



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 S. PACHÉCO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

July 7, 1997

UMC Petroleum Corporation
c/o James Bruce
P. O. Box 1056
Santa Fe, New Mexico 87501

Administrative Order DD-180(H)
High Angle/Horizontal

Dear Mr. Bruce:

Reference is made to your application dated June 16, 1997 on behalf of the operator, UMC Petroleum Corporation ("UMC"), for authorization to recompleat the Townsend State Well No. 1 (API No. 30-025-33713) by side tracking off of the vertical wellbore and penetrate the Undesignated South Big Dog-Strawn Pool with a horizontal drainhole within an 80-acre area comprising Lot 16 and the NE/4 SE/4 of irregular Section 2, Township 16 South, Range 35 East, NMPM, Lea County, New Mexico.

The Division Director Finds That:

- (1) The subject application has been duly filed under the provisions of Rule 111.D and E of the General Rules and Regulations of the New Mexico Oil Conservation Division ("Division"), revised by Division Order No. R-10388, issued by the Oil Conservation Commission in Case 11,274 on June 13, 1995;
- (2) The Townsend State Well No. 1, located at a standard oil well location 3526 feet from the South line and 727 feet from the East line (Lot 16/Unit P) of said Section 2, which was the subject of Division Case 11714, was drilled to total depth on March 6, 1997, the Strawn interval was subsequently completed, and a non-standard 80-acre oil spacing and proration unit comprising Lot 16 and the NE/4 SE/4 of said Section 2 (approved by Division Order No. R-10803, dated May 22, 1997) was dedicated to said well;
- (3) The Townsend State Well No. 1 and subject 80-acre tract are within one mile of the current boundary of the South Big Dog-Strawn Pool, and is therefore subject

to the "*Special Pool Rules and Regulations for the South Big Dog-Strawn Pool*", as promulgated by Division Order No. R-9722-C/R-10448-A, issued in Case No. 11599 and dated February 26, 1997, which included provisions for: (i) 80-acre spacing and proration units each comprising of the N/2, S/2, E/2, or W/2 of a governmental Quarter section; (ii) designated well location requirements such that each well drilled within the pool is to be no closer than 330 feet to any quarter-quarter section or subdivision inner boundary nor closer than 1020 feet to the nearest well drilling to or capable of producing from the same pool; (iii) each standard 80-acre unit within said pool be subject to a depth bracket oil allowable of 445 barrels of oil per day;

- (4) The current vertical wellbore, producing at a rate of 10 barrels of oil per day, is perforated from 11,501 feet to 11539 feet, however the well exhibits low porosity and permeability characteristics in comparison to other nearby Strawn producers within the porous algal reef mound that encompasses the South Big Dog-Strawn Pool, a horizontal drainhole drilled off of the existing vertical wellbore in the Townsend State Well No. 1 as proposed is an attempt to encounter porous and permeable facies within the mound, which should result in a higher production rate and an increased ultimate recovery of oil from this well;
- (5) It is our understanding that UMC now intends to kick-off from vertical at a depth of approximately 11,473 feet by milling a window in the 5 1/2-inch production casing string, drill in a south southeasterly direction with a short radius curve (71 deg./100 feet), and drill horizontally within the Strawn formation a lateral distance of approximately 1100 feet;
- (6) The "project area" as proposed is to consist of the previously approved 80-acre non-standard oil spacing and proration unit comprising Lot 16 and the NE/4 SE/4 of said Section 2;
- (7) The applicable drilling window or "producing area" for said wellbore should include that area within said 80-acre tract (Lot 16 and the NE/4 SE/4 of said Section 2) that is no closer than 330 feet to the outer boundary of said 80-acre non-standard oil spacing and proration unit; and,
- (8) It appears the applicant has satisfied all of the appropriate requirements prescribed in said Rule 111.D and E, the subject application should be approved and the well should be governed by the provisions contained within this order and all other applicable provisions of Division General Rule 111.

IT IS THEREFORE ORDERED THAT:

(1) The operator, UMC Petroleum Corporation ("UMC"), is hereby authorized to recomplete its Townsend State Well No. 1 (API No. 30-025-33713), from a standard surface oil well location 3526 feet from the South line and 727 feet from the East line (Lot 16/Unit P) of irregular Section 2, Township 16 South, Range 35 East, NMPM, Lea County, New Mexico, by milling a window in the 5 1/2-inch production casing string at a depth of approximately 11,473 feet, kick-off from the vertical in a south southeasterly direction with a short radius curve (71 deg./100 feet), and drill horizontally within the Strawn formation a lateral distance of approximately 1100 feet.

PROVIDED HOWEVER THAT prior to commencing directional drilling operations in said wellbore, the applicant shall establish the location of the kick-off point by means of a directional survey acceptable to the Division.

PROVIDED FURTHER THAT during or upon completion of said directional drilling operations, the applicant shall conduct an accurate wellbore survey from the kick-off point to total depth in order that the subsurface bottomhole location, as well as the wellbore's true depth and course, may be determined.

(2) The applicant shall notify the supervisor of the Hobbs District office of the Division of the date and time said wellbore surveys are to be conducted so that they may be witnessed. The applicant shall further provide a copy of said wellbore surveys to the Santa Fe and Hobbs offices of the Division upon completion.

(3) The "project area" for said horizontal drainhole shall comprise the existing 80-acre non-standard oil spacing and proration unit comprising Lot 16 and the NE/4 SE/4 (approved by Division Order No. R-10803, dated May 22, 1997) of said Section 2.

(4) The applicable drilling window or "producing area" for said horizontal drainhole shall include that area within said 80-acre tract (Lot 16 and the NE/4 SE/4 of said Section 2) that is no closer than 330 feet to the outer boundary of said 80-acre non-standard oil spacing and proration unit.

(5) The operator shall comply with all requirements and conditions set forth in Division General Rule 111.E(2) and any applicable requirements in 111.D and F and said Order Nos. R-9722-C/R-10448-A and R-10803.

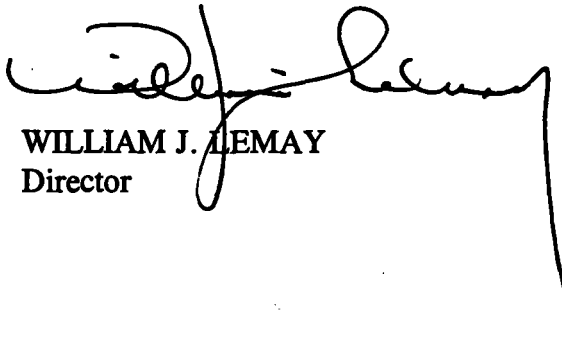
(6) Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depth (TVD) in addition to measured depths (MVD).

Administrative Order DD-180(H)
UMC Petroleum Corporation
July 7, 1997
Page 4

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

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



WILLIAM J. LEMAY
Director

SEAL

cc: Oil Conservation Division - Hobbs
New Mexico State Land Office - Santa Fe
File: Case 11741

DD-UMC

Received: 6-16-97

Susp: 7-7-97

Released: 7-7-97

July 2, 1997

UMC Petroleum Corporation
c/o James Bruce
P. O. Box 1056
Santa Fe, New Mexico 87501

180

Administrative Order DD-*(H)
High Angle/Horizontal

Dear Mr. Bruce:

Reference is made to your application dated June 16, 1997 on behalf of the operator, UMC Petroleum Corporation ("UMC"), for authorization to recomplete the Townsend State Well No. 1 (API No. 30-025-33713) by side tracking off of the vertical wellbore and penetrate the Undesignated South Big Dog-Strawn Pool with a horizontal drainhole within an 80-acre area comprising Lot 16 and the NE/4 SE/4 of irregular Section 2, Township 16 South, Range 35 East, NMPM, Lea County, New Mexico.

The Division Director Finds That:

- (1) The subject application has been duly filed under the provisions of Rule 111.D and E of the General Rules and Regulations of the New Mexico Oil Conservation Division ("Division"), revised by Division Order No. R-10388, issued by the Oil Conservation Commission in Case 11,274 on June 13, 1995;
- (2) The Townsend State Well No. 1, located at a standard oil well location 3526 feet from the South line and 727 feet from the East line (Lot 16/Unit P) of said Section 2, which was the subject of Division Case 11714, was drilled to total depth on March 6, 1997, the Strawn interval was subsequently completed, and a non-standard 80-acre oil spacing and proration unit comprising Lot 16 and the NE/4 SE/4 of said Section 2 (approved by Division Order No. R-10803, dated May 22, 1997) was dedicated to said well;
- (3) The Townsend State Well No. 1 and subject 80-acre tract are within one mile of the current boundary of the South Big Dog-Strawn Pool, and is therefore subject to the "Special Pool Rules and Regulations for the South Big Dog-Strawn Pool", as promulgated by Division Order No. R-9722-C/R-10448-A, issued in Case No. 11599 and dated February 26, 1997, which included provisions for: (i) 80-acre spacing and proration units each comprising of the N/2, S/2, E/2, or W/2 of a governmental Quarter section; (ii) designated well location requirements such that each well drilled within the pool is to be no closer than 330 feet to any quarter-quarter section or subdivision inner boundary nor closer than 1020 feet to the nearest well drilling to or capable of producing from the same pool; (iii) each standard 80-acre unit within said pool be subject to a depth bracket oil allowable of 445 barrels of oil per day;
- (4) The current vertical wellbore, producing at a rate of 10 barrels of oil per day, is perforated from 11,501 feet to 11539 feet, however the well exhibits low porosity and permeability characteristics in comparison to other nearby Strawn producers within the porous algal reef mound that encompasses the South Big Dog-Strawn Pool, a horizontal drainhole drilled off of the existing vertical wellbore in the Townsend State Well No. 1 as proposed is an attempt to encounter porous and permeable facies within the mound, which should result in a higher production rate and an increased ultimate recovery of oil from this well;
- (5) It is our understanding that UMC now intends to kick-off from vertical at a depth of approximately 11,473 feet by milling a window in the 5 1/2-inch production casing string, drill in a south southeasterly direction with a short radius curve (71 deg./100 feet), and drill horizontally within the Strawn formation a lateral distance of approximately 1100 feet;

7-7-97

- (6) The "project area" as proposed is to consist of the previously approved 80-acre non-standard oil spacing and proration unit comprising Lot 16 and the NE/4 SE/4 of said Section 2;
- (7) The applicable drilling window or "producing area" for said wellbore should include that area within said 80-acre tract (Lot 16 and the NE/4 SE/4 of said Section 2) that is no closer than 330 feet to the outer boundary of said 80-acre non-standard oil spacing and proration unit; and,
- (8) It appears the applicant has satisfied all of the appropriate requirements prescribed in said Rule 111.D and E, the subject application should be approved and the well should be governed by the provisions contained within this order and all other applicable provisions of Division General Rule 111.

IT IS THEREFORE ORDERED THAT:

(1) The operator, UMC Petroleum Corporation ("UMC"), is hereby authorized to recompleat its Townsend State Well No. 1 (API No. 30-025-33713), from a standard surface oil well location 3526 feet from the South line and 727 feet from the East line (Lot 16/Unit P) of irregular Section 2, Township 16 South, Range 35 East, NMPM, Lea County, New Mexico, by milling a window in the 5 1/2-inch production casing string at a depth of approximately 11,473 feet, kick-off from the vertical in a south southeasterly direction with a short radius curve (71 deg./100 feet), and drill horizontally within the Strawn formation a lateral distance of approximately 1100 feet.

PROVIDED HOWEVER THAT prior to commencing directional drilling operations in said wellbore, the applicant shall establish the location of the kick-off point by means of a directional survey acceptable to the Division.

PROVIDED FURTHER THAT during or upon completion of said directional drilling operations, the applicant shall conduct an accurate wellbore survey from the kick-off point to total depth in order that the subsurface bottomhole location, as well as the wellbore's true depth and course, may be determined.

(2) The applicant shall notify the supervisor of the Hobbs District office of the Division of the date and time said wellbore surveys are to be conducted so that they may be witnessed. The applicant shall further provide a copy of said wellbore surveys to the Santa Fe and Hobbs offices of the Division upon completion.

(3) The "project area" for said horizontal drainhole shall comprise the existing 80-acre non-standard oil spacing and proration unit comprising Lot 16 and the NE/4 SE/4 (approved by Division Order No. R-10803, dated May 22, 1997) of said Section 2.

(4) The applicable drilling window or "producing area" for said horizontal drainhole shall include that area within said 80-acre tract (Lot 16 and the NE/4 SE/4 of said Section 2) that is no closer than 330 feet to the outer boundary of said 80-acre non-standard oil spacing and proration unit.

(5) The operator shall comply with all requirements and conditions set forth in Division General Rule 111.E(2) and any applicable requirements in 111.D and F and said Order Nos. R-9722-C/R-10448-A and R-10803.

(6) Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depth (TVD) in addition to measured depths (MVD).

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

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY
Director

SEAL

cc: Oil Conservation Division - Hobbs
New Mexico State Land Office - Santa Fe
File: Case 11741



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

September 17, 1997

UMC Petroleum Corporation
c/o James Bruce
P. O. Box 1056
Santa Fe, New Mexico 87501

Administrative Order NSL-3870

Dear Mr. Bruce:

Reference is made to:

(a) your application dated August 11, 1997 on behalf of the operator, UMC Petroleum Corporation ("UMC"), to (i) form a standard 80-acre oil spacing and proration unit for the Undesignated Big Dog-Strawn Pool and (ii) dedicate said acreage to the proposed Townsend State Well No. 4 to be drilled at an unorthodox oil well location within said 80-acre unit 400 feet from the South line and 1500 feet from the East line (Unit W) of Irregular Section 2, Township 16 South, Range 35 East, NMPM, Lea County, New Mexico;

(b) the "*Special Pool Rules and Regulations for the South Big Dog-Strawn Pool*", as promulgated by Division Order No. R-9722-C/R-10448-A, issued in Case No. 11599 and dated February 26, 1997, which included provisions for: (i) 80-acre spacing and proration units each comprising of the N/2, S/2, E/2, or W/2 of a governmental Quarter section; (ii) designated well location requirements such that each well drilled within the pool is to be no closer than 330 feet to any quarter-quarter section or subdivision inner boundary nor closer than 1020 feet to the nearest well drilling to or capable of producing from the same pool; (iii) each standard 80-acre unit within said pool be subject to a depth bracket oil allowable of 445 barrels of oil per day;

(c) Division Order No. R-10803, dated May 22, 1997 [in particular Decretory Paragraph No. (3)] and Division Administrative Order DD-180(H), which approved for UMC's Townsend State Well No. 1 (API No. 30-025-33713), located at a standard surface oil well location 3526 feet from the South line and 727 feet from the East line (Unit P/Lot 16) of said Section 2: (i) the formation of an 80-acre non-standard oil spacing and proration unit in the Undesignated South Big Dog-Strawn Pool; and, (ii) the corresponding "project area" for a horizontal wellbore; and,

(d) Division Order No. R-10803, dated May 22, 1997 [in particular

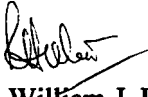
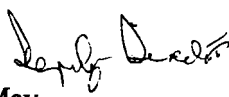
Finding Paragraph No. (12)(g)], which addresses further Strawn development within UMC's State of New Mexico oil and gas lease No. E07720 which comprises Lots 14 through 16 and the SE/4 of said Section 2.

The geologic interpretation submitted with this application indicates that a well drilled within the S/2 SE/4 of said Section 2 at the proposed unorthodox oil well location will be at a more favorable geologic position within the Undesignated Big Dog-Strawn Pool than a well drilled at a location considered to be standard.

The application has been duly filed under the provisions of Rule 104.F of the General Rules and Regulations of the New Mexico Oil Conservation Division ("Division"), revised by Division Order No. R-10533, issued by the Oil Conservation Commission in Case 11351 on January 18, 1996.

By the authority granted me under the provisions of RULE 6 of said "*Special Pool Rules and Regulations for the South Big Dog-Strawn Pool*" and Division General Rule 104.F(2), the above-described unorthodox oil well location is hereby approved.

Sincerely,

by  
William J. LeMay
Director

WJL/MES/kv

cc: New Mexico Oil Conservation Division - Hobbs
New Mexico State Land Office - Santa Fe
File: DD-180(H)
Case No. 11741



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

August 26, 1998

Ocean Energy, Inc.
c/o James Bruce
P. O. Box 1056
Santa Fe, New Mexico 87501

Administrative Order NSL-3870-A

Dear Mr. Bruce:

Reference is made to the following: (i) your original application dated July 17, 1998 on behalf of the operator Ocean Energy, Inc.; (ii) the Division's initial response to said application by letter from Mr. Michael E. Stogner dated July 20, 1998; (iii) your response by letter dated August 11, 1998; and, (vi) the records of the Division in Santa Fe including well files, the files on Division Administrative Orders NSL-3870 and DD-180(H), and Division Order Nos. R-9722-C/R-10448-A and R-10803: all concerning Ocean Energy, Inc.'s request:

(a) to form a standard 80-acre oil spacing and proration unit for the Undesignated South Big Dog-Strawn Pool; and,

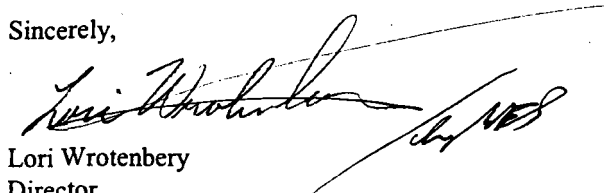
(b) to dedicate said acreage to the proposed Townsend State Well No. 5 to be drilled at an unorthodox oil well location within said 80-acre unit 330 feet from the South line and 1520 feet from the East line (Unit W) of Irregular Section 2, Township 16 South, Range 35 East, NMPM, Lea County, New Mexico.

This application has been duly filed under the provisions of **Rule 104.F** of the General Rules and Regulations of the New Mexico Oil Conservation Division ("Division").

By the authority granted me under the provisions of **RULE 6** of the "*Special Pool Rules and Regulations for the South Big Dog-Strawn Pool*," as promulgated by Division Order No. R-9722-C/R-10448-A, issued in Case No. 11599 and dated February 26, 1997, and Division General **Rule 104.F(2)**, the above-described unorthodox oil well location for Ocean Energy, Inc.'s Townsend State Well No. 5 is hereby approved.

Division Administrative Order NSL-3870, dated September 17, 1997, shall be placed in abeyance until further notice.

Sincerely,


Lori Wrotenberg
Director

LW/MES/kv

cc: New Mexico Oil Conservation Division - Hobbs
New Mexico State Land Office - Santa Fe
File: DD-180(H)
Case No. 11741
NSL-3870

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
 [DD-Directional Drilling] [SD-Simultaneous Dedication]
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

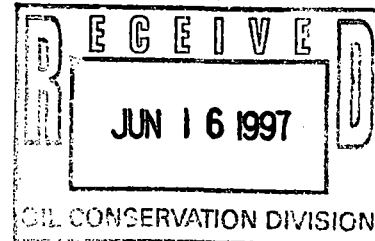
[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling
☐ NSL ☐ NSP ☒ DD ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR



[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners
- [B] ☒ Offset Operators, Leaseholders or Surface Owner
- [C] ☐ Application is One Which Requires Published Legal Notice
- [D] ☐ Notification and/or Concurrent Approval by BLM or SEO
 U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] ☐ Waivers are Attached

see R-10803

UAC Corp.

[3] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I further verify that all applicable API Numbers are included. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

James Bruce
 P.O. Box 1056
 Santa Fe, NM 87504

Print or Type Name

Note: Statement must be completed by an individual with supervisory capacity.

Signature

Title

Date

James Bruce Attorney for Applicant 6/16/97

7001 2 1 JUL

Mr. J. C. ...

U.S. DEPT. OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION
WASHINGTON, D.C. 20535

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)

June 16, 1997

HAND DELIVERED

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

Dear Mr. Stogner:

UMC Petroleum Corporation ("UMC") hereby applies for administrative approval to directionally drill the following well in the Strawn formation (Undesignated South Big Dog-Strawn Pool):

Townsend State Well No. 1

Surface Location: 3526' FSL and 727' FEL
Terminus: 2500' FSL and 350' FEL
Project Area: Lot 16 and NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 2, Township
16 South, Range 35 East, NMPM
Lea County, New Mexico

The subject pool has special pool rules requiring 80 acre spacing with wells to be no closer than 330 feet to the outer boundary of the unit or to a quarter-quarter section line. The well unit is non-standard because it includes acreage in two different quarter sections. The non-standard unit was approved by Division Order No. R-10803.

Pursuant to Division Rule 111(D), UMC makes the following statements and submittals:

1. The well was drilled in January and February 1997 to test the Strawn formation. It was drilled on a thick Strawn buildup, and was perforated at 11501-11539 feet and acidized. However, the well exhibits low porosity and permeability in comparison to other Strawn producers to the north and northeast. It is currently producing approximately 10 bopd. UMC proposes to drill a lateral of approximately 1200 feet to the south-southeast, in an attempt to encounter porous and

permeable facies within the mound. Attached hereto as Exhibit A is an APD with a Form C-102 and directional plan attached.

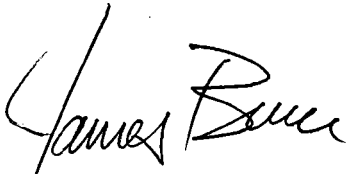
2. Attached as Exhibit B is a land plat of Section 2. The project area for the well is outlined in blue. The producing area is the same as the project area. The project area is all state land, covered by Lease E-7220. There are Strawn wells immediately offsetting the project area, in Lot 1 of Section 2 - 16S - 35E and in Lot 12 of Section 1 - 16S - 35E.

3. Exhibit B also identifies offset operators or lessees. Exhibit C lists the names and addresses of the offsets. Copies of this application were mailed on this date to the offsets, by certified mail. A copy of the notice letter is attached as Exhibit D.

Because the new proposed Rule 111 has not been adopted, and UMC hopes to commence directional drilling as soon as possible, this application is submitted pursuant to the existing rule, as required by the Hobbs District Office.

Should you need any additional data, please call. This application is submitted in duplicate.

Very truly yours,



James Bruce

Attorney for UMC Petroleum Corporation

cc: Hobbs District Office

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Azusa, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-101
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

Operator Name and Address: UMC Petroleum Corporation 410 17th Street, Suite 1400 Denver, Colorado 80202		OGRID Number 23654
		API Number 30-025-33713
Property Code 20032	Property Name Townsend State	Well No. 1

7 Surface Location

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
16	2	16S	35E		3526	South	727	East	Lea

8 Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
17	2	16S	35E		2500	South	350	East	Lea

Proposed Pool 1 South Big Dog Strawn	Proposed Pool 2
---	-----------------

Work Type Code P (Horizontal)	Well Type Code O	Cable/Rotary R	Lease Type Code S	Ground Level Elevation 3983'
Multiple NO	Proposed Depth See Attached	Formation Strawn	Contractor Sierra Well Serv.	Spud Date 12/19/96

21 Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
See attached	completion report and wellbore diagrams				

Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

- See attached sheets
- 1) Wellbore diagrams
 - 2) Re-completion summary
 - 3) Directional program
 - 4) Completion report



BOP Program: Rotating Head blowout preventer=12" 3000 psi type double ram.
12" 3000 psi GK, 200 gal 5 station Koomey Air electric 4" 3000 psi
Manifold.

I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature:

Printed name:

Scott M. Webb

Title:

Regulatory Coordinator

Date:

5/27/97

Phone:

(303)573-4721

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date:

Expiration Date:

Conditions of Approval:

Attached ☐

DISTRICT I
P.O. Box 1880, Hobbs, NM 88241-1880

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

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Artesia, NM 87410

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

DISTRICT IV
P.O. Box 2088, Santa Fe, NM 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-33713	Pool Code XXXXXX 96690	Pool Name XXXXXXXXXXXXXXXXXXXX South Big Dog
Property Code 20032	Property Name TOWNSEND STATE	Well Number 1
OGRID No. 23654	Operator Name UMC PETROLEUM CORPORATION	Elevation 3983

Surface Location

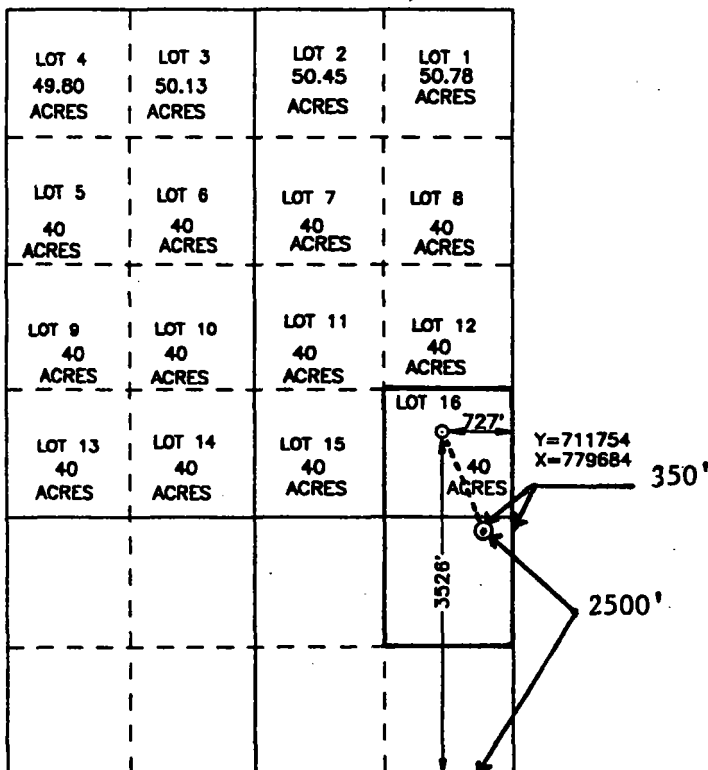
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
16	2	16 S	35 E		3526	SOUTH	727	EAST	LEA

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
17	2	16S	35E		2500'	South	350	East	Lea

Dedicated Acres 80	Joint or Infill	Consolidation Code	Order No.
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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



OPERATOR CERTIFICATION

I hereby certify the the information
contained herein is true and complete to the
best of my knowledge and belief.

Signature
Scott M. Webb
Printed Name
Regulatory Coordinator
Title
5/5/97
Date

SURVEYOR CERTIFICATION

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.

NOVEMBER 29, 1996
Date Surveyed
Signature of G. EIDSON
Professional Surveyor
W. G. EIDSON
W. G. Num. 96-11-1577
Certified by JOHN W. WEST, 676
EIDSON, 3239
BRY R. EIDSON, 12041

Townsend State #1

Proposed Horizontal Re-completion

Procedure:

- 1) Re-enter well, set 40' type "H" neat cement plug at 11,463 md.
- 2) Mill 5-1/2" casing at md 11,460 feet. Dress cement to KOP of 11,463'.
- 3) Drill build section at 71 degrees per 100' md.
- 4) Drill lateral section to specified depth/length of 12,602 md/11,525' tvd.
- 5) Directional surveys will be conducted by a MWD device in the motor bit.

Wellbore Specifics:

KOP:	11,463' md.
Rate of Build:	71 degrees per 100'.
End of Build:	11,591' md / 11,534' tvd.
Total Depth:	12,602' md / 11,525' tvd.
Open Hole Lateral:	1093' md.

Surface Hole Location:

3526' FSL & 727' FEL, Lot 16, Section 2-T16S-R35E, Lea County.

Bottom Hole Location:

2500' FSL & 350' FEL, Lot 17, Section 2-T16S-R35E, Lea County.

(1026' South of surface & 377' East of surface)

Dedicated Acreage: 80 Acres

Townsend State #1
Lot 16, Sec. 2-T16S-R35E
Lea County, New Mexico
Proposed Horizontal Recompletion

SHL: 3526' FSL & 727' FEL
Lot 16, Section 2-T16S-R35E

13-3/8" 48# Casing @ 400'.
Cemented to surface with 405 sx.

8-5/8" 32# surface casing @ 4750'
Cemented to surface with 1675 sx

TOC @ 7140'

BHL: 2500' FSL & 350' FWL
Lot 17, Section 2-T16S-R35E

Build Rate :
71 Degrees/100 feet

KOP: 11,463' md

Lateral Section 1093' md

40' Cement Plug

(Open Hole)

Strawn Perfs:
11,501' - 11,540'

5-1/2" 17# @ 11,805'
Cemented with 1200 sx

TDMD 12,602'
TDTVD 11,525'

TD 11,805'

DIRECTIONAL PLAN

UMC PETROLEUM CORP.

Structure : TOWNSEND STATE NO. 1

Slot : slot #1

Field : TOWNSEND

Location : LEA CO., NEW MEXICO

WELL PROFILE DATA

Feet	00	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	360	370	380	390	400	410	420	430	440	450	460	470	480	490	500	510	520	530	540	550	560	570	580	590	600	610	620	630	640	650	660	670	680	690	700	710	720	730	740	750	760	770	780	790	800	810	820	830	840	850	860	870	880	890	900	910	920	930	940	950	960	970	980	990	1000	1010	1020	1030	1040	1050	1060	1070	1080	1090	1100	1110	1120	1130	1140	1150	1160	1170	1180	1190	1200	1210	1220	1230	1240	1250	1260	1270	1280	1290	1300	1310	1320	1330	1340	1350	1360	1370	1380	1390	1400	1410	1420	1430	1440	1450	1460	1470	1480	1490	1500	1510	1520	1530	1540	1550	1560	1570	1580	1590	1600	1610	1620	1630	1640	1650	1660	1670	1680	1690	1700	1710	1720	1730	1740	1750	1760	1770	1780	1790	1800	1810	1820	1830	1840	1850	1860	1870	1880	1890	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	2010	2020	2030	2040	2050	2060	2070	2080	2090	2100	2110	2120	2130	2140	2150	2160	2170	2180	2190	2200	2210	2220	2230	2240	2250	2260	2270	2280	2290	2300	2310	2320	2330	2340	2350	2360	2370	2380	2390	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500	2510	2520	2530	2540	2550	2560	2570	2580	2590	2600	2610	2620	2630	2640	2650	2660	2670	2680	2690	2700	2710	2720	2730	2740	2750	2760	2770	2780	2790	2800	2810	2820	2830	2840	2850	2860	2870	2880	2890	2900	2910	2920	2930	2940	2950	2960	2970	2980	2990	3000	3010	3020	3030	3040	3050	3060	3070	3080	3090	3100	3110	3120	3130	3140	3150	3160	3170	3180	3190	3200	3210	3220	3230	3240	3250	3260	3270	3280	3290	3300	3310	3320	3330	3340	3350	3360	3370	3380	3390	3400	3410	3420	3430	3440	3450	3460	3470	3480	3490	3500	3510	3520	3530	3540	3550	3560	3570	3580	3590	3600	3610	3620	3630	3640	3650	3660	3670	3680	3690	3700	3710	3720	3730	3740	3750	3760	3770	3780	3790	3800	3810	3820	3830	3840	3850	3860	3870	3880	3890	3900	3910	3920	3930	3940	3950	3960	3970	3980	3990	4000	4010	4020	4030	4040	4050	4060	4070	4080	4090	4100	4110	4120	4130	4140	4150	4160	4170	4180	4190	4200	4210	4220	4230	4240	4250	4260	4270	4280	4290	4300	4310	4320	4330	4340	4350	4360	4370	4380	4390	4400	4410	4420	4430	4440	4450	4460	4470	4480	4490	4500	4510	4520	4530	4540	4550	4560	4570	4580	4590	4600	4610	4620	4630	4640	4650	4660	4670	4680	4690	4700	4710	4720	4730	4740	4750	4760	4770	4780	4790	4800	4810	4820	4830	4840	4850	4860	4870	4880	4890	4900	4910	4920	4930	4940	4950	4960	4970	4980	4990	5000	5010	5020	5030	5040	5050	5060	5070	5080	5090	5100	5110	5120	5130	5140	5150	5160	5170	5180	5190	5200	5210	5220	5230	5240	5250	5260	5270	5280	5290	5300	5310	5320	5330	5340	5350	5360	5370	5380	5390	5400	5410	5420	5430	5440	5450	5460	5470	5480	5490	5500	5510	5520	5530	5540	5550	5560	5570	5580	5590	5600	5610	5620	5630	5640	5650	5660	5670	5680	5690	5700	5710	5720	5730	5740	5750	5760	5770	5780	5790	5800	5810	5820	5830	5840	5850	5860	5870	5880	5890	5900	5910	5920	5930	5940	5950	5960	5970	5980	5990	6000	6010	6020	6030	6040	6050	6060	6070	6080	6090	6100	6110	6120	6130	6140	6150	6160	6170	6180	6190	6200	6210	6220	6230	6240	6250	6260	6270	6280	6290	6300	6310	6320	6330	6340	6350	6360	6370	6380	6390	6400	6410	6420	6430	6440	6450	6460	6470	6480	6490	6500	6510	6520	6530	6540	6550	6560	6570	6580	6590	6600	6610	6620	6630	6640	6650	6660	6670	6680	6690	6700	6710	6720	6730	6740	6750	6760	6770	6780	6790	6800	6810	6820	6830	6840	6850	6860	6870	6880	6890	6900	6910	6920	6930	6940	6950	6960	6970	6980	6990	7000	7010	7020	7030	7040	7050	7060	7070	7080	7090	7100	7110	7120	7130	7140	7150	7160	7170	7180	7190	7200	7210	7220	7230	7240	7250	7260	7270	7280	7290	7300	7310	7320	7330	7340	7350	7360	7370	7380	7390	7400	7410	7420	7430	7440	7450	7460	7470	7480	7490	7500	7510	7520	7530	7540	7550	7560	7570	7580	7590	7600	7610	7620	7630	7640	7650	7660	7670	7680	7690	7700	7710	7720	7730	7740	7750	7760	7770	7780	7790	7800	7810	7820	7830	7840	7850	7860	7870	7880	7890	7900	7910	7920	7930	7940	7950	7960	7970	7980	7990	8000	8010	8020	8030	8040	8050	8060	8070	8080	8090	8100	8110	8120	8130	8140	8150	8160	8170	8180	8190	8200	8210	8220	8230	8240	8250	8260	8270	8280	8290	8300	8310	8320	8330	8340	8350	8360	8370	8380	8390	8400	8410	8420	8430	8440	8450	8460	8470	8480	8490	8500	8510	8520	8530	8540	8550	8560	8570	8580	8590	8600	8610	8620	8630	8640	8650	8660	8670	8680	8690	8700	8710	8720	8730	8740	8750	8760	8770	8780	8790	8800	8810	8820	8830	8840	8850	8860	8870	8880	8890	8900	8910	8920	8930	8940	8950	8960	8970	8980	8990	9000	9010	9020	9030	9040	9050	9060	9070	9080	9090	9100	9110	9120	9130	9140	9150	9160	9170	9180	9190	9200	9210	9220	9230	9240	9250	9260	9270	9280	9290	9300	9310	9320	9330	9340	9350	9360	9370	9380	9390	9400	9410	9420	9430	9440	9450	9460	9470	9480	9490	9500	9510	9520	9530	9540	9550	9560	9570	9580	9590	9600	9610	9620	9630	9640	9650	9660	9670	9680	9690	9700	9710	9720	9730	9740	9750	9760	9770	9780	9790	9800	9810	9820	9830	9840	9850	9860	9870	9880	9890	9900	9910	9920	9930	9940	9950	9960	9970	9980	9990	10000	10010	10020	10030	10040	10050	10060	10070	10080	10090	10100	10110	10120	10130	10140	10150	10160	101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UMC PETROLEUM CORP.
TOWNSEND STATE NO. 1, slot #1
TOWNSEND, LEA CO., NEW MEXICO

PROPOSAL LISTING Page 1
Your ref : BUR= 71 DEG/100' / VS
Last revised : 2-May-97

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert Depth	R E C T A N G U L A R C O O R D I N A T E S		Dogleg Deg/100ft	Vert Sect
11463.00	0.00	0.00	11463.00	0.00 N	0.00 E	0.00	0.00
11500.00	26.27	159.82	11498.72	7.82 S	2.87 E	71.00	8.33
11533.71	50.20	159.82	11525.00	27.26 S	10.02 E	71.00	29.04 TOP OF PAY
11565.23	72.59	159.82	11540.00	53.08 S	19.50 E	71.00	56.55 BOTTOM OF PAY
11591.25	91.06	159.82	11543.68	77.15 S	28.35 E	71.00	82.19
12000.00	91.06	159.82	11536.13	460.75 S	169.30 E	0.00	490.87
12500.00	91.06	159.82	11526.89	929.99 S	341.72 E	0.00	990.78
12602.31	91.06	159.82	11525.00	1026.00 S	377.00 E	0.00	1093.07 TD

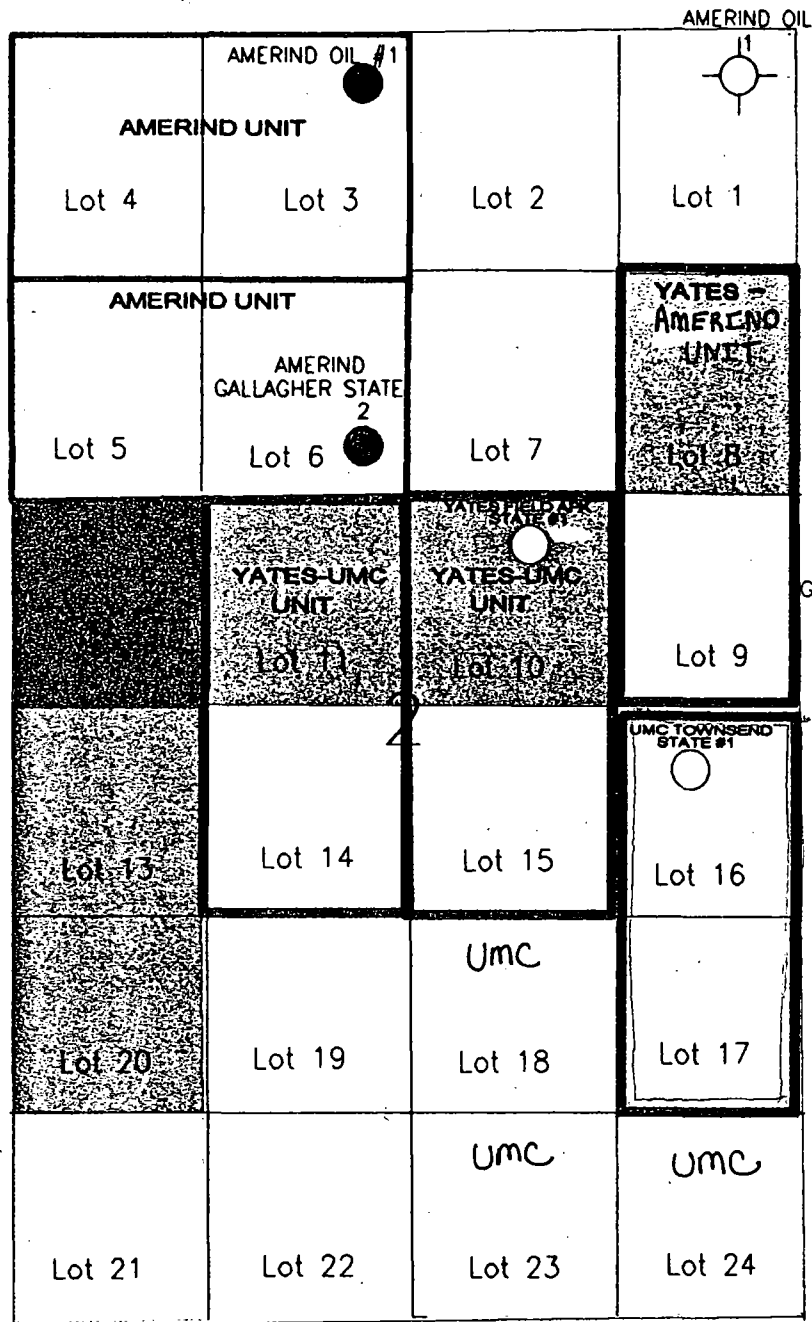
All data is in feet unless otherwise stated.
Coordinates from slot #1 and TVD from rotary table.
Bottom hole distance is 1093.07 on azimuth 159.82 degrees from wellhead.
Vertical section is from wellhead on azimuth 159.82 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes INTEQ

GILLESPIE

2

R 35 E

**T
16
S**



UMC Petroleum Corporation	
NEW MEXICO OIL CO.	
Cost: B.E. Stone	
acres: 1.00	

**EXHIBIT
B**

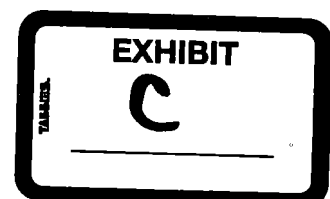
OFFSET OPERATORS AND WORKING INTEREST OWNERS

Yates Petroleum Corporation
105 South Fourth Street
Artesia, New Mexico 88210

Amerind Oil Company, Ltd.
415 West Wall
Suite 500
Midland, Texas 79701

Charles B. Gillespie, Jr.
P. O. Box 8
Midland, Texas 79702

UMC Petroleum Corporation
410 17th Street
Suite 1400
Denver, Colorado 80202



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)

June 16, 1997

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Charles B. Gillespie, Jr.
P.O. Box 8
Midland, Texas 79702

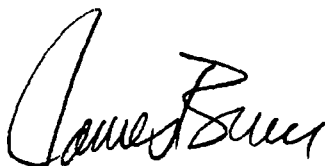
Yates Petroleum Corporation
105 South Fourth Street
Artesia, New Mexico 88210

Amerind Oil Company, Ltd.
Suite 500
415 West Wall
Midland, Texas 79701

Gentlemen:

Enclosed is a copy of an application filed by UMC Petroleum Corporation with the New Mexico Oil Conservation Division seeking administrative approval for directional drilling of the Townsend State Well No. 1, located in the Lot 16 of Section 2, Township 16 South, Range 35 East, NMPM, Lea County, New Mexico. UMC's records show that you own an interest offsetting the above well. If you have any objection to the application, you must notify the Division in writing no later than 20 days from the date of this letter, at its Santa Fe office (2040 South Pacheco Street, Santa Fe, New Mexico 87505, Attention: Michael E. Stogner).

Very truly yours,


James Bruce



COMPANY: UMC Petroleum Corporation

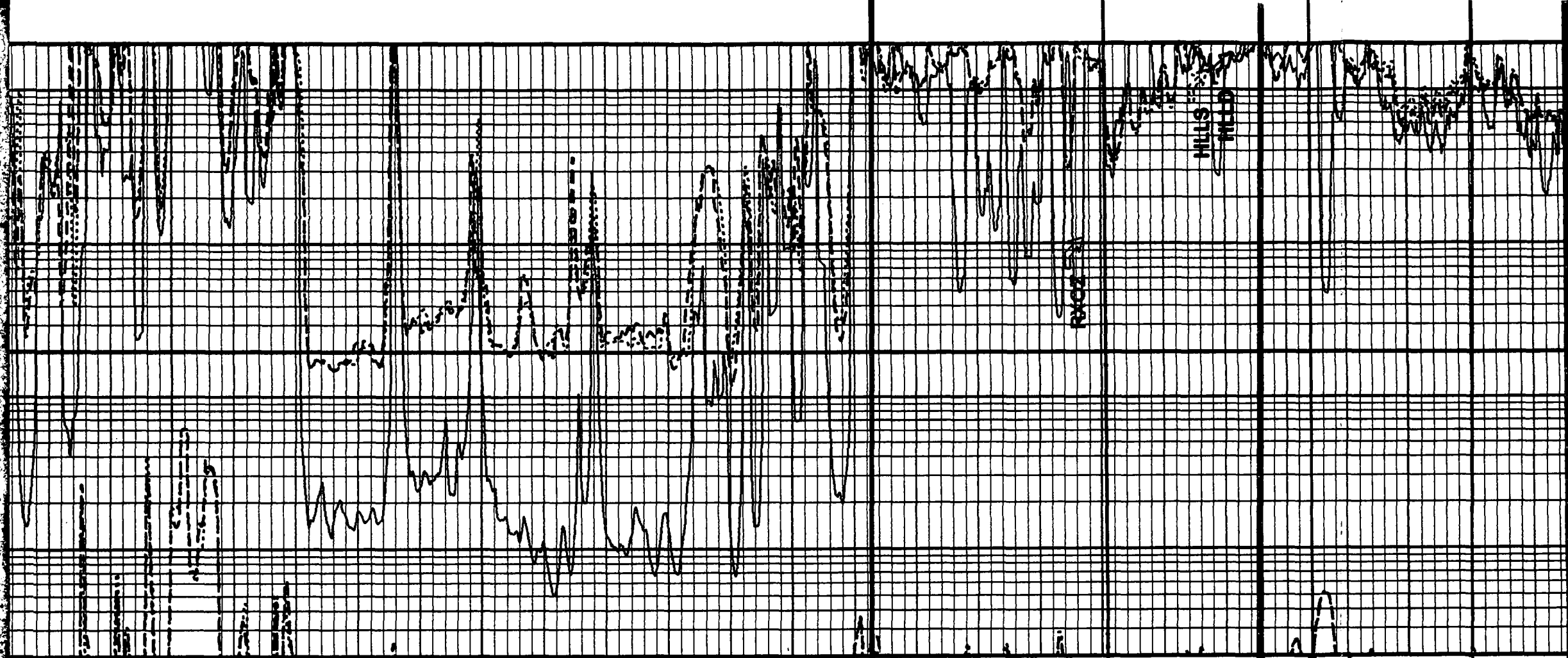
WELL: Townsend State #1

FIELD: Townsend

COUNTY: Les

STATE: New Mexico

COUNTY: Les Field: Townsend Location: 3526' FSL & 727' FEL Well: Townsend State #1 Company: UMC Petroleum Corporation	Schlumberger		Platform Express: Azimuthal Laterolog Micro-SFL / Gamma Ray				
			3526' FSL & 727' FEL		Elev.: K.B. 4001.5 F G.L. 3983 F D.F. 4000.5 F		
	Permanent Datum: GROUND LEVEL		Elev.: 3983 F				
	Log Measured From: KELLY BUSHING		18.5 F above Perm. Datum				
Drilling Measured From: KELLY BUSHING							
API Serial No. 30-025-33713		SECTION 2		TOWNSHIP 16S		RANGE 35E	
Logging Date		29-JAN-1997					
Run Number		ONE					
Depth Driller		11800 F					
Schlumberger Depth		11805 F					
Bottom Log Interval		11800 F					
Top Log Interval		200 F					
Casing Driller Size @ Depth		8.625 IN @ 4557 F		@			
Casing Schlumberger		4550 F					
Bit Size		7.875 IN					
Type Fluid In Hole		GEL/PAC					
MUD	Density	Viscosity	9.3 LB/G	44 S			
	Fluid Loss	PH	8.2 C3	10			
	Source Of Sample		CIRCULATION PIT				
	RM @ Measured Temperature		0.560 OHMM @ 98 DEGF		@		
	RMF @ Measured Temperature		0.466 OHMM @ 72 DEGF		@		
	RMC @ Measured Temperature		@		@		
	Source RMF	RMC	MEASURED				
	RM @ MRT	RMF @ MRT	0.360 @ 156	0.226 @ 156	@	@	
	Maximum Recorded Temperatures		155 DEGF 156				
	Circulation Stopped	Time	29-JAN-1997				
Logger On Bottom	Time	29-JAN-1997 15:00					
Unit Number	Location	3043	HOBBS				
Recorded By		JEFF BURNETT					
Witnessed By		DAROL RAMEY					



HILLS
HILLS

RACE

SC 11400

ROP

11,463

SC 11500

TVD

11,525

EOB

11,534

Base



TENS

HCA

OR

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
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June 16, 1997

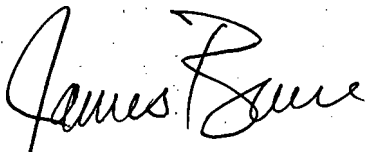
Hand Delivered

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

Dear Mr. Stogner:

Enclosed is an administrative application for directional drilling,
filed on behalf of UMC Petroleum Corporation. Also attached is a
portion of a log from the subject well.

Very truly yours,



James Bruce

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 AMERIND OIL COMPANY
FOR COMPULSORY POOLING, LEA COUNTY,
NEW MEXICO.

Case No. 11716

APPLICATION OF AMERIND OIL COMPANY
FOR COMPULSORY POOLING, LEA COUNTY,
NEW MEXICO.

Case No. 11717

APPLICATION OF YATES PETROLEUM
CORPORATION FOR COMPULSORY POOLING
AND A NON-STANDARD OIL PRORATION UNIT,
LEA COUNTY, NEW MEXICO.

Case No. 11739

APPLICATION OF AMERIND OIL COMPANY,
LTD. AND MICHAEL SHEARN FOR COMPULSORY
POOLING, LEA COUNTY, NEW MEXICO.

Case No. 11740

APPLICATION OF UMC PETROLEUM
CORPORATION FOR A NON-STANDARD OIL
PRORATION UNIT, LEA COUNTY, NEW MEXICO.

Case No. 11741

APPLICATION OF AMERIND OIL COMPANY,
LTD. FOR COMPULSORY POOLING, LEA COUNTY
NEW MEXICO.

Case No. 11753

Order No. R-10803

ORDER OF THE DIVISION

BY THE DIVISION:

The subject cases came on for hearing at 8:15 a.m. on February 6, March 6, and/or April 3, 1997, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 22nd day of May, 1997, 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 these causes and the subject matter thereof.

(2) Each of the six following cases involves acreage in irregular Section 2, Township 16 South, Range 35 East, NMPM, Lea County, New Mexico and is within the governing limits of the South Big Dog-Strawn Pool; therefore, due to the similarity, close proximity, and nature of each, a single order issued by the Division is deemed appropriate:

(a) in Case No. 11716 the applicant, Amerind Oil Company, Ltd. ("Amerind"), seeks an order pooling all mineral interests from the surface to the base of the Strawn formation underlying Lots 8 and 9 of said Section 2, forming an 80-acre oil spacing and proration unit for any and all formations and/or pools developed on 80-acre spacing, which at the time of the hearing included only the Undesignated South Big Dog-Strawn Pool and dedicating said unit to its proposed State "AY" Com Well No. 1 to be drilled and completed at a standard oil well location in Lot 9 (Unit I) of said Section 2;

(b) in Case No. 11717, Amerind, seeks an order pooling all mineral interests from the surface to the base of the Strawn formation underlying Lots 7 and 10 of said Section 2, forming an 80-acre oil spacing and proration unit for any and all formations and/or pools developed on 80-acre spacing, which at the time of the hearing included only the designated and Undesignated South Big Dog-Strawn Pool and dedicating said unit to its proposed State "AY" Com Well No. 2 to be drilled and completed at a standard oil well location in Lot 10 (Unit J) of said Section 2;

(c) in Case No. 11739 the applicant, Yates Petroleum Corporation ("Yates"), seeks an order pooling all mineral interests from the surface to the base of the Strawn formation underlying Lots 8 and 9 of said Section 2, to form a non-standard 80-acre oil spacing and proration unit for any and all formations and/or pools developed on 80-acre spacing, which at the time of the hearing included only the Undesignated South Big Dog-Strawn Pool and dedicating said unit to its proposed Field "APK" State Com Well No. 2 to be drilled and completed at a standard oil well location 2390 feet from

the North line and 640 feet from the East line (Unit H/Lot 8) of said Section 2;

(d) in Case No. 11740, Amerind Oil Company, Ltd. and Michael Shearn seek an order pooling all mineral interests from the surface to the base of the Strawn formation underlying Lots 9 and 16 of said Section 2, forming a standard 80-acre oil spacing and proration unit for any and all formations and/or pools developed on 80-acre spacing, which at the time of the hearing included only the Undesignated South Big Dog-Strawn Pool and dedicating said unit to the UMC Petroleum Corporation Townsend State Well No. 1 (API No. 30-025-33713) being drilled at the time of the hearing at a standard oil well location 3526 feet from the South line and 727 feet from the East line (Unit P/Lot 16) of said Section 2;

(e) in Case No. 11741 the applicant, UMC Petroleum Corporation ("UMC"), seeks approval of an 80-acre non-standard oil spacing and proration unit in the Undesignated South Big Dog-Strawn Pool comprising Lots 16 and the NE/4 SE/4 of said Section 2 for its Townsend State Well No. 1 (API No. 30-025-33713) being drilled at the time of the hearing at a standard oil well location 3526 feet from the South line and 727 feet from the East line (Unit P/Lot 16) of said Section 2; and,

(f) in Case No. 11753 Amerind seeks an order pooling all mineral interests from the surface to the base of the Strawn formation underlying Lots 8 and 9 of said Section 2, to form an 80-acre oil spacing and proration unit (that is non-standard) for any and all formations and/or pools developed on 80-acre spacing, which at the time of the hearing included only the Undesignated South Big Dog-Strawn Pool and dedicating said unit to its proposed State "AY" Com Well No. 1 to be drilled and completed at a standard oil well location in Lot 9 (Unit I) of said Section 2.

(3) By Division Order No. R-9722, issued in Case No. 10530 and dated September 23, 1992, as amended by Order Nos. R-9722-A and R-9722-B, the West Lovington-Strawn Pool (originally designated the East Big Dog-Strawn Pool) was created and designated as an oil pool for the production of oil from the Strawn formation in Lea County, New Mexico. Said orders also promulgated special rules and regulations for said pool including provisions for standard 80-acre oil spacing and proration units subject to a depth bracket oil allowable of 445 barrels of oil per day and designated well location requirements. The extent of said West Lovington-Strawn Pool, prior to February 26, 1997, included the following described acreage in Lea County, New Mexico:

TOWNSHIP 15 SOUTH, RANGE 35 EAST, NMPM

Section 28: SE/4
Section 32: SE/4
Section 33: NE/4 and S/2
Section 34: S/2

TOWNSHIP 16 SOUTH, RANGE 35 EAST, NMPM

Section 1: Lots 1 through 8
Section 2: Lots 1 through 8

TOWNSHIP 16 SOUTH, RANGE 36 EAST, NMPM

Section 6: Lots 1, 2, 7, and 8.

(4) By Division Order No. R-9722-C/R-10448-A, issued in Case No. 11599 and dated February 26, 1997, the West Lovington-Strawn Pool was contracted by the deletion of the following described area in Lea County, New Mexico:

TOWNSHIP 15 SOUTH, RANGE 35 EAST, NMPM

Section 32: W/2 SE/4

TOWNSHIP 16 SOUTH, RANGE 35 EAST, NMPM

Section 2: Lots 2 through 7.

(5) Said Order No. R-9722-C/R-10448-A further provided for the concomitant creation of the South Big Dog-Strawn Pool for the production of oil from the Strawn formation underlying the above-described area and promulgated "*Special Pool Rules and Regulations for the South Big Dog-Strawn Pool*", which included provisions for: (i) 80-acre spacing and proration units each comprising of the N/2, S/2, E/2, or W/2 of a governmental Quarter section; (ii) designated well location requirements such that each well drilled within the pool is to be no closer than 330 feet to any quarter-quarter section or subdivision inner boundary nor closer than 1020 feet to the nearest well drilling to or capable of producing from the same pool; (iii) each standard 80-acre unit within said pool be subject to a depth bracket oil allowable of 445 barrels of oil per day.

(6) The subdivision of the public lands within the State of New Mexico is surveyed under the United States System of Rectangular Surveys or township and range grid system. The primary unit of subdivision for this system is the *township*, bounded by meridional (north/south) and latitudinal (east/west) lines and, as nearly as may be, comprises an area of 6 square miles with the south and east boundaries being the governing lines. The township is divided further into 36 secondary units or *sections*, each being approximately one square mile in area. These section boundaries are established by

meridional and latitudinal section lines at intervals of one mile, again, from the eastern and southern boundaries of the township. This method of establishing sections allows for errors in measurement and to accommodate deficiencies due to the convergence of meridians and is such that all sections of the township are as nearly as may be one mile square except for the eleven sections that lie next to the townships north and west boundaries (Sections 1, 2, 3, 4, 5, 6, 7, 18, 19, 30, and 31).

Thus the layout of a typical township consist of six rows of six sections and that presumably each section is one mile square with any excess or deficiency in the measured distance between the south and north boundaries of the township is placed in the most northern half mile and any deficiency due to the convergency of meridians and any excess or deficiency in the measured distance between the east and west boundaries of the township is placed in the most western half mile.

A regular section contains 640 acres and can be subdivided further into half sections containing 320 acres ($\frac{1}{2}$ by one mile), quarter sections containing 160 acres ($\frac{1}{4}$ mile square), half-quarter sections containing 80 acres ($\frac{1}{4}$ by $\frac{1}{2}$ mile), and quarter-quarter sections containing 40 acres ($\frac{1}{4}$ mile square). When a section does not contain the regular 640 acres, as in the west tier and north row in a township, the odd areas are assigned lot numbers.

Section 2 of Township 16 South, Range 35 East, NMPM, Lea County, New Mexico comprises a total area of 901.16 acres and represents an extreme example whereby a difference in excess of $\frac{1}{2}$ mile exists within a northern row of sections. Said Section 2 consists of: Lot 1 with 50.78 acres; Lot 2 with 50.45 acres; Lot 3 with 50.13 acres; Lot 4 with 49.80 acres; Lots 5 through 16 each with 40 acres; and, the S/2, considered to be a regular subdivision or aliquot part of this section and can be further divided into two quarter sections (SW/4 and SE/4) or eight quarter-quarter sections (NE/4 SW/4, SE/4 SE/4, NW/4 SE/4, etc.).

In forming spacing and proration units within the State of New Mexico it is the New Mexico Oil Conservation Division's policy to follow the established system of survey rules in dividing sections, especially for those that are irregular, into its various standard aliquot parts or regular subdivisions and not simply subdividing such sections on paper which can and will surely result in a chaotic and disorderly pattern for the spacing and proration units.

In this instance where development and standard spacing is on 80-acres with each unit comprising the N/2, S/2, E/2, or W/2 of a governmental quarter section said Section 2 comprises a standard 320-acre S/2 aliquot part, which can be further divided into two quarter sections, being the SW/4 and SE/4, whereby each quarter section can be divided

into two half-quarters (either stand-up, E/2 and W/2, or lay down, N/2 and S/2). North of the S/2 of said Section 2 the next two rows of lots or quarter-quarter section equivalents, being Lots 9 through 16, are considered by the New Mexico Oil Conservation Division as a separate and independent $\frac{1}{2}$ section subdivision whereby Lots 9, 10, 15, and 16 and Lots 11, 12, 13, and 14 are grouped together in order to form two quarter section equivalents. The northern most two rows of Lots, being 1 through 8, is also considered a $\frac{1}{2}$ section and is to be treated in the same manner.

(7) The two cases on the February 6, 1997 examiner's hearing docket, being Case Nos. 11716 and 11717, involved two areas, comprising 80 acres apiece, within said Section 2 that does not conform to the aforementioned subdivision rules; therefore, both proposed 80-acre proration units are considered to be non-standard. Prior to the February 6th hearing date Yates, a working interest owner in Lots 8, 10, and 11 of said Section 2 sought to dismiss Case 11717 for the reason that Amerind failed to request in its application the formation of a non-standard 80-acre unit pursuant to the governing pool rules applicable in this area and that Yates would combine Lots 10 and 15 in order to form a standard 80-acre spacing and proration unit for its Field "APK" State Com Well No. 1 (API No. 30-025-33563) located 3500 feet from the North line and 1880 feet from the East line (Lot 10/Unit J) of said Section 2. By letter from the New Mexico Oil Conservation Division dated February 5, 1997 Yates' motion for dismissal of said Case 11717 was granted.

(8) At the February 6th hearing Amerind requested dismissal of Case 11716.

(9) Both Amerind Cases 11716 and 11717 should therefore be dismissed.

(10) Prior to the March 6, 1997 hearing the applicants in Case 11740, Amerind Oil Company, Ltd. and Michael Shearn requested that their application for the compulsory pooling of Lots 9 and 16 of said Section 2 be dismissed.

(11) Case 11740 should therefore be dismissed.

(12) At the March 6, 1997 hearing UMC presented evidence and testimony in support of its application in Case 11741, which indicate:

(a) UMC commenced the drilling of its Townsend State Well No. 1 (API No. 30-025-33713), located at a standard oil well location 3526 feet from the South line and 727 feet from the East line (Unit P/Lot 16) of said Section 2, on December 19, 1996, and by the time of the March 6th hearing the well had reached total depth at a costs to date of approximately \$600,000.00;

(b) prior to the commencement of this well, UMC submitted a Form C-101 (Application for Permit to Drill) to the Division's Hobbs District Office with Form C-102 (Well Location and Acreage Dedication Plat) attached thereto outlined a well unit comprised of Lots 16 and 17 of said Section 2; the Form C-101 was approved December 9, 1996; UMC filed the Forms C-101 and C-102 upon the belief that its proposed spacing and proration unit was standard in accordance with the applicable rules;

(c) referencing the Division's decision on the Yates motion to dismiss Case 11717, the proposed UMC spacing and proration unit is non-standard; standard spacing and proration units for the UMC well drilled in Unit "P" or Lot "16" would either comprise Lots 9 and 16 or Lots 15 and 16;

(d) Lot 15 is unavailable to form a standard 80-acre unit for the applicant's well because Lots 10 and 15 of said Section 2 are committed to a Joint Operating Agreement between Yates and UMC, signed in December 1996, under which Yates' Field "APK" State Well No. 1 is currently being drilled [see Finding No. (7) above];

(e) Lots 8 and 9 of said Section 2 are the subject of competing compulsory pooling applications filed by Yates (Case No. 11739) and Amerind (Case No. 11753);

(f) neither Yates nor Amerind, nor any other interested offset operator or lessee, oppose UMC's request; and,

(g) UMC is the lessee of Lots 14 through 16 and the SE/4 of said Section 2, which are subject to State of New Mexico oil and gas lease No. E07720; UMC is willing to form a 40-acre non-standard Strawn oil spacing and proration unit within the remaining 120 acre area comprising the W/2 SE/4 and SE/4 SE/4 of said Section 2 in the future in order to remedy the Strawn well development patterns with said State of New Mexico lease;

(h) because UMC assumed the sole risk of drilling the Townsend State Well No. 1, and the well was commenced in the good faith belief that the proposed well unit was standard, and because of the willingness of applicant to use its remaining leasehold acreage in Section 2 to remedy any disruption of standard spacing and proration units in Section 2, the applicant's request for a non-standard spacing and proration unit should be granted; further, the granting of the application in Case 11741 is in the best

interests of conservation, serves in the prevention of waste, and protects correlative rights.

(13) At the April 3, 1997 hearing both Division Case Nos. 11739 and 11753 were consolidated for the purpose of presenting testimony. Since both applications encompass the same acreage (Lots 8 and 9 of said Section 2 being a non-standard 80-acre oil spacing and proration unit) and subject matter and the approval of one application would necessarily require denial of the other, one order should therefore be entered for both cases:

- (a) the applicant in Case 11739, Yates, who is seeking to be named the operator of the proposed 80-acre non-standard oil spacing and proration unit is proposing to drill its Field "APK" State Com Well No. 2 (API No. 30-025-33792) at a standard oil well location 2390 feet from the North line and 640 feet from the East line in Lot 8 (Unit H) of said Section 2;
- (b) the applicant in Case 11753, Amerind is also seeking to be named the operator of the proposed 80-acre non-standard oil spacing and proration unit is proposing to drill its State "AY" Com Well No. 1 at a standard oil well location 3661 feet from the North line and 660 feet from the East line in Lot 9 (Unit I) of said Section 2;
- (c) Yates owns and represents 100 percent of the working interests in the oil and gas minerals from the surface to the base of the Strawn formation underlying Lot 8 of said Section 2;
- (d) Amerind has control of 100 percent working interest ownership in the oil and gas minerals from the surface to the base of the Strawn formation underlying Lot 9 of said Section 2;
- (e) at the time of the hearing Yates offered to resolve this matter by offering to split the proposed 80-acre unit into two non-standard 40-acre oil spacing and proration units in order to allow both Amerind and Yates the opportunity to drill their respective wells and develop its acreage accordingly;
- (f) Amerind opposed Yates' suggestion for resolution in that such proposal would only lead to the drilling of unnecessary wells and the possible overdevelopment of the relatively small reservoir, which could result in waste; and,

(g) the geological evidence and testimony presented by both parties supports Amerind's position in the possible overdevelopment of the subject reservoir with unnecessary wells; further, with the current drilling and completion activities for the Strawn formation in Lot 10 (directly offsetting Lot 9 to the west) and in Lot 16 (directly offsetting Lot 9 to the south), the development of the subject 80-acre tract with a well in Lot 9 would result in the grouping of three Strawn oil wells within a relatively small area; such concentration of wells would serve to promote overdevelopment of the reservoir; a well drilled in Lot 8 would serve to space these wells in a more orderly fashion with an adequate distance separating these wells; such spacing and placement of wells within this reservoir would serve to promote conservation, exhibits sound reservoir engineering principles, serves to avoid the drilling of unnecessary wells, prevents waste, and protects correlative rights;

(14) Therefore, the application of Yates in Case No. 11739 should be granted and the application of Amerind in Case No. 11753 should be denied.

(15) In order to afford to the owner of each interest within said 80-acre non-standard oil spacing and proration unit the opportunity to recover or receive without unnecessary expense his just and fair share of oil production in the Undesignated South Big Dog-Strawn Pool, the subject application should be approved by pooling all mineral interests, whatever they may be, within said unit.

(16) Yates should be designated the operator of the subject unit and the proposed Field "APK" State Com Well No. 2 (API No. 30-025-33792) to be drilled at a standard oil well location 2390 feet from the North line and 640 feet from the East line in Lot 8 (Unit H) of said Section 2.

(17) Any non-consenting working interest owner should be afforded the opportunity to pay his share of the estimated well costs to the operator in lieu of paying his share of reasonable well costs out of production.

(18) Any non-consenting working interest owner who does not pay his share of estimated well costs should have withheld from production his share of the reasonable well costs plus an additional 200 percent thereof as a reasonable charge for the risk involved in the drilling of the well.

(19) Any non-consenting interest owner should be afforded the opportunity to object to the actual well costs but actual well costs should be adopted as the reasonable well costs in the absence of such objection.

(20) Following determination of reasonable well costs, any non-consenting working interest owner who has paid his share of estimated well costs should pay to the operator any amount that reasonable well costs exceed estimated well costs and should receive from the operator any amount that paid estimated well costs exceed reasonable well costs.

(21) \$5,400.00 per month while drilling and \$540.00 per month while producing should be fixed as reasonable charges for supervision (combined fixed rates); the operator should be authorized to withhold from production the proportionate share of such supervision charges attributable to each non-consenting working interest, and in addition thereto, the operator should be authorized to withhold from production the proportionate share of actual expenditures required for operating the subject well, not in excess of what are reasonable, attributable to each non-consenting working interest.

(22) All proceeds from production from the subject well which are not disbursed for any reason should be placed in escrow to be paid to the true owner thereof upon demand and proof of ownership.

(23) Upon the failure of the operator of said pooled unit to commence drilling of the subject well to which said unit is dedicated on or before August 20, 1997, that portion of this order pooling Lots 8 and 9 of said Section 2 should become null and void and of no effect whatsoever.

(24) Should all the parties to this force-pooling reach voluntary agreement subsequent to entry of this order, the forced pooling provisions of this order should thereafter be of no further effect.

(25) The operator of the well and unit should notify the Director of the Division in writing of the subsequent voluntary agreement of all parties subject to the force-pooling provisions of this order.

IT IS THEREFORE ORDERED THAT:

(1) Case No. 11716, being the application of Amerind Oil Company, Ltd. ("Amerind"), for an order pooling all mineral interests from the surface to the base of the Strawn formation underlying Lots 8 and 9 of Section 2, Township 16 South, Range 35 East, NMPM, Lea County, New Mexico, thereby forming a non-standard 80-acre oil spacing and proration unit for any and all formations and/or pools developed on 80-acre spacing, which at the time of the hearing included only the Undesignated South Big Dog-Strawn Pool and dedicating said unit to its proposed State "AY" Com Well No. 1 to be

drilled and completed at a standard oil well location in Lot 9 (Unit I) of said Section 2, is hereby dismissed.

(2) Case No. 11717, being the application of Amerind, for an order pooling all mineral interests from the surface to the base of the Strawn formation underlying Lots 7 and 10 of said Section 2, Township 16 South, Range 35 East, NMPM, Lea County, New Mexico, thereby forming a non-standard 80-acre oil spacing and proration unit for any and all formations and/or pools developed on 80-acre spacing, which at the time of the hearing included only the designated and Undesignated South Big Dog-Strawn Pool and dedicating said unit to its proposed State "AY" Com Well No. 2 to be drilled and completed at a standard oil well location in Lot 10 (Unit J) of said Section 2, is hereby dismissed.

~~(3) UMC Petroleum Corporation ("UMC"), the applicant in Case No. 11741, is hereby authorized to establish an 80-acre non-standard oil spacing and proration unit in the Undesignated South Big Dog-Strawn Pool comprising Lots 16 and the NE/4 SE/4 of said Section 2 for its Townsend State Well No. 1 (API No. 30-025-33713), located at a standard oil well location 3526 feet from the South line and 727 feet from the East line (Unit P/Lot 16) of said Section 2.~~

(4) Case No. 11740, being the application of Amerind Oil Company, Ltd. and Michael Shearn, for an order pooling all mineral interests from the surface to the base of the Strawn formation underlying Lots 9 and 16 of said Section 2, forming a standard 80-acre oil spacing and proration unit for any and all formations and/or pools developed on 80-acre spacing, which at the time of the hearing included only the Undesignated South Big Dog-Strawn Pool and dedicating said unit to the UMC Petroleum Corporation Townsend State Well No. 1 (API No. 30-025-33713) being drilled at the time of the hearing at a standard oil well location 3526 feet from the South line and 727 feet from the East line (Unit P/Lot 16) of said Section 2, is hereby dismissed.

(5) The application of Amerind in Case No. 11753 for an order pooling all mineral interests from the surface to the base of the Strawn formation underlying Lots 8 and 9 of said Section 2, Township 16 South, Range 35 East, NMPM, Lea County, New Mexico, to form an 80-acre oil spacing and proration unit (that is non-standard) for any and all formations and/or pools developed on 80-acre spacing, which at the time of the hearing included only the Undesignated South Big Dog-Strawn Pool and dedicating said unit to its proposed State "AY" Com Well No. 1 to be drilled and completed at a standard oil well location in Lot 9 (Unit I) of said Section 2, is hereby denied.

IN CASE NO. 11739:

(6) All mineral interests, whatever they may be, from the surface to the base of the Strawn formation, underlying Lots 8 and 9 of said Section 2, are hereby pooled to form a non-standard 80-acre oil spacing and proration unit for any and all formations and/or pools developed on 80-acre spacing, which currently includes only the Undesignated South Big Dog-Strawn Pool. Said unit is to be dedicated to Yates Petroleum Corporation's ("Yates") proposed Field "APK" State Com Well No. 2 to be drilled and completed at a standard oil well location 2390 feet from the North line and 640 feet from the East line (Unit H/Lot 8) of said Section 2.

FURTHER, Yates is hereby designated the operator of the subject well and 80-acre non-standard oil spacing and proration unit

PROVIDED HOWEVER THAT, Yates shall commence the drilling of said Field "APK" State Com Well No. 2 on or before the twentieth day of August, 1997, and shall thereafter continue the drilling of said well with due diligence to a depth sufficient to test the Strawn formation.

PROVIDED FURTHER THAT, in the event Yates does not commence drilling operations on the Field "APK" State Com Well No. 2 on or before the twentieth day of August, 1997, Decretory Paragraph No. (6) of this order shall be null and void and of no effect whatsoever, unless said operator obtains a time extension from the Division for good cause shown.

PROVIDED FURTHER THAT, should said well not be drilled to completion, or abandoned, within 120 days after commencement thereof, said operator shall appear before the Division Director and show cause why Decretory Paragraph No. (6) of this order should not be rescinded.

(7) After the effective date of this order and within 90 days prior to commencing said well, the operator shall furnish the Division and each known working interest owner in the subject unit an itemized schedule of estimated well costs.

(8) Within 30 days from the date the schedule of estimated well costs is furnished to him, any non-consenting working interest owner shall have the right to pay his share of estimated well costs to the operator in lieu of paying his share of reasonable well costs out of production, and any such owner who pays his share of estimated well costs as provided above shall remain liable for operating costs but shall not be liable for risk charges.

(9) The operator shall furnish the Division and each known working interest owner an itemized schedule of actual well costs within 90 days following completion of the well; if no objection to the actual well costs is received by the Division and the Division has not objected within 45 days following receipt of said schedule, the actual well costs shall be the reasonable well costs; provided however, if there is an objection to actual well costs within said 45-day period the Division will determine reasonable well costs after public notice and hearing.

(10) Within 60 days following determination of reasonable well costs, any non-consenting working interest owner who has paid his share of estimated costs in advance as provided above shall pay to the operator his pro rata share of the amount that reasonable well costs exceed estimated well costs and shall receive from the operator his pro rata share of the amount that estimated well costs exceed reasonable well costs.

(11) The operator is hereby authorized to withhold the following costs and charges from production:

- (A) The pro rata share of reasonable well costs attributable to each non-consenting working interest owner who has not paid his share of estimated well costs within 30 days from the date the schedule of estimated well costs is furnished to him; and
- (B) As a charge for the risk involved in the drilling of the well, 200 percent of the pro rata share of reasonable well costs attributable to each non-consenting working interest owner who has not paid his share of estimated well costs within 30 days from the date the schedule of estimated well costs is furnished to him.

(12) The operator shall distribute said costs and charges withheld from production to the parties who advanced the well costs.

(13) \$5,400.00 per month while drilling and \$540.00 per month while producing are hereby fixed as reasonable charges for supervision (combined fixed rates); the operator is hereby authorized to withhold from production the proportionate share of such supervision charges attributable to each non-consenting working interest, and in addition thereto, the operator is hereby authorized to withhold from production the proportionate

share of actual expenditures required for operating such well, not in excess of what are reasonable, attributable to each non-consenting working interest.

(14) Any unleased mineral interest shall be considered a seven-eighths ($7/8$) working interest and a one-eighth ($1/8$) royalty interest for the purpose of allocating costs and charges under the terms of this order.

(15) Any well costs or charges which are to be paid out of production shall be withheld only from the working interest's share of production, and no costs or charges shall be withheld from production attributable to royalty interests.

(16) All proceeds from production from the subject well which are not disbursed for any reason shall be placed in escrow in Lea County, New Mexico, to be paid to the true owner thereof upon demand and proof of ownership; the operator shall notify the Division of the name and address of said escrow agent within 30 days from the date of first deposit with said escrow agent.

(17) Should all the parties to this force-pooling reach voluntary agreement subsequent to entry of this order, the force pooling provisions of this order shall thereafter be of no further effect.

(18) The operator of the subject well and unit shall notify the Director of the Division in writing of the subsequent voluntary agreement of all parties subject to the force-pooling provisions of this order.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


WILLIAM J. LEMAY
Director

SEAL

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:

NOMENCLATURE

CASE NO. 11599

ORDER NOS. R-9722-C and R-10448-A

APPLICATION OF GILLESPIE-CROW, INC. FOR POOL EXPANSION AND
CONTRACTION, POOL CREATION, AND THE PROMULGATION OF
SPECIAL POOL RULES THEREFOR, LEA COUNTY, NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on August 22, 1996 and on October 3, 1996, at Santa Fe, New Mexico, before Examiners David R. Catanach and Michael E. Stogner, respectively.

NOW, on this 28th day of February, 1997 the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) By Division Order No. R-9722, issued in Case No. 10530 and dated September 23, 1992, as amended by Order Nos. R-9722-A and R-9722-B, the West Lovington-Strawn Pool (originally designated the East Big Dog-Strawn Pool) was created and designated as an oil pool for the production of oil from the Strawn formation in Lea County, New Mexico. Said orders also promulgated special rules and regulations for said pool including provisions for standard 80-acre oil spacing and proration units subject to a depth bracket oil allowable of 445 barrels of oil per day and designated well location requirements.

(3) The West Lovington-Strawn Pool currently comprises the following described acreage in Lea County, New Mexico:

TOWNSHIP 15 SOUTH, RANGE 35 EAST, NMPM

Section 28: SE/4
Section 32: SE/4
Section 33: NE/4 and S/2
Section 34: S/2

TOWNSHIP 16 SOUTH, RANGE 35 EAST, NMPM

Section 1: Lots 1 through 8
Section 2: Lots 1 through 8

TOWNSHIP 16 SOUTH, RANGE 36 EAST, NMPM

Section 6: Lots 1, 2, 7, and 8.

(4) By Division Order No. R-10449, issued in Case 11195 to Gillespie-Crow, Inc. and dated August 29, 1995, the West Lovington Strawn Unit Area ("WLSU") comprising the following described 1,458.95 acres, more or less, of State, Federal, and fee lands in the designated and Undesignated West Lovington-Strawn Pool was approved for unitization under the Statutory Unitization Act, Sections 70-7-1 through 70-7-21, NMSA, (1978), which became effective October 1, 1995:

TOWNSHIP 15 SOUTH, RANGE 35 EAST, NMPM

Section 33: All
Section 34: W/2

TOWNSHIP 16 SOUTH, RANGE 35 EAST, NMPM

Section 1: Lots 1 through 8

TOWNSHIP 16 SOUTH, RANGE 36 EAST, NMPM

Section 6: Lots 3 through 5.

(5) In October, 1995, under the authority of Division Order No. R-10448, issued in Case 11194 and dated August 29, 1995, Gillespie-Crow, Inc. instituted its West Lovington Strawn Unit Pressure Maintenance Project by the commencement of gas injection operations within said WLSU. Said Order No. R-10448 further provided for a project allowable, pursuant to Division General Rule 701.F(2), to be assigned the West Lovington Strawn Unit Pressure Maintenance Project equal to top unit allowable for the West Lovington-Strawn Pool (445 barrels of oil per day) times the number of developed (production or injection) proration units within the project area. At the time said WLSU and corresponding pressure maintenance project were established the project allowable was 4,895 barrels of oil per day.

(6) At this time the applicant in this matter, Gillespie-Crow, Inc., seeks an order

extending the horizontal limits of the West Lovington-Strawn Pool in Lea County, New Mexico to include therein:

TOWNSHIP 15 SOUTH, RANGE 35 EAST, NMPM

Section 27: S/2 S/2
Section 28: S/2 SW/4
Section 29: S/2 SE/4
Section 32: NE/4
Section 33: NW/4
Section 34: N/2

TOWNSHIP 16 SOUTH, RANGE 35 EAST, NMPM

Section 1: Lots 9 through 12

TOWNSHIP 16 SOUTH, RANGE 36 EAST, NMPM

Section 6: Lots 3, 4, 5, 6, 11, and 12.

AND THE concomitant contraction of the West Lovington-Strawn Pool in Lea County, New Mexico by deleting therefrom:

TOWNSHIP 15 SOUTH, RANGE 35 EAST, NMPM

Section 28: N/2 SW/4
Section 32: S/2 SE/4

TOWNSHIP 16 SOUTH, RANGE 35 EAST, NMPM

Section 2: Lots 1 through 8

TOWNSHIP 16 SOUTH, RANGE 36 EAST, NMPM

Section 6: Lots 1 and 8.

(7) Further, Gillespie-Crow, Inc., seeks the creation of a new pool for the production of oil from the Strawn formation to comprise the following described acreage in Lea County, New Mexico:

TOWNSHIP 15 SOUTH, RANGE 35 EAST, NMPM

Section 32: S/2 SE/4

TOWNSHIP 16 SOUTH, RANGE 35 EAST, NMPM

Section 2: Lots 3 through 6.

(8) At the time of the hearing Yates Petroleum Corporation appeared and

presented evidence and testimony in opposition to the Gillespie-Crow, Inc. application. The following interest owners appeared at the hearing through legal counsel in opposition to this case: Yates Drilling Company; Abo Petroleum Corporation; Myco Industries, Inc.; Hanley Petroleum, Inc.; David Petroleum Corporation; Rio Pecos Corporation; Pathfinder Exploration Company; Cannon Exploration Company; Hollyhock Corporation; Tar-Jon Corporation; Lario Oil and Gas Company; and Vierson and Cochran. Ensearch Exploration Inc. and Chesapeake Oil Company also appeared at the hearing through legal counsel.

(9) Geologic evidence presented by the applicant indicates the presence of two separate porous algal reef mounds within the horizontal limits of the West Lovington-Strawn Pool and that the following three wells are completed in and producing from a much smaller mound that is completely separated from the larger mound to the east in which the WLSU is situated:

- (i) the Charles B. Gillespie, Jr. Baer Well No. 2 (API No. 30-025-33036) located 810 feet from the South line and 2200 feet from the East line (Unit O) of Section 32, Township 15 South, Range 35 East, NMPM, Lea County, New Mexico;
- (ii) the Amerind Oil Company, Ltd. Mobil State Well No. 1 (API No. 30-025-32846) located 330 feet from the North line and 2298 feet from the West line (Lot 3/Unit C) of Section 32, Township 16 South, Range 35 East, NMPM, Lea County, New Mexico; and,
- (iii) the Amerind Oil Company, Ltd. Gallagher State Well No. 2 (API No. 30-025-32913) located 2646 feet from the North line and 2299 feet from the West line (Lot 6/Unit F) of said Section 32.

(10) There is sufficient justification to contract the West Lovington-Strawn Pool by the deletion therefrom of the: (i) W/2 SE/4 of Section 32, Township 15 South, Range 35 East, NMPM, Lea County, New Mexico; and, (ii) of Lots 2, 3, 4, 5, 6, and 7 of Section 2, Township 16 South, Range 35 East, NMPM, Lea County, New Mexico; and create a new and separate pool for the production of oil from the small mound within the Strawn formation that contributes to the three aforementioned wells in Finding Paragraph No. (9) above.

(11) The applicant at the time of the hearing proposed this new pool be

designated the "South Big Dog-Strawn Pool". Such name is deemed appropriate and should therefore be accepted.

(12) The applicant further seeks the promulgation of special rules for the newly created "South Big Dog-Strawn Pool" including provisions for 80-acre oil spacing and proration units, designated well location requirements, both of which are to be identical to those provisions currently governing the West Lovington-Strawn Pool, including the standard assigned depth bracket oil allowable of 445 barrels of oil per day for each 80-acre unit.

(13) The other pool contractions and extensions of the West Lovington-Strawn Pool as proposed by Gillespie-Crow, Inc. are not based on productive acreage. The boundary adjustment to the West Lovington-Strawn Pool should therefore only include the following acreage:

TOWNSHIP 15 SOUTH, RANGE 35 EAST, NMPM

Section 32: W/2 SE/4

TOWNSHIP 16 SOUTH, RANGE 35 EAST, NMPM

Section 2: Lots 2 through 7.

Note, however, that the regulations and rules for pools extend one mile beyond their respective boundaries pursuant to Division Rule 104.A(3).

(14) There are currently eleven active wells within the West Lovington Strawn Unit Pressure Maintenance Project area, one injection well that re-injects gas into the reservoir gas cap and ten producing wells. In order to maintain adequate reservoir pressure within the WLSU, voluntary production restrictions were instituted by Gillespie-Crow, Inc. to maintain stable production and prevent harm to the reservoir.

(15) According to the geological and technical evidence presented, it appears that the larger porous algal reef mound that contains the reservoir that comprises the WLSU extends beyond the horizontal limits set forth in said Order No. R-10449. With the onset of gas re-injection operations into the reservoir gas cap of the West Lovington Strawn Unit Pressure Maintenance Project two additional wells that lay outside of the WLSU: (1) the Hanley Petroleum Inc. Chandler Well No. 1 (API No. 30-025-33175) located 330 feet from the South line and 1650 feet from the East line (Unit O) of Section 28, Township 15 South, Range 35 East, NMPM, Lea County, New Mexico; and, (2) the Gillespie-Crow, Inc. State Well No. 1 (API No. 30-025-33068) located 1650 feet from the South and East lines (Unit J) of Section 34, Township 15 South, Range 35 East, NMPM, Lea County, New Mexico; are both in pressure communication with WLSU wells and are also capable

of top unit allowable production. Such unrestricted rates of production from this reservoir from these wells is counter productive to the overall capabilities of this reservoir. In order to prevent waste and the premature abandonment of this reservoir, measures should be enacted to assure that adequate reservoir pressure is maintained throughout and that the gas cap within this reservoir is managed in a prudent manner. The applicant proposed that the current special pool rules promulgated by said Order No. R-9722, as amended, remain in effect with the exception of **RULE 6**, which would be amended to read:

"RULE 6: *A standard proration unit (79 through 81 acres) within West Lovington-Strawn Pool shall be subject to an 80 acre depth-bracket allowable of 250 barrels of oil per day. The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 80 acres. However, as to any well located outside the boundaries of the West Lovington Strawn Unit, except the State "S" Well No. 1, located in the W/2 SE/4 of Section 34, Township 15 South, Range 35 East, the depth bracket allowable shall revert to 445 barrels of oil per day for a standard proration unit on the earlier of: (a) one year after the well's completion, unless the unit operator applies to the Division on or before that date for expansion of the unit to include said well unit; or (b) the date the well's operator proves to the Division that the well is not completed in the same reservoir as wells in the West Lovington Strawn Unit".*

FINDING: Such an amendment in effect sets a double standard for a single pool and only lends to confusion in the setting of allowables to units in a pool. In order to preserve continuity in the rules for the West Lovington-Strawn Pool and to assure fairness for all operators of wells within this reservoir a single depth bracket oil allowable of 250 barrels of oil per day for a standard 80-acre oil spacing and proration unit should be adopted for the West Lovington-Strawn Pool. Furthermore, the concept of a project allowable being assigned to the West Lovington Strawn Pressure Maintenance Project Area should cease [see Decretory Paragraph No. (14) on page 7 of Division Order No. R-10448] and all producing wells whether inside or outside the WLSU should be treated the same. No gas injection well(s) or units containing a gas injection well will be assigned or credited an allowable.

(16) The contraction of the West Lovington-Strawn Pool, and concomitant creation of the proposed South Big Dog-Strawn Pool, the adoption of special pool rules for the newly formed pool, and the amendment to the West Lovington-Strawn Pool rules, all as described above, are all in the best interests of conservation, will enable the operators to produce their just and fair share of production from the reservoirs in a prudent manner, and will otherwise serve to prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED THAT:

(1) The West Lovington-Strawn Pool in Lea County, New Mexico, as heretofore classified, defined, and described, is hereby contracted by the deletion of the following described area:

TOWNSHIP 15 SOUTH, RANGE 35 EAST, NMPM

Section 32: W/2 SE/4

TOWNSHIP 16 SOUTH, RANGE 35 EAST, NMPM

Section 2: Lots 2 through 7.

(2) Concomitantly a new pool in Lea County, New Mexico, classified as an oil pool for Strawn production is hereby created and designated the South Big Dog-Strawn Pool, with vertical limits comprising the Strawn formation and the horizontal limits comprising that area described in Decretory Paragraph No. (1) above.

(3) Special Rules and Regulations for the newly created South Big Dog-Strawn Pool are hereby promulgated as follows:

**SPECIAL RULES AND REGULATIONS
FOR THE
SOUTH BIG DOG-STRAWN POOL**

RULE 1: Each well completed or recompleted in the South Big Dog-Strawn Pool or in the Strawn formation within one mile thereof, and not nearer to or within the limits of another Strawn oil pool, shall be spaced, drilled, operated and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2: Each well shall be located on a standard unit containing 80 acres, more or less, consisting of the N/2, S/2, E/2 or W/2 of a governmental quarter section; provided however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the two quarter-quarter sections in that unit.

RULE 3: The Director of the Oil Conservation Division, hereinafter referred to as the "Division", may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been duly filed under the provisions of Rule 104.D(2) of the General Rules

and Regulations of the New Mexico Oil Conservation Division ("Division"), revised by Division Order No. R-10533, issued by the Oil Conservation Commission in Case 11,351 on January 18, 1996.

RULE 4: Each well shall be located no closer than 330 feet to any quarter-quarter section or subdivision inner boundary nor closer than 1020 feet to the nearest well drilling to or capable of producing from the same pool.

RULE 6: The Division Director may grant an exception to the requirements of Rule 4 without hearing when an application has been duly filed under the provisions of Rule 104.F of said General Rules and Regulations of the Division.

RULE 7: A standard proration unit (79 through 81 acres) shall be subject to an 80-acre depth-bracket allowable of 445 barrels of oil per day. The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 80 acres.

(4) The operator of any well affected by this order shall file with the appropriate District Office of the Division a new Form C-104 (Request For Allowable And Authorization To Transport Oil And Natural Gas) pursuant to Division General Rule 1104.E.

IT IS FURTHER ORDERED THAT:

(5) "RULE 6" of the "*Special Rules and Regulations for the West Lovington-Strawn Pool*", as promulgated by Division Order No. R-9722, as amended, is hereby amended to read in its entirety as follows:

" **RULE 6:** A standard proration unit (79 through 81 acres) shall be subject to an 80-acre depth-bracket allowable of 250 barrels of oil per day. The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 80 acres."

FURTHERMORE:

(6) Decretory Paragraph (14) of Division Order No. R-10448, issued in Case

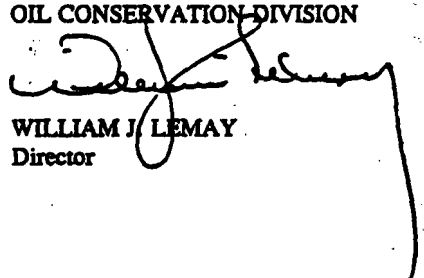
11194 and dated August 29, 1995, is hereby amended to read in its entirety as follows:

" (14) The West Lovington Strawn Pressure Maintenance Project Area shall not be assigned a project allowable. Only producing standard proration units (79 through 81 acres) shall be subject to an 80-acre depth-bracket allowable as prescribed by the applicable special rules and regulations for the West Lovington-Strawn Pool."

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

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


WILLIAM J. LEMAY
Director

SEAL

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)

June 16, 1997

HAND DELIVERED

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

Dear Mr. Stogner:

UMC Petroleum Corporation ("UMC") hereby applies for administrative approval to directionally drill the following well in the Strawn formation (Undesignated South Big Dog-Strawn Pool):

Townsend State Well No. 1

Surface Location:	3526' FSL and 727' FEL
Terminus:	2500' FSL and 350' FEL
Project Area:	Lot 16 and NE¼SE¼ of Section 2, Township 16 South, Range 35 East, NMPM Lea County, New Mexico

The subject pool has special pool rules requiring 80 acre spacing with wells to be no closer than 330 feet to the outer boundary of the unit or to a quarter-quarter section line. The well unit is non-standard because it includes acreage in two different quarter sections. The non-standard unit was approved by Division Order No. R-10803.

Pursuant to Division Rule 111(D), UMC makes the following statements and submittals:

1. The well was drilled in January and February 1997 to test the Strawn formation. It was drilled on a thick Strawn buildup, and was perforated at 11501-11539 feet and acidized. However, the well exhibits low porosity and permeability in comparison to other Strawn producers to the north and northeast. It is currently producing approximately 10 bopd. UMC proposes to drill a lateral of approximately 1200 feet to the south-southeast, in an attempt to encounter porous and

permeable facies within the mound. Attached hereto as Exhibit A is an APD with a Form C-102 and directional plan attached.

2. Attached as Exhibit B is a land plat of Section 2. The project area for the well is outlined in blue. The producing area is the same as the project area. The project area is all state land, covered by Lease E-7220. There are Strawn wells immediately offsetting the project area, in Lot 1 of Section 2 - 16S - 35E and in Lot 12 of Section 1 - 16S - 35E.

3. Exhibit B also identifies offset operators or lessees. Exhibit C lists the names and addresses of the offsets. Copies of this application were mailed on this date to the offsets, by certified mail. A copy of the notice letter is attached as Exhibit D.

Because the new proposed Rule 111 has not been adopted, and UMC hopes to commence directional drilling as soon as possible, this application is submitted pursuant to the existing rule, as required by the Hobbs District Office.

Should you need any additional data, please call. This application is submitted in duplicate.

Very truly yours,



James Bruce

Attorney for UMC Petroleum Corporation

cc: Hobbs District Office

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Azusa, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-101
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

Operator Name and Address: UMC Petroleum Corporation 410 17th Street, Suite 1400 Denver, Colorado 80202		OGRID Number 23654
		API Number 30-025-33713
Property Code 20032	Property Name Townsend State	Well No. 1

7 Surface Location

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
16	2	16S	35E		3526	South	727	East	Lea

8 Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
17	2	16S	35E		2500	South	350	East	Lea

Proposed Pool 1 South Big Dog Strawn	Proposed Pool 2
---	-----------------

Work Type Code P (Horizontal)	Well Type Code O	Cable/Rotary R	Lease Type Code S	Ground Level Elevation 3983'
Multiple NO	Proposed Depth See Attached	Formation Strawn	Contractor Sierra Well Serv.	Spud Date 12/19/96

21 Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
See attached	completion report and wellbore diagrams				

Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

- See attached sheets
- 1) Wellbore diagrams
 - 2) Re-completion summary
 - 3) Directional program
 - 4) Completion report



BOP Program: Rotating Head blowout preventer=12" 3000 psi type double ram.
12" 3000 psi GK, 200 gal 5 station Koomey Air electric 4" 3000 psi
Manifold.

I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature:

[Signature]

Printed name:

Scott M. Webb

Title:

Regulatory Coordinator

Date:

5/27/97

Phone:

(303)573-4721

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date:

Expiration Date:

Conditions of Approval:

Attached ☐

TOXIGEN, LIA. CO., NEW MEXICO
TOWNSHIP STATE NO. 1, 101 41
UAC PETROLEUM CORP.

Depth	Inclin. Degrees	Asimuth Degrees	Type	True Vert Depth	CORRECTION	ALTIMETER	Depth	Sec
11463.00	0.00	0.00	11463.00	0.00	N	0.00	0.00	0.00
11500.00	36.37	132.37	11498.75	7.25	S	2.37	71.00	8.33
11537.71	50.30	132.32	11532.00	57.36	S	10.36	71.00	39.04
11562.33	73.32	132.32	11540.00	83.32	S	13.32	71.00	52.32
11581.32	91.62	132.32	11553.00	97.12	S	26.12	71.00	53.12
12000.00	91.00	132.32	11536.12	460.72	S	132.30	0.00	420.87
12200.00	91.00	132.32	11536.32	92.32	S	341.72	0.00	920.72
12507.71	91.00	132.32	11532.00	1036.00	S	377.00	0.00	1092.67

All data is in feet unless otherwise stated.
 Coordinates from shot 41 and TWD from rotary table.
 Bottom hole distance is 1002.07 on salinometer 122.88 degrees from vertical.
 Vertical section is from wellhead on salinometer 122.88 degrees.
 Calculation was the minimum curvature method.
 Presented by Baker Hughes INTEQ

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer DD, 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 30-025-33713	Pool Code XXXXXX 96690	Pool Name XXXXXXXXXXXXXXXXXXXX South Big Dog
Property Code 20032	Property Name TOWNSEND STATE	Well Number 1
OGRID No. 23654	Operator Name UMC PETROLEUM CORPORATION	Elevation 3983

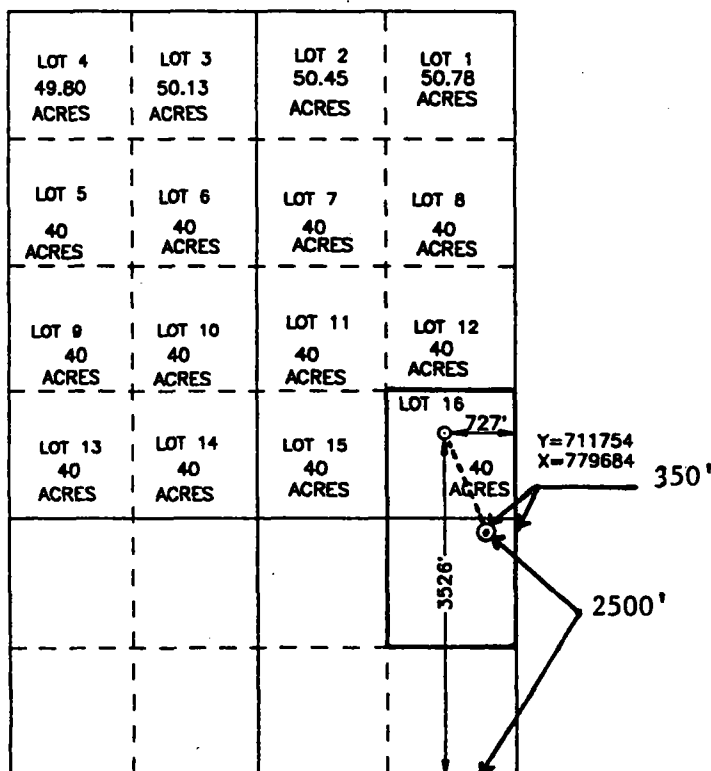
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
16	2	16 S	35 E		3526	SOUTH	727	EAST	LEA

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
17	2	16S	35E		2500'	South	350	East	Lea
Dedicated Acres 80	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



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature

Scott M. Webb

Printed Name

Regulatory Coordinator

Title

5/5/97

Date

SURVEYOR CERTIFICATION

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.

NOVEMBER 29, 1996

Date Surveyed

Signature of Seal of Professional Surveyor

G. EIDSON
11-29-96
Num. 96-11-1577
Certified by JOHN W. WEST, 676
EDMOND EIDSON, 3239
DAVE R. EIDSON, 12841

Townsend State #1

Proposed Horizontal Re-completion

Procedure:

- 1) Re-enter well, set 40' type "H" neat cement plug at 11,463 md.
- 2) Mill 5-1/2" casing at md 11,460 feet. Dress cement to KOP of 11,463'.
- 3) Drill build section at 71 degrees per 100' md.
- 4) Drill lateral section to specified depth/length of 12,602 md/11,525' tvd.
- 5) Directional surveys will be conducted by a MWD device in the motor bit.

Wellbore Specifics:

KOP:	11,463' md.
Rate of Build:	71 degrees per 100'.
End of Build:	11,591' md / 11,534' tvd.
Total Depth:	12,602' md / 11,525' tvd.
Open Hole Lateral:	1093' md.

Surface Hole Location:

3526' FSL & 727' FEL, Lot 16, Section 2-T16S-R35E, Lea County.

Bottom Hole Location:

2500' FSL & 350' FEL, Lot 17, Section 2-T16S-R35E, Lea County.

(1026' South of surface & 377' East of surface)

Dedicated Acreage: 80 Acres

Townsend State #1
Lot 16, Sec. 2-T16S-R35E
Lea County, New Mexico
Proposed Horizontal Recompletion

SHL: 3526' FSL & 727' FEL
Lot 16, Section 2-T16S-R35E

13-3/8" 48# Casing @ 400'.
Cemented to surface with 405 sx.

8-5/8" 32# surface casing @ 4750'
Cemented to surface with 1675 sx

TOC @ 7140'

BHL: 2500' FSL & 350' FWL
Lot 17, Section 2-T16S-R35E

Build Rate :
71 Degrees/100 feet

KOP: 11,463' md

Lateral Section 1093' md

40' Cement Plug

(Open Hole)

Strawn Perfs:
11,501' - 11,540'

5-1/2" 17# @ 11,805'
Cemented with 1200 sx

TDMD 12,602'
TDTVD 11,525'

TD 11,805'

DIRECTIONAL PLAN

UMC PETROLEUM CORP.

Structure : TOWNSEND STATE NO. 1

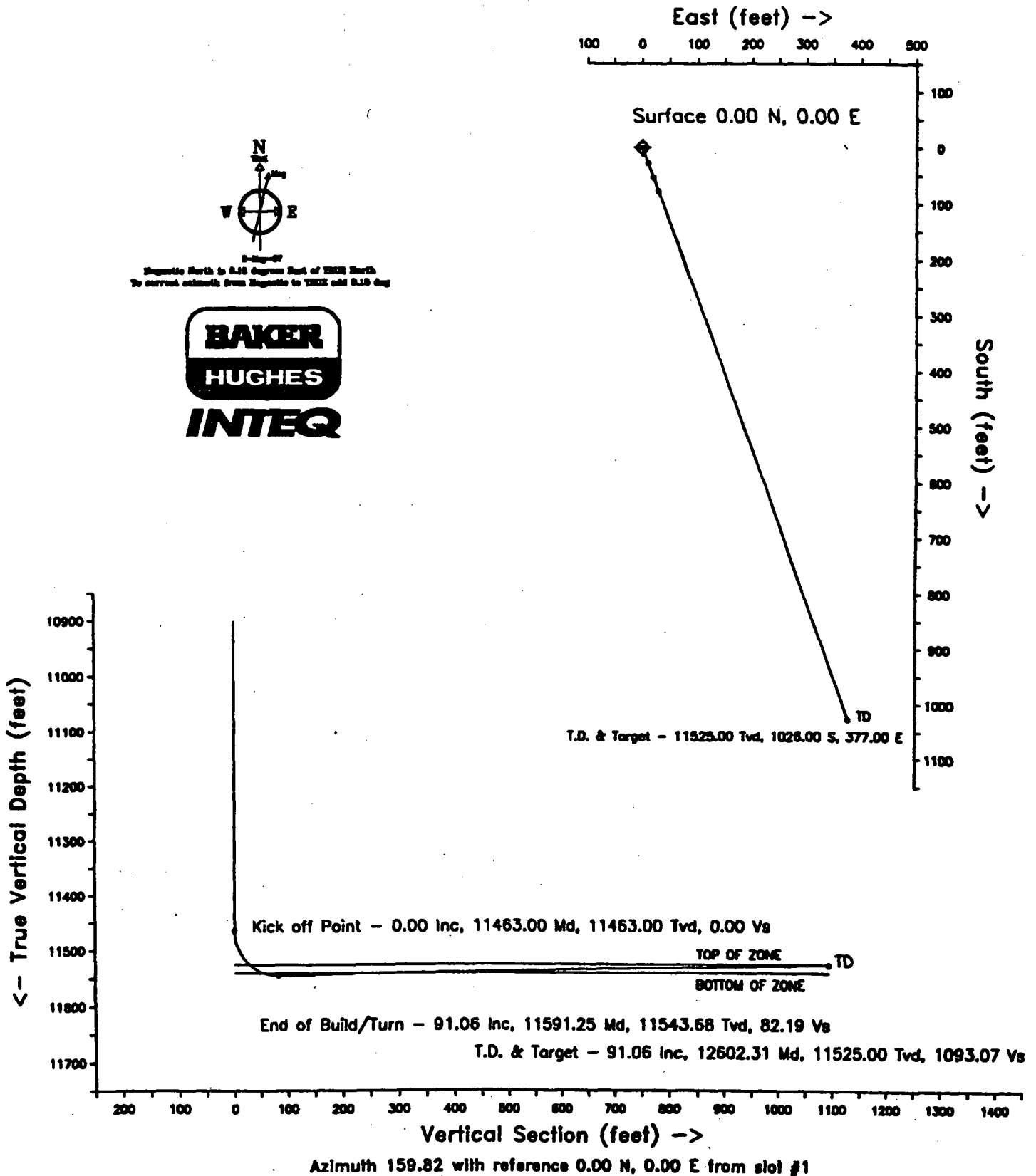
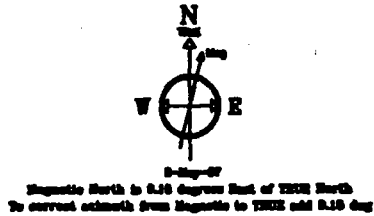
Slot : slot #1

Field : TOWNSEND

Location : LEA CO., NEW MEXICO

WELL PROFILE DATA

Depth	Inc	Md	Tvd	Vs	Inc	Md	Tvd	Vs
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11463.00	0.00	0.00	11463.00	0.00	0.00	0.00	0.00	0.00
11591.25	91.06	11591.25	11543.68	-77.19	82.19	82.19	71.68	71.68
11602.31	91.06	11602.31	11525.00	-1093.07	82.19	82.19	71.68	71.68



UMC PETROLEUM CORP.
TOWNSEND STATE NO. 1, slot #1
TOWNSEND, LEA CO., NEW MEXICO

PROPOSAL LISTING Page 1
Your ref : BUR= 71 DEG/100' / VS:
Last revised : 2-May-97

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert Depth	R E C T A N G U L A R C O O R D I N A T E S		Dogleg Deg/100ft	Vert Sect
11463.00	0.00	0.00	11463.00	0.00 N	0.00 E	0.00	0.00
11500.00	26.27	159.82	11498.72	7.82 S	2.87 E	71.00	8.33
11533.71	50.20	159.82	11525.00	27.26 S	10.02 E	71.00	29.04 TOP OF PAY
11565.23	72.59	159.82	11540.00	53.08 S	19.50 E	71.00	56.55 BOTTOM OF PAY
11591.25	91.06	159.82	11543.68	77.15 S	28.35 E	71.00	82.19
12000.00	91.06	159.82	11536.13	460.75 S	169.30 E	0.00	490.87
12500.00	91.06	159.82	11526.89	929.99 S	341.72 E	0.00	990.78
12602.31	91.06	159.82	11525.00	1026.00 S	377.00 E	0.00	1093.07 TD

All data is in feet unless otherwise stated.
Coordinates from slot #1 and TVD from rotary table.
Bottom hole distance is 1093.07 on azimuth 159.82 degrees from wellhead.
Vertical section is from wellhead on azimuth 159.82 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes INTEQ

GILLESPIE

2

R 35 E

AMERIND OIL

T
16
S

AMERIND UNIT Lot 4		AMERIND OIL #1 Lot 3	Lot 2	Lot 1
AMERIND UNIT Lot 5		AMERIND GALLAGHER STATE #2 Lot 6	Lot 7	YATES - AMERIND UNIT Lot 8
		YATES-UMC UNIT Lot 11	YATES-UMC UNIT Lot 10	Lot 9
Lot 13		Lot 14	Lot 15	UMC TOWNSEND STATE #1 Lot 16
Lot 20		Lot 19	UMC Lot 18	Lot 17
Lot 21		Lot 22	UMC Lot 23	UMC Lot 24

GILLESPIE
8

GILLESPIE

GILLESPIE

UMC Petroleum Corporation

NEW MEXICO OIL CO

Cont. B.E. Bone

cc001.gpl

EXHIBIT

B

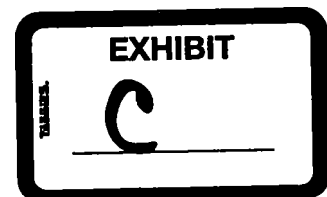
OFFSET OPERATORS AND WORKING INTEREST OWNERS

**Yates Petroleum Corporation
105 South Fourth Street
Artesia, New Mexico 88210**

**Amerind Oil Company, Ltd.
415 West Wall
Suite 500
Midland, Texas 79701**

**Charles B. Gillespie, Jr.
P. O. Box 8
Midland, Texas 79702**

**UMC Petroleum Corporation
410 17th Street
Suite 1400
Denver, Colorado 80202**



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)

June 16, 1997

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Charles B. Gillespie, Jr.
P.O. Box 8
Midland, Texas 79702

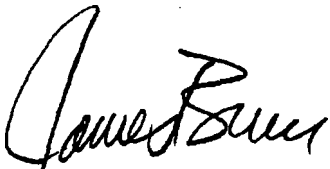
Yates Petroleum Corporation
105 South Fourth Street
Artesia, New Mexico 88210

Amerind Oil Company, Ltd.
Suite 500
415 West Wall
Midland, Texas 79701

Gentlemen:

Enclosed is a copy of an application filed by UMC Petroleum Corporation with the New Mexico Oil Conservation Division seeking administrative approval for directional drilling of the Townsend State Well No. 1, located in the Lot 16 of Section 2, Township 16 South, Range 35 East, NMPM, Lea County, New Mexico. UMC's records show that you own an interest offsetting the above well. If you have any objection to the application, you must notify the Division in writing no later than 20 days from the date of this letter, at its Santa Fe office (2040 South Pacheco Street, Santa Fe, New Mexico 87505, Attention: Michael E. Stogner).

Very truly yours,


James Bruce

