

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐

b. TYPE OF WELL

OIL
WELL ☐GAS
WELL ☒

OTHER

SINGLE
ZONE ☐MULTIPLE
ZONE ☒2. NAME OF OPERATOR **AMOCO PRODUCTION COMPANY**
P.O. BOX 3092
HOUSTON , TX 77079

3. ADDRESS AND TELEPHONE NO.

MARY CORLEY
AUTHORIZED REPRESENTATIVEPHONE **281.366.4491**FAX: **281.366.0700**EMAIL: **corleym1@bp.com**

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

At Surface

770FSL AND 2420FEL SWSE SEC 27 T30N R9W

At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM THE NEAREST TOWN OR POST OFFICE

14 MILES FROM AZTEC, NM

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drlg. unit line, if any)

16. NO. ACRES IN LEASE

320.00

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE FT.

19. PROPOSED DEPTH

7245 MD / TVD

17. NO. OF ACRES ASSIGNED

TO THIS WELL

320.00**5/2**

20. ROTARY OR CABLE TOOLS

ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

5840 GL 5836'22. APPROX. DATE WORK WILL START*
04/30/2001

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT

Notice of Staking Submitted 02/26/2001. Amoco Production Company respectfully request permission to drill the subject well to a total depth of approximately 7245', complete in the Basin Dakota Pool, produce the well for approximately 30 days to establish production rate, add the Blanco Mesaverde Pool and commingle production downhole. Application for downhole commingling authority (NMOCD order R-11363) will be submitted to all appropriate parties for approval after production has been established in the Basin Dakota Pool and prior to completion of and downhole commingling with the Blanco Mesaverde. In support of our application for permit to drill we have attached 8 documents (1 .doc and 7 .pdf files).

This action is subject to review and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

ELECTRONIC SUBMISSION #3126 VERIFIED BY THE BLM WELL INFORMATION SYSTEM
FOR AMOCO PRODUCTION COMPANY SENT TO THE FARMINGTON FIELD OFFICESIGNED **MARY CORLEY**TITLE **AUTHORIZED REPRESENTATIVE**DATE **03/21/2001**

PERMIT NO. _____

APPROVAL DATE _____

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY _____

TITLE _____

DATE _____

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

2001 JUN -7 AM 9:19

FORM APPROVED
Budget Bureau No. 1004-0133
Expires: March 31, 1993

5. Lower Designation and Serial No.
SF-078139

6. If Indian, Allottee or Tribe Name
NA

7. If Utah or CA, Agreement Designation
EE Elliott

8. Well Name and No.
EE Elliott B #8M

9. API Well No.

10. Field and Pool, or Exploratory Area
San Juan Basin

11. County or Parish, State
San Juan County, NM

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reenter to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator
BP Amoco Production Company

3. Address and Telephone No.
200 Amoco Court, Farmington, NM 87401 5-5-326-9200

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
730' FSL, 2415' FWL, Sec 27, T30N, R9W

12. CHECK APPROPRIATE BOX(es) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Accomplishment	<input checked="" type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Other	<input type="checkbox"/> Dispose Water

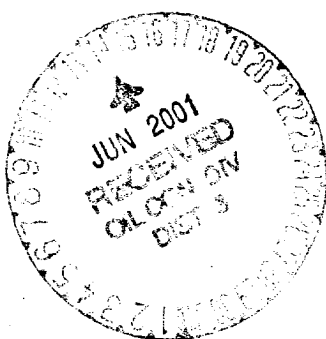
(Note: Report results of multiple completion on Well Completion or Accomplishment Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent data, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

This well was staked in a 1/4 section with an existing Dakota Well.

The well site is now staked in a 1/4 section that does not have a Dakota Well.

Request to move the EE Elliott B #8M Well site from 77' FSL & 2420' FEL to 730' FSL & 2415 FWL, Section 27, T30N, R9W.



14. I hereby certify that the foregoing is true and correct

Signed [Signature] Title CONTRACT AGENT Date 6-6-2001

(This space for Federal or State office use)

Approved by [Signature] Title _____ Date JUN 13

Conditions of approval, if any:

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

Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-30608	² Pool Code 71599	³ Pool Name Basin DAKOTA
⁴ Property Code 000470	⁵ Property Name E. E. Elliott B	⁶ Well Number # 8M
⁷ OGRID No. 000778	⁸ Operator Name AMOCO PRODUCTION COMPANY	⁹ Elevation 5836

¹⁰ Surface Location

UL or Lot No. N	Section 27	Township 30 N	Range 9 W	Lot Idn	Feet from the 730	North/South line SOUTH	Feet from the 2415	East/West line WEST	County SAN JUAN
---------------------------	----------------------	-------------------------	---------------------	---------	-----------------------------	----------------------------------	------------------------------	-------------------------------	---------------------------

¹¹ Bottom Hole Location If Different From Surface

⁷ UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
----------------------------	---------	----------	-------	---------	---------------	------------------	---------------	----------------	--------

¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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

¹⁶	^{5219(R)}	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature <i>Mary Corley</i> Printed Name MARY CORLEY Title Sr. Regulatory Analyst Date 6-18-2001					
27	660'	660'	660'	660'	2415'	730'	¹⁸ 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. May 4, 2001 Date of Survey Signature and Seal of Professional Surveyor GARY D. VANN NEW MEXICO REGISTERED PROFESSIONAL LAND SURVEYOR 7016 Certificate Number

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer KK, Artesia, NM 87211-0719
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-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-30608		² Pool Code 72319		³ Pool Name BLANCO MESA VERDE	
⁴ Property Code 000470		⁵ Property Name E. E. Elliott B			⁶ Well Number # 8M
⁷ OGRID No. 000778		⁸ Operator Name AMOCO PRODUCTION COMPANY			⁹ Elevation 5836

¹⁰ Surface Location

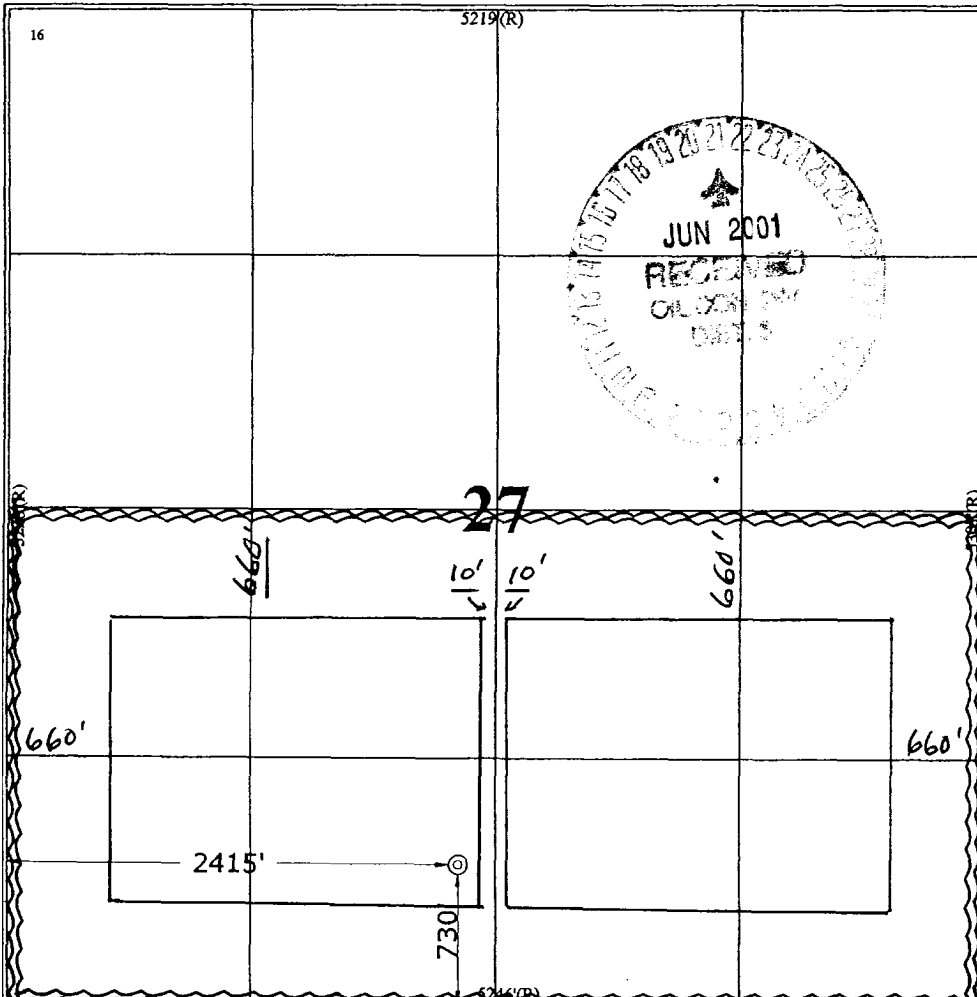
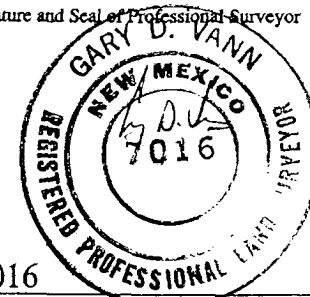
UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	27	30 N	9 W		730	SOUTH	2415	WEST	SAN JUAN

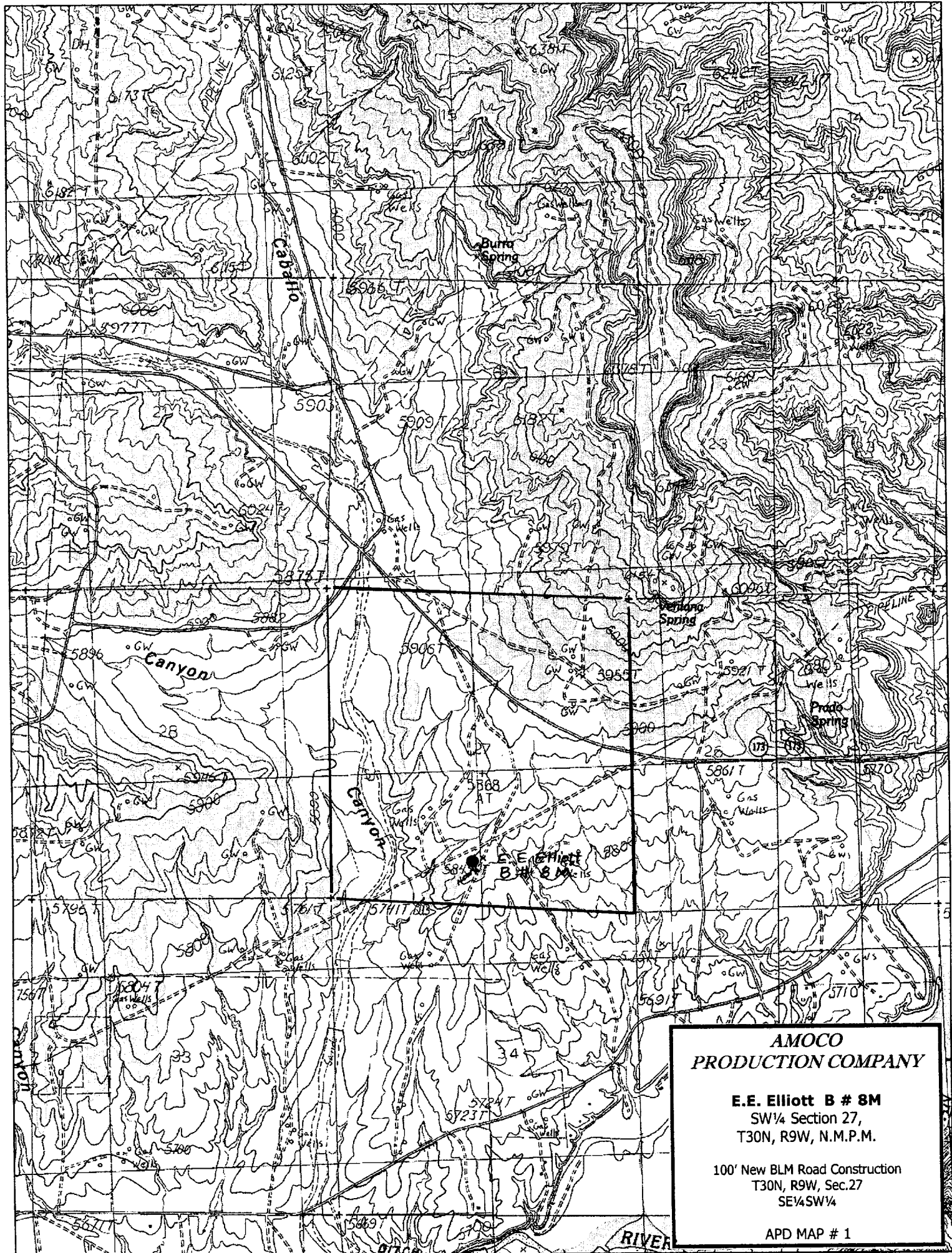
¹¹ Bottom Hole Location If Different From Surface

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

¹² Dedicated Acres 320.	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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

<div><p>16</p><p>5219(R)</p></div>	<div><p>¹⁷ OPERATOR CERTIFICATION</p><p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p><p><i>Mary Conley</i> Signature Mary Conley Printed Name Sr. Regulatory Analyst Title 06-18-2001 Date</p></div>
	<div><p>¹⁸ SURVEYOR CERTIFICATION</p><p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p><p>May 4, 2001 Date of Survey Signature and Seal of Professional Surveyor  7016 Certificate Number</p></div>



**AMOCO PRODUCTION COMPANY
DRILLING AND COMPLETION PROGRAM**

Prospect Name: E.E. Elliott B	Well No: 8M
Lease: E.E. ELLIOTT B	Surface Location: 27-30N-9W, 770 FSL, 2420 FEL
County: San Juan	Field: Blanco Mesaverde/Basin Dakota
State: New Mexico	
Date: March 21, 2001	

OBJECTIVE: Drill 400' below the base of the Greenhorn Limestone, set 4" Liner across Dakota, Stimulate LS, CH, MF, PL and DK intervals							
METHOD OF DRILLING				APPROXIMATE DEPTHS OF GEOLOGICAL MARKER			
TYPE OF TOOLS		DEPTH OF DRILLING		Estimated GL: 5840		Estimated KB: 5854	
Rotary		0 - TD					
LOG PROGRAM				MARKER			
TYPE		DEPTH INVERAL				SUBSEA	
<u>OPEN HOLE</u>							
GR-Induction		TD to 5 1/2" shoe				4488	
Density/Neutron		TD to 5 1/2" shoe				3843	
Sonic		TD to 5 1/2" shoe				3298	
<u>CASED HOLE</u>						3253	
GR-CCL-TDT		TDT - PBTD-7 5/8" shoe				1684	
		GR-CCL - PBTD-0'				1505	
CBL		Top of 4" - 50' above 7 5/8 "shoe				1073	
						922	
						-940	
						-991	
						-1032	
						-1182	
						-1292	
						-1342	
						7245	
REMARKS:							
- Please report any flares (magnitude & duration).							
SPECIAL TESTS				DRILL CUTTING SAMPLES		DRILLING TIME	
TYPE				FREQUENCY DEPTH		FREQUENCY DEPTH	
None				10 feet Production hole		Geolograph 0-TD	
REMARKS:							
MUD PROGRAM:							
Approx. Interval		Type Mud	Weight, #/gal	Vis, sec/qt	W/L cc's/30 min	Other Specification	
0 - 120-135	3 jts.	Spud	8.6-9.2				
120-135 - 1961	(1)(2)	Water/LSND	8.6-9.2				
1961 - 6845		Gas/Air/Mist	Volume sufficient to maintain a stable and clean wellbore				
6845 - 7245		LSND	8.6-9.2				
REMARKS:							
(1) The hole will require sweeps to keep unloaded while fresh water drilling. Let hole conditions dictate frequency.							
(2) Top set Fruitland Coal to minimize lost circulation, air volume to maintain hole stability.							
CASING PROGRAM: (Normally, tubular goods allocation letter specifies casing sizes to be used. Hole sizes will be governed by Contract)							
Casing String	Estimated Depth	Casing Size	Grade	Weight	Hole Size	Landing Pt, Cmt, Etc.	
Surface/Conductor	120-135	10 3/4"	J-55 ST&C	40.5#	14.75"	1	
Intermediate 1	1961	7 5/8"	K-55 LT&C	26.4#	9.875"	1,2	
Intermediate 2	6845	5 1/2"	K-55 LT&C	15.5#	6.75"	4	
Production (liner)	7245	4"	K-55 H 511	11#	4.75"	3	
REMARKS:							
(1) Circulate Cement to Surface							
(2) Set casing 50' above Fruitland Coal							
(3) Liner Lap should be a minimum of 100'							
(4) Bring cement 200' above 7 5/8" shoe							
CORING PROGRAM:							
None							
COMPLETION PROGRAM:							
Rigless, 4-6 Stage Limited Entry Hydraulic Frac							
GENERAL REMARKS:							
Notify BLM/NMOCD 24 hours prior to Spud, BOP testing, and Casing and Cementing.							
Form 46 Reviewed by:				Logging program reviewed by: N/A			
PREPARED BY:		APPROVED:		DATE:			
KAS/KAT				March 2, 2001			
Form 46 12-00 KAT				Version 1.0			

Cementing Program: E. E. Elliott B 8M

	Surface	Intermediate	I2	Liner
Excess %, Bit	100%	80	50	10
Excess %, Caliper	NA	NA	NA	30
BHST (est deg. F)	60	120	150	160
Pipe Movement	NA	Rotate/Reciprocate	Rotate/Reciprocate	as per Liner Co.
Rate, Max (bpm)	7	4	4	2
Rate Recommended (bpm)	6	4	3	2
Pressure, Max (psi)	200	2000	2000	2000
Shoe Joint	40	80	80	40
Batch Mix	NA	NA	NA	NA
Circulating prior cmtng (hr)	0.5	1.5	2.5	2
Time Between Stages, (hr)	NA	NA	NA	NA
Special Instructions	1,6,7	1,6,8	1,6,9	2,3,4,6

1. Do not wash pumps and lines.
2. Wash pumps and lines.
3. Reverse out
4. Run Blend Test on Cement
5. Record Rate, Pressure, and Density on 3.5" disk
6. Confirm densitometer with pressurized mud scales
7. 1" cement to surface if cement is not circulated.
8. If cement is not circulated to surface, run temp. survey 10-12 hr. after landing plug.

Notes:

*Do not wash up on top of plug. Wash lines before displacing liner cement job to minimize drillout.

** After cement set time the liner top will be drilled out and liner circulated clean with treated water.

*** Run TMD cased hole logs to identify pay; Perforating and CH logs can be run rigless.

Surface:

Preflush	20 bbl.	FreshWater	
Slurry 1	120sx Class G Cement		139cuft
TOC@Surface	+ 2% CaCl ₂ (accelerator)		
	0.25 #/sk Cellophane Flake (lost circulation additive)		0.5563cuft/ft OH
	0.1% D46 antifoam		100% excess
Slurry Properties:	Density	Yield	Water
	(lb/gal)	(ft ³ /sk)	(gal/sk)
Slurry 1	15.8	1.16	4.95
Casing Equipment:	10-3/4", 8R, ST&C		
	1 Guide Shoe		
	1 Top Wooden Plug		
	1 Autofill insert float valve		
	4 Centralizers		
	1 Stop Ring		
	1 Thread Lock Compound		

Intermediate:

Fresh Water	20 bbl	fresh water	
Lead		188sx Class "G" Cement	546 cuft
Slurry 1		+ 3% D79 extender	
TOC@Surface		+ 2% S1 Calcium Chloride	
		+1/4 #/sk. Cellophane Flake	
		+ 0.1% D46 antifoam'	
Tail		152sx 50/50 Class "G"/Poz	193cuft
Slurry 2		+ 2% gel (extender)	
500ft fill		0.1% D46 antifoam	0.2148 cuft/ft OH
		+1/4 #/sk. Cellophane Flake	0.2338 cuft/ft csg ann
		+ 2% CaCl2 (accelerator)	80 % excess

Slurry Properties:	Density (lb/gal)	Yield (ft3/sk)	Water (gal/sk)
Slurry 1	11.4	2.9	17.77
Slurry 2	13.5	1.27	5.72

Casing Equipment:

7-5/8", 8R, ST&C

1 Float Shoe (autofill with minimal LCM in mud)

1 Float Collar (autofill with minimal LCM in mud)

1 Stop Ring

9 Centralizers (one in middle of first joint, then every third collar)

2 Fluidmaster vane centralizers @ base of Ojo

8 Centralizers one every 4th joint from Ojo to base of surface casing

1 Top Rubber Plug

1 Thread Lock Compound

Int 2:

Fresh Water	10 bbl	CW100	
Lead		467 LiteCrete D961 / D124 / D154	1000cuft
Slurry 1		+ 0.03 gps D47 antifoam	
TOC@Surface		+ 0.5% D112 fluid loss	
		+ 0.11% D65 TIC	
Tail		80sx 50/50 Class "G"/Poz	115cuft
Slurry 2		+ 5% D20 gel (extender)	+ 5 #/sk D24 gilsonite
500ft fill		+ 0.1% D46 antifoam	+ 0.15% D65 TIC
		+ 1/4 #/sk. Cellophane Flake	+ 0.1% D800 retarder
		+ 0.25% D167 Fluid Loss	
			0.1521 cuft/ft OH

Slurry Properties:	Density (lb/gal)	Yield (ft3/sk)	Water (gal/sk)	50 % excess
Slurry 1	9.5	2.14	6.38	
Slurry 2	13	1.44	6.5	0.0999 cuft/ft csg ann

Casing Equipment:

5-1/2", 8R, ST&C

1 Float Shoe (autofill with minimal LCM in mud)

1 Float Collar (autofill with minimal LCM in mud)

1 Stop Ring

35 Centralizers (every third joint)

1 Top Rubber Plug

1 Thread Lock Compound

Cementing Program: E. E. Elliott B 8M

Production (liner):

Preflush	10 bbl.	CW100 / LCM wash	
Lead Cement		2350/50 Poz/G	34 cuft
Slurry 1		5% D20 bentonite	0.1% D46 antifoam
	100ft lap	0.25#/sk D29 cellophane	
	100ft cap	0.25% D167 Fluid loss	0.0358 cuft/ft OH
		0.15% D65 TIC	0.0464 cuft/ft csg ann
		0.15% D800 retarder	0.1336 cuft/ft csg

Slurry Properties:

Density		Water	10% excess
(lb/gal)	(ft ³ /sk)	(gal/sk)	
Slurry 1	13	1.44	6.5

Liner Float Equipment:

Float Shoe and Float Collar (furnished by Liner Hanger Company)
1 Thread Lock Compound

Note:

1. Coordinate w/Liner hand to drop plug, or set/release Liner as required
2. The job should be pumped at 2-3 bpm max rate. Do not exceed 3 bpm on displacement
3. Wash pump and lines before displacement. Slow to 1 bpm for the last 30 bbl of displacement.
4. This is to be a rigless completion. After cement set time, liner top will be dressed off an liner circulated clean with 2 % KCl or 2 gal/1000 gal L64.

FEDERAL CEMENTING REQUIREMENTS

1. All permeable zones containing fresh water and other usable water containing 10,000 PPM or less total dissolved solids will be isolated and protected from contamination by cement circulated in place for the protection of permeable zones per the NTL-FRA 90-1 Section III A.
2. The hole size will be no smaller than 1 ½" larger diameter than the casing O.D. across all water zones.
3. An adequate spacer will be pumped ahead of the cement slurry to help prevent mud contamination of the cement.
4. An adequate number of casing centralizers will be run through usable water zones to ensure that the casing is centralized through these zones. The adequate number of centralizers to use will be determined by API SPEC 10D.
5. Centralizers will impart a swirling action around the casing and will be used just below and into the base of the lowest usable water zone.
6. A chronological log will be kept recording the pump and slurry information and will be sent to the BLM with the subsequent sundry.

Amoco Production Company
BOP Pressure Testing Requirements

Well Name: E. E. Elliott B 8M

County: San Juan

State: New Mexico

Formation	TVD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	1366		
Fruitland Coal	2011		
PC	2556		
Lewis Shale	2601		
Cliff House	4170	500	0
Menefee Shale	4349		
Point Lookout	4782	600	0
Mancos	4933		
Dakota	6886	2600	1515

** Note: Determined using the following formula: $ABHP - (.22 * TVD) = ASP$

Requested BOP Pressure Test Exception: 3000 PSI

SAN JUAN BASIN
Dakota Formation
Pressure Control Equipment

Background

The objective Dakota formation maximum surface pressure is anticipated to be less than 1000 PSI, based on shut-in surface pressures from adjacent wells. Pressure control equipment working pressure minimum requirements are therefore 2000 PSI. Equipment to be used will conform to API RP-53 (Figure 2.C.2) for a 2000 PSI system per Federal Onshore Order No. 2. Due to available conventional equipment within the area, 3000 PSI rated pressure control equipment will typically be utilized in a double ram type arrangement. Regional drilling rights to be utilized have substructure height limitations which exclude the use of annular preventers; therefore a rotating head will be installed above these rams. This pressure control equipment will be utilized for conventional drilling below conductor to total depth in the Basin Dakota. No abnormal temperature, pressure, or H2S anticipated.

Equipment Specification

Interval

BOP Equipment

Below conductor casing to total depth

11" nominal or 7 1/16", 3000 PSI
double ram preventer with rotating
head.

All ram type preventers and related control equipment will be hydraulically tested to 250 PSI (low pressure) and 2000 PSI (high pressure), upon installation, following any repairs or equipment replacements, or at 30 day intervals. Accessories to BOP equipment will include kelly cock, upper kelly cock with a handle available, floor safety valves and choke manifold which will also be tested to equivalent pressure.