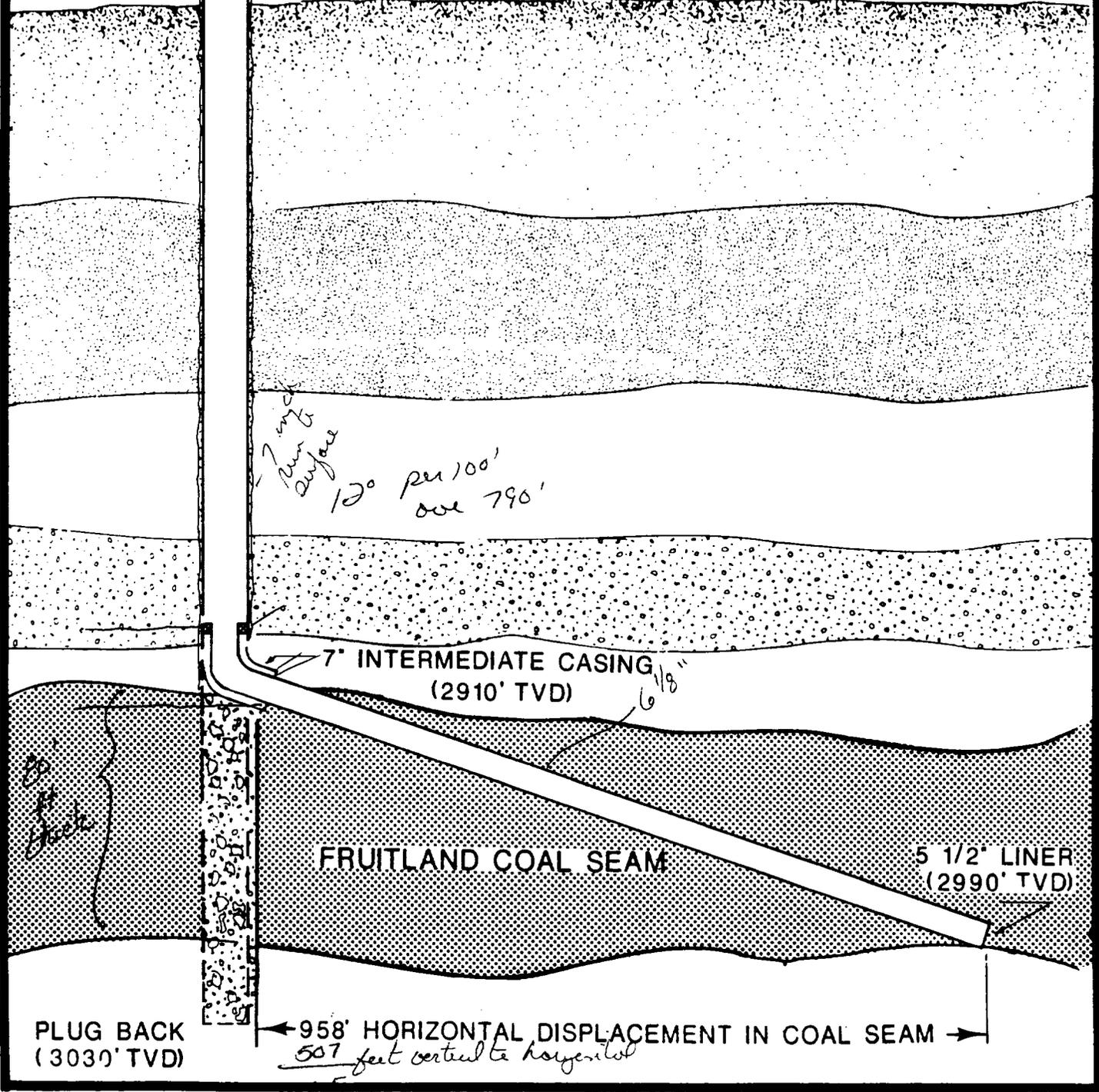
FRUITLAND COAL SEAM

5 1/2" LINER
 (2990' TVD)

PLUG BACK
 (3030' TVD)

← 958' HORIZONTAL DISPLACEMENT IN COAL SEAM →
507 feet vertical to horizontal

1505



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 9217
Order No. R-8526

APPLICATION OF MERIDIAN OIL
INC. FOR A HORIZONTAL DIRECTIONAL
DRILLING PILOT PROJECT AND SPECIAL
OPERATING RULES THEREFOR, RIO
ARRIBA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on September 23, 1987, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 9th day of October, 1987, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

- (1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) The applicant, Meridian Oil Inc. (Meridian), seeks authority to initiate a horizontal directional drilling pilot project in the NE/4 of Section 23, Township 30 North, Range 7 West, NMPM, Rio Arriba County, New Mexico, forming a standard 160-acre gas spacing and proration unit in the Fruitland formation.
- (3) The applicant proposes to drill a well at a standard gas well location 1135 feet from the North line and 1635 feet from the East line (Unit B) of said Section 23 from the surface through the Fruitland formation at a depth of approximately 2910 feet.
- (4) The applicant further proposes to plug back to a depth of approximately 2400 feet, kick off from the vertical

at this depth, and drill a medium radius curve in a southeasterly direction to an angle of approximately 85 degrees to a depth to encounter the top of the Fruitland Coal Seam at which point the wellbore will be drilled an approximate lateral distance of 958 feet within said formation.

(5) The applicant testified that the direction of the lateral portion of the wellbore will be determined from the orientation of fractures within core samples taken from the Fruitland formation.

(6) Inasmuch as the direction of the lateral portion of the wellbore is not known at this time, the applicant requested that they be allowed to drill said lateral portion anywhere within an arc-shaped area defined by lines extending due South and East of the surface well location.

(7) The proposed proration unit is well within the boundary of the applicant's San Juan 30-6 Unit, which should ensure that correlative rights will be protected.

(8) The applicant testified that this type of well completion should result in the recovery of a substantially greater amount of gas from the Fruitland Coal Seam than would normally be recovered by a conventional well completion, thereby preventing waste.

(9) In the interest of conservation, prevention of waste, and protection of correlative rights, the application of Meridian for a horizontal directional drilling pilot project should be approved, subject to the provisions contained in Finding Paragraph Nos. (10) through (13) below.

(10) The applicant should be required to conduct a directional survey on the well during or upon completion of the drilling of the vertical portion of the wellbore and should submit a copy of said survey to the supervisor of the Aztec district office of the Division prior to initiating any directional drilling.

(11) Prior to kick-off from vertical, the applicant should notify the supervisor of the Aztec district office of the Division of the direction of the deviated hole and of the date and time of the directional drilling in order that the same may be witnessed.

(12) The proposed direction and extent of the lateral portion of the wellbore should be confined to an arc-shaped area defined by lines extending South and East of the surface well location and having a radius of 1470 feet.

(13) The applicant should be required to conduct a directional survey on the lateral portion of the wellbore during or after completion of drilling operations on the well and submit a copy of said survey to the Santa Fe office of the Division.

IT IS THEREFORE ORDERED THAT:

(1) The application of Meridian Oil Inc. for a horizontal directional drilling pilot project in the NE/4 of Section 23, Township 30 North, Range 7 West, NMPM, Rio Arriba County, New Mexico, is hereby approved.

(2) The applicant is further authorized to drill a well vertically at a standard gas well location 1135 feet from the North line and 1635 feet from the East line (Unit B) of said Section 23, from the surface through the Fruitland formation at a depth of approximately 2910 feet, and to complete said well in the following unconventional manner:

Kick off from the vertical at a depth of approximately 2400 feet and drill a medium radius curve in a southeasterly direction to an angle of approximately 85 degrees to a depth to encounter the top of the Fruitland Coal Seam at which point the wellbore will be drilled an approximate lateral distance of 958 feet within said formation.

(3) The NE/4 of said Section 23 shall be dedicated to the well forming a standard 160-acre gas spacing and proration unit.

(4) The applicant shall be required to conduct a directional survey on the well during or upon completion of the drilling of the vertical portion of the wellbore and shall submit a copy of said survey to the supervisor of the Aztec district office of the Division prior to initiating any directional drilling.

(5) Prior to kick-off from vertical, the applicant shall notify the supervisor of the Aztec district office of the Division of the direction of the deviated hole and

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Case No. 9217
Order No. R-8526

of the date and time of the directional drilling in order that the same may be witnessed.

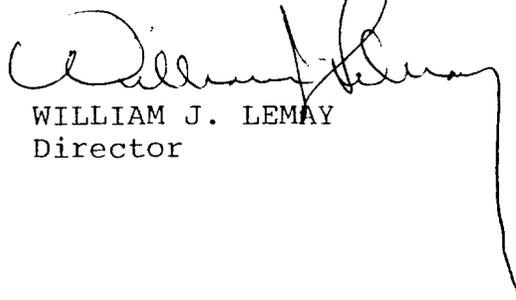
(6) The proposed direction and extent of the lateral portion of the wellbore shall be confined to an arc-shaped area defined by lines extending South and East of the surface well location and having a radius of 1470 feet.

(7) The applicant shall be required to conduct a directional survey on the lateral portion of the wellbore during or after completion of drilling operations on the well and shall submit a copy of said survey to the Santa Fe office of the Division.

(8) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



WILLIAM J. LEMAY
Director

S E A L

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