District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

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APR
OCD - ARTESIA

Form C-101
Revised March 17, 1999

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

[1] Operator Name and Address	[2] OGRID Number
Southwestern Energy Production Company **2350 North Sam Houston Parkway East, Suite 300** **Houston, TX 77031**	148111
	[3] API Number 30 - 015 - 31679

[3] Property Code	[5] Property Name	[6] Well No.
27866	**Big Bluff "31" State Com.**	**1**

[7] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	31	17S	28E		1980	North	1980	West	Eddy

[8] Proposed 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

[9] Proposed Pool 1	[10] Proposed Pool 2
Wildcat;Mississippian	

[11] Work Type Code	[12] Well Type Code	[13] Cable/Rotary	[14] Lease Type Code	[15] Ground Level Elevation
N	O	R	S	3,650'
[16] Multiple	**[17] Proposed Depth**	**[18] Formation**	**[19] Contractor**	**[20] Spud Date**
N	10,050'	Mississippian	UTI	04/15/01

[21] Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
26"	20"		40'	Ready Mix	Surface
17 ¼"	13 3/8"	61#	425'	550	Surface
12 ¼"	8 5/8"	32#	2,000'	935	Surface
7 7/8"	5 ½"	17#	10,050'	860	~~8,000'~~
Cement to 5500 and					

22 Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data c
zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

SEE ATTACHMENT

CEMENT TO COVER ALL OIL, GAS & WATER BERING ZONES

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

Signature: Cathy Rowan

Printed name: Cathy Rowan

Title: Sr. Engineering Technician

Date: April 3, 2001 Phone: 281-618-4733

OIL CONSERVATION DIVISION

Approved by: ORIGINAL SIGNED BY TIM W. GUM
DISTRICT II SUPERVISOR

Approval Date: APR 08 2001 Expiration Date: APR 08 2002

Conditions of Approval:

Attached ☐

GENERAL DRILLING PROGRAM- Attachment to Form C-101

Southwestern Energy Production CompanyBig Bluff "31" State Com. #1
1980' FNL 1980' FWL
Section 31-T17S-R28E
Eddy County, New Mexico

Elevation: 3650' GR Proposed Total Depth: 10,050'

Estimated Formation Tops

Yates	320'
7 Rivers	460'
Queen	1000'
Grayburg	1300'
San Andres 'D'	1784'
Glorieta	3160'
Wolfcamp	6470'
Strawn	8870'
Atoka	9430'
Morrow Lime	9544'
Morrow Clastics	9724'
Missippian	10,040'

Casing/Cement Program

Hole Size	Casing Size/Weight/Grade	Setting Depth	Cement	Est. TOC
	20" Conductor pipe	40'	ready mix	surface
17-1/2"	13-3/8" 61# J-55 ST&C	425'	550 sx 15:85 Poz: Class C + 0.25 pps D29+2% S1+2% D20	surface
12-1/4"	8-5/8" 32# J-55 ST&C	2000'	Lead:700 sx 35:65 Poz: Class C + 6% D20+ 0.25 pps D29 Tail: 235 sx Class C+ 2% S1 +0.25 pps D29	surface
7-7/8"	5-1/2" 17# N-80 LT&C	10,050'	860 sx 50:50 Poz: Class H + 6% D44 +2% D20+0.4% D59	8000'

Drilling Fluids Program

Depth	Mud Weight	Viscosity	Fluid Loss	Comments
0-425'	8.4-8.6	32-34	NC	spud mud
425'-1900'	9.0-9.2	28-29	NC	cut brine water,paper,caustic
1900'-9300'	8.4-9.3	28-29	NC	cut brine,caustic,paper
9300'-10,050'	9.3-9.6	34-38	<15 cc	xantham gum, starch

Blowout Prevention Program- Attachment to Form C-101

0'-425'	None
425'-2000'	13-5/8" 5000# double ram type preventers, 5000# annular preventer and rotating head body. Test all rams choke manifold, kill line upper and lower kelly valves to 3000 psi. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system.
2000'-10,050'	13-5/8" 5000# double ram type preventers, 5000# annular preventer and rotating head body. Test all rams choke manifold, kill line upper and lower kelly valves to 5000 psi. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system.

Any equipment failing to test satisfactorily, will be repaired or replaced. Results of the BOP test will be recorded in the Driller's Log.

The BOP's will be maintained ready for use until drilling operations are completed. BOP drills will be conducted as necessary to assure that equipment is operational and each crew is properly trained to carry out emergency duties.

Accumulator shall maintain a pressure capacity reserve at all times to provide for the close-open-close sequence of the blind and pipe rams of the hydraulic preventers.

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

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

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 15, 2000
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

RECEIVED
OCD - ARTESIA

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name

Property Code	Property Name	Well Number
	BIG BLUFF "31" STATE COM	1

OGRID No.	Operator Name	Elevation
148111	SOUTHWESTERN ENERGY PRODUCTION CO.	3650

Surface Location

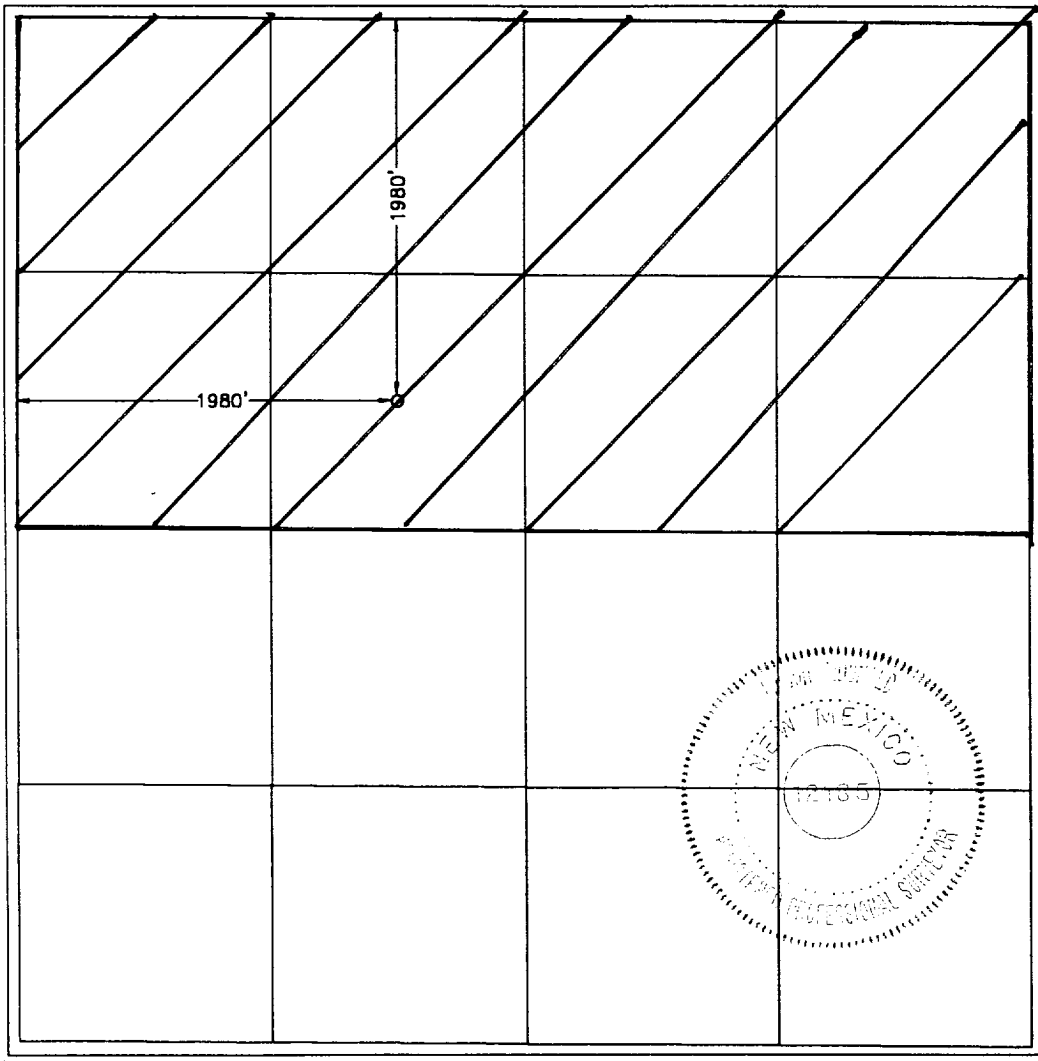
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	31	17 S	28 E		1980	NORTH	1980	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
~~320~~ 327.09			

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

Cathy Rowan
Printed Name

Sr. Engineering Technician
Title

April 3, 2001
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 supervison and that the same is true and correct to the best of my belief.

February 26, 2001
Date Surveyed

M2

Signature & Seal of Professional Surveyor

W.O. Num. 2001-0228-S

Certificate No. MACON McDONALD 12185