

County EddyPool Nash Draw-Delaware

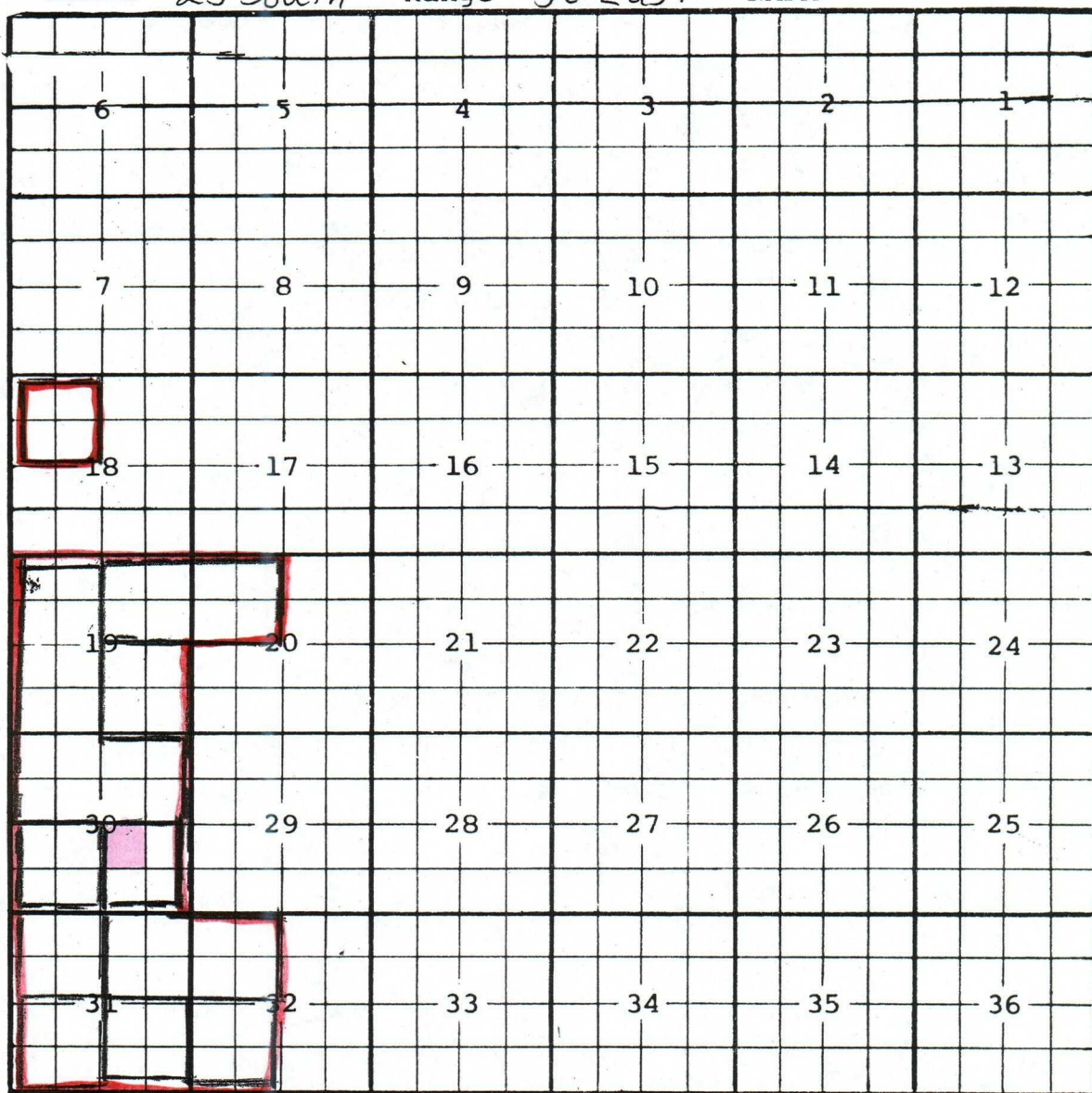
TOWNSHIP

23 South

Range

30 East

NMPM

Ext: ^{NW}/₄ Sec. 18 (R-10042, 12-28-93) Ext: ^W/₂ Sec. 19, ^N/₂ Sec. 30 (R-10459, 9-11-95)Ext: ^{SW}/₄ Sec. 30 (R-10590, 5-8-96) Ext: ^{SE}/₄ Sec. 30 (R-10642, 8-19-96)Ext: ^{NE}/₄ 31, ^{NW}/₄ Sec. 32 (R-10938, 1-9-98)Ext: ^{NE}/₄ Sec. 19, ^{NW}/₄ Sec. 20 (R-11005, 7-24-98) Ext: ^{SE}/₄ Sec. 31 (R-11359, 4-12-00)

Extend vertical limits to include all of Delaware Mountain Group from top of Lamar formation to base of Brushy Canyon formation and redesignate as Nash Draw-Delaware Pool

(R-11534, 2-8-01) Ext: ^{SW}/₄ Sec. 32 (R-11583, 5-7-01) Ext: ^{NW}/₄ Sec. 31 (R-11678, 10-23-01)Ext: ^{SW}/₄ Sec. 31 (R-11729, 2-22-02) Ext: ^{SE}/₄ Sec. 19 (R-12257, 1-8-05)

Case File Search - Select Documents to View

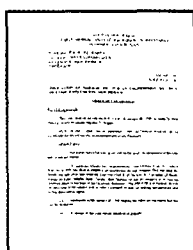
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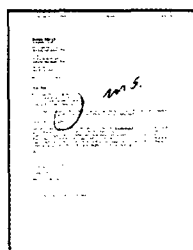
Sort Order: ☒ Ascending ☐ Descending

Case Number	Case Type	Applicant (Operator)	Filing Date
11912	ENSOL	Maralo, Inc.	1/22/1998

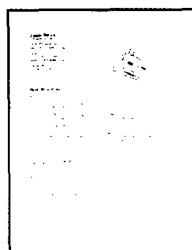
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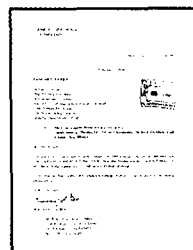
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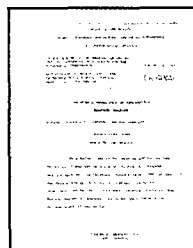
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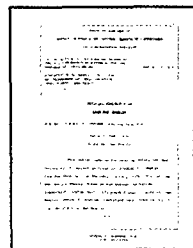
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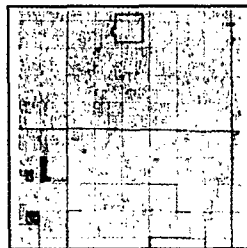
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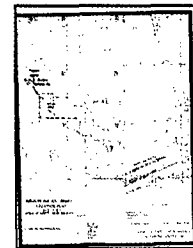
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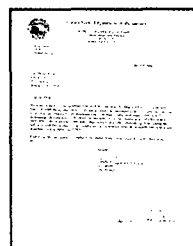
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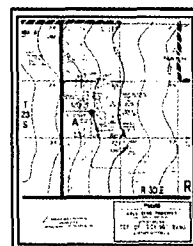
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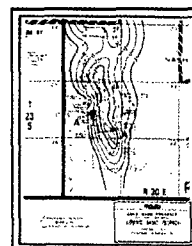
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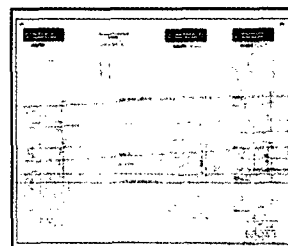
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(362Kb ~2 min.)



(365Kb ~2 min.)



(4,481Kb ~25 min.)

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. 11912
ORDER NO. R-11045

APPLICATION OF MARALO, INC. FOR AN UNORTHODOX OIL WELL
LOCATION, EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on January 22, 1998, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 2nd day of September, 1998, the Division Director, having considered the record and the recommendations of the Examiner,

FINDS THAT:

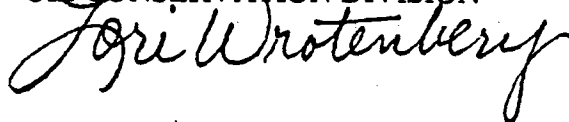
- (1) Due public notice has been given and the Division has jurisdiction of this case and its subject matter.
- (2) The applicant, Maralo, Inc., seeks authority to drill its Gold Rush "30" Federal Well No. 8 (API No. 30-015-29949) at an unorthodox oil well location 2310 feet from the South line and 2600 feet from the East line (Unit J) of Section 30, Township 23 South, Range 30 East, NMPM, Eddy County, New Mexico, to test all prospective oil bearing intervals down to the base of the Delaware formation. The NW/4 SE/4 of Section 30 is to be dedicated to the subject well to form a standard 40-acre oil spacing and proration unit within that vertical extent.
- (3) Subsequent to the January 22, 1998 hearing the applicant requested that this case be dismissed.
- (4) Dismissal of this case should therefore be granted.

IT IS THEREFORE ORDERED THAT:

Case No. 11912 is hereby dismissed.

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



LORI WROTENBERY
Director

SEAL

JAMES BRUCE
ATTORNEY AT LAWPOST OFFICE BOX 1056
SANTA FE, NEW MEXICO 87504SUITE B
612 OLD SANTA FE TRAIL
SANTA FE, NEW MEXICO 87501(505) 982-2043
(505) 982-2151 (FAX)

March 20, 1998

Via FaxMichael E. Stogner
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505Re: Case 11912; Application of Maralo Inc. for an unorthodox
oil well location, Eddy County, New Mexico

Dear Mr. Stogner:

Maralo requests that the above case be dismissed. As I informed you, Maralo was trying to obtain approval of a different location, but could not obtain the various approvals before its farmout from Burlington Resources expired. Therefore, it will not pursue approval of a well in this proration unit at this time. Maralo thanks you for the time you spent on this matter.

Very truly yours,


James Bruce

Attorney for Maralo Inc.

cc: William F. Carr (via fax)

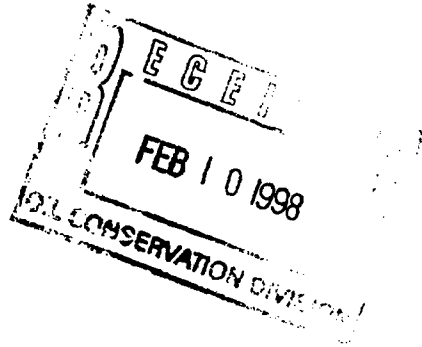
JAMES BRUCE
ATTORNEY AT LAW

POST OFFICE BOX 1056
SANTA FE, NEW MEXICO 87504

SUITE B
612 OLD SANTA FE TRAIL
SANTA FE, NEW MEXICO 87501

(505) 982-2043
(505) 982-2151 (FAX)

February 10, 1998



Hand Delivered

Michael E. Stogner
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Re: Case 11912; Application of Maralo Inc. for an unorthodox
oil well location, Eddy County, New Mexico

Dear Mr. Stogner:

Enclosed is the proposed order of Maralo Inc. As noted at the
hearing, Maralo has a farmout on this acreage expiring March 15th,
and thus any decision before then would be appreciated. Thank you.

Very truly yours,

James Bruce

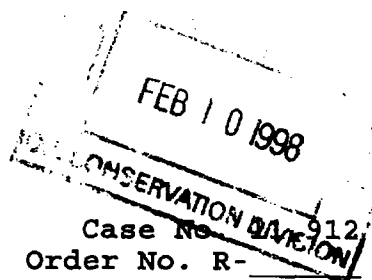
Attorney for Maralo Inc.

cc: William F. Carr w/encl.

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:

APPLICATION OF MARALO, INC.
FOR AN UNORTHODOX OIL WELL
LOCATION, LEA COUNTY, NEW MEXICO.



ORDER OF THE DIVISION
(Proposed by Maralo Inc.)

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on January 22, 1998 at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this _____ day of February, 1998, 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 hereof.

(2) The applicant, Maralo Inc. ("Maralo"), seeks authority to drill its Gold Rush "30" Fed. Well No. 8 at an unorthodox oil well location 2310 feet from the South line and 2600 feet from the East line (Unit J) of Section 30, Township 23 South, Range 30 East, NMPM, Eddy County, New Mexico, to test the Delaware formation. The NW¼SE¼ of Section 30 will be dedicated to the subject well, forming a standard 40-acre oil spacing and proration unit.

(3) Texaco Exploration and Production Inc. ("Texaco"), an offset operator to the west of the proposed location, appeared at the hearing in opposition to the application.

(4) The proposed well is located in (i) the Nash Draw-Brushy Canyon Pool as to the Brushy Canyon member of the Delaware Mountain Group, and (ii) the Undesignated Southwest Forty Niner Ridge-Delaware Pool as to the Bell Canyon and Cherry Canyon Members of the Delaware Mountain Group. Both pools are governed by Rule 104.C.(1) of the Division's General Rules and Regulations, which requires standard 40-acre oil spacing and proration units, with wells no closer than 330 feet to a quarter-quarter section line.

(5) The proposed well is located 40 feet from the nearest boundary of the spacing unit, which is 290 feet closer than allowed by Division rules.

(6) The applicant presented the following land, geologic, and engineering evidence:

(a) The proposed location was required by the United States Bureau of Land Management ("BLM") due to topographic and archaeological reasons. The BLM would not approve any well location in Unit J of Section 30 except the proposed location.

(b) The primary zone of interest in the Delaware is the Lower Brushy Canyon "Loving" Sand. The Bell Canyon is a secondary objective. Both sands are north-south trending reservoirs.

(c) The optimum well location in the Loving Sand in Unit J of Section 30 is at an orthodox location, because the sand thins rapidly as you move to the west of an orthodox location. **Maralo Exhibit 5.** However, the BLM will not allow an orthodox location.

(d) The Texaco Remuda Basin "30" State Well No. 3, in Unit K of Section 30, and the Maralo Gold Rush "30" State Well No. 2, in Unit F of Section 30, are dry or non-commercial in the Loving Sand. Little if any of Texaco-operated Unit K of Section 30 is productive in the Loving Sand.

In addition, Delaware wells need to be frac'd, and fractures follow the path of least resistance, which will be to the east or north-south, away from the Texaco acreage.

As a result, a penalty on production is unnecessary in the Nash Draw-Brushy Canyon Pool.

(e) Directionally drilling a Delaware well to an orthodox location in Unit J is not economical.

(f) Unit J is also prospective in the Bell Canyon. However, Maralo's practice is to produce the deeper zone, which may take 4-6 years to deplete. By the time the proposed well is completed in an uphole zone, Texaco will have produced the vast bulk of its Bell Canyon reserves.

(g) Approximately 25% of any Bell Canyon production from the proposed well will come from the Texaco-operated acreage. As a result, a penalty of approximately 25%-40% on production from the Southwest Forty Niner Ridge-Delaware Pool is fair and reasonable.

(7) Texaco's geology indicates that drainage in the Bell Canyon will trend north-south, along the axis of the reservoir,

minimizing any adverse effect of the unorthodox location.

(8) Texaco proposed that the location be denied, or if the proposed well is drilled, a penalty of 88% should be assessed against the well based upon the footage encroachment towards its acreage. Such a penalty would effectively prevent the drilling of the proposed well.

(9) The evidence and testimony in this case indicates that unless a well is drilled at an unorthodox location in the NW¼SE¼ of Section 30, the interest owners therein will not have the opportunity to produce their fair and equitable share of reserves in the reservoir.

(10) The proposed unorthodox location should be approved, provided that, in order to protect the correlative rights of Texaco, a production penalty should be imposed.

(11) The penalty proposed by the applicant is fair and reasonable.

(12) Approval of the proposed unorthodox location, subject to the above-described production penalty, will afford the applicant the opportunity to produce its just and equitable share of oil and gas from the subject pool, will prevent economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Maralo Inc., is hereby authorized to drill its Gold Rush "30" Fed. Well No. 8 at an unorthodox gas well location 2310 feet from the South line and 2600 feet from the East line of Section 30, Township 23 South, Range 30 East, NMPM, Eddy County, New Mexico, to test the Delaware formation (Nash Draw-Brushy Canyon Pool and Southwest Forty Niner Ridge-Delaware Pool).

(2) The NW¼SE¼ of Section 30 shall be dedicated to the well, forming a standard 40-acre oil spacing and proration unit for said pools.

(3) The Gold Rush "30" Fed. Well No. 8 is hereby assessed a production penalty of 40% (60% allowable) in the Southwest Forty Niner Ridge Delaware Pool. The penalty shall be applied toward the well's depth bracket allowable. No penalty shall be assessed against the well in the Nash Draw-Brushy Canyon Pool.

(4) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

FEB 10 1998

CONSERVATION

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

KATHLEEN GARLAND
Director

LEGALLY
FEB 12 1998

CAMPBELL, CARR, BERGE
& SHERIDAN, P.A.
LAWYERS

MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
MARK F. SHERIDAN
MICHAEL H. FELDEWERT
ANTHONY F. MEDEIROS
PAUL R. OWEN

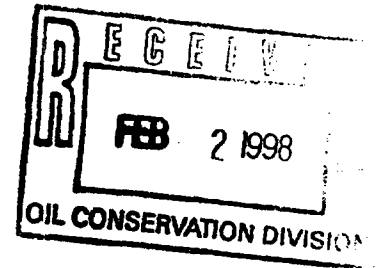
JACK M. CAMPBELL
OF COUNSEL

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POST OFFICE BOX 2208
SANTA FE, NEW MEXICO 87504-2208
TELEPHONE: (505) 988-4421
FACSIMILE: (505) 983-6043
E-MAIL: ccbspa@ix.netcom.com

February 2, 1998

HAND DELIVERED

Michael E. Stogner
Chief Hearing Examiner
Oil Conservation Division
New Mexico Department of Energy, Minerals
and Natural Resources
2040 South Pacheco Street
Santa Fe, New Mexico 87505



Re: *Oil Conservation Division Case No. 11912:*
Application of Maralo, Inc. for an Unorthodox Oil Well Location, Eddy
County, New Mexico

Dear Mr. Stogner:

Pursuant to your request following the January 22, 1998 hearing in the above-captioned case, I am enclosing on behalf of Texaco Exploration and Production Inc. proposed orders (1) denying said application and (2) imposing a production penalty.

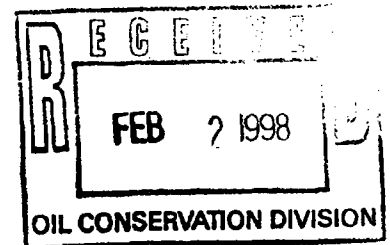
If you need anything further from Texaco to proceed with your consideration of this matter, please advise.

Very truly yours,

WILLIAM F. CARR

cc: Jim Bruce, Esq. (w/enclosures)
D. Bruce Pope, Esq. (w/enclosures)
David Sleeper (w/enclosures)
Dave Uhl (w/enclosures)

Option One: Denial of Application



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. 11912
ORDER NO. R-_____

APPLICATION OF MARALO, INC.
FOR AN UNORTHODOX OIL WELL
LOCATION, EDDY COUNTY, NEW MEXICO.

TEXACO EXPLORATION AND PRODUCTION INC.'S
PROPOSED ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on January 22, 1998, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this ____ day of January, 1998, the Division Director, having considered the testimony, the record, and the recommendation 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, Maralo, Inc. ("Maralo"), seeks approval to drill its Gold Rush "30" Well No. 8 at an unorthodox oil well location 2310 feet from the South line and 2600 feet from the East line (Unit J) of Section 30, Township 23 South, Range 30 East, NMPM, Eddy County, New Mexico, to test the Delaware formation, Southwest Forty-Niner Ridge-

Delaware Pool (Bell Canyon interval) and the Nash Draw-Brushy Canyon Pool. The NW/4 SE/4 of Section 30 is to be dedicated to the subject well forming a standard 40-acre oil spacing and proration unit.

(3) Both the Southwest Forty-Niner Ridge-Delaware Pool and the Nash Draw-Brushy Canyon Pool are developed under rules which provide for wells to be drilled 330 feet from the outer boundary of the dedicated spacing or proration unit.

(4) The proposed well location is 40 feet from the western boundary of the Maralo spacing unit which is 290 feet closer to the boundary of the dedicated spacing and proration unit than permitted by Division rules. As such, this location encroaches on the NE/4 SW/4 of Section 30 which is operated by Texaco Exploration and Production Inc. ("Texaco").

(5) The NE/4 SW/4 of Section 30 is dedicated to the Remuda Basin State "30" Well No. 3 which is located 790 feet from the eastern boundary of the Texaco spacing and proration unit.

(6) Texaco appeared at the hearing and presented evidence in opposition to the application of Maralo.

(7) Maralo presented testimony and evidence which showed that:

- (a) the proposed Maralo unorthodox well location is on a federal lease and is only 40 feet from a State of New Mexico lease operated by Texaco;
- (b) the Bureau of Land Management would not approve a standard well location on the NW/4 SE/4 of Section 30 because of conflicts with archaeology and Cave/Karst on this 40-acre spacing and proration unit and no agreement to mitigate the archeological sites had been reached with the BLM;
- (c) the Brushy Canyon "D" Sand (Loving Sand), which it represents is the primary objective in its proposed well, is present under the eastern portion of the offsetting Texaco spacing and proration unit but not present at the location of the Texaco Remuda Basin State "30" Well No. 3 located thereon;

- (d) Delaware wells in this area experience sharp decline rates after first production;
- (e) Maralo was unable to form a working interest unit for the development of this acreage; and
- (f) Maralo estimates that a directionally drilled well from its requested surface location to a standard bottomhole location would result in a rate of return on its investment of only 20.49% which Maralo considers to render the project economically infeasible (See, Maralo Exhibit No. 13).

(8) Maralo recommends no production penalty be imposed on a well completed in the Brushy Canyon interval because, based on the Maralo interpretation, this sand was not present under most of the NE/4 SW/4 of Section 30. Maralo agreed that an appropriate penalty should be assessed against a well in the Bell Canyon interval but made no specific recommendation as to what this penalty should be.

(9) Texaco's evidence includes an Archeological Site Map (Texaco Exhibit 2) which shows few archeological sites in the area of the proposed Maralo well and Isopach Maps of the Brushy Canyon "D" Sand (Loving Sand) and the Bell Canyon C7 Sand (Texaco Exhibits 3 and 4). These Isopach Maps show that each of the Delaware Sands which are the primary objectives in the proposed Maralo well are continuous and extend under the 40-acre oil spacing unit which Texaco operates in the NE/4 SW/4 of Section 30.

(10) The Isopach Map of the Bell Canyon C7 Sand also demonstrates that the Maralo proposed unorthodox location is in a thicker portion of this reservoir than a standard location.

(11) Texaco testified that in order to protect its correlative rights, the proposed Maralo Gold Rush "30" Federal Well No. 8 should be either denied or assessed a production penalty of 88% (12% allowable) being the footage encroachment from a standard location towards the offsetting Texaco operated tract (290 feet closer than a standard 330 foot set back).

(12) A well at the Maralo proposed unorthodox location is only 40 feet from the

CASE NO. 11912

ORDER NO. R- _____

Page 4

western boundary of the NW/4 SE/4 and therefore gains a substantial advantage on the offsetting Texaco spacing and proration unit in the Brushy Canyon and the Bell Canyon intervals of the Delaware formation. A well at this location should be approved only if subject to a substantial production penalty.

(13) A penalty of 88% would result in the well not being drilled and is in fact the same as a denial of the application.

(14) An unorthodox oil well location 2310 feet from the South line and 2600 feet from the East line of said Section 30 would impair the correlative rights of Texaco. Furthermore, Texaco could only protect its spacing and proration unit from drainage by drilling an offset well 40 feet from the common line between these spacing units which would result in an inefficient spacing pattern in the Delaware formation and wasteful drilling practices. Therefore the application should be denied.

IT IS THEREFORE ORDERED THAT:

(1) The application of Maralo, Inc. for an unorthodox oil well location for its Gold Rush "30" Federal Well No. 8 to be drilled 2310 feet from the South line and 2600 feet from the East line of Section 30, Township 23 South, Range 30 East, NMPM, Eddy County, New Mexico is hereby denied.

(2) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

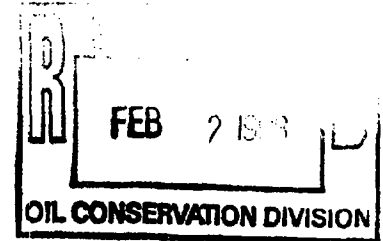
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

KATHLEEN A. GARLAND
Acting Director

S E A L

Option Two: Imposition of a Production Penalty



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. 11912
ORDER NO. R-_____

APPLICATION OF MARALO INC. FOR
AN UNORTHODOX OIL WELL
LOCATION, EDDY COUNTY, NEW MEXICO.

TEXACO EXPLORATION AND PRODUCTION INC.'S
PROPOSED ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on January 22, 1998, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this ____ day of January, 1998, the Division Director, having considered the testimony, the record, and the recommendation 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, Maralo Inc. ("Maralo"), seeks approval to drill its Gold Rush "30" Federal Well No. 8 at an unorthodox oil well location 2310 feet from the South line and 2600 feet from the East line (Unit J) of Section 30, Township 23 South, Range 30 East, NMPM, Eddy County, New Mexico, to test the Delaware formation, Southwest Forty-Niner

CASE NO. 11912

ORDER NO. R-_____

Page 2

Ridge-Delaware Pool (Bell Canyon) and the Nash Draw-Brushy Canyon Pool. The NW/4 SE/4 of Section 30 is to be dedicated to the subject well forming a standard 40-acre oil spacing and proration unit.

(3) Both the Southwest Forty-Niner Ridge-Delaware Pool and the Nash Draw-Brushy Canyon Pool are developed pursuant to rules which provide for wells to be drilled 330 feet from the outer boundary of the dedicated 40-acre spacing or proration unit.

(4) The proposed well location is 40 feet from the western boundary of the Maralo spacing unit which is 290 feet closer to the boundary of the dedicated spacing and proration unit than permitted by Division rules. As such, this location encroaches on the NE/4 SW/4 of Section 30 which is operated by Texaco Exploration and Production Inc. ("Texaco").

(5) The NE/4 SW/4 of Section 30 is dedicated to the Remuda Basin State "30" Well No. 3 which is located 790 feet from the eastern boundary of the Texaco spacing and proration unit.

(6) Texaco appeared at the hearing in opposition to the application of Maralo.

(7) Maralo presented testimony and evidence which showed that:

- (a) the proposed Maralo unorthodox well location is on a federal lease and is only 40 feet from a State of New Mexico lease operated by Texaco;
- (b) the Bureau of Land Management would not approve a standard well location on the NW/4 SE/4 of Section 30 because of conflicts with archaeology and Cave/Karst on this 40-acre spacing and proration unit and no agreement to mitigate the archeological sites had been reached with the BLM;
- (c) the Brushy Canyon "D" Sand (Loving Sand), which it represents is the primary objective in its proposed well, is present under the eastern portion of the offsetting Texaco spacing and proration unit but not present at the location of the Texaco Remuda Basin State "30" Well No. 3 located thereon;

- (d) Delaware wells in this area experience sharp decline rates after first production;
- (e) Maralo was unable to form a working interest unit for the development of this acreage; and
- (f) Maralo estimates that a directionally drilled well from its requested surface location to a standard bottomhole location would result in a rate of return on its investment of only 20.49% which Maralo considers to render the project economically infeasible (See, Maralo Exhibit No. 13).

(8) Maralo recommends no production penalty be imposed on a well completed in the Brushy Canyon interval because, based on the Maralo interpretation, this sand was not present under most of the NE/4 SW/4 of Section 30. Maralo agreed that an appropriate penalty should be assessed against a well in the Bell Canyon interval but made no specific recommendation as to what this penalty should be.

(9) Texaco's evidence includes an Archeological Site Map (Texaco Exhibit 2) which shows few archeological sites in the area of the proposed Maralo well and Isopach Maps of the Brushy Canyon "D" Sand (Loving Sand) and the Bell Canyon C7 Sand (Texaco Exhibits 3 and 4). These Isopach Maps show that each of the Delaware Sands which are the primary objectives in the proposed Maralo well are continuous and extend under the 40-acre oil spacing unit which Texaco operates in the NE/4 SW/4 of Section 30.

(10) The Isopach Map of the Bell Canyon C7 Sand also demonstrates that the Maralo proposed unorthodox location is in a thicker portion of this reservoir than a standard location.

(11) A well at the Maralo proposed unorthodox location is only 40 feet from the western boundary of the NW/4 SE/4 and therefore gains a substantial advantage on the offsetting Texaco spacing and proration unit in the Brushy Canyon and the Bell Canyon intervals of the Delaware formation.

(12) Texaco testified that in order to protect its correlative rights, the proposed

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Maralo Gold Rush "30" Federal Well No. 8 should be assessed a production penalty of 88% (12% allowable) being the footage encroachment from a standard location towards the offsetting Texaco operated tract (290 feet closer than a standard 330 foot set back).

(13) To protect the correlative rights of Texaco, an 88% production penalty (12% allowable) should be imposed on the Gold Rush "30" Federal Well No. 8 since it is 88% closer to the offsetting Texaco spacing and proration unit than authorized by Division rules.

(14) Texaco requested that any penalty be applied to the number of days in each production month because the application of a penalty to the production allowable set by Division Rules soon is diluted by the rapid decline of Delaware wells in this area and can in some cases become no penalty at all.

(15) The production penalty for the Gold Rush "30" Federal Well No. 8 should be applied to the number of days in each production month as follows:

$$\begin{array}{rcccl} 12\% \text{ Allowable} & \times & \text{Days in Production} & = & \text{Days Allowed} \\ & & \text{Month} & & \text{to Produce} \end{array}$$

The well's daily production will be limited to the daily pool allowable.

(16) The application of a penalty to the number of days in each production month will eliminate unnecessary well tests, will avoid inaccuracies that may occur in the utilization of other methods for the imposition of production penalties and should be approved.

(17) Approval of the proposed unorthodox location, subject to the above-described production penalty, will afford the applicant the opportunity to produce its just and equitable share of the oil in the affected pool and will otherwise prevent waste and protect correlative right.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Maralo, Inc. is hereby authorized to drill its Gold Rush "30" Federal Well No. 8 at an unorthodox oil well location 2310 feet from the South line and 2600 feet from the East line of Section 30, Township 23 South, Range 30 East, NMPM, Eddy

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County, New Mexico, to test the Delaware formation, Southwest Forty-Niner Ridge Delaware Pool and the Nash Draw-Brushy Canyon Pool.

(2) The NW/4 SE/4 of Section 30 shall be dedicated to the subject well forming a standard 40-acre oil spacing and proration unit for said pool.

(3) The Gold Rush "30" Federal Well No. 8 is hereby assessed a production penalty of 88% (12% allowable). The production penalty shall be applied to the number of producing days in each production month and the well's daily production will be limited to the daily pool allowable.

(4) Jurisdiction is hereby 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

KATHLEEN A. GARLAND
Acting Director

S E A L

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. 11,912

APPLICATION OF MARALO, INC., FOR)
AN UNORTHODOX OIL WELL LOCATION,)
EDDY COUNTY, NEW MEXICO)

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: MICHAEL E. STOGNER, Hearing Examiner

January 22nd, 1998

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, MICHAEL E. STOGNER, Hearing Examiner, on Thursday, January 22nd, 1998, at the New Mexico Energy, Minerals and Natural Resources Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

* * *

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January 22nd, 1998
 Examiner Hearing
 CASE NO. 11,912

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* * *

A P P E A R A N C E S

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FOR TEXACO EXPLORATION AND PRODUCTION, INC.:

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By: WILLIAM F. CARR

* * *

1 WHEREUPON, the following proceedings were had at
2 9:57 a.m.:

3 EXAMINER STOGNER: At this time we will call Case
4 Number 11,912.

5 MR. CARROLL: Application of Maralo, Inc., for an
6 unorthodox oil well location, Eddy County, New Mexico.

7 EXAMINER STOGNER: Call for appearances.

8 MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe,
9 representing the Applicant, and I have two witnesses.

10 EXAMINER STOGNER: Other appearances?

11 MR. CARR: May it please the Examiner, my name is
12 William F. Carr with the Santa Fe law firm Campbell, Carr,
13 Berge and Sheridan. We represent Texaco Exploration and
14 Production, Inc., and I have two witnesses.

15 EXAMINER STOGNER: Any other appearances?

16 Okay, I believe we have four witnesses. Will all
17 four witnesses please stand to be sworn at this time?

18 (Thereupon, the witnesses were sworn.)

19 SHANE LOUGH,
20 the witness herein, after having been first duly sworn upon
21 his oath, was examined and testified as follows:

22 DIRECT EXAMINATION

23 BY MR. BRUCE:

24 Q. Would you please state your name for the record?

25 A. Shane Lough.

1 Q. Who do you work for and in what capacity?

2 A. I work for Maralo, Incorporated, in Midland,
3 Texas. I'm a senior exploration geologist.

4 Q. Have you previously testified before the
5 Division?

6 A. I have.

7 Q. And were your credentials as an expert petroleum
8 geologist accepted as a matter of record?

9 A. Yes.

10 Q. And are you familiar with geological matters
11 pertaining to this Application?

12 A. Yes.

13 MR. BRUCE: Mr. Examiner, I would tender Mr.
14 Lough as an expert petroleum geologist.

15 MR. CARR: No objection.

16 EXAMINER STOGNER: Mr. Lough is so qualified.

17 Q. (By Mr. Bruce) Mr. Lough, could you identify
18 Exhibit 1 for the Examiner and just briefly set forth the
19 location that Maralo is seeking for this well?

20 A. Yes, this is just a regional locator map, showing
21 that the well in question is located approximately 10 miles
22 due east of Loving, New Mexico.

23 The black arrow toward the east part of the map
24 delineates the subject well.

25 Q. What is the footage location on the well?

1 A. The footage that we're here to seek approval for
2 is 2310 feet from the south line and 2600 feet from the
3 east line of Section 30.

4 Q. Before we move on to any other exhibits, Mr.
5 Lough, that's a pretty darn unorthodox location, isn't it?

6 A. It is.

7 Q. Why is Maralo seeking this location?

8 A. Well, we attempted to drill a standard location.
9 However, the BLM would not allow us to drill our preferred
10 location. They're forcing us to drill at the location
11 we're seeking approval for today.

12 Q. So if Maralo had its druthers, it would rather be
13 at an orthodox location?

14 A. We would.

15 Q. Let's move on to Exhibit 2. Would you identify
16 that and discuss why the well has been moved?

17 A. This is a top map of the area with the proration,
18 the 40-acre proration unit outlined in the dashed line.
19 The arrow, again, is pointing to the proposed location.

20 There are two small X's within the 40-acre
21 outline. Those are two locations that Maralo had staked
22 earlier and were denied by the BLM.

23 The topo map also delineates the Remuda Basin,
24 which is a topographic feature that is basically causing
25 our problems in attempting to get a standard location

1 drilled. The BLM does not want us drilling in the lower
2 portion of the Remuda Basin, and therefore they have pushed
3 us both to the north and to the west.

4 Q. What is Exhibit 3?

5 A. This is a letter from the BLM stating the reasons
6 for our -- denial of the location we prefer to drill.

7 Q. And does the letter state that this is, in fact,
8 the only location the BLM will approve?

9 A. It does.

10 Q. Let's move on from the topographic to the
11 geologic. Would you identify your Exhibit 4 and discuss
12 the main zone of interest in this area, please?

13 A. Yes, this is a structure map on the top of the
14 Loving sand, which I'll identify -- We have another
15 exhibit, cross-section, that will show this.

16 The Loving sand is the primary producing
17 reservoir in the field that we are within, and that is the
18 Nash Draw-Brushy Canyon field.

19 This exhibit shows that the nature of the sand
20 and the nature of the trap is stratigraphic, that structure
21 doesn't appear to play an overly important role in the
22 trapping mechanism within this sand.

23 The exhibit also shows the proposed location at
24 the red dot, and our cross-section that we will present
25 later, A-A', the line of section is set out in red.

1 Q. Now, this Loving sand, let's clear up a couple of
2 things. This is a lower Brushy Canyon sand?

3 A. That's correct.

4 Q. And the term "Loving", is that internal or is
5 that a fairly generally used term out in this area?

6 A. It's a term that is generally accepted by
7 industry.

8 Q. Before we move off this map, the Maralo acreage
9 in the east half has been pretty well developed, it
10 appears. Have you had problems with the BLM with respect
11 to drilling other wells on Maralo's acreage?

12 A. Other -- We have had to move other locations, but
13 we've been able to stay within standard locations on
14 earlier wells that we drilled, and we did -- that we had to
15 visit with the BLM on.

16 Q. But this isn't the first problem you've had?

17 A. This is not the first problem, no.

18 Q. Let's move on to your Exhibit 5 and discuss the
19 geology of the main pay zone in a little more detail, Mr.
20 Lough.

21 A. Exhibit 5 is an isopach map of the Loving sand,
22 which is the primary pay in this field. Again, it's a
23 lower Brushy Canyon sand. We believe it's a north-south
24 channel deposit.

25 The sand illustrates net sand porosity within the

1 sand channel equal to 14 percent or greater. We feel like
2 that's a reasonable, mappable, commercial cutoff for
3 mapping this sand.

4 Again, it shows the proposed location, the
5 proration unit and the line of section, all highlighted in
6 red.

7 Q. Okay. Now, a couple of things on this map. From
8 this map, Maralo would much rather be at an orthodox
9 location, would it not?

10 A. We would. We feel like in an orthodox location
11 or more of a standard location there would be less risk to
12 drilling this well. We would likely encounter better --
13 more commercial reservoir, and we could avoid the problems
14 that we're faced with today.

15 Q. And the second thing is, the southwest quarter of
16 Section 30, that's Texaco acreage, right?

17 A. That's correct.

18 Q. Now, there's a well -- I don't see the number on
19 it, but it says "Lower Bell Canyon"?

20 A. That is correct, yes. That's Texaco's Remuda
21 Basin Number 3 well.

22 Q. Now, that well was -- did that well -- Was that
23 well drilled deep enough to test the Loving sand?

24 A. Yes, it penetrated the Loving sand, and I will
25 show that on our cross-section exhibit. It penetrated the

1 Loving sand. There wasn't commercial reservoir present,
2 and Texaco elected not to test the sand, but they elected
3 to plug back to a lower Bell Canyon zone.

4 Q. So based on your map, at this point the
5 offsetting 40-acre proration unit is probably not
6 productive in the Loving sand?

7 A. The -- That's our interpretation, that the west
8 offsetting proration unit to our proposed location is not
9 productive in the lower -- in the Loving sand. And
10 therefore, we feel like our well will not impact Texaco's
11 acreage substantially in that sand.

12 Q. Okay. Now, let's look to the north northwest of
13 your proposed well. There's a well, the Number -- It has
14 the number "6" by it. What well is that?

15 A. That "6" is the net feet of Loving sand that we
16 calculated in that. That's the Maralo GR State 30 Number
17 2.

18 Q. And that was drilled by Maralo?

19 A. That's correct.

20 Q. Now, that offsetting unit -- Was that well
21 commercial in the Loving sand?

22 A. No, that well drilled through the Loving sand
23 into the top of the Bone Spring, as most of these do. We
24 evaluated the Loving sand when we drilled it, and our
25 interpretation is that it has six net feet of porosity

1 greater than or equal to 14 percent, and that that number
2 of -- or that amount of porosity is not a commercial
3 reservoir.

4 We elected to not complete the well in the Loving
5 sand because of the thin nature of the reservoir, and we
6 plugged that well back to a middle Brushy Canyon sand and
7 completed it from that zone.

8 Q. So from a geologic standpoint, the primary
9 effect, if any, of the unorthodox location for your
10 proposed well is to the east and to the north; is that
11 correct?

12 A. Yes, to the -- I would say to the east, the north
13 and also to the south.

14 Q. Okay.

15 A. That's correct.

16 Q. So there's very little, if any, effect to the
17 west, or northwest?

18 A. That's correct.

19 Q. One final thing off this map. Although it's not
20 delineated, is it correct, Mr. Lough, that the southeast
21 quarter, all of the southeast quarter of Section 30, and
22 the south half of the northeast quarter, that is one
23 federal lease; is that correct?

24 A. That's correct.

25 Q. Okay. Owned and operated by Maralo?

1 A. That's correct.

2 Q. Let's move on to your cross-section, your Exhibit
3 6, and discuss those wells in a little more detail.

4 A. Exhibit 6 is a cross-section east-west across the
5 field. It delineates -- or it illustrates the depositional
6 nature of the Loving sandstone.

7 Going from east to west, we -- the well furthest
8 east, electric log calculation has 30 feet of sand, Loving
9 sand, with porosity greater than or equal to 14 percent.
10 The well next to it, going one location to the west, has 22
11 feet. Both of these wells we deem commercial. We've
12 perforated and completed both wells in the Loving sand.

13 The cross-section then moves to the north, to the
14 proposed location, with the -- At the top of the cross-
15 section, just below the heading for the proposed location,
16 we've delineated the Texaco-Maralo lease line, illustrating
17 that we are very close to that lease line at the proposed
18 location.

19 And the last log on the cross-section, on the
20 left side, which is the westernmost log on the cross-
21 section, is Texaco's well, illustrating that they did
22 penetrate the Loving sand. With a 14-percent cutoff, this
23 cross-section illustrates that that well has zero feet of
24 potentially commercial Loving sand present.

25 This cross-section serves to illustrate that

1 somewhere between our producing well illustrated on the --
2 It's on the cross-section, which is the Gold Rush 30,
3 Federal Number 2, and somewhere between that well and
4 Texaco's well the Loving sand reservoir pinches out.

5 This cross-section also serves to illustrate that
6 the further east our proposed location is moved -- I'm
7 sorry, the further west our proposed location is moved, the
8 riskier we feel like that -- the riskier situation we're in
9 for drilling the well.

10 We can't --

11 EXAMINER STOGNER: Say that again? I'm sorry.

12 THE WITNESS: Okay. We feel like by virtue of
13 the BLM forcing us to drill in a further west location than
14 we would prefer to drill, that we are incurring
15 significantly more risk that the sand will thin and be
16 noncommercial.

17 Q. (By Mr. Bruce) Along that line, what thickness
18 are you hoping you'll get at your proposed location?

19 A. At the proposed location that we're being forced
20 to place the well at, we feel like we'll get somewhere
21 between 10 feet and 15 feet of commercial sand.

22 Q. It could be less than that?

23 A. It could be less than that, yes.

24 Q. And you've already stated that up to the
25 northwest, a well that had six feet was noncommercial in

1 this zone?

2 A. That's correct.

3 Q. Now, besides the Loving zone, is there secondary
4 potential in this?

5 A. There is secondary potential. Texaco's well that
6 is located on the cross-section was plugged back to the
7 lower Bell Canyon and was completed in an interval from
8 4068 feet to 4090 feet, and we recognize that as a
9 potential secondary pay in this well.

10 Q. Mr. Lough, in your opinion is the granting of
11 Maralo's Application in the interests of conservation and
12 the prevention of waste?

13 A. It is.

14 Q. And were Exhibits 1 through 6 prepared by you or
15 under your direction or compiled from company business
16 records?

17 A. They were.

18 MR. BRUCE: Mr. Examiner, I'd tender the
19 admission of Maralo Exhibits 1 through 6.

20 EXAMINER STOGNER: Exhibits 1 through 6 will be
21 admitted into evidence. Thank you, Mr. Bruce.

22 Mr. Carr, your witness.

23 CROSS-EXAMINATION

24 BY MR. CARR:

25 Q. Mr. Lough, from your testimony I understand you

1 were involved in the negotiations with Bureau of Land
2 Management to select the location for this proposed well;
3 is that right?

4 A. That's correct.

5 Q. How many times did you -- or attempts were made
6 by Maralo to stake a well on this tract? The two that are
7 shown on your exhibit?

8 A. Yes, sir.

9 Q. Is that all of it?

10 A. That was the only two official locations that
11 were staked by Maralo.

12 Q. Did you go out with the BLM and they conduct a
13 visual survey at this location?

14 A. The BLM did conduct a -- I did not go out, but
15 they did conduct a visual survey.

16 Q. And the locations you proposed were denied for
17 archeological reasons or cave karst; is that right?

18 A. That's correct.

19 Q. In drilling other wells in this area, have you
20 before encountered a problem with cave karst?

21 A. Yes, we have.

22 Q. Is that common throughout this area?

23 A. Locally in this area, it is common.

24 Q. Isn't it predominantly to the west of where this
25 location is actually located?

1 A. That's my understanding, yes, sir.

2 Q. Now, you've stated that the BLM told you that
3 this is the only location that was available; is that your
4 testimony?

5 A. Yes, sir.

6 Q. If I read your letter, which is marked Exhibit
7 Number 3, it says that "...this is the only location that
8 we could come up with to accommodate Maralo..." If you
9 look at the second sentence, it says, "As you are aware,
10 the only location that we could come up with to accommodate
11 Maralo is an unorthodox one."

12 A. That's correct.

13 Q. Okay?

14 It also says, "...the only alternative would be
15 an unorthodox location thus requiring a hearing before the
16 NMOCD."

17 Is the location you are proposing the only
18 unorthodox location they would approve, or did they just
19 say they couldn't find a standard location?

20 A. From verbal communications with them, it's my
21 understanding that this is the only location that the BLM
22 would approve for Maralo.

23 Q. Have you worked -- or discussed with the BLM
24 whether or not there is any potential for mitigating any
25 archeological site on the tract?

1 A. That did come up, and I'm not -- I don't recall
2 what those conversations were. That issue did come up.

3 Q. Have you ever attempted to work with them in
4 terms of mitigating an archeological site?

5 A. Personally, no.

6 Q. Does Maralo, to your knowledge, have any
7 experience with that?

8 A. I believe Maralo does, yes.

9 Q. You have worked in the past with archeological
10 consultants to try and accommodate the BLM in obtaining
11 approval to drill?

12 A. That's correct.

13 Q. And do you if any of that was discussed within --

14 A. Any of those kind of --

15 Q. Yes.

16 A. -- conversations where -- Not by me personally.

17 I think there may be other parties at Maralo that actually
18 did talk to the BLM.

19 Q. About mitigation?

20 A. Yes.

21 Q. Do you know that?

22 A. I'm not absolutely sure.

23 Q. Was attempt made in this area to form a working
24 interest unit to enable you therefore to -- by vehicle of a
25 working interest, avoid the problems that you have with a

1 well only 40 feet from your spacing unit boundary?

2 A. Well, I think -- It's my understanding that there
3 were communications between Maralo and Texaco to that
4 respect.

5 Q. Do you know what came of those? Obviously
6 nothing, right?

7 A. That's right, correct.

8 Q. You are aware that we're also, in this area, in
9 close proximity to the potash area --

10 A. Yes.

11 Q. -- isn't that right?

12 A. Yes.

13 Q. And you're aware that there are circumstances
14 where you may have a federal lease, or a lease, and not be
15 permitted to actually develop that because of other
16 conditions, in that case, potash?

17 A. Yes.

18 Q. And that what we're looking at here is a
19 situation when you say you have to be 40 feet off the lease
20 line or, in fact, you can't develop your acreage?

21 A. Yes, sir. That's correct.

22 Q. You presented a structure map. Did I understand
23 your testimony correctly that structure really isn't very
24 important for picking a well site in this area?

25 A. At this location, structure doesn't appear to be

1 an overriding concern.

2 Q. If we look at the isopach map of the Loving sand,
3 your Exhibit 5 -- Do you have that in front of you?

4 A. Yes, I do.

5 Q. If I look at this, what you've mapped is the
6 lower Brushy Canyon sand. That's the primary objective in
7 this well; isn't that right?

8 A. That's correct.

9 Q. And there are secondary objectives in the well,
10 are there not?

11 A. Yes, sir, there are.

12 Q. Would the Bell Canyon C7 sand that's producing in
13 the offsetting Texaco well be one of those secondary
14 objectives?

15 A. We feel like it is likely to be a secondary
16 objective in this well, yes, sir.

17 Q. And the well that Texaco is -- in which they are
18 producing that sand is the dot in the southwest quarter of
19 Section 30; is that right?

20 A. That is correct.

21 Q. Have you attempted to map that particular Bell
22 Canyon interval to determine whether or not you are, in
23 fact, gaining in terms of reservoir thickness in the Bell
24 Canyon at this location?

25 A. At this point, we don't have maps that -- other

1 than in-house maps, on that sand.

2 We've reviewed the sand in the surrounding
3 wellbores, and we do believe that this -- it's highly
4 likely this wellbore will encounter that sand, but --

5 Q. And you understand that that is a commercial sand
6 in the Bell Canyon, do you not?

7 A. Yes.

8 Q. You're going to actually know what you encounter
9 in that area, though, until you drill the well. Is that
10 what you say?

11 A. That's correct.

12 Q. A well 40 feet off the lease line in that Bell
13 Canyon interval, by moving to that unorthodox location you
14 would be impacting the Bell Canyon production in the area,
15 would you not?

16 A. We do recognize that, yes.

17 Q. If we look at -- if I look at this map -- Well,
18 first of all, you indicated by moving to the west you were
19 increasing your risk --

20 A. That's correct.

21 Q. -- is that correct?

22 A. Yes --

23 Q. That comment --

24 A. -- for the Loving --

25 Q. That comment was only directed at the sand which

1 you've mapped on Exhibit Number 5 --

2 A. That comment was --

3 Q. -- the Brushy Canyon?

4 A. Yeah, that was pertaining to the Loving sand,
5 that's correct.

6 Q. Do you know whether or not you're gaining an
7 advantage in the Bell Canyon?

8 A. We -- No, I don't know that we're going to gain
9 an advantage one way or another in the Bell Canyon.

10 Q. And you don't know -- you haven't --

11 A. That's correct, that's correct.

12 Q. Maralo has a well in the northwest of the
13 northwest of Section 32. I think you -- Or is that a Bass
14 well? It has 8 feet shown by it.

15 A. That's a Bass well, that's correct.

16 Q. Is that a commercial well?

17 A. Not in this sand.

18 Q. Not in this sand?

19 A. They're not completed in this sand. They're
20 completed in a shallower sand.

21 Q. Okay, and that 8 foot shows just the number of
22 feet in this particular sand?

23 A. That's correct.

24 Q. If we look at the Texaco tract, the southwest
25 quarter of Section 30 --

1 A. Uh-huh.

2 Q. You would agree with me that there are commercial
3 reserves on that acreage, would you not?

4 A. From the Bell Canyon, I do agree.

5 Q. And what about as you've mapped it for the Brushy
6 Canyon? There are reserves under that tract, are there
7 not?

8 A. Based on this interpretation, it's questionable.

9 Q. Your 10-foot contour does run through that tract,
10 does it not?

11 A. It does, it just skirts the east edge of that
12 tract.

13 Q. So we could have as much, based on your
14 interpretation, on the extreme eastern edge of a 13 feet in
15 that sand?

16 A. That's correct.

17 Q. Now, when we look at the existing Texaco well in
18 that acreage, that location is actually 790 feet from the
19 east line of their spacing unit; is that not right?

20 A. That is correct.

21 Q. And if they were able to directionally drill to
22 the east, they, in fact, might be able to encounter some
23 commercial production in the Brushy Canyon?

24 A. At this -- With my interpretation, they would
25 have to drill an unorthodox location to encounter

1 commercial reserves.

2 Q. Either straight hole or directional?

3 A. Either, yeah, either.

4 Q. But the fact of the matter is that there are
5 reserves under the southwest quarter, that your well 40
6 feet off the spacing unit line are, in fact, going to
7 recover in this interval; isn't that correct?

8 A. Based on my interpretation, there are.

9 MR. CARR: That's all I have. Thank you.

10 EXAMINER STOGNER: Mr. Bruce?

11 MR. BRUCE: I don't have any follow-up.

12 EXAMINER STOGNER: Mr. Bruce, for the record,
13 what's your next witness?

14 MR. BRUCE: An engineer, Mr. Gill.

15 EXAMINER STOGNER: Okay.

16 EXAMINATION

17 BY EXAMINER STOGNER:

18 Q. Mr. Lough, help me go through the federal process
19 here.

20 When did Maralo go out and survey the area and
21 start staking the well, or stake the two requested standard
22 locations? When was that?

23 A. Mr. Examiner, I don't know the exact date, but it
24 was -- It could have been as much as two years ago.

25 We've been working in this area for a number of

1 years, and we went through the staking process early on in
2 our development plans for this field. And so over the past
3 two to four years, we've been going through these
4 processes.

5 Q. When did the BLM -- Did they deny those two
6 standard locations or request you to move? And when was
7 that?

8 A. They did deny those two standard locations. And
9 to the best of my recollection, it was a year and a half,
10 two years ago.

11 Q. Okay. Did they deny it in writing, or was that a
12 decision made out in the field?

13 A. Out on location? I don't know.

14 Now, there is a chance that our engineering
15 witness may have more. He was more involved with it at the
16 time than I was.

17 Q. Okay, because you testified to -- Actually you
18 made two exhibits, one a January letter notifying you there
19 was an unorthodox location due to archeology and cave and
20 karst --

21 A. That's correct.

22 Q. -- and also a November letter talking about
23 Maralo's requested location as being acceptable. So when
24 did this go from a mandatory move to a requested location,
25 is what I'm trying to get at?

1 A. I believe that Richard Gill, our engineering
2 witness, will have more knowledge about that than I will.

3 Q. Okay. Now, Texaco's -- What is that? The Basin
4 State 30 Number 3?

5 A. Yes, sir, that's correct.

6 Q. Okay. Now, that's presently producing; is that
7 correct?

8 A. That's correct, it is.

9 Q. Do you know what pool that's designated to?

10 A. We do...

11 MR. BRUCE: Mr. Examiner, that Texaco well is in
12 the southwest Forty-Niner Ridge --

13 THE WITNESS: That's correct.

14 MR. BRUCE: -- Delaware Pool.

15 THE WITNESS: Yeah, that's right.

16 Q. (By Examiner Stogner) Okay, so it's a Delaware
17 completion?

18 A. It is a Delaware completion, yes, sir.

19 Q. And your completion would also be considered the
20 same type of completion, right, in the Delaware Pool?

21 A. It is -- Yes, the Bell Canyon, Cherry Canyon and
22 Brushy Canyon are all considered Delaware, within Delaware
23 pools, that's correct.

24 Different reservoirs, but all in the same group
25 of formations.

1 Q. Now, Mr. Carr had asked you about the formation
2 of a working interest agreement.

3 A. Yes.

4 Q. But you had some knowledge that there was some
5 negotiations about that?

6 A. Yes, sir. I wasn't directly involved in those
7 negotiations, but I know that they did take place between
8 Maralo and Texaco.

9 Q. Do you know who owns the royalty underneath the
10 Texaco acreage?

11 A. The -- yes, sir, it's -- The Texaco acreage is
12 state minerals.

13 Q. Okay.

14 A. And of course the acreage that we're concerned
15 about, that our well be on, is federal.

16 Q. Okay, so in essence, due to topographic
17 conditions, cave karst conditions and archeology, the BLM
18 requests you to move 40 feet off of state royalties --

19 A. That's --

20 Q. -- acreage that they do not own?

21 A. That's correct.

22 Q. Did you bring that up to them?

23 A. Again, I wasn't directly in that part of the
24 negotiations with the BLM. I don't know if that point was
25 ever discussed pointedly with the BLM. At the time we were

1 just trying to find a location that we would be allowed to
2 drill.

3 Q. And in essence, you still are?

4 A. In essence, we still are, yes, sir, that's
5 correct.

6 Q. We want to make that clear.

7 A. Yes, sir. That's correct.

8 Q. Of course, the next obvious one with -- well, at
9 geology -- forgetting -- at a less geological acceptable
10 location, moving further west, why don't you just
11 directionally drill from this location back to the east?

12 A. We will have testimony to that -- Our engineering
13 witness will discuss that, yes, sir.

14 Q. Okay. So I guess the fourth option -- Well,
15 there's a fifth option; that's not to drill it. But the
16 fourth option would be to suffer a severe penalty; is
17 that --

18 A. That's -- that's --

19 Q. And that's your understanding?

20 A. That is our understanding, yes.

21 EXAMINER STOGNER: Okay. Any other questions?

22 MR. CARR: No questions.

23 EXAMINER STOGNER: You may be excused.

24 Mr. Bruce?

25 MR. BRUCE: Call Mr. Gill to the stand.

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RICHARD GILL,

the witness herein, after having been first duly sworn upon his oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. BRUCE:

Q. Would you please state your full name and city of residence?

A. My name is Richard Gill. I live in Midland, Texas.

Q. Who do you work for?

A. I work for Maralo, Incorporated.

Q. What's your job with Maralo?

A. I'm a petroleum engineer for them.

Q. Have you previously testified before the Division as a petroleum engineer?

A. Yes, I have.

Q. And were your credentials accepted as an expert petroleum engineer?

A. Yes, they were.

Q. And are you familiar with the engineering matters related to this Application?

A. Yes, I am.

MR. BRUCE: Mr. Examiner, I would tender Mr. Gill as an expert petroleum engineer.

EXAMINER STOGNER: Any objection?

1 MR. CARR: No objection.

2 EXAMINER STOGNER: Mr. Gill is so qualified.

3 Q. (By Mr. Bruce) Mr. Gill, would you refer to --
4 identify Exhibit 7 and 8 for the Examiner and perhaps,
5 while you're discussing those, tell the Examiner of your
6 contacts with the BLM and maybe a little bit of the process
7 of the denial of your orthodox locations.

8 A. Okay. Exhibit 7 and Exhibit 8 -- 7 is the
9 approved permit to drill from the state pending approval
10 for an unorthodox location that we filed. Filing date was
11 October, 1997. And this is at the location that we're here
12 talking about today.

13 EXAMINER STOGNER: Okay, this is a real touch
14 issue. Who was it approved by, again?

15 THE WITNESS: Oh, I'm sorry, you're absolutely
16 right. It's approved by the BLM, I guess.

17 EXAMINER STOGNER: Okay.

18 THE WITNESS: Yes, pending state approval.

19 And Exhibit 8 is just the location plat that
20 accompanied this permit.

21 To go back a little bit in the history, the
22 questions that were asked of Shane, we had originally
23 staked a location, like he said, maybe a couple of years
24 ago. We have a letter in our file that -- I did not bring
25 a copy -- that basically states that the location would not

1 get approved by the BLM. It was at a standard location.
2 So we knew from the beginning that we would have to go
3 through the process with them to try to get a location
4 approved.

5 Starting about -- I think it was about six months
6 ago -- I'm not sure on that -- but we started trying to
7 find a location that they would approve us to drill.

8 On Exhibit 2, the topo map, the two "Xs" there,
9 the locations that were disapproved, are actually locations
10 we do have disapproval letters in our files, that were
11 actually staked and disapproved.

12 I talked to our agent, who was on location, with
13 the BLM, about going further north. It looked to me that
14 you could get further north from the Basin and get away
15 from that part of the problem and not encroach on the --
16 closer to Texaco. But he told me that the archeologist
17 said that they wouldn't approve anything further north. I
18 guess there must be archeological sites all the way up.

19 And then he -- at that time he asked the BLM to
20 pick the location that they would approve, and that's the
21 location that we have today.

22 The letter that they sent us dated January 5th,
23 1998, was just our -- that we asked them to write us a
24 letter to the effect. Reading their letter, I don't think
25 it really says exactly what we wanted them to say, because

1 we wanted them to tell us if this was, in fact, the only
2 location that they would approve.

3 And again, they staked the location. It wasn't
4 -- We finally just told them to stake it where they'd let
5 us drill, and this is the only place in that 40 acres that
6 they would agree to.

7 Q. (By Mr. Bruce) Now, if you had been able to stay
8 330 feet off of Texaco's lease line and just move further
9 north, the only effect there would have been on the same
10 Maralo federal lease --

11 A. That's correct, we would have been encroaching on
12 ourselves, and that's --

13 Q. And it wouldn't have been --

14 A. It wouldn't have been a bad deal, right. We
15 certainly would have preferred doing that.

16 Q. And so that subject was broached, and again the
17 BLM said no?

18 A. That's right.

19 Q. Let's discuss production from wells in this area.
20 Why don't you refer to your Exhibits 9 and 10 --

21 A. Okay.

22 Q. -- and identify those for the Examiner?

23 A. Exhibits 9 and 10 are just a couple of production
24 curves on some of our older wells out there, to get a
25 little production history, that are producing from that

1 Loving sand.

2 And you can see on both -- The curves are almost
3 identical on the green line, the manner in which the oil
4 production drops off on those wells. They come in pretty
5 strong and drop pretty rapidly, which is very common for
6 the area.

7 Q. So even though they come in at a good rate, they
8 decline very rapidly.

9 A. That's correct.

10 Q. What does Exhibit 11 represent?

11 A. Exhibit 11 is just a projected production decline
12 curve on the well in question that I had made up in order
13 to run our economics for our -- to get in-house approval on
14 our AFE to drill the well.

15 Q. What does the spike in the middle of it
16 represent?

17 A. The spike in the middle of it represents a
18 recompletion. It's our opinion that these wells probably
19 are not economic out of just one zone, that that main
20 Loving sand zone will produce, you know, something like,
21 60,000, 75,000 barrels or some number, and then it will
22 really require recompletion in some of these other zones to
23 truly make the well economic.

24 Q. So the main pay zone, the Loving zone that Mr.
25 Lough talked about, if you just got that in a well, the

1 well would probably not be economic?

2 A. Probably not.

3 Q. So you need the additional potential?

4 A. Right, the Bell Canyon, there are a couple of
5 Middle Brushy zones that do produce a little bit.

6 Q. Okay. Well, let's discuss the economics a little
7 bit.

8 A. Okay.

9 Q. What is Exhibit 12?

10 A. Exhibit 12 is just the economics that I ran for
11 our in-house purposes to send to management to approve the
12 well, based on the decline curve there in Exhibit 11. And
13 I used a lease operating expense of about \$3000 a month,
14 which seems to be fairly comparable to what we're spending
15 right now on these wells.

16 You might notice, the oil price is \$18 a barrel,
17 which shows that at today's prices this may not be too good
18 a deal anyway. But hopefully, we can get the price of oil
19 back up.

20 And in doing this we show that we get a return on
21 our investment of about three to one on these wells.

22 Q. Now, three to one is acceptable for Maralo's
23 internal economics?

24 A. Yes. Yeah, we'd drill for that.

25 Q. Okay. Now, you mentioned the price of oil.

1 Right now, oil is about two dollars a barrel lower than
2 that; is that correct?

3 A. Yeah, or more, right.

4 Q. Now, was any effort made to look at directionally
5 drilling this well to a standard location?

6 A. Yes, we did. Obviously, that was one of the
7 options, was to do that. Exhibit 13 represents the
8 economics based on what we feel it would cost us to
9 directionally drill the well and pump it. These wells
10 require artificial lift.

11 I looked at the possibility of running a sub pump
12 to produce the wells, but based on the production from the
13 older wells -- Initially, there's probably enough fluid for
14 a sub pump, but pretty rapidly your fluid will drop to the
15 point that you cannot use a sub pump. So thereby you're
16 going to be stuck with having to rod-pump a deviated well.
17 And our experience of rod-pumping deviated wells, you eat
18 up tubing and rods very rapidly.

19 So the economics -- So what I did for the
20 economics here was added -- I believe it was about \$60,000,
21 I think, for the deviated part of the hole, which is not
22 that big of a problem. But I also added about \$4500 a
23 month in operating expenses, which should cover probably a
24 set or rods and a set of tubing every year.

25 Q. Is that a reasonable estimate?

1 A. That was our experience. And in doing so, our
2 return on investment drops down to 1.6 to 1.

3 Q. Would Maralo drill the well at that rate of
4 return?

5 A. No, we would not.

6 Q. So in effect, a deviated well just isn't an
7 option for these Delaware wells?

8 A. There's no economic way to produce it.

9 Q. Now, from an engineering standpoint, in your
10 opinion, will the Maralex well drain Texaco's acreage in
11 the main pay zone?

12 A. In the Loving sand, I don't think there will be
13 much drainage at all. These wells will not produce without
14 a frac job.

15 And the nature of the frac job will be, it will
16 follow the path of least resistance, which will tend to
17 want to make it go back to the east where the better
18 reservoir is, for the better permeability and better
19 porosities.

20 Q. So the fracture goes toward the sweet part of the
21 reservoir and not toward the dry part?

22 A. Yeah, in theory, yes.

23 Q. So that would go up to the north, south, east --

24 A. North, south, east.

25 Q. -- and away from the Texaco --

1 A. That's right.

2 Q. Mr. Gill, in your opinion is the granting of
3 Maralo's Application in the interests of conservation and
4 the prevention of waste?

5 A. Yes, it is.

6 Q. And were Exhibits 7 through 13 prepared by you or
7 under your direction?

8 A. Or from company files, yes, they were.

9 MR. BRUCE: Mr. Examiner, I tender the admission
10 of Maralo Exhibits 7 through 13.

11 EXAMINER STOGNER: Exhibits 7 through 13 will be
12 admitted into evidence at this time.

13 MR. BRUCE: And we have one final exhibit, which
14 is my affidavit of notice, which I would ask to be
15 admitted. I'll ask Mr. Gill one question on Exhibit 14.

16 Q. (By Mr. Bruce) We notified Texaco, Mr. Gill. We
17 also notified Bass. What is the reason for that?

18 A. It's my understanding that Texaco's interest in
19 the southwest quarter of that section, there -- was
20 obtained from the term assignment from Bass.

21 Q. Okay. So to be on the safe side, we also
22 notified Bass?

23 A. (Nods)

24 Q. And those are the only offset working interest
25 owners?

1 A. Yes, sir.

2 MR. BRUCE: Tender the admission of Exhibit 14,
3 Mr. Examiner.

4 MR. CARR: No objection.

5 EXAMINER STOGNER: To be on the safe side, why
6 wasn't the State Land Office notified, using your words?

7 THE WITNESS: I guess I don't have an answer for
8 that. I'm not aware they were --

9 EXAMINER STOGNER: Is it mandatory?

10 THE WITNESS: I'm not aware that it is, sir, but
11 I don't know.

12 MR. BRUCE: Mr. Examiner, in my opinion Texaco
13 would also be protecting the interests of its lessor. If
14 necessary, we could notify the State Land Office.

15 EXAMINER STOGNER: Exhibit Number 14 will be
16 admitted into evidence at this time.

17 Mr. Carr, your witness.

18 MR. CARR: Thank you, Mr. Stogner.

19 CROSS-EXAMINATION

20 BY MR. CARR:

21 Q. Mr. Gill, if I understood your testimony, the
22 proposed location is not the location that Maralo would
23 have preferred on this tract; is that right?

24 A. That is correct.

25 Q. And is it Maralo's testimony that a well at this

1 location does not gain an advantage or adversely impact the
2 offsetting Texaco tract in the southwest of Section 30?

3 A. I think in the main pay, the Loving sand, I think
4 that is correct.

5 Q. Is it that -- also your testimony as to the Bell
6 Canyon sand that is producing in the offsetting Texaco
7 well?

8 A. No, sir. I think it will impact the Texaco well
9 to the Bell Canyon.

10 Q. Would you agree with me that you are gaining an
11 advantage on that -- on the Texaco tract in that sand, with
12 the well at this location?

13 A. To a degree, yes, sir.

14 Q. And you are proposing that -- if I understand
15 it -- that this location be approved without a production
16 penalty; is that your recommendation?

17 A. To the Loving sand, that is my recommendation.
18 To the Bell Canyon I think that we would be willing to work
19 our some agreement there.

20 Q. Are you asking the Division or making any
21 recommendation to the Division as to a penalty for this
22 well in any interval?

23 A. We're not asking that, no.

24 Q. You have run economics on the potential for a
25 directional wellbore. That's what I think are --

1 A. Right.

2 Q. -- Exhibit 13; is that right?

3 A. That's correct.

4 Q. And if I look down at the bottom center portion
5 of this, there is a -- In dark print it says, "Economics
6 Information"?

7 A. That's correct.

8 Q. The second column down, second item below that,
9 says "Rate of Return: 20.49%"; is that right?

10 A. That's correct.

11 Q. And that is your estimate of the rate of return
12 you would receive for -- if you tried to develop the
13 acreage with a deviated well. Is that what this shows?

14 A. It shows the rate of return on the unrecovered
15 money, that's correct.

16 Q. That would be 20.49 percent?

17 A. Right.

18 Q. You would agree with me that wells in the
19 Delaware in this area typically do drain 40 acres?

20 A. Yes, sir.

21 Q. And if you are able to drill and complete a well
22 at the proposed location in either the Bell Canyon or the
23 Brushy Canyon, you will, in fact, be draining reserves from
24 the Texaco-operated tract to the west; isn't that right?

25 A. I believe that to be true in the Bell Canyon, but

1 probably not so much in the Brushy Canyon.

2 Q. You would agree with Mr. Lough's map that shows
3 there are as much as 13 feet of pay on that border between
4 the two tracts, would you not?

5 A. I would agree that there's probably -- probably
6 to some degree there would be some pay in that section.
7 Again, going back to my testimony before, I do believe that
8 the frac job required to produce the well will
9 preferentially head to the east and not to the west.

10 Q. You would agree with me, though, that to the
11 extent there are reserves over there in the west, there was
12 another well drilled, they will ultimately be recovered by
13 a Maralo well at this location?

14 A. Yes, what little reserves there are.

15 Q. Your objective is, in fact, to produce what's
16 under your tract; isn't that fair to say?

17 A. Absolutely.

18 Q. And you're not trying to drain acreage -- or
19 production --

20 A. No, sir.

21 Q. -- from an offsetting property?

22 A. No, sir.

23 Q. Let's go to -- Well, Exhibits 9 and 10, I think
24 you testified, are just decline curves that show a very
25 rapid decline as a typical production characteristic for a

1 well in this area; is that right?

2 A. That's correct.

3 Q. Okay. And if we go to Exhibit Number 11, this is
4 a graph showing what you are estimating the rate of
5 production to be from the proposed well? Is that what this
6 shows?

7 A. Yes, sir, this is the numbers I used to generate
8 our in-house economics.

9 Q. Okay. You would agree with me, would you -- When
10 we see the spike at, say, 2004 --

11 A. Uh-huh.

12 Q. -- to 2006, in that period, that's a proposed
13 recompletion --

14 A. That's correct.

15 Q. -- on the well, right?

16 A. Yes.

17 Q. And you would be recompleting, at least
18 initially, into the Bell Canyon; isn't that correct?

19 A. Possibly. There is some other Brushy Canyon
20 zones that do produce, but our experience on those hasn't
21 been too good, so the Bell Canyon probably is the most
22 prospective recompletion zone.

23 Q. The most likely interval for the recompletion
24 would be the zone that's now producing in the Texaco well
25 to the west --

1 A. That's correct.

2 Q. -- isn't that right?

3 A. That's correct.

4 Q. And you would agree they would be in the same
5 reservoir, if you actually --

6 A. Yes.

7 Q. -- recompleted in that Bell Canyon --

8 A. Yes.

9 Q. -- zone?

10 Your well would be 40 feet from the lease line,
11 right?

12 A. That's correct.

13 Q. Or the spacing unit line.

14 The Texaco well is 790 feet from that common
15 line --

16 A. That's correct.

17 Q. -- isn't that right?

18 So there would be an opportunity there to drain
19 reserves in the Bell Canyon interval from the Texaco
20 property; isn't that correct?

21 A. There would be an opportunity. You also would
22 have to factor in the fact that the Texaco well has been
23 producing for about two years now, and by the time this
24 recompletion occurs they will have had ten years of
25 production from that zone, which should adequately drain

1 what they're going to get.

2 Q. Is there anything that you're aware of today that
3 denies you an opportunity when you drill this well, and as
4 you look at the intervals and it looks like the C zone in
5 the Bell Canyon is best, to complete right there today?

6 A. That's a possibility.

7 Q. You might wind up doing that? We won't --

8 A. You might --

9 Q. -- know till you drill?

10 A. -- that's correct.

11 Q. And you understand the concept of a no-flow
12 boundary, do you not?

13 A. Yes.

14 Q. And at this point in time we really don't know
15 what you're going to get at your location until you drill
16 and complete there; isn't that right?

17 A. That's correct.

18 Q. And so for the purpose of just this question, you
19 assume comparable reservoir in your wellbore at this
20 location in the Bell Canyon to what Texaco has encountered
21 in their well 790 feet from that common line.

22 And you have comparable wells. You would have a
23 no-flow boundary that would extend a substantial distance
24 onto their property; isn't that right?

25 A. That would be correct.

1 Q. And if they're 790 and you're 40, that no-flow
2 boundary could be 300 feet or more onto their tract; isn't
3 that fair to say?

4 A. Possibly.

5 Q. If they came back and offset you at the standard,
6 you still would be on their acreage with that no-flow
7 boundary; isn't that also fair?

8 A. That would be correct.

9 Q. To put that no-flow boundary right on that lease
10 line, we'd have to drill 40 feet off that line on the other
11 side; isn't that right?

12 A. Yes.

13 Q. Would you consider that an appropriate
14 development pattern for this reservoir? Two wells 80 feet
15 apart?

16 A. No, I would not.

17 MR. CARR: That's all I have, thank you.

18 EXAMINER STOGNER: Mr. Bruce?

19 MR. BRUCE: A couple of follow-up questions, just
20 hit on something Mr. Carr brought up, Mr. Gill.

21 REDIRECT EXAMINATION

22 BY MR. BRUCE:

23 Q. If you do complete in the Loving zone, what time
24 period do you typically produce those?

25 A. Well, we have not recompleted any of our wells

1 yet into that Bell Canyon zone. So we've been producing --
2 I don't remember when we completed our first well out
3 there, but we've been producing two or three years, so far,
4 without moving uphole yet into that Bell Canyon zone, so --

5 Q. So if you hit the Bell -- or I mean, excuse me,
6 the Loving sand, the lower Brushy Canyon sand in this well,
7 you'd produce that for at least a couple of years before
8 you'd consider completing uphole?

9 A. That's been our procedure so far, yes.

10 Q. And by that time could the Texaco well have
11 produced the bulk of its reserves?

12 A. I think that's absolutely right. Again, the way
13 these wells seem to produce, and even the Bell Can- -- I
14 don't have a curve on that Bell Canyon well, but it's not
15 too untypical that the bulk of the production will come in
16 the first few years. After that it drops off to a lower
17 rate.

18 Q. Okay. One other thing. In the Bell Canyon,
19 assuming radial drainage from your location, wouldn't at
20 least 50 percent of production in the Bell Canyon come from
21 your federal lease?

22 A. Yes, based on the location of the well, it's
23 almost up in the --

24 Q. The far --

25 A. -- corner of --

1 Q. -- northwest corner of --

2 A. Right.

3 Q. -- the southeast quarter?

4 A. That's right. So to draw a radial boundary
5 around it, it would be affecting, you know, 50 percent on
6 this federal lease and then 25 percent in the northwest
7 quarter and 25 percent in the southwest quarter.

8 Q. So conceivably, assuming radial drainage and
9 assuming a homogeneous reservoir, about 25 percent of
10 production in the Bell Canyon could conceivably come off of
11 the Texaco acreage?

12 A. That's correct.

13 MR. BRUCE: That's all I have, Mr. Stogner.

14 MR. CARR: Mr. Stogner, could I have one follow-
15 up?

16 EXAMINER STOGNER: Sure, Mr. Carr, go ahead.

17 RECROSS-EXAMINATION

18 BY MR. CARR:

19 Q. Mr. Gill, you're not really going to know what
20 intervals you're going to produce in this well till you
21 drill it, are you?

22 A. That's correct.

23 Q. Can you tell Mr. Stogner today that you would not
24 complete this well in the Bell Canyon after you take a look
25 at it?

1 A. No, I cannot.

2 Q. Can you tell him that based on your exhibit --
3 that is, the projected production curve for this well --
4 that you wouldn't complete in the Bell Canyon until 2005?

5 A. No.

6 MR. CARR: Thank you.

7 EXAMINATION

8 BY EXAMINER STOGNER:

9 Q. I need to go back and ask about this mitigation
10 process.

11 A. Okay.

12 Q. As I understand it -- and I was involved in that
13 Lechuguilla Cave on Yates' well, on their mitigation --
14 what would be the process to mitigate a standard location
15 with the BLM?

16 A. I've never been involved with that. It's my
17 understanding that -- There's two outstanding problems.
18 One is the cost on the -- And again, from what I
19 understand, you can certainly incur a cost in doing that.
20 My belief, the economics on these wells are scratchy enough
21 that you can incur just a whole lot of extra costs.

22 Secondly, we're tied up with a -- We have a time
23 bind, part of the reason we're here today. We -- it's
24 about -- I believe it's about 16 percent of our interest in
25 that southwest -- or southeast quarter, is from a farmout

1 from Burlington that expires March the 15th. Now,
2 obviously we wouldn't have time to mitigate prior to that
3 without an exception from Burlington which, you know, we
4 may or may not be able to get.

5 But my -- I think my -- I'm more concerned, I
6 think, with the costs that would be involved in that. I
7 guess if I'm not mistaken, you pay extra for the damages in
8 order to do it, and I don't think this well can handle a
9 whole lot of extra costs.

10 To make the well, in our opinion, truly economic
11 does require recompletion in zones that -- on our acreage,
12 at this point, are untested. Now, obviously Texaco has
13 tested the Bell Canyon on theirs, and it looks pretty good.

14 Q. I'd like to explore some other options which
15 Maralo, I'm assuming, has investigated on something like
16 this, because I -- There again, I'm also assuming. Would
17 you like somebody to drill 40 foot next to your lease?

18 A. Oh, no, sir.

19 Q. Okay. How old are the existing wells over in
20 that east half of Section 30 that are producing? I'm
21 assuming from the zone of interest, the Bell Canyon, that
22 you're interested in.

23 A. In the Loving sand?

24 Q. Yes, Loving sand.

25 A. Loving sand. I don't remember the discovery date

1 on our first well. Most of them were drilled about mid-
2 1995, from about that point forward. Probably about the
3 first of 1995.

4 Q. Okay. What's the remaining life in that Loving
5 sand for those wells?

6 A. Based on my projection for this well, I'm giving
7 them about, you know, six, seven years total life. So
8 another five years.

9 Q. Are there any offset Texaco wells that are
10 affecting or, for that matter, anybody that's affecting
11 that Loving sand in that quarter quarter section of
12 interest today?

13 A. No, sir.

14 Q. Could one of the existing wells be horizontally
15 drilled into that zone at a later date?

16 A. No, sir, it's our opinion that -- and Shane might
17 could answer, but these are pretty laminated-type sands,
18 and in order to connect the sands together requires a frac
19 job, and I don't think we would be comfortable in trying to
20 frac a horizontal leg.

21 Q. The way I understand it, what you're asking today
22 is a no-penalty. Being 40 foot off that lease line, what
23 measures is Maralo going to take whenever drilling this
24 well to make sure that it is going vertical?

25 A. Obviously, the standard deviation survey is

1 required.

2 Q. Okay. If that's the only measure, then I'm
3 assuming with what you're saying, should that well drift
4 over to Texaco's lease --

5 A. Yeah.

6 Q. -- then if they actually compensate you for the
7 drilling of that well and they take a business lease up on
8 the surface with the BLM, then they can produce that well
9 without any penalty. Is that what I'm hearing from you?

10 Assuming that the well drifts over into their
11 lease. Because you don't have any --

12 A. Yeah.

13 Q. -- you don't have any business agreement with
14 them or any kind of a working interest agreement. And it
15 drifts over there, which it could; you're only 40 foot off;
16 wells don't go vertical.

17 A. That's correct.

18 Q. So you wouldn't have a problem with giving a well
19 to them, providing --

20 A. Yeah, I'd have a problem with that.

21 Q. You would?

22 A. Yeah.

23 Q. What kind of a penalty do you think they should
24 have, should that occur?

25 A. I haven't thought about this. I'm really not

1 prepared to answer that.

2 Q. Should it have some sort of penalty?

3 A. In the Loving sand, yes, because they're suddenly
4 -- again, the pay is -- According to the isopach map, the
5 bulk of the pay is going to be on our acreage and not on
6 theirs. They'll be impacting us more than I feel that
7 we'll be impacting them.

8 EXAMINER STOGNER: Any other questions of this
9 witness?

10 MR. CARR: No questions.

11 EXAMINER STOGNER: Mr. Carr, are you prepared at
12 this time -- Or do you have anything further, Mr. Bruce?

13 MR. BRUCE: Just one thing.

14 FURTHER EXAMINATION

15 BY MR. BRUCE:

16 Q. Mr. Gill, I think you said that what you proposed
17 was no penalty in the Loving sand.

18 A. That's correct.

19 Q. But that you would have an effect on Texaco in
20 the Bell Canyon?

21 A. That's correct.

22 Q. So a penalty would be reasonable in that
23 situation?

24 A. Yes, I think so.

25 MR. BRUCE: Thank you.

FURTHER EXAMINATION

BY EXAMINER STOGNER:

Q. Well, okay, let's go back to that, because you just opened up a whole new issue.

Now, this is one Delaware pool; is that correct?

A. Well, no, sir, actually it's not. We're producing from the Nash Draw-Brushy Canyon Pool --

Q. Okay, so --

A. -- and they're producing from the Southeast --

MR. BRUCE: Southwest --

THE WITNESS: Southwest --

MR. BRUCE: -- They're in the Southwest Forty-Niner Ridge --

THE WITNESS: -- Forty-Niner Ridge.

MR. BRUCE: -- Delaware, and I believe the Loving sand is only in the Nash Draw-Brushy Canyon Pool.

THE WITNESS: That's correct. So they are separate pools.

EXAMINER STOGNER: Yeah, we've run into this problem before, sort of like the Morrow and the Penn.

Q. (By Examiner Stogner) Well, then, this particular quarter section, is that -- is the Bell Lake covered in any particular pool at this time?

A. The Bell Canyon?

Q. The Bell Canyon.

1 A. I guess not. I would assume, you know, if we
2 were to complete it we would place it in the same pool that
3 the Texaco Bell was in. It would be the same pool.

4 MR. BRUCE: Mr. Examiner, I just looked at the
5 nomenclature order today, and the Southwest Forty-Niner
6 Ridge-Delaware Pool covers, I believe, just the southwest
7 quarter of Section 30. So that would be the nearest Bell
8 Canyon Pool --

9 EXAMINER STOGNER: Of course, following on that,
10 you have one pool that has a segment of the Delaware
11 abutting a full Delaware pool.

12 MR. BRUCE: Correct.

13 EXAMINER STOGNER: It would be more prudent to
14 develop that in a different pool.

15 MR. BRUCE: I don't know how that happened,
16 because -- I just don't know. I looked at the orders, and
17 I couldn't determine that.

18 EXAMINER STOGNER: I'm sure the same way as a lot
19 of things like that happen in the Pennsylvanian and Morrow
20 and perhaps Pictured Cliffs and Fruitland.

21 (Laughter)

22 EXAMINER STOGNER: Just speculating, you
23 understand.

24 Okay, you may be excused.

25 MR. BRUCE: That's all I have, Mr. Examiner.

1 EXAMINER STOGNER: Mr. Carr?

2 MR. CARR: May it please the Examiner, at this
3 time we would call Mr. Uhl, U-h-l.

4 DAVID A. UHL,
5 the witness herein, after having been first duly sworn upon
6 his oath, was examined and testified as follows:

7 DIRECT EXAMINATION

8 BY MR. CARR:

9 Q. Would you state your full name for the record,
10 please?

11 A. David Uhl.

12 Q. Where do you reside?

13 A. I reside in Denver, Colorado.

14 Q. By whom are you employed?

15 A. With Texaco Exploration and Production.

16 Q. And what is your current position with Texaco?

17 A. I'm a geologist working southeast New Mexico,
18 primarily Eddy County.

19 Q. Mr. Uhl, have you previously testified before
20 this Division and had your credentials as an expert in
21 petroleum geology accepted and made a matter of record?

22 A. Yes, I have.

23 Q. Are you familiar with the Application filed in
24 this case on behalf of Maralo?

25 A. Yes, I am.

1 Q. Could you briefly state what is Texaco's interest
2 in this case?

3 A. Well, number one, because of the proximity of the
4 location to our leasehold, we're asking that location be
5 denied.

6 In the alternative, we're asking that a
7 significant production penalty be applied to that location
8 if that well is allowed to be drilled.

9 Q. Does Texaco operate the direct west offset to the
10 proposed Maralo unorthodox well location?

11 A. We do.

12 Q. Have you made a geological study of the area
13 which is the subject of this Application?

14 A. I've been carrying on a geological study of this
15 area for several years now.

16 Q. And are you prepared to share the results of that
17 work with Mr. Stogner?

18 A. Yes, I am.

19 MR. CARR: Are the witness's qualifications
20 acceptable?

21 EXAMINER STOGNER: Any objections?

22 MR. BRUCE: No, sir.

23 EXAMINER STOGNER: Mr. Uhl is so qualified.

24 Q. (By Mr. Carr) Mr. Uhl, have you prepared
25 exhibits for presentation in this case?

1 A. Yes.

2 Q. Could you refer to what has been marked for
3 identification as Texaco Exploration and Production Exhibit
4 Number 1 and review that for the Examiner?

5 A. That's a land map of the area. Maralo presented
6 a very similar-looking plat before. Basically, it shows --
7 Section 30 has been outlined.

8 Texaco has interests in the west half of Section
9 30, Maralo has interests in the east half, and Texaco and
10 Maralo has formed a common unit in the north half of
11 Section 30, of which Maralo operates.

12 We have 25 percent interest in the northeast
13 quarter and a little more interest than that in the
14 northwest quarter.

15 But in the south half basically Maralo operates,
16 and we operate on the west -- on the south -- we operate
17 the southwest quarter, Maralo operates the southeast
18 quarter.

19 Q. And you acquired that interest through a term
20 assignment from Bass; is that correct?

21 A. That's correct.

22 Q. And you have the operating rights down to
23 approximately 10,200 feet?

24 A. That's correct, the top of the Wolfcamp.

25 Q. And the proposed Maralo location is 40 feet from

1 your spacing unit line; is that right?

2 A. Forty feet away, that's correct.

3 Q. You were present for the testimony presented by
4 Maralo, were you not?

5 A. Yes.

6 Q. You understand that the reason for this location,
7 or this proposal, is based on archeological and other --

8 A. That was my understanding, and that's the primary
9 reason behind the unorthodox location.

10 Q. Could you go to what has been marked for
11 identification as Texaco Exhibit Number 2? Identify this
12 for Mr. Stogner and review it, please.

13 A. That map is -- or that exhibit is essentially a
14 compilation of an archeological study that we have
15 conducted in the area as a result of us shooting a 3-D
16 across the area.

17 If you look on the map, you've got a number of
18 wells on there. All the purple wells or the fuchsia wells,
19 pink, whatever you want to call them, are Brushy Canyon
20 wells.

21 The green well there is almost the center, is our
22 Texaco Remuda Basin State Number 3 well. Their proposed
23 unorthodox location is at the end of the arrow, right in
24 the center of Section 30.

25 Q. What are the red lines?

1 A. The red lines on there are the seismic shot and
2 receiver lines that we -- the shot and receiver lines,
3 shooting our 3-D survey. The north-south lines are
4 receiver lines where we laid out the cables. The east-west
5 kind of jagged lines on there are our shot lines, where we
6 had our vibrators going across the surface.

7 Now, what we did on the survey is that the BLM
8 required us to go out and make an archeological survey
9 along our shot and receiver lines, going 50 feet on either
10 side of those shot and receivers.

11 If you look on the map then, those kind of purple
12 outlines -- they look kind of like amoebas; they kind of
13 come and go throughout the survey -- those are the sites
14 that, based on our sampling, were determined to be
15 archeological sites throughout the survey.

16 Now, an archeological site, according to the
17 BLM's definition here, would be something that has ten or
18 more artifacts within that area. What we found out here,
19 most of the time the artifacts were charred ground. We
20 found maybe a dozen or so arrowheads out here, a little bit
21 of pottery. But for the most part, charred ground.

22 Q. Now, Mr. Uhl, admittedly there are obvious
23 differences between shooting a seismic line and building
24 location.

25 A. That's correct, is that we only -- We surveyed

1 approximately a 100-foot swath, going on each one of those
2 red lines, going throughout the survey.

3 Q. When you encountered archeological sites, were
4 you able to mitigate those by working with the BLM?

5 A. Yes, we did. We worked with the archaeologists
6 at the BLM, and I'm sorry, since I was not the geophysicist
7 I can't mention who the names were.

8 But we worked with the archaeologists at the BLM,
9 and there were a few sites that had a concentration of
10 archeological artifacts that the BLM wanted to deny us
11 shooting across. We were able to break those up into
12 smaller sites and then shoot across the survey.

13 Q. So in fact, you, in your experience, have been
14 able to work with the Bureau of Land Management on issues
15 of this nature?

16 A. The BLM is difficult, but yes, we can work with
17 them.

18 Q. What are the primary objectives in the wells in
19 this area?

20 A. The primary objectives are the Delaware sands.

21 Q. When we look at your well in the southwest
22 quarter of Section 30, when you drilled that well the
23 primary objective initially was the Brushy Canyon that was
24 mapped by Mr. Lough; is that not right?

25 A. Right, is that that was one of the first wells

1 drilled out there, and -- at that time, is that we were
2 thinking about trying to extend a little further west than
3 what is -- from the increased well control is proving to
4 be.

5 Q. And at this time you have come up the hole and
6 completed in the Bell Canyon C7 sand; is that right?

7 A. That's correct, we had an excellent show during
8 drilling of that well. It flowed to our pits, and we
9 completed there, and so far it's been one of the better
10 wells in the field.

11 Q. In your opinion, are those the two principal
12 objectives in the Delaware in this area?

13 A. There's also a middle Brushy Canyon zone out
14 here, but it's spotty production. We think those are the
15 two primary targets in this area.

16 Q. Would you agree with Mr. Lough that structure is
17 really not very significant in determining whether or not
18 you're having good location in this area?

19 A. Yes, sir, I would agree.

20 Q. Let's go to what has been marked Texaco Exhibit
21 Number 3, and this is an isopach map and a log section on
22 the lower Brushy Canyon --

23 A. Uh-huh.

24 Q. -- on the "D" sand as you call it. Could you
25 refer to this and review it for the Examiner?

1 A. Right, is that -- what -- It shows the Texaco
2 acreage position in yellow. Within Section 30, the north
3 half of Section 30 has been outlined. That's the unit that
4 we have with Maralo, that Maralo operates. We contributed
5 our acreage in the west half of the section.

6 It also shows an isopach of greater than 12-
7 percent porosity of the Brushy Canyon "D" interval. That
8 "D" interval is there, that if you look on the log section
9 off to the right -- that's the area that's in yellow, the
10 lower Brushy Canyon "D" -- it's one of the principal pays
11 in this portion of the Delaware Basin, produces in many
12 fields in this area. It produces in the Nash Unit up to
13 the north. And that trend, then, extends significantly to
14 the south.

15 What I've mapped here is the net feet of pay
16 greater than 12-percent porosity, and that's highlighted in
17 red.

18 Q. Basically, this shows the presence of the Brushy
19 Canyon "D" sand under the eastern half of the 40 acres that
20 you operate in -- or the 160 acres that you operate in the
21 southwest of Section 30, correct?

22 A. That's correct.

23 Q. Your well is how far from that common lease line?

24 A. We're 790 feet to the west of that common lease
25 line.

1 Q. Now, the Bell Canyon in this area, what pool is
2 that in?

3 A. That is in the Forty-Niner Ridge Southwest --

4 Q. And --

5 A. Go ahead.

6 Q. And the Brushy Canyon is in which --

7 A. Is in the Nash --

8 Q. When we look at those --

9 A. -- Nash Draw.

10 Q. When we look at those two pools, what is the
11 authorized producing rate for wells in the Bell Canyon?

12 A. In the Bell Canyon, we have a depth limitation of
13 80 barrels per day.

14 Q. And in the lower Brushy Canyon, what is the
15 allowable there?

16 A. It's a greater depth limitation. It's 142
17 barrels a day.

18 Q. And is that because of special pool rules?

19 A. That's the pool rules of the Nash Draw field.

20 Q. Okay, and both of these pools, though, are spaced
21 on 40-acre spacing; is that correct?

22 A. That's correct, they're both oil.

23 Q. Okay. Let's go to what has been marked Texaco
24 Exhibit Number 4. Would you identify and review that?

25 A. That is a similar mapping technique as what we

1 had on the previous map. In this case we're moving uphole,
2 up to the 4100-foot zone, the Bell Canyon -- what I'm
3 calling the Bell Canyon C7 sand. It's the lowermost sand
4 in the Bell Canyon, right on top of the Cherry Canyon.

5 What we're showing here is the net feet of
6 porosity greater than 14 percent. As we move uphole within
7 the Delaware Mountain Group, we start needing a little
8 greater porosity in order to kind of reach our porosity
9 cutoffs, what is productive and what isn't productive.

10 Now, when we drilled our Number 3 well, like Mr.
11 Carr was alluding to, we tried -- we were going for the
12 deeper objective. We had a very excellent show in that
13 well uphole.

14 We decided that the deeper objectives were a
15 little on the skinny side, so we were going to go up the
16 hole and produce out of that zone for as long as possible
17 to try to recoup the drilling costs of that well before we
18 tried anything else.

19 So far, that well has been probably one of the
20 best wells in the field. There are a few wells that are a
21 little better than that, but this has been one of the
22 better wells in that overall trend in there.

23 The isopach is basically showing -- If you look
24 on the bold lines there, we have a 10-percent -- excuse me,
25 10 feet of pay that kind of goes north-south in through

1 there.

2 From the drilling of the wells in there -- I've
3 also noted in there where sidewall cores have been cut to
4 confirm the shows that have been gotten during drilling.
5 And most of the wells are dealing with 50- to 60-percent
6 sidewall water saturations and also oil saturations within
7 those cores.

8 It looks to me as if most of Section 30 within,
9 oh, probably your eight-foot or so contour, is going to be
10 productive.

11 Q. If I look at this exhibit, there is a block kind
12 of south and west or -- of the Texaco well that shows the
13 production information on the well to date; is that right?

14 A. That's correct.

15 Q. And if we look at the proposed unorthodox
16 location in this sand, which is the sand you're producing
17 in your well, is the unorthodox location better than a
18 standard location in this interval?

19 A. It looks like that unorthodox location is going
20 to hit a lot more net feet of pay than what we have
21 encountered in our well.

22 Q. By virtue of this unorthodox location, is it your
23 opinion that Maralo is gaining an advantage on the Texaco
24 property?

25 A. I'd say a significant advantage.

1 Q. Is the log included just for reference on these
2 exhibits?

3 A. That's for reference, what I had mapped on
4 that -- to the left.

5 Q. What conclusions can you reach from your
6 geological study of this area?

7 A. Well, that Maralo's location is going to
8 significantly impact the production of our well.

9 Q. Do you believe it will be -- can be completed in
10 common reservoirs with those that are present and
11 producible under your acreage?

12 A. I believe that the reservoirs -- that both the
13 lower Brushy Canyon and the Bell Canyon extend onto our
14 acreage -- or, excuse -- are common throughout Maralo's
15 acreage and our acreage.

16 I believe that a well drilled on -- practically
17 on the lease line, like they're proposing, is going to
18 essentially take reserves from our quarter.

19 That's about it.

20 Q. Will Texaco also call a witness to recommend a
21 penalty for the well at this location?

22 A. Yes, we will.

23 Q. Were Texaco Exhibits 1 through 4 prepared by you?

24 A. Oh, excuse me?

25 Q. Were Exhibits 1 through 4 prepared by you?

1 A. Yes.

2 MR. CARR: Mr. Stogner, at this time I'd move the
3 admission into evidence of Texaco Exhibits 1 through 4.

4 EXAMINER STOGNER: Any objection?

5 MR. BRUCE: No, sir.

6 EXAMINER STOGNER: Exhibits 1 through 4 will be
7 admitted into evidence.

8 THE WITNESS: Excuse me I was sleeping for a
9 minute.

10 EXAMINER STOGNER: That happens sometimes.

11 Mr. Bruce, your witness.

12 CROSS-EXAMINATION

13 BY MR. BRUCE:

14 Q. Mr. Uhl, let's start off with your Exhibit 2. I
15 guess what you're saying is -- I'm not quite sure, but
16 there are areas out here that do have archaeologic
17 restrictions?

18 A. There are areas out there that have been surveyed
19 that appear to be some fairly significant archeological --
20 I wouldn't say restrictions, but have been identified as
21 having significant archeological remains.

22 Q. There's several large areas out there.

23 A. Yeah. Of course, the BLM is fairly liberal on
24 what they're determining that to be.

25 Q. We understand that. You haven't had any contact

1 with the BLM regarding Maralo's trouble in getting a well
2 location in this --

3 A. No.

4 Q. -- quarter quarter section?

5 A. No, I believe that's Maralo's problem, and we
6 have not contacted them on that.

7 Q. Let's go to your Exhibit 3, which is the lower
8 Brushy -- You refer to it as the "D" sand, I believe?

9 A. Right, we recognize "A", "B", "C" and "D" sands.

10 Q. In the Brushy -- lower Brushy Canyon.

11 A. In the lower Brushy Canyon.

12 Q. Now, comparing this to Mr. Lough's Exhibit 5 --
13 and I don't know if you have a copy of that in front of you
14 -- Let me give you my copy. Really, the trend and -- Well,
15 first of all, you used a 12-percent cutoff?

16 A. And -- That's right, and Mr. Lough used a 14-
17 percent cutoff.

18 Q. But overall, if you used a 14-percent cutoff,
19 would your map be just a little narrower?

20 A. It would probably be a little more constrained,
21 that's correct.

22 Q. And so really, it doesn't look all that much
23 different than Mr. Lough's map, other than the -- depending
24 on the cutoff?

25 A. One difference is that my map has been

1 accentuated somewhat by -- From our 3-D survey we see a
2 little bit of evidence of seismic reflection on the
3 porosity at that interval. So we're pulling the contours a
4 little further to the west.

5 Q. Okay. Now, a couple of things on this. Now, the
6 log you have to the right of your map is for a well in
7 Section 19, right? It's not the offset well in Section 30?

8 A. No, the only reason that I did that is that I
9 already had that log digitized, and it was easy to put it
10 on the cross-section.

11 Q. Okay.

12 A. It was not an intentional slight.

13 Q. No, I just want to make sure that -- That's not a
14 direct offset to Maralo's proposed location?

15 A. No, that's in the southeast southeast -- or,
16 excuse me, the southeast of the southwest of Section 19.

17 Q. And that well had 22 feet?

18 A. That's correct.

19 Q. And hopefully that well will be a good commercial
20 well?

21 A. It has been so far.

22 Q. Now, what about the Texaco -- I think it's -- Is
23 it Remuda Basin State 3, the direct offset?

24 A. Uh-huh.

25 Q. Is that the correct --

1 A. Remuda Basin State Number 3, that's correct.

2 Q. State Number 3. In this "D" sand, you show that
3 as having seven feet.

4 A. Correct.

5 Q. Now, is that going to be commercial?

6 A. Within the lower Brushy Canyon at that location,
7 we determine it to be an edge well, and we would not have
8 completed it in that interval.

9 Q. Just to the north there's a well with the number
10 11 by it. That's a well that both Maralo and Texaco own,
11 is it not?

12 A. Correct.

13 Q. That has 11 feet -- You project it to have 11
14 feet in the "D" sand. Now, that well was not commercial
15 either, was it not?

16 A. Maralo operated that well at -- and between a
17 joint conference between Maralo and ourselves we determined
18 not to complete in that interval, that it would probably
19 not be economic and that we determined that there were
20 better opportunities uphole.

21 Q. Okay. So Texaco agreed not to complete that well
22 in the "D" sand either?

23 A. That's correct.

24 Q. Would Texaco consider drilling another well in
25 the northeast quarter of the southwest quarter of Section

1 30 to test the "D" sand or the Loving sand?

2 A. What we are considering doing is drilling a
3 horizontal leg or a slant-hole leg off of our existing
4 borehole, our well number -- our borehole number -- or,
5 excuse me, our Remuda Basin State Number 3, in the next few
6 years. But right now the production in that well is so
7 good, is that -- our area wouldn't let us do that.

8 Q. Which direction would you directionally drill?

9 A. We'd probably go to the southeast within that
10 quarter, because we can go almost 500 feet to the southeast
11 and still stay with a 330-foot setback, still a legal
12 location.

13 Q. Okay. Now, the Remuda Basin State Number 3, did
14 that have any commercial potential in the middle Brushy
15 Canyon?

16 A. The middle Brushy Canyon? No, I don't believe
17 that it did.

18 Q. Okay. And then -- I know I had this data
19 somewhere, but the Remuda Basin State Number 3, when was
20 that well completed in the Bell Canyon?

21 A. That was completed in the Bell Canyon -- We
22 drilled that well in 1995, and I believe it was completed
23 in the Bell Canyon in the first part of --

24 Q. Oh --

25 A. -- 1996.

1 Q. Okay, that's on Exhibit 4. I missed it. Okay.

2 A. Yeah.

3 Q. So that's been producing almost two years?

4 A. About two years.

5 Q. Does Texaco have any projections on how much
6 longer it will produce?

7 A. Right now, it's been the flattest decline of any
8 well in the field. It's going to outproduce most of your
9 lower Brushy Canyon wells.

10 Q. Okay. Any estimates on ultimate?

11 A. On ultimate? Every year we've been upping the
12 ultimate on it. Probably 150,000 barrels of oil, somewhere
13 in that range.

14 Q. Okay. It's a good well?

15 A. It hasn't been offset so far. Or excuse me, it
16 hasn't been -- it hasn't --

17 Q. So it's been producing about -- just looking --
18 18,000 barrels a year? Let's say that.

19 A. Or maybe a little more.

20 Q. In the Bell -- One final question, Mr. Uhl. In
21 the Bell Canyon, would it -- is it your -- From a
22 geologist's standpoint, that drainage would be radial, more
23 or less, in this area?

24 A. To the best of my understanding, it's probably a
25 north-south trend. There's probably a little more of

1 elliptical drainage. But it should extend quite a ways out
2 in other directions.

3 Q. More egg-shaped than circular?

4 A. Well, the overall porosity kind of extends a
5 little more in the north-south trend. As long as you're in
6 the center of the reservoir, somewhere in the center of the
7 reservoir, the unit should have some radial drainage.

8 MR. BRUCE: That's all I have, Mr. Examiner.

9 EXAMINER STOGNER: Thank you, Mr. Bruce.

10 Mr. Carr, redirect?

11 MR. CARR: No redirect.

12 EXAMINATION

13 BY EXAMINER STOGNER:

14 Q. As I understand Mr. Bruce's cross-examination of
15 you, Texaco has no plan on drilling another well as an
16 infill to the Number 3 and Number 9 well; is that correct?

17 A. Probably what we'd do is that we would use
18 existing wellbore and deviate off from there. Either a
19 slant hole coming up the hole and deviating off, or else
20 we'd go to a short-radius horizontal.

21 Q. And that would necessitate the utilization of one
22 of those wellbores, as opposed to a new wellbore?

23 A. I believe we can do that for about \$100,000 drill
24 costs, somewhere in that range, maybe a little more.

25 Q. Let's say there was two wells in that quarter

1 section.

2 A. Within the north -- Within that 40-acre?

3 Q. Yeah, within your 40-acre.

4 A. Uh-huh.

5 Q. And it was completed as a good well in the --
6 what we're designating Loving sand?

7 A. The Loving sand is the same as our lower Brushy
8 Canyon "D".

9 Q. Would you enjoy a double allowable, or would you
10 have to share that allowable --

11 A. Excuse me?

12 Q. -- of those two wells? Because you're in that
13 Delaware pool, should you choose to -- should Texaco choose
14 to drill a well to protect that particular vertical section
15 in which Maralo is interested in, would Texaco get to enjoy
16 two allowables for the two wells, or would they have to
17 share the same allowable with those two wells given to that
18 proration unit?

19 A. Well, you're dealing with a complicated
20 regulatory issue there. I think because the two wells are
21 in different pools to start off with, it seems to me that
22 one of the wells -- that our Number 3 well has actually
23 been misplaced into a pool that they shouldn't have placed
24 it in to start off with, and within that 40-acre unit -- or
25 excuse me, the southwest quarter of the 40-acre unit,

1 whatever you want to call it, that it probably should be
2 all under Nash Draw, and that it should probably limited to
3 142 barrels a day within that 40-acre spacing unit.

4 Q. Okay. So the present rules that you're having to
5 live under, all that Delaware is considered one formation;
6 is that correct? Or one pool?

7 A. It is everywhere else except, for some reason,
8 except for our southwest quarter.

9 Maybe I misunderstood your question.

10 Q. Okay. What pool are you producing from?

11 A. From -- In our Number 3 is from the Forty-Niner
12 Ridge Southwest.

13 Q. Keep going, the full name of it.

14 A. Forty-Niner Ridge Southwest-Delaware.

15 Q. Okay. And that Delaware designation is from the
16 top of the Delaware to the base of the Delaware; is that
17 correct?

18 A. I guess it would be.

19 Q. Okay. Now, if you were to drill another well in
20 that proration unit, will both wells get an allowable, or
21 is the proration unit given an allowable? Is your
22 understanding.

23 A. You know, I'm not -- I really can't answer that
24 question. I'm not knowledgeable on that. It would seem
25 like it should be an allowable, just based on that 40-acre

1 spacing unit, and it should not be two pools.

2 Q. You're right. You're right on that. A proration
3 unit gets the allowable --

4 A. Uh-huh.

5 Q. -- and according to how many wells are drilled in
6 that proration unit, they share the allowable.

7 In your instance you're allowed only four wells,
8 based upon 104 -- I believe H. That's General Rules and
9 Regulations.

10 A. No, I'm not trying to skirt the issue, I'm just
11 not knowledgeable.

12 Q. Well, what I was trying to bring up, they would
13 enjoy two allowables, based on what Maralo -- if they were
14 to choose to drill one well in one of the intervals and
15 another well in another interval. So there is somewhat of
16 an inequity there, in that particular instance, which needs
17 to be pointed out.

18 Also, there's another thing that I need to
19 probably bring a Maralo witness on, to ask them about, to
20 make sure that all possible avenues are at least understood
21 and covered, should this go further.

22 That was the reason I was bringing up that
23 particular question.

24 So in this particular instance, yes, the
25 proration unit gets the allowable, and because of being a

1 Delaware they would have to share the allowable and produce
2 proportionately.

3 Okay. Are there any other questions of this
4 witness at this time?

5 MR. CARR: No, sir.

6 EXAMINER STOGNER: You may be excused.

7 Mr. Carr?

8 MR. CARR: At this time we call Mr. Bittel.

9 KEVIN BITTEL,

10 the witness herein, after having been first duly sworn upon
11 his oath, was examined and testified as follows:

12 DIRECT EXAMINATION

13 BY MR. CARR:

14 Q. Would you state your name for the record, please?

15 A. My name is Kevin Bittel.

16 Q. How do you spell your last name?

17 A. B-i-t-t-e-l.

18 Q. Where do you reside?

19 A. Highlands Ranch, Colorado.

20 Q. By whom are you employed?

21 A. Texaco.

22 Q. And what is your position with Texaco?

23 A. I'm a petroleum engineer.

24 Q. Have you previously testified before this

25 Division and had your credentials as an expert in petroleum

1 engineering accepted and made a matter of record?

2 A. Yes, I have.

3 Q. Are you familiar with the Application filed in
4 this case on behalf of Maralo?

5 A. Yes.

6 Q. Are you prepared to recommend a production
7 penalty for any well drilled at the proposed unorthodox --

8 A. Yes.

9 Q. -- location?

10 MR. CARR: Are the witness's qualifications
11 acceptable?

12 EXAMINER STOGNER: Any objections?

13 MR. BRUCE: No, sir.

14 EXAMINER STOGNER: Mr. Bittel is so qualified.

15 Q. (By Mr. Carr) Mr. Bittel, let's go to what's
16 been marked Texaco Exhibit Number 5. Would you identify
17 and review this for Mr. Stogner?

18 A. Okay, yes, we recommend an 88-percent penalty.
19 The basis is variance from standard setback. More simply,
20 they are 88-percent closer to the lease line.

21 Q. That's just a simple percentage encroachment from
22 the nearest standard location?

23 A. Right, which was 330 feet. They -- both
24 locations 40 feet. Simply, 330 minus 40, divided by 330,
25 is 88 percent.

1 Q. Let's go to Exhibit Number 6. What is this?

2 A. Okay, this is how we recommend to administer the
3 allowable to the well.

4 We recommend it to be done per -- days per month,
5 days per month times the allowable, or one minus the
6 penalty, or 12 percent, equals days allowed to produce the
7 well in a standard month.

8 An example of that being, in a 30-day month,
9 times 12 percent, this one minus 12 percent, equals 26
10 days per month that it would be allowed to produce.

11 Q. Now, Texaco is recommending that instead of a
12 depth bracket allowable, days per month be utilized; is
13 that right?

14 A. Yes.

15 Q. And is the reason for that because whenever you
16 are working with a depth bracket allowable in a reservoir
17 like this where there are high decline rates --

18 A. Right.

19 Q. -- that often a penalty soon becomes no penalty
20 at all because of the natural decline of the well?

21 A. Correct.

22 Q. And so that's the reason you're recommending the
23 actual --

24 A. Yes.

25 Q. -- days per month?

1 Let's go to Exhibit Number 7. Would you explain
2 that?

3 A. Okay, this is the proposed production cap.
4 Originally up front, a well will be held accountable to a
5 production cap, like 142 for the Nash Draw field. So we
6 feel that -- also they should be -- You know, they're only
7 allowed to produce 3.6 days -- I didn't change that. 3.6
8 days -- I'm sorry.

9 MR. CARR: We'd like, with your permission, sir,
10 to nunc pro tunc Exhibit Number 7.

11 EXAMINER STOGNER: Is this a typo?

12 MR. CARR: This is a typo. I hate to tell you
13 this, but --

14 EXAMINER STOGNER: Is 511 correct or --

15 THE WITNESS: Yeah, 3.6 times 142 is 511.

16 MR. CARR: Okay. And unlike -- and like --

17 THE WITNESS: I did change that.

18 MR. CARR: And like earlier things today, this
19 was also done in my office. All right.

20 EXAMINER STOGNER: Understood.

21 Q. (By Mr. Carr) In any event, Mr. Biddle, what is
22 the actual production volume or cap per month?

23 A. 511 barrels per month, on a 30-month day [sic].
24 That would be, you know, a little bit more on a 31, a
25 little less on 28.

1 But basically, for the example, we used 30 days,
2 times -- you know, came up with 3.2, our proposed penalty,
3 times 142, 511 barrels a day production cap.

4 Q. All right, sir. Let me ask you this. You've
5 used 142 barrels a day. That's the allowable rate for the
6 Nash Draw, correct?

7 A. Correct.

8 Q. Do you agree that whatever the allowable is for
9 the spacing unit, there should be one allowable?

10 A. I think there should be.

11 Q. And the penalty should be applied to that one
12 allowable?

13 A. Yes.

14 Q. And you've elected to use the higher producing
15 rate of the two pools, which seem to be identified as being
16 in the southwest quarter of Section --

17 A. For this example, yes.

18 Q. If the well is approved, the location is
19 approved, and this penalty is imposed, in your opinion will
20 it effectively protect the Texaco acreage?

21 A. Yes, in my opinion it's the only one that can be
22 applied to adequately protect Texaco and our royalty
23 interest.

24 Q. In your opinion, would anyone drill a well with
25 an 88-percent penalty?

1 A. No, it would be awfully hard. It would certainly
2 be possible.

3 Q. The well is, however, only 40 feet from our
4 section line --

5 A. Correct, almost -- on our -- on -- yeah, in our
6 lease.

7 Q. What is Texaco recommending here?

8 A. We recommend, really, to almost deny the
9 Application -- or we almost request Maralo try to drill a
10 legal location. We'd rather bypass this whole problem.

11 Q. But you are recommending either that the
12 Application either be denied or this penalty be imposed?

13 A. Correct.

14 Q. And were Exhibits 5 through 7 prepared by you?

15 A. Yes, they were.

16 MR. CARR: At this time I'd move the admission of
17 Texaco Exhibits 5 through 7.

18 EXAMINER STOGNER: Exhibits 5 through 7, with the
19 correction, will be admitted into evidence at this time.

20 Mr. Bruce?

21 CROSS-EXAMINATION

22 BY MR. BRUCE:

23 Q. Just a few questions. Mr. Bittel, you recognize
24 that Maralo would rather be at an unorthodox location?

25 A. Yes.

1 Q. Have you calculated how long it would take a well
2 to pay out at 512 barrels of oil per month?

3 A. No, I have not.

4 Q. A century or two?

5 A. It might be that long. I don't know.

6 Q. Mr. Uhl talked about possibly doing some
7 additional work on your Remuda Basin State Number 3 well,
8 as far as either directionally drilling it or horizontally
9 drilling it. Have you done any cost studies on that?

10 A. Not really in-depth studies. We just kind of
11 kicked the idea around. In reality, I mean, if you had
12 that well drilled 330 off our lease line, we didn't have
13 the 3 drilled, we would probably move 330 from your lease
14 line to protect ourselves. And then for -- the 88-percent
15 penalty would -- definitely would apply.

16 Q. I didn't understand that. I mean, if Maralo is
17 330 of their east line -- off their lease line, you would
18 still ask for the 88-percent penalty? I didn't understand.

19 A. No, no, no, no, no, no, no. If -- Well, if they
20 were 40 feet off our lease line, we'd ask for the 88-
21 percent penalty no matter what.

22 Now, if -- Let's say Maralo drilled a legal
23 location. We'd probably drill closer to that location
24 ourselves.

25 Q. A vertical hole?

1 A. A vertical hole, if we drilled the well today. I
2 don't know. We have a well there today, so we probably
3 would not drill another well.

4 Q. Okay. You don't have any management approval to
5 directionally drill that --

6 A. Not right now, no.

7 Q. Do you agree that directionally drilled Delaware
8 wells have very high operating costs?

9 A. I would have to estimate that they would have a
10 higher operating cost than a vertical well. However, it
11 isn't up to -- I mean it's still viable -- possible that
12 they can be produced or -- and drilled.

13 Q. Now, if the -- what Mr. Uhl refers to as the "D"
14 sand, Brushy Canyon "D" sand, is not productive on Texaco's
15 acreage, is a penalty on the Maralo location justified?

16 A. You're still 88 percent closer to our lease line.
17 Therefore, I feel the penalty still applies.

18 Q. Even if you couldn't drill a productive well on
19 Texaco's acreage?

20 A. We don't know if we could or could not, right
21 now, until we drill a well up in that corner.

22 Q. Now, if that -- Now, Maralo's well is pretty far
23 up in the northwest corner of that quarter section,
24 correct?

25 A. Uh-huh.

1 Q. Would you agree that, assuming radial drainage,
2 at least 50 percent of production from that well would come
3 from Maralo acreage?

4 A. However, you would still be getting a significant
5 advantage on our acreage, because we're not being protected
6 by a penalty.

7 Q. About 25 percent of that drainage would come off
8 of Texaco acreage?

9 A. Well, we know the exact extent of the acreage,
10 you don't know what penalty. Our penalty is simple.
11 You're 88 percent closer to our lease line. Therefore,
12 we're asking for an 88-percent penalty.

13 Q. Do you agree with Mr. Uhl that in the Bell Canyon
14 drainage is probably north-south rather than radial?

15 A. I don't know.

16 Q. You don't dispute him?

17 A. I don't dispute him, but I don't know how anybody
18 would truly know, unless there would be a very detailed
19 study.

20 MR. BRUCE: That's all I have, Mr. Examiner.

21 EXAMINER STOGNER: Mr. Carr, redirect?

22 MR. CARR: No.

23 EXAMINATION

24 BY EXAMINER STOGNER:

25 Q. The penalty you're showing on Exhibits 5, 6 and

1 7 --

2 A. Yes.

3 Q. -- is essentially a straightforward footage
4 against the line --

5 A. Correct.

6 Q. -- with a well on the lease line getting -- being
7 zero, and a well at a 330 location being 100.

8 142 barrels of oil per day, was that -- does that
9 indicate anything in particular, or was that just utilized
10 as an example?

11 A. It was utilized as an example, and that is
12 currently the allowable from the Nash Draw --

13 Q. Okay.

14 A. -- the higher of the two.

15 Q. And this well is prorated, there is an
16 assigned --

17 A. Maximum allowable cap.

18 Q. But all oil wells are prorated; is that correct?

19 A. Yes. In this case a hundred and forty --

20 Q. At least at this time?

21 MR. CARR: At this time.

22 EXAMINER STOGNER: I don't have any other
23 questions of this witness. You may be excused.

24 Mr. Bruce -- I'm sorry, Mr. Carr?

25 MR. CARR: That concludes our presentation in

1 this case. I would like to give a brief closing.

2 EXAMINER STOGNER: Mr. Bruce?

3 MR. BRUCE: I don't have any further testimony.

4 EXAMINER STOGNER: I do have one question, and
5 you can stay seated there, gentlemen, and answer, but I
6 just want one answer.

7 When Maralo took this lease, I'm assuming that
8 they were aware that there are certain constraints when you
9 accept a federal lease, such as the National Historic
10 archaeology, and in this particular instance the cave karst
11 area. Was Maralo -- Were they aware of that when they took
12 the lease?

13 MR. GILL: Yes, sir.

14 EXAMINER STOGNER: Okay. And also, is this an
15 area in the potash?

16 MR. BRUCE: Sorry about that, Mr. Examiner.

17 EXAMINER STOGNER: Okay. Isn't there some potash
18 restrictions also on federal lands involved in this area?

19 MR. LOUGH: To the north there are. And I don't
20 believe --

21 EXAMINER STOGNER: Not on these, okay. I didn't
22 know if it was in the R-111-P area or not. But that's
23 essentially the danger one accepts whenever they take a
24 lease from the federal government, that there are other
25 constraints due to surface, and Maralo was aware of that?

1 MR. GILL: Yes, sir.

2 EXAMINER STOGNER: Okay. At this time I believe
3 we're ready for closing arguments.

4 Mr. Carr, I'll allow you to go first, and then
5 Mr. Bruce, if you'd like to be the last to say something.

6 MR. BRUCE: That's fine.

7 MR. CARR: Mr. Stogner, as we know, Maralo is
8 proposing to drill a Delaware well 40 feet from the common
9 spacing line from a tract operated by T&E. They have a
10 right to produce, under our regulatory system, their fair
11 share, and that is what is under their tract, not what's
12 under their neighbor's land.

13 And what they're being -- what they're here
14 asking for is an exception to the rules that govern
15 development of the Delaware. These rules provide for 330-
16 foot setbacks.

17 I would submit there is a reason we have rules,
18 and there is a reason for 330-foot setbacks, and those
19 reasons are rooted in considerations of drainage. And when
20 we look at these spacing and well-location requirements, I
21 think we go right to the heart of our whole regulatory
22 system, and they involve questions of correlative rights,
23 they also involve waste issues.

24 Maralo says it doesn't like the 40-foot setback.
25 It's really a BLM-dictated location. But that doesn't

1 change the fact that being 40 feet off the lease line and
2 not even seeking a penalty really, in the final analysis,
3 makes a mockery of the rules.

4 Like it or not -- It is a better location in the
5 zone in which Texaco is producing a very good well on the
6 offsetting tract, and we think the location should be
7 denied.

8 Now, they can say, The BLM made me do it. And
9 the BLM may have said, You can't really develop the
10 reserves under this tract unless you get right off the
11 edge.

12 But we've learned a very painful lesson in the
13 potash area. We've learned that you can take a federal
14 lease, and then because of other constraints you can't
15 develop it at all. Perhaps they're now expanding that to
16 encompass archaeological matters or caves.

17 But the problem is, when the BLM says that these
18 are federal minerals but you can't develop them except from
19 unique, extremely unorthodox positions the solution really
20 isn't that you run to the OCD and get permission to drain
21 Texaco or to drain the State of New Mexico.

22 The BLM decision doesn't mean you forget
23 correlative rights. The BLM's position doesn't mean this
24 agency forgets its duty to prevent waste. There's still a
25 pact to protect correlative rights, to prevent waste.

1 And in so doing, just because of what the BLM may
2 have done, you're really not, I submit, required or even
3 authorized to guarantee someone a bizarre location where
4 they will drain the reserves from their neighbor.

5 So you're not required to approve development
6 plans, because there may be the -- the directional drilling
7 or other alternatives are not as economically attractive,
8 just because of what the BLM has done. We still look at
9 these and evaluate them. I think that's what the
10 federal government tells us.

11 It's interesting, Mr. Bruce has said, Well, heck,
12 you know, we can be right on the lease line, and 50 percent
13 of the reserves will come from our tract.

14 I submit that a system of well locations, spacing
15 pattern, really isn't that simple. You could drill on
16 Texaco. They couldn't get 49 percent of the production off
17 their own acreage.

18 But it also involves an ability to protect your
19 own property when somebody's moving toward it. And when
20 they get so close -- albeit 50 percent is still coming from
21 them -- that you have to drill right on top of them, you're
22 marching into imprudent development practices and economic
23 waste.

24 And so it's not just this simple question that we
25 can drill anyplace and we get 50 percent off our tract.

1 Well, heck, we should get 50 percent. It's just not that
2 simple a situation.

3 Mr. Gill admits that in the zone that we're
4 producing from that you gain an advantage, but they
5 recommend no penalty. You are authorized by statute to
6 impose a penalty to offset the advantage gained. Marlo
7 proposes no penalty.

8 We seek a penalty we admit is extremely
9 burdensome, 88 percent. We ask that it be applied to the
10 number of days in a producing month, because I think
11 that penalties based on the production of oil, the depth
12 bracket allowable often doesn't work in reservoirs like
13 this where there's a very sharp decline in producing rates.
14 So the penalties that are meaningful when the well is
15 completed become no penalty at all because of the natural
16 performance of the well.

17 The penalty is tantamount to denial, so I guess
18 we're here seeking denial.

19 And I think if you do that, they have to go back
20 to the Bureau of Land Management. If they want federal
21 minerals developed, perhaps they can work out a way with
22 the BLM to mitigate a surface location.

23 Or perhaps they'll have to go back and decide to
24 directionally drill the well and only get a 20-percent
25 return on their investment.

1 Or perhaps they'll have to go and meet with
2 others to try and form a working interest unit and some way
3 to allocate production on a unitwide basis so that, in
4 fact, the way the area is being developed is more
5 consistent with the geology.

6 Or, as you noted earlier, they not be produced at
7 all.

8 But because of the current location, they will
9 have to be. The location outright ignores our spacing
10 rules. And unless the location is either drilled or
11 penalized, the correlative rights of Texaco will be
12 impaired.

13 EXAMINER STOGNER: Thank you, Mr. Carr.

14 Mr. Bruce?

15 MR. BRUCE: Mr. Examiner, I've said it many times
16 today. Maralo would rather not be here today. However,
17 it's not asking for any guarantees.

18 We're here because the BLM's surface-use
19 requirements mandate that we come before the Division. We
20 don't like it, but that's why we're here.

21 Maralo is entitled to produce reserves under its
22 tract. Now, let's look at it.

23 The main zone, the Loving sand, or what Texaco
24 calls Brushy Canyon "D" sand is dry or noncommercial in the
25 offsetting well units, the northeast quarter of the

1 southwest quarter of Section 30 and the southeast quarter
2 of the northwest quarter of Section 30. Therefore, no
3 penalty is necessary in the Nash Draw-Brushy Canyon Pool.

4 Then we come to the upper zones. Texaco has a
5 good well over there. We don't deny that. They've
6 produced, according to their exhibit, about 38,000 barrels
7 of oil. They hope to produce it another six, seven years,
8 maybe, produce 150,000 barrels of oil.

9 If Maralo is successful in the Loving sand, it
10 will be back up to that Bell Canyon for about six years.
11 By then, Texaco will have produced the vast bulk of the
12 reserves under its tract, and thus the effect will be
13 minimal.

14 We know we're close to the lease line. We don't
15 like it. But if you assume radial drainage, only 25
16 percent of the drainage in the Bell Canyon from the Maralo
17 well will come from the Texaco tract.

18 I know these cases are difficult for the
19 Division. And maybe the radial drainage thing that I
20 assert is simple-minded. But this footage penalty is just
21 as simple.

22 Furthermore, in the Bell Canyon, Mr. Uhl stated,
23 drainage is probably oblong. Drainage is more from the
24 south and from the north. It's not coming from the Maralo
25 acreage. Again, that mitigates the effect of drainage from

1 the Maralo well on the Texaco acreage.

2 We would request that the well be approved, and
3 if there is a penalty, assess it in the nature of, as Mr.
4 Gill stated, somewhere, 25 to 50 percent. That's how we
5 would be affecting Texaco. Without approving the well,
6 Maralo won't be able to produce any reserves under its
7 tract at all. Sometimes that happens, but we don't think
8 it's fair.

9 Maralo has tried to work with Texaco on this, but
10 they couldn't agree. So I'm going to ask you to meet
11 of you today.

12 We ask you to approve the well with a reasonable
13 penalty.

14 Thank you.

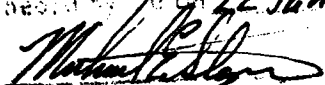
15 EXAMINER STOGNER: Thank you, Mr. Bruce.

16 I'm going to request a rough draft order from
17 each of you in this matter.

18 If there's nothing further in Case Number 11,912,
19 then I will take this matter under advisement.

20 (Thereupon, these proceedings were concluded at
21 11:55 a.m.)

22 * * *

23 I do hereby certify that this is a true and correct
24 copy of the record of the proceedings in Case Number 11,912,
25 signed by me on 22 January 1998.
 Examiner

Oil Conservation Division

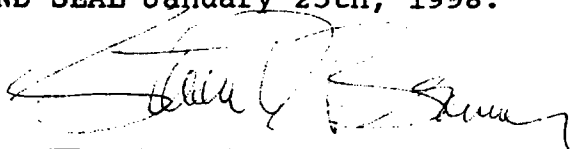
CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)
) ss.
 COUNTY OF SANTA FE)

I, Steven T. Brenner, Certified Court Reporter
 and Notary Public, HEREBY CERTIFY that the foregoing
 transcript of proceedings before the Oil Conservation
 Division was reported by me; that I have filed my return
 and that the foregoing is a true and accurate record of the
 proceedings.

I FURTHER CERTIFY that I am not a relative or
 employee of any of the parties or attorneys involved in
 this matter and that I have no personal interest in the
 final disposition of this matter.

WITNESS MY HAND AND SEAL January 25th, 1998.


 STEVEN T. BRENNER
 CCR No. 7

My commission expires: October 14, 1998

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. 11,912
)	
APPLICATION OF MARALO, INC., FOR)	
AN UNORTHODOX OIL WELL LOCATION,)	
EDDY COUNTY, NEW MEXICO)	
)	

OFFICIAL EXHIBIT FILE

EXAMINER HEARING

BEFORE: MICHAEL E. STOGNER, Hearing Examiner

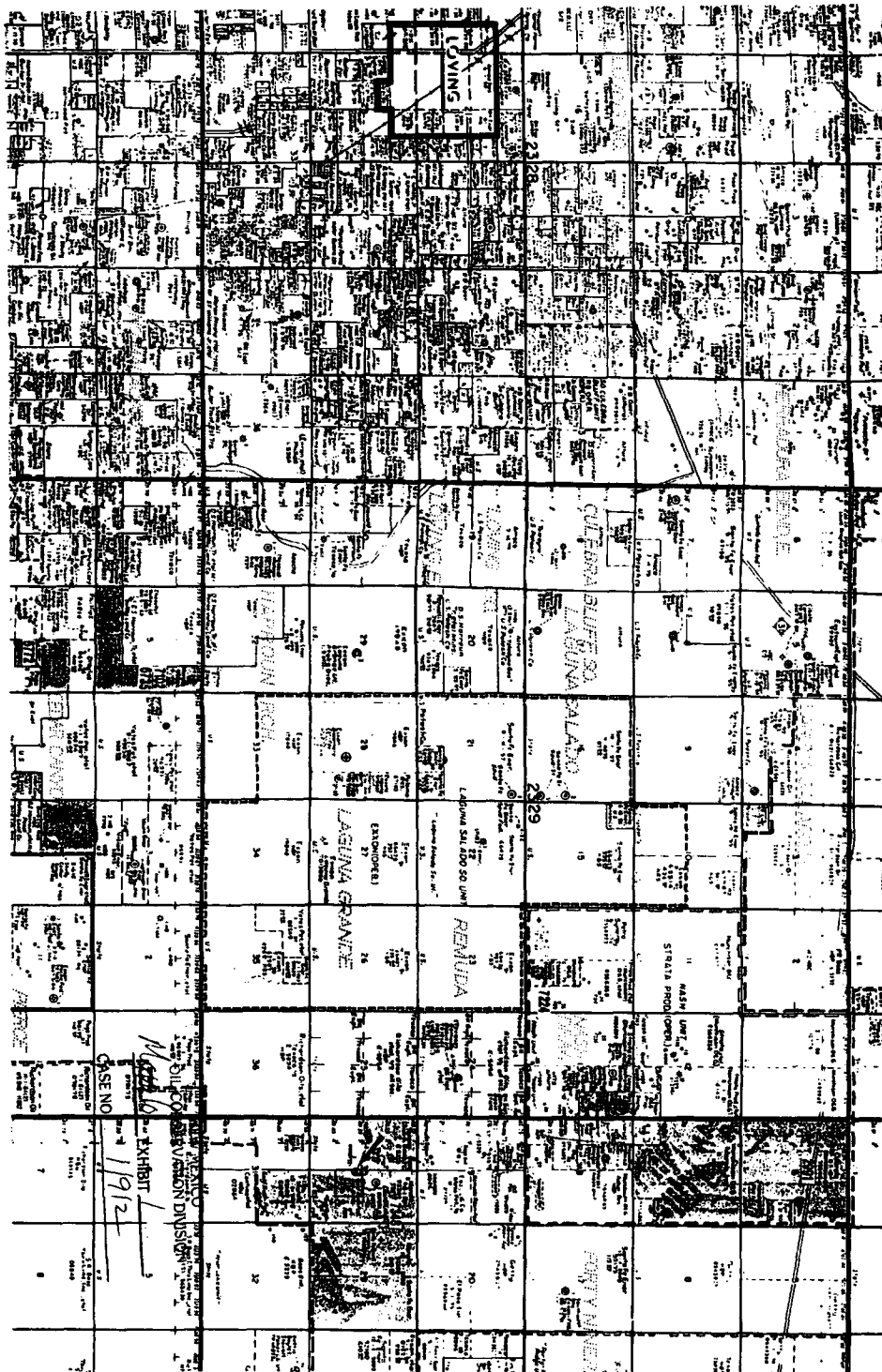
January 22nd, 1998

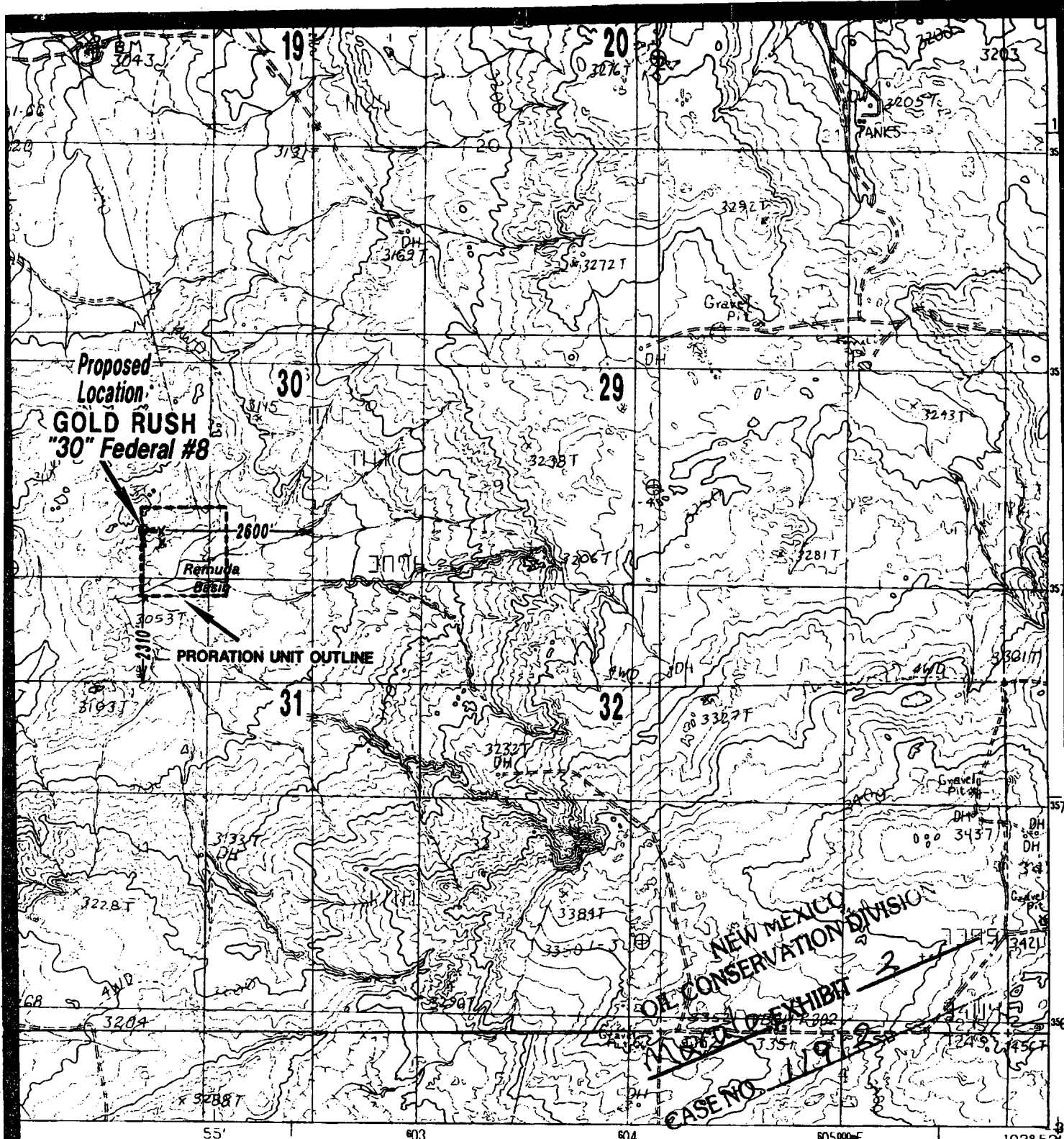
Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, MICHAEL E. STOGNER, Hearing Examiner, on Thursday, January 22nd, 1998, at the New Mexico Energy, Minerals and Natural Resources Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

* * *

STEVEN T. BRENNER, CCR
 (505) 989-9317





MARALO, INC.
LOCATION PLAT
 T 23 S - R 30 E
EDDY COUNTY, NEW MEXICO



QUADRANGLE LOCATION

X LOCATIONS DISAPPROVED BY BLM

1	2	3	1 Indian Flats
			2 Tower Hill South
			3 Livingston Ridge
4		5	4 Loving
			5 Los Medanos
			6 Malaga
6	7	8	7 Pecos Canyon
			8 Big Skies

ADJOINING 2.5 QUADRANGLE NAMES

NEW MEXICO
 DEPARTMENT OF CONSERVATION
 DIVISION OF LAND
 EXHIBIT 3
 CASE NO. 1197255

INTERIOR GEOLOGICAL SURVEY, RESTON, VIRGINIA-1988

ROAD LEGEND

- Improved Road
 Unimproved Road
 Trail
 Interstate Route U.S. Route State Route

REMUDA BASIN, NEW MEXICO
PROVISIONAL EDITION 1985



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Carlsbad Resource Area Headquarters

P.O. Box 1778

Carlsbad, New Mexico 88221-1778

IN REPLY REFER TO:

3160

NM06780 (gb)

JAN 05 1998

Mr. Phillip Smith
Maralo Inc.
P. O. Box 832
Midland, TX 79702

Dear Mr. Phillips:

Reference is made to your proposed location of the Gold Rush 30, Federal # 8 located in the lower end of Remuda Basin, New Mexico. As you are aware, the only location that we could come up with to accommodate Maralo is a an unorthodox one. The reason being, unavoidable conflicts with archaeology and Cave/Karst. Whenever we attempted moved the location to an orthodox location, there were conflicts between either archaeology or cave/karst which prevented us from locating the well in an orthodox location. Consequently, the only alternative would be an unorthodox location thus requiring a hearing before the NMOCD.

Should you have any questions relating to this matter, please contact myself or Barry Hunt of my staff.

Sincerely,


Gary Bowers
Area Manager

NEW MEXICO
OIL CONSERVATION DIVISION

Maralo EXHIBIT 3

CASE NO. 11912

OPER. ONLY COPY
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN THIS DATE
(Other instructions on
reverse side)

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

b. TYPE OF WELL

OIL

WELL ☒

GAS

WELL ☐

OTHER ☐

SINGLE

ZONE ☒

MULTIPLE

ZONE ☐

2. NAME OF OPERATOR

MARALO INC. (PHILLIP SMITH) 915-684-7441

3. ADDRESS AND TELEPHONE NO.

P.O. BOX 832 MIDLAND, TEXAS 79702

4. LOCATION OF WELL (Report location clearly and in accordance with any State regulations)

At surface

SEC. 30 T23S-R30E

At proposed prod. zone SAME

SUBJECT TO
LIKE APPROVAL
BY STATE FOR
UNORTHODOX LOCATION

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

Approximately 12 miles East of Carlsbad New Mexico

15. DISTANCE FROM PROPOSED

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drg. unit line, if any)

40'

18. DISTANCE FROM PROPOSED LOCATION

TO NEAREST WELL, DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE, FT.

1000'

16. NO. OF ACRES IN LEASE

320

19. PROPOSED DEPTH

7400'

17. NO. OF ACRES ASSIGNED

TO THIS WELL

40

20. ROTARY OR CABLE TOOLS

ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

3083' GR.

22. APPROX. DATE WORK WILL START

When approved

23. SECRETARY'S POTASH

PROPOSED CASING AND CEMENT

CARLSBAD CONTROLLED WATER BASIN

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
25"	Conductor 20"	NA	40'	Cement to surface with Redi-mix.
17 1/2"	K-55 13 3/8"	54.5	650'	600 Sx. Circulate to surface
12 1/4"	K-55 8 5/8"	32	3100'	1050 Sx. Circulate to surface
7 7/8"	K-55 5 1/2"	15.5 & 17	7400'	1500 Sx. Top of cement 2850'

1. Drill 25" hole to 40'. Set 40' of 20" conductor & cement to surface with Redi-mix.
2. Drill 17 1/2" hole to 650'. Run and set 650' of 13 3/8" 54.5# K-55 ST&C casing. Cement with 400 Sx. of Halco Light + additives, tail in with 200 Sx. of Class "C" + 2% CaCl, circulate cement to surface.
3. Drill 12 1/4" hole to 3100'. Run and set 3100' of 8 5/8" 32# K-55 ST&C casing. Cement with 800 Sx. of Halco Light + additives, tail in with 250 Sx. of Class "C" + 2% CaCl, circulate cement to surface.
4. Drill 7 7/8" hole to 7400'. Run and set 7400' of 5 1/2" casing as follows: 800' of 17# K-55 LT&C, 6600' of 15.5# K-55 LT&C casing. Cement with 300 Sx. of Halco Light follow with 300 Sx. of Class "C" + 2% CaCl., tail in with 200 Sx. of Class "C" + 2% CaCl. Estimate top of cement at 2850'.

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depth of new proposed program, if any.

24.

SIGNED

TITLE

Agent

DATE

10/30/97

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lands which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY

TITLE

Acting State Director

DATE

NOV 21 1997

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
New Mexico State Office
1474 Rodeo Rd.
P.O. Box 27115
Santa Fe, New Mexico 87502-0115



IN REPLY REFER TO:
3160 (06200)
NMNM-81622

NOV 21 1997

CERTIFIED--RETURN RECEIPT REQUESTED
P 382 821 526

Maralo, Inc.
Attn: Phillip Smith
P. O. Box 832
Midland, TX 79702

RE: Gold Rush "30" Federal #8
NMNM81622
2310'S & 2600'E, Sec 30, T23S., R30E
Eddy County, New Mexico

Dear Mr. Smith:

I have approved your application at the well location requested. A copy of the approved application with stipulations is enclosed. Please contact our Roswell District Office at (505) 627-0272, should you have any questions or if we can be of any additional help.

Sincerely,

for M. J. Chávez
State Director

1 Enclosure

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer 80, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Artesia, NM 87410

DISTRICT IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 47545	Pool Name NASH DRAW-BRUSHY CANYON
Property Code 15310	Property Name GOLD RUSH "30" FEDERAL	Well Number 8
OGRID No. 014007	Operator Name MARALO, INC.	Elevation 3083

Surface Location

UL or lot No. J	Section 30	Township 23 S	Range 30 E	Lot Idn	Feet from the 2310	North/South line SOUTH	Feet from the 2600	East/West line EAST	County EDDY
--------------------	---------------	------------------	---------------	---------	-----------------------	---------------------------	-----------------------	------------------------	----------------

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

LOT 1 41.09 AC.		OPERATOR CERTIFICATION	
LOT 2 41.19 AC.		<p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Joe T. Janica</i> Signature Joe T. Janica Printed Name Agent Title 10/30/97 Date</p>	
LOT 3 41.10 AC.		SURVEYOR CERTIFICATION	
LOT 4 41.15 AC.		<p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>OCTOBER 27, 1997 Date Surveyed Signature of J. Eidson Professional Surveyor 10-2947 N.M. 97-112756 Certificate No. RONALD J. EIDSON, 3239 PROFESSIONAL SURVEYOR, 12641</p>	

Date: 1/19/1998

Time: 10:11 AM

Annual CashFlow Report

Project: C:\DWIGHTS\PTOOLS25\MISC.MDB

Lease Name: Gold Rush 30 Fed #8 ()
 County, ST: Eddy, NM
 Location: 0-0-0

Field Name: Nash Draw
 Operator: Maralo Inc

Date	Well Count	Gross Production		Net Production		Average Prices		Sales Total (\$)
		Oil (Bbl)	Gas (Mcf)	Oil (Bbl)	Gas (Mcf)	Oil (\$/Bbl)	Gas (\$/Mcf)	
12/98	1	27,689	41,417	7,312	10,934	18.28	1.83	153,611
12/99	1	19,630	29,449	5,184	7,775	18.82	1.88	112,214
12/00	1	13,917	20,940	3,675	5,528	19.39	1.94	81,974
12/01	1	9,867	14,889	2,605	3,931	19.97	2.00	59,883
12/02	1	6,995	10,587	1,847	2,795	20.57	2.06	43,745
12/03	1	4,959	7,528	1,310	1,987	21.19	2.12	31,956
12/04	1	5,179	6,699	1,368	1,768	21.89	2.19	33,805
12/05	1	13,401	19,302	3,539	5,096	22.52	2.25	91,177
12/06	1	11,541	19,572	3,048	5,167	23.15	2.32	82,518
12/07	1	8,214	14,157	2,169	3,738	23.85	2.38	60,638
12/08	1	5,847	10,240	1,544	2,703	24.56	2.46	44,561
12/09	1	4,161	7,407	1,099	1,956	25.30	2.53	32,748
12/10	1	2,962	5,358	782	1,414	26.06	2.61	24,067
03/11	1	596	1,090	157	288	26.56	2.66	4,945
Grand Total:		134,958	208,636	35,638	55,080	20.84	2.10	857,841

Date	Operating Expenses (\$)	Taxes (\$)	Operating Income (\$)	Other Costs (\$)	Periodic Cash Flow (\$)	Cumulative Cash Flow (\$)	10.00 % Cash Flow (\$)
12/98	12,193	10,981	130,437	198,084	-67,646	-67,646	-73,825
12/99	12,559	8,022	91,634	0	91,634	23,987	79,367
12/00	12,935	5,860	63,178	0	63,178	87,165	49,755
12/01	13,324	4,281	42,278	0	42,278	129,443	30,278
12/02	13,723	3,127	26,894	0	26,894	156,338	17,519
12/03	14,135	2,285	15,537	0	15,537	171,874	9,210
12/04	14,559	2,414	16,832	0	16,832	188,706	8,912
12/05	14,996	6,516	69,665	0	69,665	258,371	33,803
12/06	15,446	5,904	61,168	0	61,168	319,539	27,194
12/07	15,909	4,339	40,390	0	40,390	359,929	16,330
12/08	16,386	3,189	24,986	0	24,986	384,914	9,190
12/09	16,878	2,344	13,526	0	13,526	398,440	4,530
12/10	17,384	1,723	4,960	0	4,960	403,400	1,519
03/11	4,427	354	164	0	164	403,564	47
Grand Total:	194,853	61,340	601,648	198,084	403,564	403,564	213,827

Discount Present Worth:

0.00 %	403,564
10.00 %	213,827
15.00 %	159,160
18.00 %	133,657
20.00 %	118,951
25.00 %	88,416
30.00 %	64,554
40.00 %	29,758
60.00 %	-12,397
80.00 %	-37,558
100.00 %	-54,663

Economic Dates:

Effective Date	01/1998
Calculated Limit	03/2011
Economic Life	159 Months
	13 Years 3 Months

Economics Information:

Payout:	09/1999
Rate of Return:	52.81 %
Return on Investment:	3.04
Initial Division of Interest:	

Economics Summary:

	Bbl Oil	Mcf Gas
Ultimate Gross	134,958	208,636
Cumulative Gross	0	0
Remaining Gross	134,958	208,636
Remaining Net	35,638	55,080

WI: 33.330000

NRI 26.407000
 Oil: 26.407000
 Gas: 26.407000
 User: 80.000000
 ORI 0.000000

Reversion Date: None

OIL CONSERVATION DIVISION

Maralo EXHIBIT 12

CASE NO. 11912

Date: 1/19/1998

Time: 10:10 AM

Annual CashFlow Report

Project: C:\DWIGHTS\PTOOLS\S25\MISC.MDB

Lease Name: Gold Rush 30 Fed #8 ()
 County, ST: Eddy, NM
 Location: 0-0-0

Field Name: Nash Draw
 Operator: Maralo Inc

Date	Well Count	Gross Production		Net Production		Average Prices		Sales Total (\$)
		Oil (Bbl)	Gas (Mcf)	Oil (Bbl)	Gas (Mcf)	Oil (\$/Bbl)	Gas (\$/Mcf)	
12/98	1	27,689	41,417	7,312	10,934	18.28	1.83	153,611
12/99	1	19,630	29,449	5,184	7,775	18.82	1.88	112,214
12/00	1	13,917	20,940	3,675	5,528	19.39	1.94	81,974
12/01	1	9,867	14,889	2,605	3,931	19.97	2.00	59,883
12/02	1	6,995	10,587	1,847	2,795	20.57	2.06	43,745
12/03	1	4,959	7,528	1,310	1,987	21.19	2.12	31,956
12/04	1	5,179	6,699	1,368	1,768	21.89	2.19	33,805
12/05	1	13,401	19,302	3,539	5,096	22.52	2.25	91,177
12/06	1	11,541	19,572	3,048	5,167	23.15	2.32	82,518
12/07	1	8,214	14,157	2,169	3,738	23.85	2.38	60,638
06/08	1	3,171	5,534	837	1,461	24.40	2.44	23,993
Grand Total:		124,563	190,075	32,893	50,180	20.45	2.05	775,513

Date	Operating Expenses (\$)	Taxes (\$)	Operating Income (\$)	Other Costs (\$)	Periodic Cash Flow (\$)	Cumulative Cash Flow (\$)	10.00 % Cash Flow (\$)
12/98	30,482	10,981	112,148	218,082	-105,934	-105,934	-111,195
12/99	31,397	8,022	72,796	0	72,796	-33,138	63,101
12/00	32,339	5,860	43,775	0	43,775	10,637	34,524
12/01	33,309	4,281	22,293	0	22,293	32,930	16,016
12/02	34,308	3,127	6,310	0	6,310	39,239	4,165
12/03	35,337	2,285	-5,666	0	-5,666	33,573	-3,294
12/04	36,397	2,414	-5,007	0	-5,007	28,567	-2,797
12/05	37,489	6,516	47,171	0	47,171	75,738	22,839
12/06	38,614	5,904	37,999	0	37,999	113,737	16,928
12/07	39,772	4,339	16,526	0	16,526	130,264	6,717
06/08	20,331	1,717	1,944	0	1,944	132,208	735
Grand Total:	369,776	55,447	350,290	218,082	132,208	132,208	47,738

Discount Present Worth:

0.00 %	132,208
10.00 %	47,738
15.00 %	21,677
18.00 %	9,103
20.00 %	1,705
25.00 %	-14,071
30.00 %	-26,868
40.00 %	-46,480
60.00 %	-72,265
80.00 %	-89,002
100.00 %	-101,028

Economic Dates:

Effective Date	01/1998
Calculated Limit	06/2008
Economic Life	126 Months
	10 Years 6 Months

Economics Information:

Payout:	09/2000
Rate of Return:	20.49 %
Return on Investment:	1.61
Initial Division of Interest:	

WI: 33.330000

Reversion Date: None

Economics Summary:

	Bbl Oil	Mcf Gas
Ultimate Gross	124,563	190,075
Cumulative Gross	0	0
Remaining Gross	124,563	190,075
Remaining Net	32,893	50,180

	NRI	ORI
Oil:	26.407000	0.000000
Gas:	26.400000	0.000000
User:	80.000000	0.000000

NEW MEXICO

OIL CONSERVATION DIVISION

Maralo EXHIBIT 13

CASE NO. 11912

Date: 1/19/1998

Time: 10:10 AM

Input Listing

Project: C:\DWIGHTS\PTOOLS25\MISC.MDB

Lease Header:

Lease Id: 000-001-
 Data Source: Project
 Lease Name: Gold Rush 30 Fed #8 ()
 Field Name: Nash Draw
 Operator: Maralo Inc
 County, ST: Eddy, NM
 Reservoir: Brushy Canyon
 Lease Status:
 Lease Type: Oil Lease
 Reserve Type:
 Production Start: 2/1/98
 Production End: 1/1/50
 Lease API: - -
 Formation Top: 0
 Prior Oil Cum: 0 bbl
 Prior Gas Cum: 0 mcf
 Prior Water Cum: 0 bbl
 Prior User Cum: 0 units
 Quarter Quarter:
 Offshore Block:
 Location: 0-0-0
 Latitude: 0.000000
 Longitude: 0.000000
 User Data 1:
 User Data 2:
 User Data 3:
 User Data 4:
 User Data 5:
 User Data 6:

Project Parameters:

Economic Effective Date: 01/1998
 Escalate Economics: Yes

Well Counts:

Well Count	Start Date
1	01/1998

Division of Interest:

Initial WI: 33.330000
 Reversion Type: None
 Reversion Value: None
 Reversion Date: None

NRI

Oil: 26.407000
 Gas: 26.400000
 User: 80.000000

Burden

0.000000
 0.000000
 0.000000

ORI

0.000000
 0.000000
 0.000000

Prices:

	Price	BTU Content or Price Factor	Price Adjustment	Escalation Name
Oil:	18.00		0.0000	OilPriceEsc
Gas:	1.80	1.0000	0.0000	GasPriceEsc
User:	0.00	1.0000	0.0000	

Expenses:**Taxes:**

	Amount	Escalation Name	Percent of Revenue	Dollars per Unit
Dollars/Month:	7500.00	ExpenseEsc		
Dollars/Well/Month:	0.00	None		
Dollars/Bbl Oil:	0.00	None		
Dollars/Mcf Gas:	0.00	None		
Dollars/Bbl Wtr:	0.00	None		
Dollars/Unit User:	0.00	None		
		Severance Tax		
		Oil:	7.0900	0.0000 / Bbl
		Gas:	7.5400	0.0000 / Mcf
		User:	0.0000	0.0000 / Unit
		Ad Valorem Tax		
		Oil:	0.0000	0.0000 / Bbl
		Gas:	0.0000	0.0000 / Mcf
		User:	0.0000	0.0000 / Mcf

Investments:

	Amount	Type	Salvage
Initial:	654310.00	Gross	0.00

Escalation Name: None

Date: 1/19/1998

Time: 10:10 AM

Input Listing

Project: C:\DWIGHTS\PTOOLS25\MISC.MDB

	Date	Amount	Type	Salvage
Subsequent:	09/2017	75.00	Gross	0.00

Forecasts:

Curve	Type	Date	Rate	Decline	N Factor
Oil Segment 01	Exponential	01/1998 - 05/2004	2,727	29.1039	0.000000
Oil Segment 02	Exponential	05/2004 - 07/2005	309	-252.9538	0.000000
Oil Segment 03	Exponential	07/2005 - 12/2007	1,345	28.8230	0.000000
Gas Segment 01	Exponential	01/1998 - 07/2004	4,073	28.8952	0.000000
Gas Segment 02	Exponential	07/2004 - 09/2005	444	-283.0751	0.000000
Gas Segment 03	Exponential	09/2005 - 05/2012	2,127	27.6671	0.000000

Input Listing

Project: C:\DWIGHTS\PTOOLS25\MISC.MDB

Lease Header:

Lease Id: 000-001-
 Data Source: Project
 Lease Name: Gold Rush 30 Fed #8 ()
 Field Name: Nash Draw
 Operator: Maralo Inc
 County, ST: Eddy, NM
 Reservoir: Brushy Canyon
 Lease Status:
 Lease Type: Oil Lease
 Reserve Type:
 Production Start: 2/1/98
 Production End: 1/1/50
 Lease API: - -
 Formation Top: 0
 Prior Oil Cum: 0 bbl
 Prior Gas Cum: 0 mcf
 Prior Water Cum: 0 bbl
 Prior User Cum: 0 units
 Quarter Quarter:
 Offshore Block:
 Location: 0-0-0
 Latitude: 0.000000
 Longitude: 0.000000
 User Data 1:
 User Data 2:
 User Data 3:
 User Data 4:
 User Data 5:
 User Data 6:

Project Parameters:

Economic Effective Date: 01/1998

Escalate Economics: Yes

Well Counts:

Well Count	Start Date
1	01/1998

Division of Interest:

Initial WI: 33.330000
 Reversion Type: None
 Reversion Value: None
 Reversion Date: None

NRI

Oil: 26.407000
 Gas: 26.400000
 User: 80.000000

Burden

0.000000
 0.000000
 0.000000

ORI

0.000000
 0.000000
 0.000000

Prices:

	Price	BTU Content or Price Factor	Price Adjustment	Escalation Name
Oil:	18.00		0.0000	OilPriceEsc
Gas:	1.80	1.0000	0.0000	GasPriceEsc
User:	0.00	1.0000	0.0000	

Expenses:

	Amount	Escalation Name	Percent of Revenue	Dollars per Unit
Dollars/Month:	3000.00	ExpenseEsc		
Dollars/Well/Month:	0.00	None		
Dollars/Bbl Oil:	0.00	None		
Dollars/Mcf Gas:	0.00	None		
Dollars/Bbl Wtr:	0.00	None		
Dollars/Unit User:	0.00	None		

Taxes:			
Severance Tax			
Oil:	7.0900	0.0000	/ Bbl
Gas:	7.5400	0.0000	/ Mcf
User:	0.0000	0.0000	/ Unit
Ad Valorem Tax			
Oil:	0.0000	0.0000	/ Bbl
Gas:	0.0000	0.0000	/ Mcf
User:	0.0000	0.0000	/ Mcf

Investments:

	Amount	Type	Salvage
Initial:	594310.00	Gross	0.00

Escalation Name: None

Date: 1/19/1998

Time: 10:11 AM

Input Listing

Project: CADWIGHTS\PTOOLS25\MISC.MDB

	Date	Amount	Type	Salvage
Subsequent:	09/2017	75.00	Gross	0.00

Forecasts:

Curve	Type	Date	Rate	Decline	N Factor
Oil Segment 01	Exponential	01/1998 - 05/2004	2,727	29.1039	0.000000
Oil Segment 02	Exponential	05/2004 - 07/2005	309	-252.9538	0.000000
Oil Segment 03	Exponential	07/2005 - 12/2007	1,345	28.8230	0.000000
Gas Segment 01	Exponential	01/1998 - 07/2004	4,073	28.8952	0.000000
Gas Segment 02	Exponential	07/2004 - 09/2005	444	-283.0751	0.000000
Gas Segment 03	Exponential	09/2005 - 05/2012	2,127	27.6671	0.000000

BEFORE THE NEW MEXICO OIL CONSERVATION DIVISION

APPLICATION OF MARALO, INC. FOR
AN UNORTHODOX OIL WELL LOCATION,
EDDY COUNTY, NEW MEXICO.

Case No. 11,912

AFFIDAVIT REGARDING NOTICE

STATE OF NEW MEXICO)
COUNTY OF SANTA FE) ss.

James Bruce, being duly sworn upon his oath, deposes and states:

1. I am over the age of 18, and have personal knowledge of the matters stated herein.

2. I am an attorney for Applicant.

3. Applicant has conducted a good faith, diligent effort to find the names and correct addresses of the interest owners entitled to receive notice of the Application filed herein.

4. Notice of the Application was provided to said interest owners at their correct addresses by mailing each of them, by certified mail, a copy of the Application. Copies of the notice letter and certified return receipts are attached hereto as Exhibit A.

5. Applicant has complied with the notice provisions of Division Rule 1207.


James Bruce

SUBSCRIBED AND SWORN TO before me this 21st day of January, 1998, by James Bruce.


Notary Public

My Commission Expires:
3/14/2001

NEW MEXICO
OIL CONSERVATION DIVISION

Maralo EXHIBIT 14

CASE NO. _____

JAMES BRUCE
ATTORNEY AT LAW

POST OFFICE BOX 1056
SANTA FE, NEW MEXICO 87504

SUITE B
612 OLD SANTA FE TRAIL
SANTA FE, NEW MEXICO 87501

(505) 982-2043
(505) 982-2151 (FAX)

December 31, 1997

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

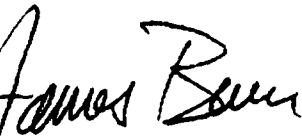
Texaco Exploration and Production Inc.
500 North Loraine
Midland, Texas 79701

Bass Enterprises Production Company
201 Main Street
Fort Worth, Texas 76102

Dear Sirs:

Enclosed is a copy of an application for an unorthodox oil well location, filed at the New Mexico Oil Conservation Division by Maralo, Inc., regarding the NW~~X~~SE~~X~~ of Section 30, Township 23 South, Range 30 East, Eddy County, New Mexico. This application will be heard at 8:15 a.m. on Thursday, January 22, 1998 at the Division's offices at 2040 South Pacheco Street, Santa Fe, New Mexico 87505. As an offset interest owner, you have the right to appear at the hearing and participate in the case. Failure to appear at the hearing will preclude you from contesting this matter at a later date.

Very truly yours,



James Bruce

Attorney for Maralo, Inc.



RECOMMENDED PENALTY

BASIS: VARIANCE FROM STANDARD SETBACK

$$\frac{\text{EAST-WEST VARIANCE}}{\text{EAST-WEST STANDAND}} = \text{PENALTY}$$

$$\frac{(330 - 40)}{330} = 0.88$$

PENALTY = 88%

**BEFORE THE
OIL CONSERVATION DIVISION
Santa Fe, New Mexico**

Case No. 11912 Exhibit No. 5

Submitted by: Texaco Exploration and
Production Inc.

Hearing Date: January 22, 1998

RECOMMENDED ADMINISTRATION OF ALLOWABLE

DAYS/MONTH x (1 - PENALTY) = DAYS ALLOWED TO PRODUCE

DAYS/MONTH x (1 - 0.88) = DAYS ALLOWED TO PRODUCE

DAYS/MONTH x (0.12) = DAYS ALLOWED TO PRODUCE

EXAMPLE:

30 DAYS/MONTH x (0.12) = 3.6 DAYS/MONTH

**BEFORE THE
OIL CONSERVATION DIVISION
Santa Fe, New Mexico**

Case No. 11912 Exhibit No. 6

Submitted by: Texaco Exploration and
Production Inc.

Hearing Date: January 22, 1998

PROPOSED PRODUCTION CAP

MAX. DEPTH ALLOWABLE x (DAYS ALLOWED TO PRODUCE)
= PRODUCTION CAP

EXAMPLE:
142 BOPD X 3.2 DAYS/MONTH = 511 BOPM

BEFORE THE
OIL CONSERVATION DIVISION
Santa Fe, New Mexico

Case No. 11912 Exhibit No. 7

Submitted by: Texaco Exploration and
Production Inc.

Hearing Date: January 22, 1998

BASS ENTERPRISES PRODUCTION CO.

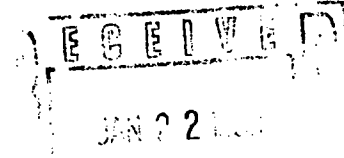
201 MAIN ST.

FORT WORTH, TEXAS 76102-3131

817/390-8400

January 21, 1998

FEDERAL EXPRESS/FAX (505) 827-8177



New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87504

Attention: Mr. Michael Stogner

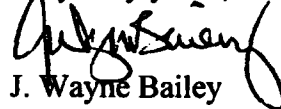
Re: Case No. 11912
Unorthodox Location
Maralo-Gold Rush "30" No. 8
2,310' FSL, 2,600' FEL, Section 30, T23S-R30E
Eddy County, New Mexico

Dear Mr. Stogner:

Please reference an application by Maralo, Inc. to drill the referenced well at the above unorthodox location to the base of the Delaware Formation. It is Bass' understanding that Texaco will oppose Maralo's application at the January 22, 1998, examiner hearing. Please be advised that Bass is the owner of an overriding royalty interest in the tract immediately offsetting the Maralo location to the east. If Maralo is allowed to drill the subject well at the requested location, Bass' interest will be adversely affected by drainage and Bass will suffer an undue loss of correlative rights.

Therefore, Bass supports Texaco's opposition to the Maralo application and requests that this letter be entered into the record at the January 22, 1998 hearing. Thank you very much and should you have any questions or comments in the above regard, please advise.

Very truly yours,


J. Wayne Bailey

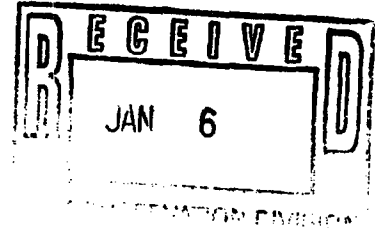
JWB:ca

cc: William F. Carr
P. O. Box 2208
Santa Fe, New Mexico 87504-2208

James Bruce
P. O. Box 1056
Santa Fe, New Mexico 87504

**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:



APPLICATION OF MARALO, INC.
FOR AN UNORTHODOX OIL
WELL LOCATION,
EDDY COUNTY, NEW MEXICO.

CASE NO. 11912

PRE-HEARING STATEMENT

This Prehearing Statement is submitted by Campbell, Carr, Berge & Sheridan, P.A.,
as required by the Oil Conservation Division.

APPEARANCES OF PARTIES

APPLICANT

Maralo, Inc.

name, address, phone and
contact person

ATTORNEY

Jim Bruce, Esq.
Attorney at Law
Post Office Box 1056
Santa Fe, New Mexico 87504-1056
(505) 982-2043

INTERESTED PARTY

Texaco Exploration & Production Inc.
c/o David Sleeper
Post Office Box 2100
Denver, CO 80201
(303) 793-4512

name, address, phone and
contact person

ATTORNEY

William F. Carr, Esq.
Campbell, Carr, Berge & Sheridan, P.A.
Post Office Box 2208
Santa Fe, New Mexico 87504
(505) 988-4421

STATEMENT OF CASE

APPLICANT

(Please make a concise statement of what is being sought with this application and the reasons therefore.)

OTHER PARTY

(Please make a concise statement of the basis for opposing this application or otherwise state the position of the party filing this statement.)

Texaco Exploration & Production Inc., will request that a production penalty be imposed on the proposed well to offset the advantage gained on the offsetting Texaco tract as a result of the proposed unorthodox well location.

PROPOSED EVIDENCE

APPLICANT

WITNESSES
(Name and expertise)

EST. TIME

EXHIBITS

TEXACO EXPLORATION & PRODUCTION INC.

WITNESSES
(Name and expertise)

EST. TIME

EXHIBITS

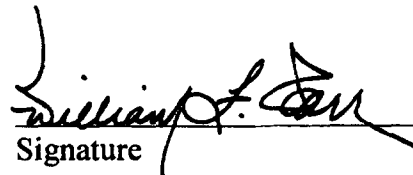
David Uhl, Geology

15 Min.

Approximately 6

PROCEDURAL MATTERS

(Please identify any procedural matters which need to be resolved prior to hearing)

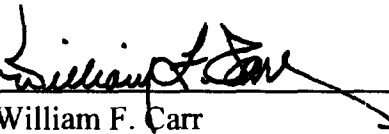

Signature

Pre-hearing Statement
NMOCD Case No. 11912
Page 4

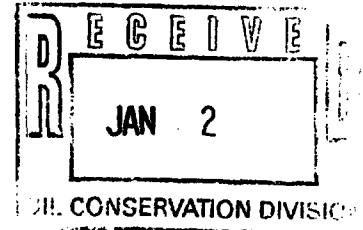
CERTIFICATE OF SERVICE

I hereby certify that I have caused a true and correct copy of the foregoing Pre-Hearing Statement to be mailed on this 16th day of January, 1998 to the following counsel of record:

James E. Bruce, Esq.
Attorney at Law
Post Office Box 1056
Santa Fe, New Mexico 87504-1056


William F. Carr

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



IN THE MATTER OF THE APPLICATION OF
MARALO, INC. FOR AN
UNORTHODOX OIL WELL LOCATION
EDDY COUNTY, NEW MEXICO.

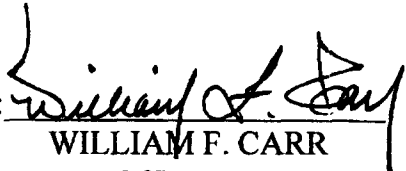
CASE NO. 11912

ENTRY OF APPEARANCE

COMES NOW CAMPBELL, CARR, BERGE & SHERIDAN, P.A., and hereby
enters its appearance in the above referenced case on behalf of Texaco Exploration and
Production Inc.

Respectfully submitted,

CAMPBELL, CARR, BERGE
& SHERIDAN, P.A.

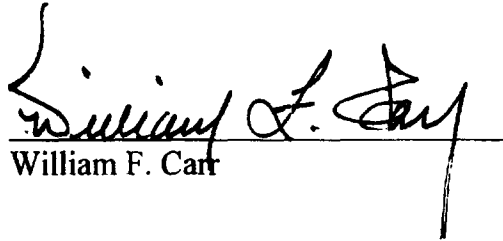
By: 
WILLIAM F. CARR
Post Office Box 2208
Santa Fe, New Mexico 87504
Telephone: (505) 988-4421

ATTORNEYS FOR TEXACO EXPLORATION
AND PRODUCTION INC.

CERTIFICATE OF SERVICE

I hereby certify that on this 12th day of January, 1998, I have caused to be mailed a copy of our Entry of Appearance in the above-captioned case to the following named counsel:

James Bruce, Esq.
Post Office Box 1056
Santa Fe, New Mexico 87504-1056


William F. Carr

DOCKET: EXAMINER HEARING - THURSDAY - JANUARY 22, 1998**8:15 AM - 2040 South Pacheco****Santa Fe, New Mexico**

Dockets Nos 3-98 and 4-98 are tentatively set for February 5, 1998 and February 19, 1998. Applications for hearing must be filed at least 23 days in advance of hearing date. The following cases will be heard by an Examiner:

CASE 11908: Application of Marathon Oil Company for compulsory pooling, Eddy County, New Mexico. Applicant seeks an order pooling all mineral interests from 3,500 feet (the approximate base of the San Andres formation) to 11,152 feet (the approximate base of the Morrow formation) underlying the N/2 of Section 34, Township 18 South, Range 28 East, forming a standard 320-acre gas spacing and proration unit for any and all formations and/or pools developed on 320-acre gas spacing within said vertical extent, which presently may include but is not necessarily limited to the North Turkey Track-Morrow Gas Pool, and forming a standard 160-acre gas spacing and proration unit underlying the NW/4 of said Section 34 for any and all formations/pools developed on 160-acre gas spacing, and forming a standard 40-acre oil spacing and proration unit underlying the NE/4 NW/4 of said Section 34. Said units are to be dedicated to its Burns "34" State Well No. 1 to be drilled and completed at a standard gas well location in Unit C of said Section 34. Also to be considered will be the costs of drilling and completing said well and the allocation of the costs thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for the risk involved in drilling said well. Said units are located approximately 13 miles southwest of Loco Hills, New Mexico.

CASE 11909: Application of Marathon Oil Company for compulsory pooling, Eddy County, New Mexico. Applicant seeks an order pooling all mineral interests from 5,000 feet to 11,152 feet (the approximate base of the Morrow formation) underlying the S/2 of Section 22, Township 18 South, Range 28 East, forming a standard 320-acre gas spacing and proration unit for any and all formations and/or pools developed on 320-acre gas spacing within said vertical extent, which presently may include but is not necessarily limited to the North Turkey Track-Morrow Gas Pool and the North Illinois Camp-Morrow Gas Pool, and forming a standard 160-acre gas spacing and proration unit underlying the SE/4 of said Section 22 for any and all formations/pools developed on 160-acre gas spacing, and forming a standard 40-acre oil spacing and proration unit underlying the SW/4 SE/4 of said Section 22 for any and all formations/pools developed on 40-acre oil spacing. Said units are to be dedicated to its Garvin "22" State Well No. 1 to be drilled and completed at a standard gas well location in Unit O of said Section 34. Also to be considered will be the costs of drilling and completing said well and the allocation of the costs thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for the risk involved in drilling said well. Said units are located approximately 12 miles southwest of Loco Hills, New Mexico.

CASE 11896: (Continued from December 18, 1997, Examiner Hearing.)

Application of OXY USA, Inc. for compulsory pooling, Eddy County, New Mexico. Applicant seeks an order pooling all mineral interests from the surface to the base of the Morrow formation underlying the following described area in Section 17, Township 17 South, Range 27 East and in the following manner: the N/2 to form a standard 320-acre gas spacing and proration unit for any and all formations and/or pools developed on 320-acre spacing within said vertical extent, which presently includes but is not necessarily limited to the Undesignated Jennings Spring-Wolfcamp Pool, Undesignated Logan Draw-Cisco Canyon Gas Pool, Undesignated Hart Draw-Atoka Gas Pool and the Undesignated Logan Draw-Morrow Gas Pool; the NE/4 to form a standard 160-acre gas spacing and proration unit for any and all formations and/or pools developed on 160-acre spacing within said vertical extent; the N/2 NE/4 to form a standard 80-acre gas spacing and proration unit for any and all formations and/or pools developed on 80-acre spacing within said vertical extent; and the NW/4 NE/4 to form a standard 40-acre spacing and proration unit for any and all formations and/or pools developed on 40-acre spacing within said vertical extent. Said unit is to be dedicated to its Livan Fed. Com Well No. 1 to be drilled at a standard location 660 feet from the North line and 1650 feet from the East line (Unit B) of said Section 17. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for the risk involved in drilling said well. Said area is located approximately 6 miles east of Artesia, New Mexico.

CASE 11900: (Continued from December 18, 1997, Examiner Hearing.)

Application of Yates Petroleum Corporation to rescind Administrative Order No. SWD-657, Lea County, New Mexico. Applicant seeks rescission of Administrative Order No. SWD-657 which approved the application of Manzano Oil Corporation for authorization to convert the State "22" Well No. 1, located 2310 feet from the South line and 990 feet from the East line (Unit I) of Section 22, Township 10 South, Range 37 East, to a salt water disposal well for the injection of Devonian water into the San Andres formation. Said well is located approximately 12 miles northeast of Tatum, New Mexico.

CASE 11885: (Continued from December 18, 1997, Examiner Hearing - This Case Will Be Dismissed.)

Application of Nearburg Exploration Company, L.L.C. for compulsory pooling, Lea County, New Mexico. Applicant seeks an order pooling all mineral interests in all formations from the surface to the base of the Morrow formation, for all formations developed on 320-acre spacing in the N/2, all formations developed on 160-acre spacing in the NW/4 including the South Salt Lake Morrow Gas Pool and all formations developed on 40-acre spacing in the NE/4 NW/4 of Section 34, Township 20 South, Range 33 East. Said unit is to be dedicated to its Tomahawk "34" Federal Com Well No. 1 to be drilled at a standard location 660 feet from the North line and 1650 feet from the West line of said Section 34 to test all formations from the surface to the base of the Morrow formation. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for risk involved in drilling said well. Said area is located approximately 5 miles southeast of Halfway, New Mexico.

CASE 11910: Application of Nearburg Exploration Company for compulsory pooling, Eddy County, New Mexico. Applicant seeks an order pooling all mineral interests in all formations developed on 160-acre spacing in the NE/4, in all formations developed on 80-acre spacing in the S/2 NE/4, and in all formations developed on 40-acre spacing in the SW/4 NE/4 of Section 13, Township 19 South, Range 25 East. Said units are to be dedicated to its Lakewood Farms "13" Well No. 1 to be drilled in the Undesignated North Dagger Draw-Upper Pennsylvanian Pool at a standard location 1650 feet from the North and East lines (Unit G) of said Section 13. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for the risk involved in drilling said well. Said area is located approximately 3 miles northwest of Lakewood, New Mexico.

CASE 11906: (Continued from January 8, 1998, Examiner Hearing.)

Application of Mewbourne Oil Company for compulsory pooling, Eddy County, New Mexico. Applicant seeks an order pooling all mineral interests from the surface to the base of the Cisco/Canyon formation underlying the following described acreage in Section 5, Township 20 South, Range 25 East and in the following manner: Lots 1, 2 and the S/2 NE/4 (the NE/4) to form a standard 160.45-acre oil spacing and proration unit for any formations and/or pools developed on 160-acre spacing within said vertical extent, including the Undesignated North Dagger Draw-Upper Pennsylvanian Pool; and the SW/4 NE/4 to form a standard 40-acre oil spacing and proration unit for any formations and/or pools spaced on 40 acres within said vertical extent, including the Undesignated Seven Rivers-Yeso Pool. Said units are to be dedicated to applicant's S.P. Johnson Com Well No. 2, located 1650 feet from the North line and 1980 feet from the East line (Unit G) of said Section 5. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for the risk involved in drilling said well. Said unit is located approximately 4.5 miles west-northwest of Seven Rivers, New Mexico.

CASE 11911: Application of Pogo Producing Company for a unit agreement, Lea County, New Mexico. Applicant seeks approval of the Longbow Unit Agreement, an exploratory unit comprising 1120 acres, more or less, of federal and fee land in Sections 25, 35, and 36, Township 21 South, Range 32 East. Said unit area is centered approximately 10 miles southeast of the intersection of State Highway 176 and U.S. Highway 62 & 180.

CASE 11912: Application of Maralo, Inc. for an unorthodox oil well location, Eddy County, New Mexico. Applicant seeks approval to drill its Gold Rush "30" Federal Well No. 8 at an unorthodox oil well location 2310 feet from the South line and 2600 feet from the East line (Unit J) of Section 30, Township 23 South, Range 30 East, to the base of the Delaware formation, said location being unorthodox for all oil producing formations and/or pools, and if productive to be dedicated to a standard 40-acre oil spacing and proration unit comprised of the NW/4 SE/4 of Section 30. Said unit is located approximately 10.5 miles east of Loving, New Mexico.

CASE 11887: (Continued from December 18, 1997, Examiner Hearing.)

Application of Santa Fe Energy Resources, Inc. for compulsory pooling and a non-standard gas spacing and proration unit, Lea County, New Mexico. Applicant seeks an order pooling all mineral interests from the surface to the base of the Morrow formation underlying Lots 3-6 and 11-14 of Section 1, Township 21 South, Range 34 East, to form a non-standard 315.22-acre gas spacing and proration unit for any formations and/or pools developed on 320-acre spacing within said vertical extent, including the Undesignated Wilson-Morrow Gas Pool. Said unit is to be dedicated to its Outland "1" State Well No. 1, to be drilled at an orthodox gas well location 3300 feet from the North line and 1650 feet from the West line of said Section 1. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for the risk involved in drilling said well. Said unit is located approximately 10 miles west-northwest of Oil Center, New Mexico.

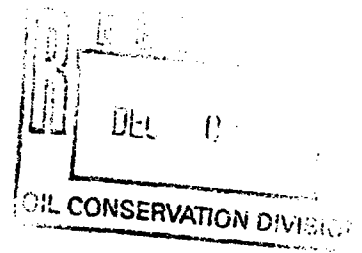
JAMES BRUCE
ATTORNEY AT LAW

POST OFFICE BOX 1056
SANTA FE, NEW MEXICO 87504

SUITE B
612 OLD SANTA FE TRAIL
SANTA FE, NEW MEXICO 87501

(505) 982-2043
(505) 982-2151 (FAX)

December 30, 1997



11912

Hand Delivered

Florene Davidson
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Dear Florene:

Enclosed are an original and two copies of an application for an unorthodox oil well location, and a proposed advertisement, filed on behalf of Maralo, Inc. Please set this matter for the January 22, 1998 Examiner hearing.

Very truly yours,

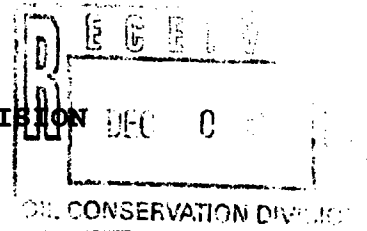
A handwritten signature in cursive script that reads "James Bruce".

James Bruce

Attorney for Maralo, Inc.

BEFORE THE NEW MEXICO OIL CONSERVATION DIVISION

APPLICATION OF MARALO, INC. FOR
AN UNORTHODOX OIL WELL LOCATION,
EDDY COUNTY, NEW MEXICO.



NO. 11912

APPLICATION

Maralo, Inc. hereby applies for an order approving an unorthodox oil well location, and in support thereof states:

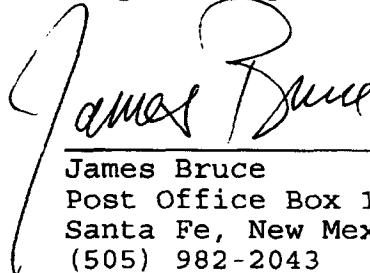
1. Applicant is a working interest owner in the NW¼SE¼ of Section 30, Township 23 South, Range 30 East, NMPM, and has the right to drill a well thereon.

2. Applicant proposes to drill its Gold Rush "30" Federal Well No. 8, at an unorthodox oil well location 2310 feet from the South line and 2600 feet from the East line of the section, to a depth sufficient to test the Delaware formation (Nash Draw-Brushy Canyon Pool).

3. The granting of the unorthodox oil well location will prevent the drilling of unnecessary wells, prevent waste, and protect correlative rights.

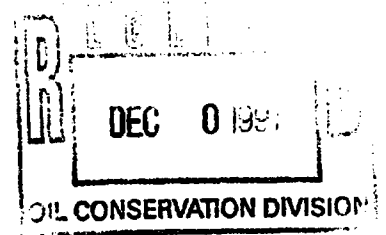
WHEREFORE, Applicant requests that, after notice and hearing, the Division enter its order granting the unorthodox location.

Respectfully submitted,


James Bruce
Post Office Box 1056
Santa Fe, New Mexico 87504
(505) 982-2043

Attorney for Maralo, Inc.

PROPOSED ADVERTISEMENT



Case 1912: Application of Maralo, Inc. for an unorthodox oil well location, Eddy County, New Mexico. Applicant seeks approval to drill its Gold Rush "30" Federal Well No. 8 at an unorthodox oil well location 2310 feet from the South line and 2600 feet from the East line (Unit J) of Section 30, Township 23 South, Range 30 East, to the base of the Delaware formation, said location being unorthodox for all oil producing formations and/or pools, and if productive to be dedicated to a standard 40-acre oil spacing and proration unit comprised of the NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 30. Said unit is located approximately 10.5 miles east of Loving, New Mexico.