

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO SANTA FE, NEW MEXICO 87505 (505) 827-7131

March 27, 1996

Amoco Production Company Southern Rockies Business Unit P. O. Box 800 Denver, Colorado 80201 Attention: J. W. Hawkins

Administrative Order DD-136

Dear Mr. Hawkins:

Reference is made to Amoco Production Company's application dated February 7, 1996 for authorization to recomplete the existing Atlantic A "LS" Well No. 3 (API No. 30-045-10242) by side tracking off of the vertical portion of the wellbore and drill a high angle slant hole to a pre-determined bottom-hole location in order to further develop the Blanco-Mesaverde Pool underlying its existing 317.80-acre non-standard gas spacing and proration unit ("GPU") comprising Lots 3, 4, 5, 6, 11, 12, 13, and 14 (W/2 equivalent) of Section 28, Township 31 North, Range 10 West, NMPM, San Juan County, New Mexico.

The Division Director Finds That:

- (1) The 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 Atlantic A "LS" Well No. 3, located at a standard gas well location 790 feet from the South line and 990 feet from the West line (Lot 13/Unit M) of said Section 28, was originally drilled and completed in 1953 as an initial Blanco-Mesaverde gas well, and was assigned the above-described 317.80-acre GPU;
- (3) By Order No. R-8170, as amended, the Division promulgated the "General Rules For The Prorated Gas Pools of New Mexico/Special Rules and Regulations For The Blanco-Mesaverde Pool", which includes provisions for 320-acre gas spacing and proration units and well location requirements whereby the initial well drilled on a GPU shall be located be no closer than 790 feet to the outer boundary of the quarter section on which the well is located and not closer than 130 feet to any quarter-quarter section line or subdivision inner boundary and the infill well drilled on an existing GPU shall be in the quarter section not containing a Mesaverde gas well and shall be located with respect to the restrictions as previously described;

- Within this GPU Amoco is also producing Blanco-Mesaverde gas from its Atlantic A "LS" Well No. 3-A (API No. 30-045-22507), located at a standard infill gas well location 1150 feet from the North line and 1500 feet from the West line (Lot 3\Unit C) of said Section 28;
- (5) A high angle slant hole drilled off of the existing vertical wellbore in the Atlantic A "LS" Well No. 3 as proposed should provide Amoco a better opportunity to encounter the naturally occurring fracture system in the Mesaverde formation, which should result in a higher production rate and an increased ultimate recovery of gas from this well;
- (6) The applicant/operator proposes to kick-off from vertical at a depth of approximately 3,400 feet by milling a window in the existing production casing, drill in a northeasterly direction, build to an angle of approximately 27 degrees and continue drilling in such a manner as to bottom back into the Blanco-Mesaverde Pool, with total horizontal displacement of said wellbore to be approximately 750 feet;
- (7) The applicable drilling window or "producing area" for said wellbore should include that area within the SW/4 equivalent of said Section 28 that is no closer than 790 feet to the quarter section lines; and,
- (8) It appearing 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 applicant, Amoco Production Company, is hereby authorized to recomplete its existing Atlantic A "LS" Well No. 3 (API No. 30-045-10242), located at a standard gas well location 790 feet from the South line and 990 feet from the West line (Lot 13/Unit M) of Section 28, Township 31 North, Range 10 West, NMPM, San Juan County, New Mexico, by milling a window in the existing production casing at a depth of approximately 3,400 feet, kick-off from vertical in a northeasterly direction, build to an angle of approximately 27 degrees and continue drilling in such a manner as to bottom back into the Blanco-Mesaverde Pool (total horizontal displacement of said wellbore to be approximately 750 feet) within a drilling window or "producing area" comprising the SW/4 equivalent of said Section 28 that is no closer than 790 feet to the quarter section lines.

<u>PROVIDED HOWEVER THAT</u> 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 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 Aztec 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 Aztec offices of the Division upon completion.
- (3) Blanco-Mesaverde gas production from both the existing Atlantic A "LS" Well No. 3-A (API No. 30-045-22507), located at a standard infill gas well location 1150 feet from the North line and 1500 feet from the West line (Lot 3/Unit C) of said Section 28, and Atlantic A "LS" Well No. 3, as described above, shall be attributed to the existing 317.80-acre non-standard gas spacing and proration unit ("GPU") comprising Lots 3, 4, 5, 6, 11, 12, 13, and 14 (W/2 equivalent) of said Section 28.
- (4) 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 Order No. R-8170, as amended.
- (5) Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depth in addition to measured depths.
- (6) 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

WJL/MES/kv

cc: Oil Conservation Division - Aztec

U. S. Bureau of Land Management - Farmington

OD-BMOC. 10

Rec. 2-12-96 Susp. 3-4-96 Released 3-26-96

March 26, 1996

Amoco Production Company Southern Rockies Business Unit P. O. Box 800 Denver, Colorado 80201

Attention: J. W. Hawkins

136

Administrative Order DD-*****

Dear Mr. Hawkins:

Reference is made to Amoco Production Company's application dated February 7, 1996 for authorization to recomplete the existing Atlantic A "LS" Well No. 3 (API No. 30-045-10242) by side tracking off of the vertical portion of the wellbore and drill a high angle slant hole to a pre-determined bottom-hole location in order to further develop the Blanco-Mesaverde Pool underlying its existing 317.80-acre non-standard gas spacing and proration unit ("GPU") comprising Lots 3, 4, 5, 6, 11, 12, 13, and 14 (W/2 equivalent) of Section 28, Township 31 North, Range 10 West, NMPM, San Juan County, New Mexico.

The Division Director Finds That:

- (1) The 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 Atlantic A "LS" Well No. 3, located at a standard gas well location 790 feet from the South line and 990 feet from the West line (Lot 13/Unit M) of said Section 28, was originally drilled and completed in 1953 as an initial Blanco-Mesaverde gas well, and was assigned the above-described 317.80-acre GPU;
- (3) By Order No. R-8170, as amended, the Division promulgated the "General Rules For The Prorated Gas Pools of New Mexico/Special Rules and Regulations For The Blanco-Mesaverde Pool", which includes provisions for 320-acre gas spacing and proration units and well location requirements whereby the initial well drilled on a GPU shall be located be no closer than 790 feet to the outer boundary of the quarter section on which the well is located and not closer than 130 feet to any quarter-quarter section line or subdivision inner boundary and the infill well drilled on an existing GPU shall be in the quarter section not containing a Mesaverde gas well and shall be located with respect to the restrictions as previously described;

2.

- (4) Within this GPU Amoco is also producing Blanco-Mesaverde gas from its Atlantic A "LS" Well No. 3-A (API No. 30-045-22507), located at a standard infill gas well location 1150 feet from the North line and 1500 feet from the West line (Lot 3\Unit C) of said Section 28;
- (5) A high angle slant hole drilled off of the existing vertical wellbore in the Atlantic A "LS" Well No. 3 as proposed should provide Amoco a better opportunity to encounter the naturally occurring fracture system in the Mesaverde formation, which should result in a higher production rate and an increased ultimate recovery of gas from this well;
- (6) The applicant/operator proposes to kick-off from vertical at a depth of approximately 3,400 feet by milling a window in the existing production casing, drill in a northeasterly direction, build to an angle of approximately 27 degrees and continue drilling in such a manner as to bottom back into the Blanco-Mesaverde Pool, with total horizontal displacement of said wellbore to be approximately 750 feet;
- (7) The applicable drilling window or "producing area" for said wellbore should include that area within the SW/4 equivalent of said Section 28 that is no closer than 790 feet to the quarter section lines; and,
- (8) It appearing 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 applicant, Amoco Production Company, is hereby authorized to recomplete its existing Atlantic A "LS" Well No. 3 (API No. 30-045-10242), located at a standard gas well location 790 feet from the South line and 990 feet from the West line (Lot 13/Unit M) of Section 28, Township 31 North, Range 10 West, NMPM, San Juan County, New Mexico, by milling a window in the existing production casing at a depth of approximately 3,400 feet, kick-off from vertical in a northeasterly direction, build to an angle of approximately 27 degrees and continue drilling in such a manner as to bottom back into the Blanco-Mesaverde Pool (total horizontal displacement of said wellbore to be approximately 750 feet) within a drilling window or "producing area" comprising the SW/4 equivalent of said Section 28 that is no closer than 790 feet to the quarter section lines.

Administrative Order DD-****
Amoco Production Company
March 26, 1996
Page No. 3

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.

<u>PROVIDED FURTHER THAT</u> during or upon completion of 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 Aztec 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 Aztec offices of the Division upon completion.
- (3) Blanco-Mesaverde gas production from both the existing Atlantic A "LS" Well No. 3-A (API No. 30-045-22507), located at a standard infill gas well location 1150 feet from the North line and 1500 feet from the West line (Lot 3/Unit C) of said Section 28, and Atlantic A "LS" Well No. 3, as described above, shall be attributed to the existing 317.80-acre non-standard gas spacing and proration unit ("GPU") comprising Lots 3, 4, 5, 6, 11, 12, 13, and 14 (W/2 equivalent) of said Section 28.
- (4) 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 Order No. R-8170, as amended.
- (5) Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depth in addition to measured depths.
- (6) 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

Administrative Order DD-****
Amoco Production Company
March 26, 1996
Page No. 4

WJL/MES/kv

cc: Oil Conservation Division - Aztec
U. S. Bureau of Land Management - Farmington

THE STATE OF THE S

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO SANTA FE, NEW MEXICO 87505 (505) 827-7131

July 30, 1996

Amoco Production Company P. O. Box 800 Denver, Colorado 80201 Attention: J. W. Hawkins

AMENDED Administrative Order DD-136(NSBHL)

Dear Mr. Hawkins:

By Division Administrative Order DD-136, dated March 27, 1996, authorization was given Amoco Production Company ("Amoco") to directionally drill its Atlantic A "LS" Well No. 3 (API No. 30-045-10242) from a standard surface gas well location 790 feet from the South line and 990 feet from the West line (Lot 13/Unit M) of said Section 28, Township 31 North, Range 10 West, NMPM, San Juan County, New Mexico, to a standard bottom-hole gas well location in the Blanco-Mesaverde Pool within a drilling window or "producing area" comprising the SW/4 equivalent of said Section 28 that is no closer than 790 feet to the quarter section lines.

Reference is now made to your letter with attachments dated July 1, 1996, whereby an amendment should be issued in this order to accurately reflect the actual bottom-hole location of this wellbore as being unorthodox.

The Division Director Finds That:

- (1) This application was originally approved under the provisions of General Rule 111.D and Rule 2(c) of the "General Rules For The Prorated Gas Pools of New Mexico/Special Rules and Regulations For The Blanco-Mesaverde Pool",;
- (2) This amendment has been duly filed under the provisions of Division General Rules 111.D and 111.E and said Special Rule 2(c); and,
- (3) Amoco owns all affected offsetting 320-acre, more or less, tracts to the captioned well, no notification was therefore required.

AMENDED Administrative Order DD-136(NSBHL) Amoco Production Company July 30, 1996 Page No. 2

IT IS THEREFORE ORDERED THAT:

- (1) Division Administrative Order DD-136 is hereby amended to properly reflect the actual bottomhole location for said Atlantic A "LS" Well No. 3 within the Blanco-Mesaverde Pool to be, more or less, 682 feet from the South line and 1534 feet from the West line (Lot 14/Unit N) of Section 28, Township 31 North, Range 10 West, NMPM, San Juan County, New Mexico.
- (2) All other provisions of said Order DD-136, dated March 27, 1996, not in conflict with this change shall remain in full force and effect until further notice.
- (3) 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

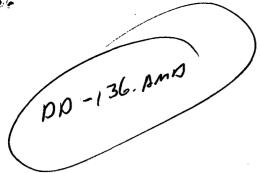
WJL/MES/kv

 μ^{γ} cc: Oil Conservation Division - Aztec

U. S. Bureau of Land Management - Farmington

File: DD-136





Rue. 7-3-96 Susp: NA Released: 7-30-96

July 30, 1996

Amoco Production Company P. O. Box 800 Denver, Colorado 80201

Attention: J. W. Hawkins

AMENDED Administrative Order DD-136(NSBHL)

Dear Mr. Hawkins:

By Division Administrative Order DD-136, dated March 27, 1996, authorization was given Amoco Production Company ("Amoco") to directionally drill its Atlantic A "LS" Well No. 3 (API No. 30-045-10242) from a standard surface gas well location 790 feet from the South line and 990 feet from the West line (Lot 13/Unit M) of said Section 28, Township 31 North, Range 10 West, NMPM, San Juan County, New Mexico, to a standard bottom-hole gas well location in the Blanco-Mesaverde Pool within a drilling window or "producing area" comprising the SW/4 equivalent of said Section 28 that is no closer than 790 feet to the quarter section lines.

Reference is now made to your letter with attachments dated July 1, 1996, whereby an amendment should be issued in this order to accurately reflect the actual bottom-hole location of this wellbored's being wnorthodox

The Division Director Finds That:

- (1) This application was originally approved under the provisions of General Rule
 111 D and Rule 2(c) of the "General Rules For The Prorated Gas Pools of New
 Mexico/Special Rules and Regulations For The Blanco-Mesaverde Pool",;
- (2) This amendment has been duly filed under the provisions of Division General Rules 111.D and 111.E and said Special Rule 2(c); and,
- (3) Amoco owns all affected offsetting 320-acre, more or less, tracts to the captioned well, no notification was therefore required.



AMENDED Administrative Order DD-136(NSBHL) Amoco Production Company July 30, 1996 Page No. 2

IT IS THEREFORE ORDERED THAT:

- (1) Division Administrative Order DD-136 is hereby amended to properly reflect the actual bottomhole location for said Atlantic A "LS" Well No. 3 within the Blanco-Mesaverde Pool to be, more or less, 682 feet from the South line and 1534 feet from the West line (Lot 14/Unit N) of Section 28, Township 31 North, Range 10 West, NMPM, San Juan County, New Mexico.
- (2) All other provisions of said Order DD-136, dated March 27, 1996, not in conflict with this change shall remain in full force and effect until further notice.
- (3) 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

WJL/MES/kv

cc: Oil Conservation Division - Aztec

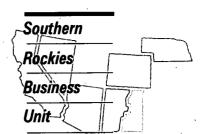
U. S. Bureau of Land Management - Farmington

File: DD-136



OIL CONSERVATION DIVISION RECEIVED

'96 JUL' 3 AM 8 52



July 1, 1996

Mr. William J. LeMay, Director New Mexico Oil Conservation Division 2040 S. Pacheco Street Santa Fe, NM 87505

Application for Unorthodox Location Atlantic A LS #3 Well W/2 Section 28-T31N-R10W Blanco Mesaverde Pool San Juan County, New Mexico

Amoco Production Company hereby requests administrative approval for an unorthodox location for the Atlantic A LS #3 well. This well was recently directionally drilled as a high angle well in the Blanco Mesaverde Pool as approved under NMOCD Administrative Order DD-136. The Atlantic A LS #3 well was drilled from a surface location of 790' FSL and 990' FWL of Section 28, T31N-R10W to a bottomhole location of 682' FSL and 1534 FWL. The Project Area for this well is the Blanco Mesaverde gas proration unit consisting of W/2 Section 28-T31N-R10W with the Producing Area for the well to consist of a rectangle in the SW/4 equivalent of Section 28 that is not closer than 790' from the outer boundaries of the quarter section. Since the bottom portion of the wellbore is closer than 790' to the boundary of the quarter section, approval for the unorthodox location is required.

To aid in your review are:

- 1) a plat showing the well location, project area and producing area for the project well and the offset spacing units, their wells and operators;
- 2) a form C-102 showing surface and bottomhole locations of the well;
- 3) a direction survey for the wellbore.

Amoco is the only affected offset operator, therefore, no additional notice will be required.

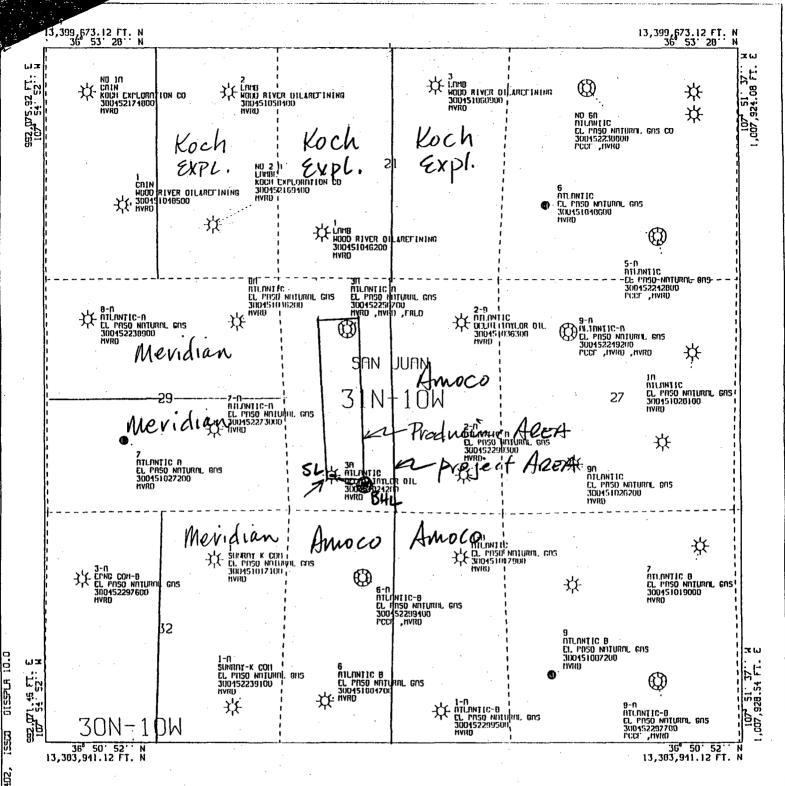
Sincerely,

J. W. Hawkins

cc: Mike Kutas

Patty Haefele

Frank Chavez, Supervisor NMOCD District III 1000 Rio Brazos Road Aztec, NM 87410



All geological and geophysical data, including the interpretation thereof, appearing on this map is the private and confidential property of Amoco Production Company. The publication or reproduction thereof without the written permission of said Company is strictly prohibited.

POLYCONIC CENTRAL MERIDIAN - 107° 53' 15' H LON SPHEROID - 6

AMOCO PRODUCTION COMPANY
PLAT MAP
Atlantic A LS 3
Mesaverde

SCALE 1 IN. = 2,000 FT. FEB 7, 1996

District d PO Box 1980, Hobbs, NM 88241-1980 District II 811 South First, Artesia, NM 88210 District III

1600 Rio Brazos Rd., Aziec, NM 87410

2040 South Pacheco, Santa Fe, NM 87505

District IV

State of New Mexico Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION 2040 South Pacheco Santa Fe, NM 87505 Form C-102
Revised October 18, 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

API Number		¹ Pool Code	¹ Pool Code ¹ Pool Name			
30-045-10242		72319	Blanco Mesaverde			
⁴ Property Code		•	* Well Number			
000281	Atlant	ic A LS	ic A LS			
'OGRID No.		•	* Elevation			
000778	Amoco	Production Compan				

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
М	28	31N	10W		790	South	990	West	San Juan

11 Bottom Hole Location If Different From Surface

UL or lot so.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	28	31N	10W		682	South	1534	West	San Juan
" Dedicated Acr	12 Dedicated Acres 13 Joint or Infill 14 Consolidation Code 15 Order No.								
320				[•

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			17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief
			Signature Party Haefele Printed Name Staff Assistant Title 5/17/96 Date
			18SURVEYOR 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. Date of Survey
990' 153	4' @ BHL (182'		Signature and Seal of Professional Surveyer: on file

Atlantic A LS #3 - Sidetrack

Section 2, T31N, R10W

Calculated Survey Data

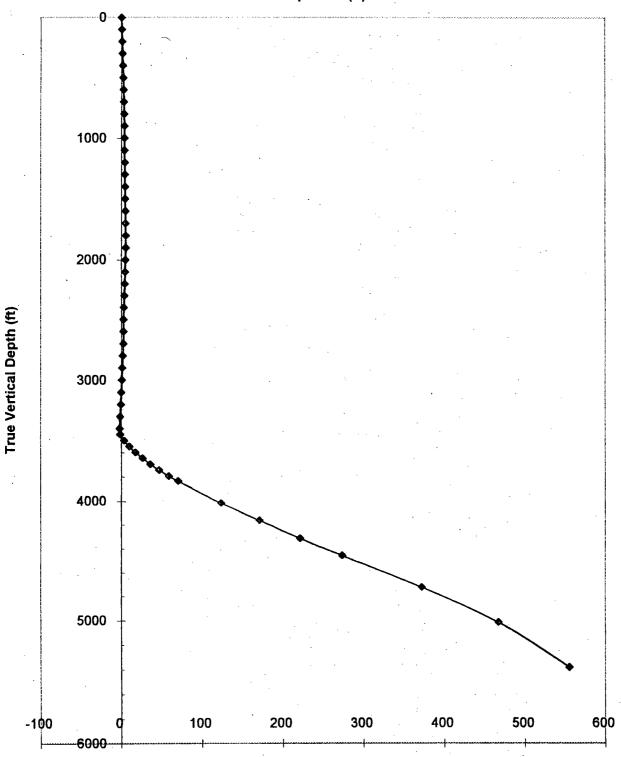
M. Depth	Angle	Azimeth	TVD	N/S	E/W	VSECT	DIST	DIR	DOG LEG
0	0	0	. 0	0	0	0	0	0	0
100	0.72	160.48	100	-0.59	0.21	0.32	1	160	0.7
200	0.36	148.65	199.99	-1.44	0.61	0.88	2	157	0.4
300	0.42	165.94	299.99	-2.07	0.88	1.26	2	157	0.1
400	0.31	162.53	399.99	-2.68	1.05	1.54	3	159	0.1
500	0.4	149.63	499.99	-3.25	1.3	1.9	3	158	0.1
600	0.32	161.54	599.98	-3.82	1.56	2.26	4	158	0.1
700	0.31	145.08	699.98	-4.3	1.8	2.59	5	157	0.1
800	0.29	145.21	799.98	-4.74	2.11	2.97	5	· 156	0
900	0.24	146.38	899.98	-5.12	2.37	3.3	- 6	155	0.1
1000	0.25	170.39	999.98	-5.53	2.53	3.54	6	155	0.1
1100	0.14	166.18	1099.98	-5.87	2.6	3.67	6	156	0.1
1200	0.31	168.2	1199.98	-6.25	2.69	3.83	7	157	0.2
1300	0.3	175.06	1299.98	-6.79	2.77	4.01	- 7	158	0
1400	0.25	173.33	1399.98	-7.27	2.81	4.15	8	159	0.1
1500	0.11	113.31	1499.98	-7.51	2.99	4.37	8	.158	0.2
1600	0.15	91.17	1599.97	-7.55	3.21	4.59	8	157	· 0.1
1700	0.23	60.35	1699.97	-7.47	3.53	4.89	8	155	0.1
1800	0.05	198.13	1799.97	-7.59	3.67	5.06	8	154	0.3
1900	0.08	334.88	1899.97	-7.6	3.59	4.97	8	155	0.1
2000	0.18	280.27	1999.97	-7.46	3.41	4.77	8	155	0.1
2100	0.29	253.88	2099.97	-7.48	3.01	4.38	8.	158	0.2
2200	0.32	239.04	2199.97	-7.7	2.52	3.94	8	162	0.1
2300	0.53	240.33	2299.97	-8.07	1.88	3.38	8	167	0.2
2400	0.34	261.51	2399.97	-8.32	1.16	2.73	8	172	0.2
2500	0.29	220.18	2499.96	-8.58	0.7	2.32	9	175	0.2
2600	0.19	172.52	1	-8.97	0.58	2.28	9	176	0.2
2700	0.47	221.99	2699.96	9.5	0.42	2.22	10	177	0.4
2800	0.63	229.92	2799.96	-10.17	-0.27	1.67	10	182	0.2
2900	0.75	237.05	2899.95	-10.89	1.24	0.86	11	187	0.1
3000	0.5	214.15	2999.94	-11.64	2.02	0.24	12	190	0.3
3100	0.63	240.94	3099.94	-12.3	-2.74	-0.34	13	193	0.3
3200	0.42	248.95	3199.93	-12.69	3.56	-1.08	13	196	0.2
3300	0.56	243.53	3299.93	-13.04	-4.35	1.78	14	198	Q.1
3400	0.53	231.85	3399.93	-13.54	-5.14	-2.46	14	201	0.1
3450	4.54	102.2	3449.87	-15.26	-4.75	-1.75	16	197	9.8
3500	6.88	110.78	3499.62	-16.67	0.02	3.2	17	180	5
3550	8.7		Į.	I	t		1	ŀ	5.9

		·		N/S	 Ø/w	V-Sect	Dist	Din	Dog log
3600	10.02	116.78	3598.49	-24.36	12.74	17.16	27	152	4.5
3650	10.42	105.26	3647.69	-27.53	21.01	25.88	35	143	4.2
3700	12.03	96.95	3696.73	-29.41	30.55	35.6	42	134	4.6
3750	13.25	98.67	3745.52	-30.89	41.39	46.53	52	127	2.6
3800	14.64	94.24	3794.05	-32.25	53.36	58.54	62	121	3.5
3844	15.61	98.78	3836.52	-33.55	64.77	69.98	73	117	3.5
* 4032	17.5	98.78	4016.72	-41.73	117.7	123.5	125	110	1
* 4186	18.25	98.78	4163.29	-48.94	164.42	170.74	172	107	0.5
* 4343	19	98.78	4312.06	-56.59	213.97	220.84	221	105	0.5
* 4497	20.75	98.78	4456.88	-64.59	265.71	273.15	273	- 104	1.1
* 4780	20	98.78	4722.18	-79.63	363.09	371.61	372	102	0.3
* 5089	16	98.78	5015.99	-94.2	457.43	467	467	102	1.3
* 5465	11	98.78	5381.49	-107.59	544.15	554.68	555	101	1.3

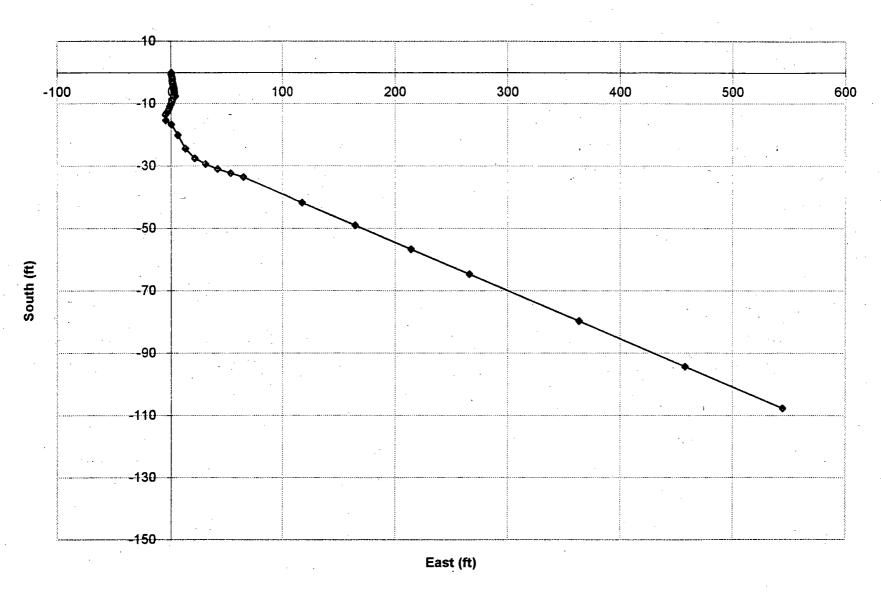
Note: * These surveys were Totco's where only inclination is measured. The last recorded azimeth is assumed for these surveys.

Atlantic A LS #3 - Sidetrack Section View Vertical Section - 101 degrees





Atlantic A LS #3 - Sidetrack Plan View





Begin New File

SEAPORT IMAGING

Ensign™

Scanner Type:	ALL
Function:	Begin New File
	This is used only with multi-image file formats.

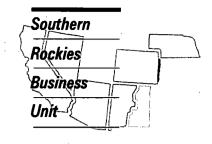


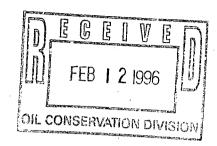


February 7, 1996

Mr. William J. LeMay, Director New Mexico Oil Conservation Division 2040 S. Pacheco Street P.O. Box 6429 Santa Fe, NM 87505

Application to Drill a Directional Well Atlantic A LS #3Well 790' FSL, 990' FWL, Section 28-T31N-R10W Blanco Mesaverde Pool





San Juan County, New Mexico

Amoco Production Company hereby requests administrative approval to enter the existing wellbore in the Atlantic A LS #3 well referenced above and directionally drill the well in the Blanco Mesaverde Pool. The well is currently completed as a producing well in the Blanco Mesaverde Pool. Amoco believes that directionally drilling the well will help place the wellbore away from the original openhole completion and provide a better opportunity to encounter the naturally occurring fracture system in the Mesaverde formation which will increase the producing rate and ultimate recovery of gas for this well. We are requesting the Project Area for this well to be the Blanco Mesaverde gas proration unit consisting of W/2 Section 28, T31N-R10W with the Producing Area for the well to consist of a rectangle inside the gas proration unit that is not closer than 790' from the outer boundaries of the gas proration unit.

In accordance with Rule 111-D.(2), attached to aid in your review are:

- 1) a plat showing the well location, project area and producing area for the project well and the offset spacing units, their wells and operators;
- 2) a vertically oriented plan view for the project well showing top and bottom of the pool, degree of angle to be built, kickoff point, penetration point and lateral length;
- 3) a horizontal plan view for the project well showing the project area, producing area, estimated azimuth and maximum length of the lateral;
- 4) a type log section identifying the top and bottom of the pool.

As notification, a copy of this application will be sent by certified mail return receipt requested to the offset operators shown on the attached list advising them that if they have any objection, it must be filed in writing within twenty (20) days of the date notice was sent.

Sincerely,

J. W. Hawkins

cc: Mike Kutas

Patty Haefele

Frank Chavez, Supervisor NMOCD District III

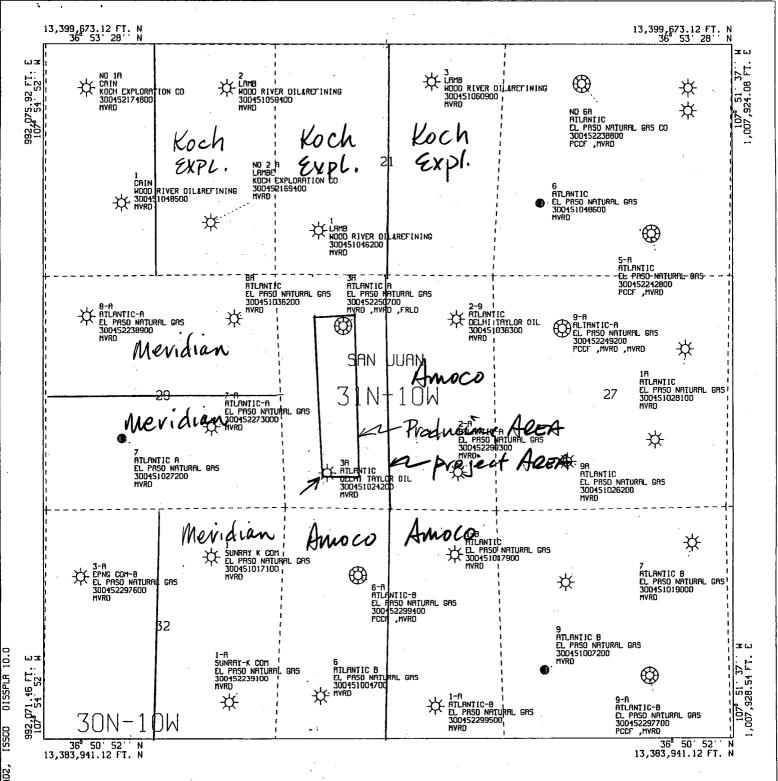
1000 Rio Brazos Road

Aztec, NM 87410

OFFSET OWNERS

Meridian Oil Inc. Attn: Alan Alexander PO Box 4289 Farmington NM 87499

Koch Exploration Co. PO Box 2256 Wichita KS 67201



All geological and geophysical data, including the interpretation thereof, appearing on this map is the private and confidential property of Amoco Production Company. The publication or reproduction thereof without the written permission of said Company is strictly prohibited.

POLYCONIC CENTRAL MERIDIAN - 107° 53' 15'' W LON SPHEROID - 6

AMOCO PRODUCTION COMPANY
PLAT MAP
Atlantic A LS 3
Mesaverde

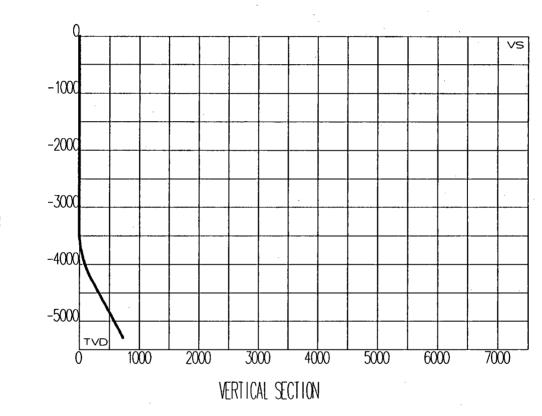
SCALE 1 IN. = 2,000 FT. FEB 7, 1996

Amoco Productión Company ENGINEERING CHART 02/05/56 190 FSL, 990' FWL Sect 28, 31N, 10W SOIN JUEN COUNTY, NEW Mexico 2.000 -7901 790' 3,000, Max Build - 39/00' ζ40∞;. Surface Location 790' Maximum Vertical Section - 735' 5000. TVO - 5300' TMD - 5460' 700 1000 200 300 ડળ 800 100

Vertical Section (departure, ft)

Atlantic A" LS#3 190. FSL, 990. FNL Section 28M, 31N, 10W San Juan County, New Mexico

Inthe Parks



Atlantic "A" LS" 3
190. FSL, 980. FWL
Sect 28M, 3IN, 10W
San Juan County, New Mexico

Units are FEET

T	Meas.	Sur	vey	Depth	North	East	Vert.	Clos	ıre	Dog
I	Depth	Incl	Dir	(TVD)	-South	-West	Section	Dist	Dir	Leg
-										
										_
	.00	.00	60.00	.00	.00	.00	.00	0	0	
	3400.00	.00	60.00		.00	.00		0	0	.0
	3500.00	3.00	60.00	3499.95	1.31	2.27	2.62	3	60	
	3600.00	6.00	60.00	3599.63	5.23	9.06		10	60	3.0
	3700.00	9.00	60.00	3698.77	11.76	20.36	23.51	24	60	3.0
	3800.00	12.00	60.00	3797.08	20.87	36.14	41.74	42	60	3.0
	3900.00	15.00	60.00	3894.31	32.54	56.36		65	60	
	4000.00	18.00	60.00	3990.18	46.74	80.95	93.48	93	60	3.0
	4100.00		60.00	4084.43	63.43	109.86				
	4200.00	24.00	60.00	4176.81	82.56	142.99		165	60	
	4200.00	24.00	80.00	41/0.01	02.30	142.33	105.12	105	00	3.0
	4300.00	27.00	60.00	4267.06	104.08	180.27	208.16	208	60	3.0
	4400.00	27.00	60.00	4356.16	126.78	219.59	253.56	254	60	.0
	4500.00	27.00	60.00	4445.26	149.48	258.91	298.96	299	60	.0
	4600.00	27.00	60.00	4534.36	172.18	298.22	344.36	344	60	.0
	4700.00	27.00	60.00	4623.46	194.88	337.54	389.76	390	60	.0
	4800.00	27.00	60.00	4712.56	217.58	376.86	435.16	435	60	. 0
	4900.00	27.00	60.00	4801.66	240.28	416.17		481	60	
	5000.00	27.00	60.00	4890.76	262.98	455.49		526	60	
			60.00	4979.86	285.68	494.81			60	
	5100.00	27.00								
	5200.00	27.00	60.00	5068.96	308.38	534.12	616.75	617	60	.0
	5300.00	27.00	60.00	5158.06	331.08	573.44	662.15	662	60	.0
	5400.00	27.00	60.00	5247.16	353.78	612.76	707.55	708	60	.0
	5460.00	27.00	60.00	5300.62	367.40	636.35	734.79	735	60	.0

CMD : OG5SECT

ONGARD INQUIRE LAND BY SECTION

03/26/96 10:21:00

OGOMES -EMFB PAGE NO: 1

Sec : 28 Twp : 31N Rng : 10W Section Type : NORMAL

		<u></u>	
4	3	2	1
40.28	40.91	39.17	39.15
Federal owned	Federal owned	Federal owned	Federal owned
	 A		 A A A
5	6	7	
39.73	40.36	37.79	37.77
Federal owned	Federal owned	Federal owned	Federal owned
		· · · · · · · · · · · · · · · · · · ·	ļ
-		 	
PF01 HELP PF02	PF03 EXIT	PF04 GoTo PF05	PF06
	FWD PF09 PRINT		PF12

80.01

81.27 80.01 161.28 156.52 317.80 CMD : OG5SECT

ONGARD INQUIRE LAND BY SECTION

03/26/96 10:21:07

OGOMES -EMFB

PAGE NO: 2

Sec : 28 Twp : 31N Rng : 10W Section Type : NORMAL

12	11	10	9
39.50	39.22	36.56	36.30
Federal owned	 Federal owned 	 Federal owned	 Federal owned
13 39.04	14 38.76	15 37.69	 16 37.43
Federal owned	 Federal owned	 Federal owned 	 Federal owned
A A			A
	<u> </u>		_
DEGA HELD DEGG	DDO2 DVID	DE04 C-M- DE05	DEO C
PF01 HELP PF02	PF03 EXIT	PF04 GoTo PF05	PF06
PF07 BKWD PF08 FV	ND PF09 PRINT	PF10 SDIV PF11	PF12

78.54

77.98

78.59

156.52