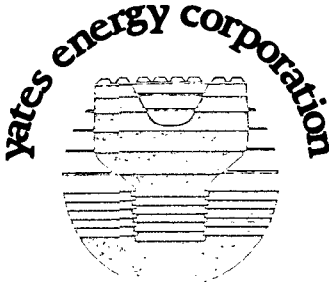


OIL CONSERVATION DIVISION
RECEIVED

90 OCT 31 AM 8 49



October 26, 1990

Mr. Michael E. Stogner
New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504

Re: Application to Amend Administrative
Order NSL-2684
Desert Rose Federal #1
Eddy County, NM

Dear Mr. Stogner:

As you are aware, the captioned well was drilled at a non-standard gas well location of 1740' FSL and 660' FEL (Unit I) of Section 27, Township 23 South, Range 23 East, N.M.P.M., in the Undesignated East Hess-Morrow Gas Pool, Eddy County, New Mexico. The E/2 of said Section 27 was dedicated to the well forming a standard 320 acre gas spacing and proration unit for said pool under Administrative Order NSL-2684.

Said well was drilled to a total depth of 10,310', a copy of the Well Completion Report is submitted as Exhibit "A". The Morrow formation was originally perforated and treated in the "A" zone 9,880' - 9,900' and "C & D" zones 9,975' - 77', 9,986' - 92', 10,010' - 16' and 10,027' - 28', however, production from the Morrow zones was marginal and have not been produced.

The well was then completed up hole in the Strawn formation at 8,772' - 90' and 8,808' - 16'. Said well is currently producing from the Strawn formation, in the Bandana Point - Strawn Gas Pool.

Attached as Exhibit "B" is a plat of the area showing the acreage to be dedicated to the well and the ownership of all offsetting leases.

Attached as Exhibit "C" are copies of notices mailed to the only offset operator, OXY U.S.A., Inc., and the United States Bureau of Land Management notifying them in writing of this application.

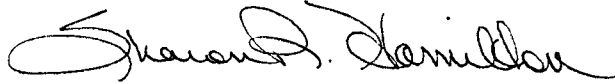
Mr. Michael E. Stogner
New Mexico Oil Conservation Division
October 26, 1990
Page 2

Yates Energy Corporation seeks to amend Administrative Order NSL-2684 to include the Bandana Point - Strawn Gas Pool, pursuant to Rule 104.F.I. for the recompletion of a well previously drilled to a deeper horizon, with the E/2 of said Section 27 dedicated to the well forming a standard 320 acre gas spacing and proration unit.

Your favorable consideration and assistance in this matter is greatly appreciated. This application is being submitted in triplicate.

Yours very truly,

YATES ENERGY CORPORATION

A handwritten signature in black ink, appearing to read "Sharon R. Hamilton". The signature is fluid and cursive, with a large initial "S" and "H".

Sharon R. Hamilton
Landman

SRH/jj
Enclosures

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
NM-OIL CONVS 601001
SUBMIT IN DRAWER DD
(See instructions on reverse side)
CONFIDENTIAL

Form approved.
Budget Bureau No. 1004-0137
Expires August 31, 1985

Exhibit "A"

5. LEASE DESIGNATION AND SERIAL NO.

NM-37843

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Desert Rose Federal

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

Und. East Hess

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

Section 27-23S-23E

12. COUNTY OR PARISH

Eddy

13. STATE

NM

14. ELEV. CASINGHEAD

1a. TYPE OF WELL:

OIL WELL ☐

GAS WELL ☒

DRY ☐

Other

b. TYPE OF COMPLETION:

NEW WELL ☒

WORK OVER ☐

DEEP-EN ☐

PLUG BACK ☐

DIFF. ESVR. ☐

Other

2. NAME OF OPERATOR

YATES ENERGY CORPORATION

3. ADDRESS OF OPERATOR

P.O. Box 2323, Roswell, New Mexico 88202-2323

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*

At surface 1740' FSL & 660' FEL

At top prod. interval reported below

At total depth

14. PERMIT NO.

DATE ISSUED

15. DATE STUDDER

9-3-89

16. DATE T.D. REACHED

10-3-89

17. DATE COMPL. (Ready to prod.)

11-9-89

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*

4210' GR

20. TOTAL DEPTH, MD & TVD

10,310'

21. PLUG, BACK T.D., MD & TVD

10236' (RBP 9206' w/1 sx. sand on top)

22. IF MULTIPLE COMPL., HOW MANY*

23. INTERVALS DRILLED BY

ROTARY TOOLS

all

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*

8772'-8816' (Strawn)

25. WAS DIRECTIONAL SURVEY MADE

no

26. TYPE ELECTRIC AND OTHER LOGS RUN

GR-CNL-LDT; DLL w/MSFL

27. WAS WELL CORED

no

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13 3/8"	54.5#	350'	17 1/2"	425 sxs. Premium plus	---
8 5/8"	32# & 24#	2,562'	12 1/4"	1,000 sxs. HLW & 275 Premium Plus	---
4 1/2"	11.6#	10,310'	7 7/8"	1,200 sxs. class "H"	---

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2 3/8	8819'	8748'

31. PERFORATION RECORD (Interval, size and number)

See attachment

Adm

DEC 12 1989

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
see attachment for details	

33. PRODUCTION

DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)				WELL STATUS (Producing or shut-in)	
11-15-89		flowing				SI	
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
11-15-89	24 hr	--	→	0	1606	0	---
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	
2380 psig	pkc	→	0	1606	0	---	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

vented

TEST WITNESSED BY

Bennett-Cathey

35. LIST OF ATTACHMENTS

Logs, Deviation Survey, DST Summary, Perforation Record w/treatment detail

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED

Sharon R. Hamilton

TITLE

Landman

DATE

12/6/89

*(See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

cc: Partners

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Wolfcamp Morrow Morrow	7,600' 9,980' 9,964'	7,700' 9,929' 10,038'	See attachments for complete details

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH
Wolfcamp	7,022'	
Lower Wolfcamp	7,600'	
Cisco	8,066'	
Canyon	8,400'	
Strawn	8,631'	
Lower Strawn	8,876'	
Atoka	9,139'	
Morrow	9,694'	
Morrow		
Clastics	9,874'	
Lower Morrow	10,045'	

DESERT ROSE FEDERAL #1

31. Perforation Record

9880'-9900' 2 SPF (0.42") Total holes: 40
9975'-9977', 9986'-9992', 10010'-10016' and 10027'-10028' 4 shots
@ each interval
(0.42") Total holes: 16
8772'-8790' 3 SPF (0.42") Total holes: 36
8808'-8816' 3 SPF (0.42") Total holes: 30

32. Acid, Shot, Fracture, Cement, Squeeze, etc.

<u>Depth Interval</u>	<u>Amount & Kind of Material Used</u>
9880'-9900'	250 gals. 10% acetic, 4,000 gals. 7.5% MS acid, 18,300 gals. Versagel 1500, 4,000 gals. CO2 plus 18,000# 20/40 Interprep.
9975'-10028'	250 gals. 10% acetic, 4,000 gals. 7.5% MS acid
8772'-8816'	Completed Natural

YATES ENERGY CORPORATION

Desert Rose Federal #1
1740' FSL & 660' FEL
E/2 Section 27-23S-23E
Eddy County, NM

Exhibit "B"

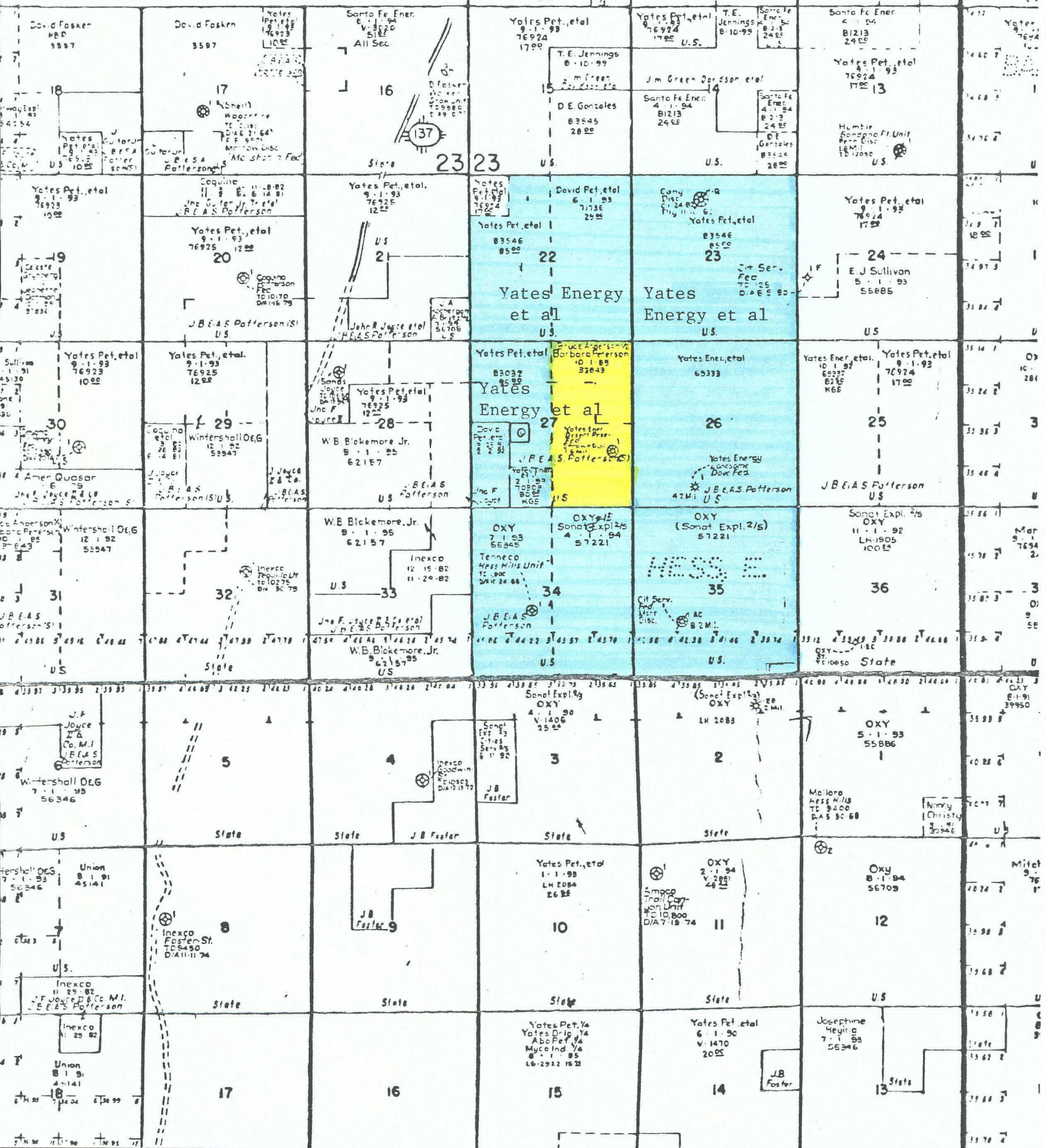
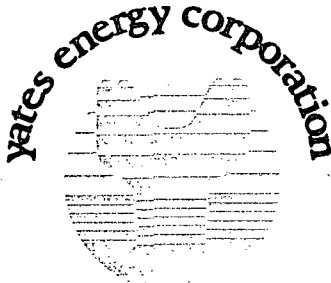


Exhibit "C-1"



October 26, 1990

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

OXY U.S.A., Inc.
P. O. Box 50250
Midland, Texas 79710

Attention: Richard E. Foppiano
Regulatory Affairs Advisor

Re: Application of Yates Energy
Corporation for NMOCD Administrative
Approval to Amend Administrative
Order NSL-2684
Desert Rose Federal #1
E/2 Section 27-23S-23E
Eddy County, NM

Gentlemen:

Please be advised that Yates Energy Corporation is requesting administrative approval to amend Administrative Order NSL-2684 (copy attached for your reference) to include the Bandana Point - Strawn Gas Pool, pursuant to Rule 104.F.I. for the recompletion of a well previously drilled to a deeper horizon, with the E/2 of Section 27, Township 23 South, Range 23 East (plat attached) dedicated to the well forming a standard 320 acre gas spacing and proration unit.

This letter shall serve as notification to you, as an offset operator, of said request. Should you have any questions concerning this matter, please contact the undersigned.

Yours very truly,

YATES ENERGY CORPORATION

Sharon R. Hamilton
Landman

SRH/jj
Enclosures

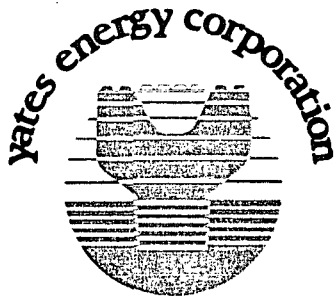


Exhibit "C-2"

October 25, 1990

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Bureau of Land Management
P. O. Box 1397
Roswell, New Mexico 88202

Attention: Armondo Lopez

Re: Application of Yates Energy
Corporation for NMOCD Administrative
Approval to Amend Administrative
Order NSL-2684
Desert Rose Federal #1
E/2 Section 27-23S-23E
Eddy County, NM

Gentlemen:

Please be advised that Yates Energy Corporation is requesting administrative approval to amend Administrative Order NSL-2684 (copy attached for your reference) to include the Bandana Point - Strawn Gas Pool, pursuant to Rule 104.F.I. for the recompletion of a well previously drilled to a deeper horizon, with the E/2 of Section 27, Township 23 South, Range 23 East (plat attached) dedicated to the well forming a standard 320 acre gas spacing and proration unit.

This letter shall serve as notification to you of said request. Should you have any questions concerning this matter, please contact the undersigned.

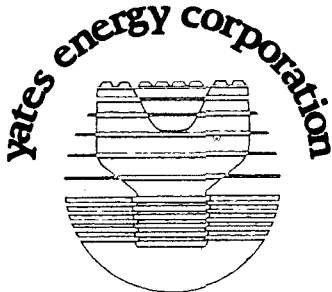
Yours very truly,

YATES ENERGY CORPORATION

Sharon R. Hamilton
Landman

SRH/jj
Enclosures

OIL CONSERVATION DIVISION
RECEIVED
'90 NOV 15 AM 9 04



November 1, 1990

Mr. Michael E. Stogner
New Mexico Oil Conservation District
P. O. Box 2088
Santa Fe, New Mexico 87504

Re: Application of Yates Energy
Corporation for NMOCD
Administrative Approval to Amend
Administrative Order NSL-2684
Desert Rose Federal #1
E/2 Section 27-23S-23E
Eddy County, NM

Dear Mr. Stogner:

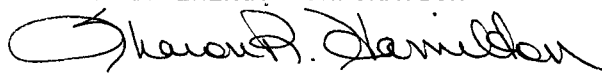
In accordance with Division Rule 1207, I hereby certify that on October 26th notice was mailed to the operators and interested parties listed in the attached Exhibit "A", concerning said application.

Copies of the actual correspondence were provided in our application dated October 26, 1990, but are enclosed for your reference with copies of the executed return receipts.

This letter and attachments are being filed in triplicate.

Yours very truly,

YATES ENERGY CORPORATION


Sharon R. Hamilton
Landman

SUBSCRIBED AND SWORN TO before me this 1st day of November, 1990 by Sharon R. Hamilton.

My Commission Expires:

MAY 20, 1992


Notary Public

SRH/jj

Enclosures

P.O. Box 2323, Sunwest Centre, Suite 1010, Roswell, New Mexico 88202 [505] 623-4935 - Fax [505] 623-4947

EXHIBIT "A"

OXY U.S.A., Inc.
Attention: Richard E. Foppiano
P. O. Box 50250
Midland, Texas 79710

Bureau of Land Management
Attention: Armando Lopez
P. O. Box 1397
Roswell, New Mexico 88202



608 Sunwest Centre, Roswell, NM 88201

OIL CONSERVATION DIVISION
RECEIVED

'90 NOV 5 AM 9 14

(505) 625-2117

November 2, 1990

New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87504-2088

Attention: Mr. Michael E. Stogner

Re: Desert Rose Federal Well # 1
1740' FSL & 660 FEL (Unit I)
Section 27, Township 23 South, Range 23 East NMPM
Eddy County, NM

Dear Mr. Stogner:

Per our recent phone conversation, this letter was written to provide you with additional evidence supporting Yates Energy Corporation's application for dual completion of Bandana Point Strawn Gas Pool and Undesignated East Hess Morrow Gas Pool production in the subject well.

The Bandana Point Strawn Gas Pool is a limited reservoir as evidenced by its pressure and production history. Attachment "A" is a summary of shut-in pressures taken on the well. It shows a significant decline in reservoir pressure following only a limited withdrawal of gas. Attachment "B" is a summary of flowing tubing pressures which also indicate that the reservoir is rapidly depleting. The current line pressure runs between 600 and 650 PSIG, which means the Strawn is basically riding the line at this point. Without some relief on the line pressure or installation of compression facilities, the Strawn is rapidly approaching its productive capacity. Even with a reduction in line pressure, the remaining reserves in the Strawn reservoir are limited. This is a major factor when considering potential waste in the Strawn versus loss of reserves due to drainage in the Morrow.

In order to comply with your request for more detailed engineering work, I have made an attempt to calculate friction factors for the Strawn for both tubular and annular flow, and relate these to pressure losses as a result of friction. Attachment "C" summarizes the calculations for these various factors. It is evident from these calculations that producing the Strawn up the annulus will actually decrease the pressure loss due to friction, enabling the reservoir to be more efficiently produced, and resulting in less waste than if present operations are continued.

Attachment "D" is a calculation of the minimum flow rate

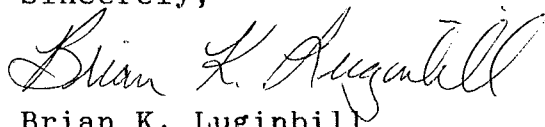
Mr. Michael E. Stogner
November 2, 1990
Page 2

necessary to remove liquids from the wellbore, once again, for both tubular and annular flow. These calculations show that it takes a considerably higher flow rate in the annulus to remove liquids than it does in the tubing. This is to be expected. However, I believe that the gas being produced from the Strawn is essentially dry based on the low yields, and liquids removal will most likely never be a factor in this reservoir.

It is apparent from the information and calculations that have been provided with this letter that there will not be a significant waste or loss of reserves from the Strawn by producing it up the annulus. In fact, it could end up having a positive impact on overall recovery. The primary concern of both myself and Yates Energy Corporation is the protection of correlative rights in relation to reserves contained in the Morrow. Oxy is currently producing their Morrow well, located 660 FNL 1450 FEL in section 34-23S-23E, at a rate of 4,300 MCFD. Assuming the well is draining an area equivalent to its 320 acre proration unit and that the reservoir is relatively consistent throughout its areal extent, this would indicate a minimum of 20 to 25% of its production is coming across the lease line from Section 27. The net loss to Yates Energy Corporation could be running as high as 1,000 MCFD. It should be obvious that the loss of reserves in the Morrow is considerable and will require action in a timely manner to protect correlative rights, whereas the Strawn may even benefit from a dual completion.

I hope the information provided with this letter is sufficient to expedite your decision regarding administrative approval. If you have any questions or need additional data, please call me at (505) 625-2117.

Sincerely,



Brian K. Luginbill

att

xc: 2 copies OCD
Artesia, NM

1 copy BLM
Carlsbad, NM

1 copy Sharon Hamilton
1 copy James F. O'Briant

ATTACHMENT "A"
Desert Rose Federal #1 (27I-23S-23E)
Shut-in Bottomhole Pressure Summary

DATE	BHP (PSIG)	SHUT-IN TIME	CUMULATIVE PRODUCTION		
			GAS (MCF)	CONDENSATE (BBL)	WATER (BBL)
11/15/89	3,501	72 Hours	0	0	0
04/23/90	2,223	50 Days	100,939	245	45

ATTACHMENT "B"
Desert Rose Federal #1 (27I-23S-23E)
Flowing Tubing Pressure Summary

DATE	CHOKE (INCHES)	FTP (PSIG)	GAS (MCF)	PRODUCTION CONDENSATE (BBL)	WATER (BBL)
12/28/89	10/64	2,250	1,146	3	0
12/29/89	10/64	2,225	1,550	11	0
12/30/89	10/64	2,175	1,486	6	0
12/31/89	10/64	2,100	1,463	3	0
01/01/90	13/64	1,950	1,813	8	0
01/02/90	16/64	1,800	1,938	8	0
01/03/90	16/64	1,650	2,063	3	0
01/04/90	16/64	1,600	2,025	11	0
01/05/90	20/64	1,350	2,231	6	0
01/06/90	20/64	1,175	2,334	2	0
01/07/90	20/64	1,100	2,318	7	0
01/08/90	20/64	1,050	2,237	5	0
01/09/90	22/64	900	2,318	6	3
01/10/90	22/64	860	2,251	5	3
01/11/90	22/64	850	2,219	6	0
01/12/90	22/64	825	2,107	5	0
01/13/90	22/64	800	2,045	6	0
01/14/90	22/64	800	2,013	6	3
01/15/90	22/64	800	1,980	3	0
01/16/90	22/64	800	1,934	5	0
01/17/90	22/64	750	1,883	10	0
01/18/90	22/64	750	1,805	6	0
01/19/90	22/64	725	1,786	3	0
01/20/90	22/64	700	1,742	0	3
01/21/90	22/64	700	1,723	3	0
01/22/90	22/64	700	1,688	3	0
01/23/90	22/64	700	1,623	3	3
01/24/90	22/64	700	1,623	5	0
01/25/90	20/64	660	1,610	3	0
01/26/90	20/64	600	1,578	5	0
01/27/90	20/64	675	1,536	6	3
01/28/90	20/64	650	1,515	4	0
01/29/90	20/64	650	1,483	0	3
01/30/90	20/64	650	1,504	4	0
01/31/90	20/64	650	1,448	3	3
02/01/90	20/64	675	1,415	3	3
02/02/90	20/64	675	1,334	0	0
02/03/90	20/64	660	1,349	2	0
02/04/90	20/64	660	1,340	0	0
02/05/90	20/64	660	1,324	0	0
02/06/90	20/64	650	1,307	4	0
02/07/90	20/64	650	1,292	0	0

Figures Taken From Daily Gauge Reports

ATTACHMENT "B"
Desert Rose Federal #1 (27I-23S-23E)
Flowing Tubing Pressure Summary

DATE	CHOKE (INCHES)	FTP (PSIG)	GAS (MCF)	PRODUCTION CONDENSATE (BBL)	WATER (BBL)
02/08/90	18/64	725	1,204	3	0
02/09/90	18/64	725	1,173	3	0
02/10/90	18/64	725	1,165	3	0
02/11/90	16/64	750	1,075	0	3
02/12/90	15/64	750	1,174	2	0
02/13/90	16/64	760	1,081	3	0
02/14/90	16/64	775	1,081	0	0
02/15/90	16/64	775	1,051	0	0
02/16/90	16/64	750	1,066	0	3
02/17/90	16/64	750	1,037	6	0
02/18/90	16/64	750	1,037	3	0
02/19/90	16/64	750	1,030	0	3
02/20/90	16/64	750	989	2	0
02/21/90	16/64	750	1,021	3	0
02/22/90	16/64	740	998	0	0
02/23/90	16/64	725	1,014	3	0
02/24/90	16/64	730	998	3	0
02/25/90	16/64	730	1,007	0	0
02/26/90	16/64	730	909	5	3
02/27/90	16/64	725	943	0	0
02/28/90	16/64	700	947	3	0
03/01/90	17/64	700	920	0	0
03/02/90	17/64	680	979	0	3
03/03/90	17/64	675	943	3	0
03/04/90	17/64	660	953	0	0
03/05/90	17/64	650	960	6	0
04/25/90	N/A	1,300	1,166	0	0
04/26/90	N/A	1,290	1,029	3	0
04/27/90	N/A	1,250	884	9	0
04/28/90	N/A	1,200	895	2	0
04/29/90	N/A	1,100	932	3	3
04/30/90	N/A	1,050	1,101	3	0
05/01/90	N/A	1,050	1,134	13	0
05/02/90	N/A	1,000	1,094	0	0
05/03/90	N/A	925	1,096	0	3
05/04/90	N/A	900	1,108	0	0
05/05/90	N/A	890	1,136	0	0
06/26/90	N/A	1,400	892	0	0
06/27/90	16/64	1,300	895	2	6
06/28/90	16/64	1,250	989	6	0

Figures Taken From Daily Gauge Reports

ATTACHMENT "B"
Desert Rose Federal #1 (27I-23S-23E)
Flowing Tubing Pressure Summary

DATE	CHOKE (INCHES)	FTP (PSIG)	GAS (MCF)	PRODUCTION CONDENSATE (BBL)	WATER (BBL)
06/29/90	16/64	1,225	986	3	3
06/30/90	16/64	1,160	903	5	0
07/01/90	16/64	1,125	1,005	3	3
07/02/90	17/64	1,100	1,000	0	0
07/03/90	16/64	1,100	982	3	0
07/04/90	17/64	1,100	945	3	0
07/05/90	17/64	1,060	898	0	0
09/25/90	8/64	1,450	985	0	0
09/26/90	N/A	1,390	924	0	3
09/27/90	9/64	1,300	1,004	0	0
09/28/90	9/64	1,300	1,004	0	0
09/29/90	9/64	1,200	972	0	0
09/30/90	10/64	1,190	1,021	11	3
10/01/90	10/64	1,125	1,051	3	3
10/02/90	11/64	1,125	1,197	3	0
10/03/90	11/64	1,075	1,178	3	3
10/04/90	11/64	1,025	1,243	3	0
10/05/90	11/64	1,000	1,209	6	0
10/06/90	11/64	1,000	1,178	3	0
10/07/90	11/64	1,000	1,154	3	0
10/08/90	11/64	975	1,162	3	0
10/09/90	12/64	900	1,186	0	0
10/10/90	12/64	850	1,203	2	0
10/11/90	12/64	840	1,150	5	0
10/12/90	12/64	850	1,106	3	0
10/13/90	12/64	850	1,081	3	0
10/14/90	12/64	850	1,081	0	3
10/15/90	12/64	850	1,030	5	0
10/16/90	12/64	800	1,073	0	0
10/17/90	12/64	800	1,062	0	3
10/18/90	12/64	800	924	0	0
10/19/90	12/64	800	909	6	0
10/20/90	12/64	800	840	0	0
10/21/90	12/64	750	749	0	0
10/22/90	12/64	720	704	0	0
10/23/90	14.5/64	660	766	0	2
10/24/90	14.5/64	650	660	3	3
10/25/90	14.5/64	650	886	3	0
10/26/90	14.5/64	600	761	3	0
10/27/90	14.5/64	700	1,258	3	0
10/28/90	14.5/64	700	921	0	0

Figures Taken From Daily Gauge Reports

PARAMETER	SYMBOL/EQUATION	UNITS	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL 4	TRIAL 5	TRIAL 6	TRIAL 7
1 Specific Gravity of Well Fluid	G	Air=1.000	0.621	0.621	0.621				
2 Percent Carbon Dioxide	%CO2	Decimal	0.66	0.66	0.66				
3 Percent Nitrogen	%N2	Decimal	0.20	0.20	0.20				
4 Percent Hydrogen Sulfide	%H2S	Decimal	0.00	0.00	0.00				
5 Critical Pressure	Pcr	PSIA	674	674	674				
6 Critical Temperature	Tcr	Degrees R	363	363	363				
7 Length of Flow Channel	L	Feet	8,844	8,844	8,844				
8 Vertical Depth Corresponding to L	H	Feet	8,844	8,844	8,844				
9 Inside Diameter	d	Inches	1.995	1.995	1.995				
10 Outside Diameter	do	Inches	N/A	N/A	N/A				
11 Flow Rate	Qm	MMCFD	1.013	1.013	1.013				
12 Wellhead Temperature	Tw	Degrees R	520	520	520				
13 Temperature at Vertical Depth H	Ts	Degrees R	626	626	626				
14 Average Temperature	T	Degrees R	573	573	573				
15 Compressibility Factor	Z est	Dimensionless	0.918	0.894	0.889				
16	T * Z		526	512	509				
17	(G * H) / (T * Z)		10.441	10.721	10.782				
18	s		0.392	0.402	0.404				
19 Weight of Column Factor	e ^s	Dimensionless	1.479	1.495	1.498				
20 Shut-in or Flowing Wellhead Pressure	Pc or Pt	PSIA	846	846	846				
21	Pc ² or Pt ²		715.7	715.7	715.7				
22	e ^s * (Pc ² or Pt ²)		1,058.7	1,069.9	1,072.3				
23 Friction Factor	Fr		0.017777	0.017777	0.017777				
24 Combined Compressibility Factor	Fc = Fr * T * Z		9.351	9.106	9.055				
25	Fc * Qm		9.47	9.22	9.17				
26	(L / H) * (Fc * Qm) ²		89.7	85.1	84.1				
27 Pressure Loss Factor	Fs = (L / H) * (Fc * Qm) ² * (e ^s - 1)		43.0	42.1	41.9				
28	Ps ² = (e ^s * Pt ²) + Fs		1,102	1,112	1,114				
29 Shut-in or Flowing Reservoir Pressure	Pf or Ps	PSIA	1,050	1,055	1,056				
30 Average Pressure	P	PSIA	948	950	951				
31 Reduced Pressure	Pr	Dimensionless	1.41	1.41	1.41				
32 Reduced Temperature	Tr		1.58	1.58	1.58				
33 Compressibility Factor	Z calc	Dimensionless	0.894	0.889	0.889				

PARAMETER	SYMBOL/EQUATION	UNITS	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL 4	TRIAL 5	TRIAL 6	TRIAL 7
1 Specific Gravity of Well Fluid	G	Air=1.000	0.621	0.621	0.621	0.621			
2 Percent Carbon Dioxide	%CO2	Decimal	0.66	0.66	0.66	0.66			
3 Percent Nitrogen	%N2	Decimal	0.20	0.20	0.20	0.20			
4 Percent Hydrogen Sulfide	%H2S	Decimal	0.00	0.00	0.00	0.00			
5 Critical Pressure	Pcr	PSIA	674	674	674	674			
6 Critical Temperature	Tcr	Degrees R	363	363	363	363			
7 Length of Flow Channel	L	Feet	8,844	8,844	8,844	8,844			
8 Vertical Depth Corresponding to L	H	Feet	8,844	8,844	8,844	8,844			
9 Inside Diameter	d	Inches	4.000	4.000	4.000	4.000			
10 Outside Diameter	do	Inches	2.375	2.375	2.375	2.375			
11 Flow Rate	Qm	MMCFD	1.013	1.013	1.013	1.013			
12 Wellhead Temperature	Tw	Degrees R	520	520	520	520			
13 Temperature at Vertical Depth H	Ts	Degrees R	626	626	626	626			
14 Average Temperature	T	Degrees R	573	573	573	573			
15 Compressibility Factor	Z est	Dimensionless	0.918	0.890	0.895	0.890			
16	T * Z		526	510	513	510			
17	(G * H) / (T * Z)		10.441	10.770	10.709	10.770			
18	s		0.392	0.404	0.402	0.404			
19 Weight of Column Factor	e's	Dimensionless	1.479	1.498	1.494	1.498			
20 Shut-in or Flowing Wellhead Pressure	Pc or Pt	PSIA	846	846	846	846			
21	Pc^2 or Pt^2		715.7	715.7	715.7	715.7			
22	e's * (Pc^2 or Pt^2)		1,058.7	1,071.8	1,069.4	1,071.8			
23 Friction Factor	Fr		0.007743	0.007743	0.007743	0.007743			
24 Combined Compressibility Factor	Fc = Fr * T * Z		4.073	3.949	3.971	3.949			
25	Fc * Qm		4.13	4.00	4.02	4.00			
26	(L / H) * (Fc * Qm)^2		17.0	16.0	16.2	16.0			
27 Pressure Loss Factor	Fs = (L / H) * (Fc * Qm)^2 * (e's - 1)		8.2	8.0	8.0	8.0			
28	Ps^2 = (e's * Pt^2) + Fs		1,067	1,080	1,077	1,080			
29 Shut-in or Flowing Reservoir Pressure	Pf or Ps	PSIA	1,033	1,039	1,038	1,039			
30 Average Pressure	P	PSIA	939	943	942	943			
31 Reduced Pressure	Pr	Dimensionless	1.39	1.40	1.40	1.40			
32 Reduced Temperature	Tr		1.58	1.58	1.58	1.58			
33 Compressibility Factor	Z calc	Dimensionless	0.890	0.895	0.890	0.890			

ATTACHMENT "D"
Desert Rose Federal #1 (27I-23S-23E)
Worksheet For Minimum Gas Flow For Liquids Removal Calculation

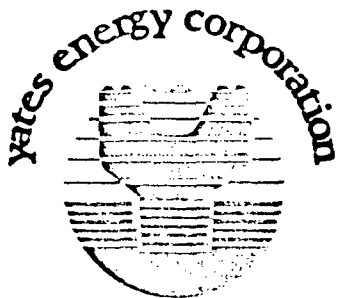
PARAMETER	SYMBOL/EQUATION	UNITS	TUBULAR	ANNULAR
1 Specific Gravity of Well Fluid	G	Air=1.000	0.621	0.621
2 Percent Carbon Dioxide	%CO2	Decimal	0.66	0.66
3 Percent Nitrogen	%N2	Decimal	0.20	0.20
4 Percent Hydrogen Sulfide	%H2S	Decimal	0.00	0.00
5 Critical Pressure	Pcr	PSIA	674	674
6 Critical Temperature	Tcr	Degrees R	363	363
7 Inside Diameter	d	Inches	1.995	4.000
8 Outside Diameter	do	Inches	N/A	2.375
9 Flow Area	A	Ft^2	0.087	0.226
10 Wellhead Temperature	Tw	Degrees R	520	520
11 Compressibility Factor	Z	Dimensionless	0.890	0.890
12 Flowing Tubing Pressure	Pt	PSIA	846	846
13 Minimum Gas Velocity (Water)	vg(water)	Feet/Second	9.8	9.8
14 Minimum Gas Velocity (Condensate)	vg(condensate)	Feet/Second	6.3	6.3
15 Minimum Gas Flow Rate (Water)	Qg(water)	MMCFD	4.8	12.4
16 Minimum Gas Flow Rate (Condensate)	Qg(Condensate)	MMCFD	3.1	8.0

$$vg(water) = \frac{5.62 * (67 - 0.0031 * Pt)^{0.25}}{(0.0031 * Pt)^{0.50}}$$

$$vg(condensate) = \frac{4.02 * (45 - 0.0031 * Pt)^{0.25}}{(0.0031 * Pt)^{0.50}}$$

$$Qg(water) = \frac{3.06 * Pt * vg(water) * A}{Tw * Z}$$

$$Qg(water) = \frac{3.06 * Pt * vg(condensate) * A}{Tw * Z}$$



October 25, 1990

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

Bureau of Land Management
P. O. Box 1397
Roswell, New Mexico 88202

Attention: Armondo Lopez

Re: Application of Yates Energy
Corporation for NMOCD Administrative
Approval to Amend Administrative
Order NSL-2684
Desert Rose Federal #1
E/2 Section 27-23S-23E
Eddy County, NM

Gentlemen:

Please be advised that Yates Energy Corporation is requesting administrative approval to amend Administrative Order NSL-2684 (copy attached for your reference) to include the Bandana Point - Strawn Gas Pool, pursuant to Rule 104.F.I. for the recompletion of a well previously drilled to a deeper horizon, with the E/2 of Section 27, Township 23 South, Range 23 East (plat attached) dedicated to the well forming a standard 320 acre gas spacing and proration unit.

This letter shall serve as notification to you of said request. Should you have any questions concerning this matter, please contact the undersigned.

Yours very truly,

YATES ENERGY CORPORATION

Sharon R. Hamilton
Landman

SRH/jj
Enclosures

P 299 868 590

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

★ U.S.G.P.O. 1985-480-794

PS Form 3800, June 1985

Sent to Bureau of Land Management	
Street and No.	
P.O. State and ZIP Code P.O. Box 1397 NM 88202-1397	
Postage	\$.25
Certified Fee	.85
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	.90
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$ 2.00
Postmark or Date 10-26-90	

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

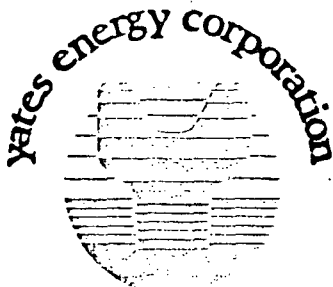
1. ☐ Show to whom delivered, date, and addressee's address. (Extra charge) 2. ☐ Restricted Delivery (Extra charge)

3. Article Addressed to: Bureau of Land Management P.O. Box 1397 Roswell, New Mexico 88202-2323		4. Article Number P 299 868 590	
		Type of Service:	
		☒ Registered ☒ Certified ☐ Express Mail	☐ Insured ☐ COD ☐ Return Receipt for Merchandise
5. Signature — Address X		8. Addressee's Address (ONLY if requested and fee paid)	
6. Signature — Agent X			
7. Date of Delivery 10-26-90			

PS Form 3811, Mar. 1988

★ U.S.G.P.O. 1988-212-865

DOMESTIC RETURN RECEIPT



October 26, 1990

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

OXY U.S.A., Inc.
P. O. Box 50250
Midland, Texas 79710

Attention: Richard E. Foppiano
Regulatory Affairs Advisor

Re: Application of Yates Energy
Corporation for NMOCD Administrative
Approval to Amend Administrative
Order NSL-2684
Desert Rose Federal #1
E/2 Section 27-23S-23E
Eddy County, NM

Gentlemen:

Please be advised that Yates Energy Corporation is requesting administrative approval to amend Administrative Order NSL-2684 (copy attached for your reference) to include the Bandana Point - Strawn Gas Pool, pursuant to Rule 104.F.I. for the recompletion of a well previously drilled to a deeper horizon, with the E/2 of Section 27, Township 23 South, Range 23 East (plat attached) dedicated to the well forming a standard 320 acre gas spacing and proration unit.

This letter shall serve as notification to you, as an offset operator, of said request. Should you have any questions concerning this matter, please contact the undersigned.

Yours very truly,

YATES ENERGY CORPORATION

Sharon R. Hamilton
Landman

SRH/jj
Enclosures

P 299 868 589

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

★ U.S.G.P.O. 1985-480-794

PS Form 3800, June 1985

Sent to	
OXY U.S.A., Inc.	
Street and No.	
P.O. State and ZIP Code 79710	
P.O. Box 50250 Midland, TX	
Postage	\$.25
Certified Fee	.85
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	.90
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$ 2.00
Postmark or Date 10-26-90	

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address (Extra charge)
2. ☐ Restricted Delivery (Extra charge)

3. Article Addressed to:

OXY U.S.A., Inc.
P.O. Box 50250
Midland, Texas 79710

4. Article Number

P 299 868 589

Type of Service:

- ☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Address

X

6. Signature — Agent

X

7. Date of Delivery

Oct. 29 1990
K. [Signature]
10/29/90

8. Addressee's Address (ONLY if requested and fee paid)

PS Form 3811, Mar. 1988

★ U.S.G.P.O. 1988-212-865

DOMESTIC RETURN RECEIPT

yates energy corporation

FAX TRANSMITTAL MEMO

DATE: 11-8-90

FAX TO: NAME: Mike Stagner
COMPANY: MMOC

FAX #: 827-5741

FAX FROM: NAME: Shari Hamilton

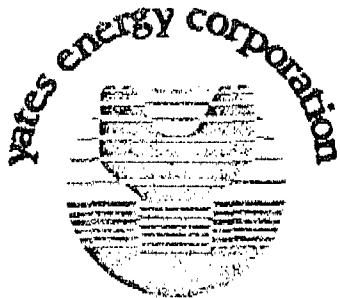
YATES ENERGY CORPORATION
P. O. Box 2323
Roswell, New Mexico 88202-2323
Office # (505) 623-4935

FAX #: (505) 623-4947

TOTAL NUMBER OF PAGES (Including Cover Sheet): 3

COMMENTS: Desert Rose Federal #1
Waiver from off net operator
MSL-2684 A(mC)

Thank you



October 22, 1990

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

Attention: Michael E. Stogner

Re: Desert Rose Federal #1
1740' FSL & 660' FEL
Section 27-23S-23E
Eddy County, NM

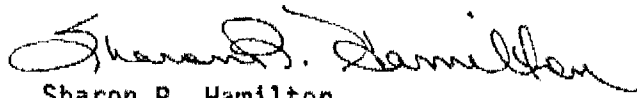
Dear Mr. Stogner:

Pursuant to our telephone conversation October 19, 1990 regarding our request for administrative approval to dual complete the captioned well, enclosed please find the waiver executed by OXY U.S.A., Inc. as the only offset operator. Inasmuch as there are no other offset operators involved, we respectfully request that the OCD waive any waiting period in this matter and if possible grant immediate approval.

Please advise should any additional information be required. Your prompt attention in this matter is greatly appreciated.

Yours very truly,

YATES ENERGY CORPORATION


Sharon R. Hamilton
Landman

SRH/jj
Enclosure

OXY U.S.A., Inc. hereby waives any objection to Yates Energy Corporation dually completing in the Morrow and Strawn formations the Desert Rose Federal #1 Well, located 1740' FSL & 660' FEL (E/2 spacing unit) of Section 27, Township 23 South, Range 23 East, N.M.P.M., Eddy County, New Mexico.

OXY U.S.A., Inc.

By:

Richard E. Foxman

Title:

Regulatory Affairs Engs.

Date:

10-18-90

[illegible]

[illegible]