



Amoco Production Company

Petroleum Center Building
501 Airport Drive
Farmington, New Mexico 87401
505-325-8841

R. J. Broussard
District Manager

September 27, 1985

New Mexico Oil Conservation Division
Attn: David Catanach
P. O. Box 2088
Santa Fe, NM 87501

File: DDL-1100-400.1

Gentlemen:

Commingling Application
Abrams "L" No. 1A
Section 26, T29N, R10W
San Juan County, New Mexico

Amoco Production Company requests approval to commingle production from the Armenta Gallup and Blanco Mesaverde horizons in the subject well. Commingling is requested for these reasons:

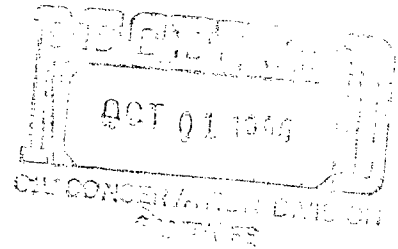
- 1) The 5 1/2" casing is too small for a dual string.
- 2) Producing rates from the Gallup are marginally economical.
- 3) If commingled, the strong Mesaverde will help produce remaining Gallup reserves.

The working interest and royalty of both zones are the same and bottom hole pressure of the Gallup is within 50 percent of the bottom hole pressure of the Mesaverde. Formation fluids are compatible.

In view of Rule 303C, we have attached 2 copies of the following:

1. Acreage Plat indicating ownership of offset leases
2. Well Completion Reports
3. Bottom hole pressures
4. Recommended Allocation Formula
5. Copy of notification to offset operations
6. Form C-116

Since this well is a recent completion, we are unable to supply production decline curves.



Page 2
File: DDL-1100-400.1
September 27, 1985

Thank you for your earliest attention to this application.

Yours very truly,

A handwritten signature in cursive script, appearing to read "R. J. Broussard". The signature is written in dark ink and includes a small, stylized mark at the end.

MEM/ct

Attachments

cc: NMOCD - Aztec, NM

AM5



Amoco Production Company

Petroleum Center Building
501 Airport Drive
Farmington, New Mexico 87401
505-325-8841

R. J. Broussard
District Manager

September 26, 1985

El Paso Natural Gas Company
P. O. Box 990
Farmington, NM 87499

Mesa Petroleum
P. O. Box 579
Flora Vista, NM 87415

Schrage
(address unknown)

File: DDL-1096-400.1

Gentlemen:

Commingling Application
Abrams L No. 1A
Sec. 26I, T29N, R10W
San Juan County, New Mexico

Amoco Production Company has applied for approval to commingle the Gallup and Mesaverde horizons in the subject well. If you have any objections, you have 20 days to notify the New Mexico Oil Conservation Division. If you do not respond within 20 days, your approval will be assumed.

Sincerely,

DLD/ct

AM5

NEW MEXICO OIL CONSERVATION COMMISSION
GAS-OIL RATIO TESTS

C-116
Revised 1-1-65

Operator Amoco Production Company		Pool Armenta Gallup/Blanco Mesaverde		Country San Juan							
Address 501 Airport Dr. Farmington, N.M. 87401				TEST - (X)							
LEASE NAME				TYPE OF TEST - (X)							
Abrams Gas Com L Armenta Gallup Blanco Mesaverde				Scheduled ☐ Special ☒							
WELL NO.	LOCATION U S T R			DATE OF TEST	CHOKE SIZE	T.B.G. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	Completion ☐ Special ☒		
1A	1	26	29	10	2/26/85	Pumping		24	1	9	51
					3/21/85	32/64	302	24	1	1	717
										717,000	

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

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


(Signature)
Administrative Supervisor
September 27, 1985
(Date)

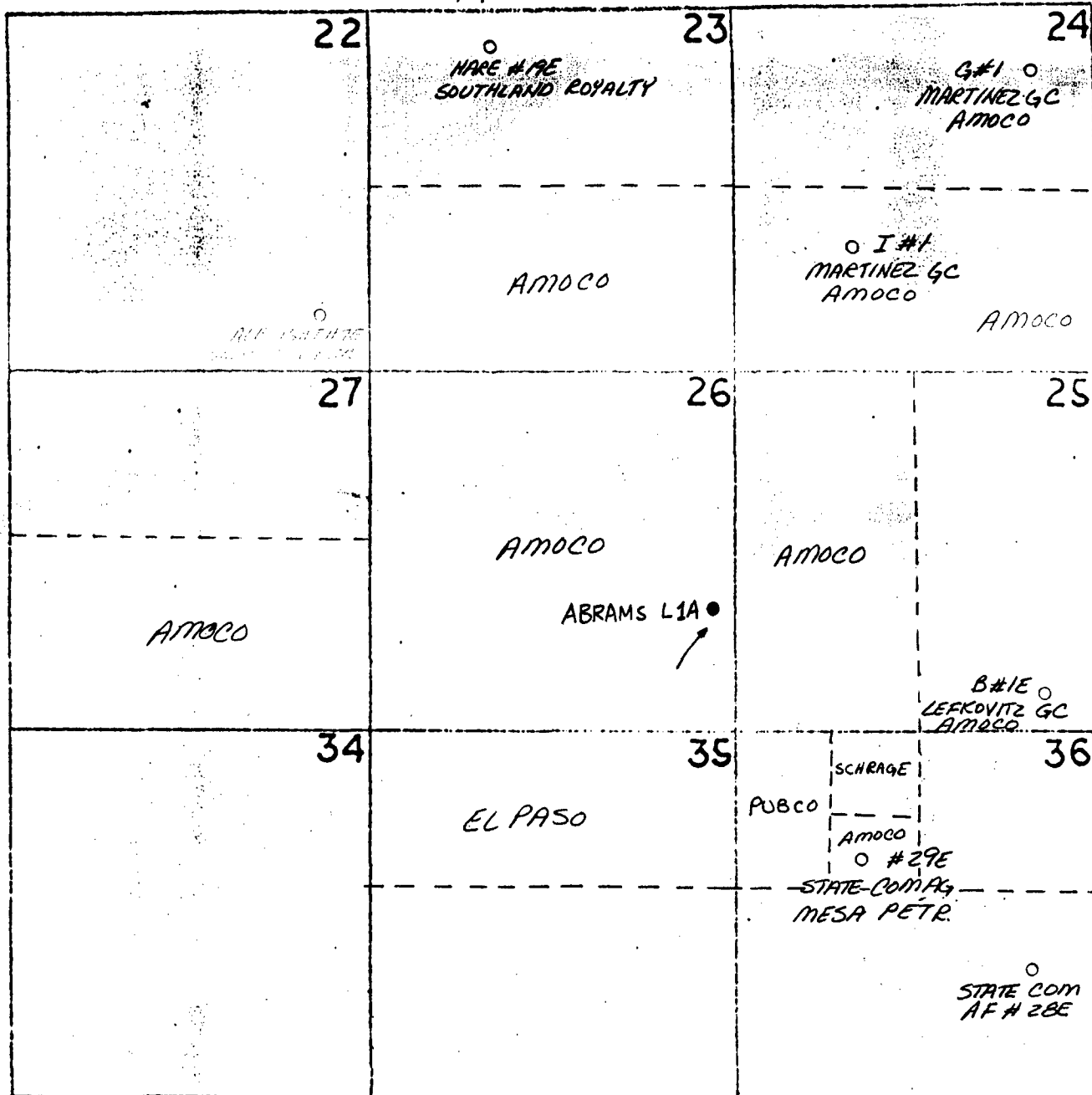
Proposed Allocation Formula

	<u>Gas</u>	<u>Oil</u>
Armenta Gallup	51 MCFD	9 BOPD
Blanco Mesaverde	<u>717 MCFD</u>	<u>1 BOPD</u>
	<u>768 MCFD</u>	<u>10 BOPD</u>

	<u>Gas</u>	<u>Oil</u>
Armenta Gallup	7%	90%
Blanco Mesaverde	<u>93%</u>	<u>10%</u>
	<u>100%</u>	<u>100%</u>

ABRAMS L # 1A

R 10W

T
29
N

○ BLANCO MESAVERDE WELLS
 ● PROPOSED WELL

GL 5554'
KB 5567'

11 3/4" 42# H-40 CSA
302' X 510 C.F. CMT

MESAVERDE PERFORATIONS:
3536'-4508'

GALLUP PERFORATIONS:
5378'-5492'
5514'-5580'
5590'-5692'

SLIDING SLEEVE @ 5297'
PACKER @ 5300'
2 3/8" 4.7# J-55
TBG @ 5705'

TD 5900'
PBD 5858'

5 1/2" 15.5# K-55 CSA
5900' X 2991 C.F. CMT

Amoco Production Company

SCALE:

ABRAMS K #1 (RENAMED ABRAMS L #1A)

DRG.
NO.

COPIES RECEIVED
DISTRIBUTION
SANTA FE
FILE
U.S.G.S.
LAND OFFICE
OPERATOR

WJH
DDL
TKA
GOM
NEW MEXICO OIL CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND LOG
1 BC
BMH
BJW
TWE
YLB

Form C-105
Revised 8-4-84

5a. Indicate Type of Lease
State ☐ Fee ☒
5. State Oil & Gas Lease No.

APR 30 1985

CON. DIV.
DIST. 3

1a. TYPE OF WELL
OIL WELL ☐ GAS WELL ☒ DRY ☐ OTHER ☐
b. TYPE OF COMPLETION
NEW WELL ☐ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ OTHER ☒ Recompletion

7. Unit Agreement Name

8. Farm or Lease Name
Abrams K L

2. Name of Operator
Amoco Production Co.

9. Well No.
1 A

3. Address of Operator
501 Airport Drive, Farmington, N M 87401

10. Field and Pool, or Wildcat
Blanco Mesa Verde

4. Location of Well
UNIT LETTER I LOCATED 1850 FEET FROM THE south LINE AND 350 FEET FROM

12. County
San Juan

THE east LINE OF SEC. 26 TWP. 29N RGE. 10W NMPM

15. Date Spudded 5/7/83 16. Date T.D. Reached 5/14/83 17. Date Compl. (Ready to Prod.) 3/26/85 18. Elevations (DF, RKB, RT, GR, etc.) 5567' GR 19. Elev. Casinghead 5567'

20. Total Depth 5900' 21. Plug Back T.D. 5858' 22. If Multiple Compl., How Many TWO 23. Intervals Drilled By Rotary Tools Cable Tools Rotary

24. Producing Interval(s), of this completion - Top, Bottom, Name 4508'-3536' Mesa Verde 25. Was Directional Survey Made Yes

26. Type Electric and Other Logs Run DIL-SP-GR, FDC-CNL-GR-CAL 27. Was Well Cored No

28. CASING RECORD (Report all strings set in well)
CASING SIZE WEIGHT LB./FT. DEPTH SET HOLE SIZE CEMENTING RECORD AMOUNT PULLED
11-3/4" 42# H40 302' 14-3/4" 510c.f. Class B w/2% CaCl₂ 2 Circ. to
5-1/2" 15.5# K-55 5900' 7-7/8" surface 1) 1117c.f Class B 50:50 Poz
tailed in w/177c.f Class B Neat
(see attached)

29. LINER RECORD 30. TUBING RECORD
SIZE TOP BOTTOM SACKS CEMENT SCREEN SIZE DEPTH SET PACKER SET
2-3/8" 5710' 5300'

31. Perforation Record (Interval, size and number)
4174'-4186', 4186'-4206', 4210'-4228',
4233'-4248', 4259'-4274', 4284'-4313',
4322'-4355', 4370'-4508', 2 jspf, .54"
total of 560 holes. (see attached)
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.
DEPTH INTERVAL AMOUNT AND KIND MATERIAL USED
4174'-4508' 220,000 gal 20# gel and
290,000 # 10-20 sand
3536'-4010' 360,000 gal 20# gel and
510,000 # 10-20 sand

33. PRODUCTION
Date First Production 4/11/85 Production Method (Flowing, gas lift, pumping - Size and type pump) Flowing Well Status (Prod. or Shut-in) Shut-in

Date of Test 4/12/85 Hours Tested 3 hrs Choke Size .75" Prod'n. For Test Period Oil - Bbl. Gas - MCF 670 Water - Bbl. Gas - Oil Ratio

Flow Tubing Press. None Casing Pressure 435 psig Calculated 24-Hour Rate Oil - Bbl. Gas - MCF 5363 Water - Bbl. Oil Gravity - API (Corr.)

34. Disposition of Gas (Sold, used for fuel, vented, etc.) To be sold Test Witnessed By J.J. Barnett

35. List of Attachments
Items #28 Cementing Record, #31 Perforation Record

I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED BD Shaw TITLE Adm. Supervisor DATE 4/26/85

This form is to be filled with the appropriate district Office of the Commission not later than 30 days after the completion of any newly-drilled or deepened well. It shall be accompanied by a copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 30 through 34 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

Northwestern New Mexico

T. Anhy	T. Canyon	T. Ojo Alamo	537	T. Penn. "B"
T. Salt	T. Strawn	T. Kirtland-Fruitland	1395	T. Penn. "C"
T. Salt	T. Atoka	T. Pictured Cliffs	1880	T. Penn. "D"
T. Yates	T. Miss	T. Cliff House	3450	T. Leadville
T. 7 Rivers	T. Devonian	T. Menefee	3566	T. Madison
T. Queen	T. Silurian	T. Point Lookout	4170	T. Elbert
T. Grayburg	T. Montoya	T. Mancos	4420	T. McCracken
T. San Andres	T. Simpson	T. Gallup	5380	T. Ignacio Qtzte
T. Glorieta	T. McKee	Base Greenhorn		T. Granite
T. Paddock	T. Ellenburger	T. Dakota		T.
T. Blinberry	T. Gr. Wash	T. Morrison		T.
T. Tubb	T. Granite	T. Todilto		T.
T. Drinkard	T. Delaware Sand	T. Entrada		T.
T. Abo	T. Bone Springs	T. Wingate		T.
T. Wolfcamp	T.	T. Chinle		T.
T. Penn.	T.	T. Permian		T.
T. Cisco (Bough C)	T.	T. Penn. "A"		T.

OIL OR GAS SANDS OR ZONES

No. 1, from.....to..... No. 4, from.....to.....
 No. 2, from.....to..... No. 5, from.....to.....
 No. 3, from.....to..... No. 6, from.....to.....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from.....to.....feet.....
 No. 2, from.....to.....feet.....
 No. 3, from.....to.....feet.....
 No. 4, from.....to.....feet.....

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
537	884	347	Ojo Alamo				
1395	1880	485	Fruitland				
1880	1968	88	Picture Cliffs				
2503	3200	697	Chacra				
3450	3566	116	Cliffhouse				
3566	4170	604	Menefee				
4170	4420	250	Point Lookout				
5380	-	-	Gallup				

✓

2

Item #31 (con't)

Also 3536'-3564', 3572'-3601', 3696'-3728', 3792'-3831', 3836'-3865', 3876'-3916', 3956'-4010', 2 jspf. .51" Total of 502 holes.

FARMINGTON DISTRICT
MAY 6 1985

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RECEIVED
SEP 27 1983
FARMINGTON
DISTRICT

Form C-101
Revised 10-1-78

NO. OF COPIES RECEIVED	
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FILE	
U.S.G.A.	
LAND OFFICE	
OPERATOR	

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5a. Indicate Type of Lease
State ☐ ☒ Fee ☒
5. Lease Cat & Cont. Lease No.

6. TYPE OF WELL

8. TYPE OF COMPLETION

NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESER. ☐ OTHER ☐

Name of Operator

Amoco Production Company

Address of Operator

501 Airport Drive, Farmington, New Mexico 87401

Location of Well

SEP 22 1983

OIL CON. DIV. 1
DIST. 3

7. Unit Agreement Name

8. Form of Lease Name

Abrams "K"

9. Well No.

10. Field and Pool, or Wildcat

Armenta Gallup

UNIT LETTER I LOCATED 1850 FEET FROM THE South LINE AND 350 FEET FROM

THE East LINE OF SEC. 26 TWP. 29N REC. 10W NMPM

15. Date Spudded 5-7-83 16. Date T.D. Reached 5-14-83 17. Date Compl. (Ready to Prod.) 7-15-83 18. Elevations (L.F., R.H., RT, GR, etc.) 5567' KB 19. Elev. Casinghead 5554 GL

20. Total Depth 5900' 21. Plug Back T.D. 5858' 22. If Multiple Compl., How Many 1 23. Intervals Drilled By O-TD 24. Cable Tools

24. Producing Interval(s), of this completion - Top, Bottom, Name
5378' - 5692' Gallup

25. Was Directional Survey Made
Yes

26. Type Electric and Other Logs Run

DIL-SP-GR, FDC-CNL-Cal-GR, GR Radioactive Tracer

27. Was Well Cored
No

CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
11-3/4"	42# H-40	302'	14-3/4"	510 cu. ft. Class B w/2% CaCl ₂ Circ. to s	
5-1/2"	15.5# K-55	5900'	7-7/8"	1) 1117 cu. ft. Class B 50:50 POZ Tailed in w/177 cu. ft. Class B neat	
				2) 1756 cu. ft. Class B 65:35 POZ. Tailed in w/118 cu. ft. Class B neat.	

LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					2-7/8"	5200' 5210	

28. Production Interval (Interval, size and number)

5378' - 5492', 5514' - 5580', 5590' - 5692'
w/1 jsp every 2 ft. for a total of 141 holes.

30. TUBING RECORD

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

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
5378' - 5692'	139000 gals. 20# gelled water containing 2% KCl .5 millicuries radioactive sand 130,000# 20-40 sand.

PRODUCTION

First Production	Production Method (Flowing, gas lift, pumping - size and type pump)	Well Status (Prod. or Shut-in)
7-15-83	Pumping	SI
24	32/64	9.1
7-16-83	24	50.7
85 psig	5.3	5572
Calculated 24-hour flow	9.1	50.7
Oil - Bbl.	Gas - MCF	Water - Bbl.
Oil Gravity - API (Corr.)		

33. Disposition of Gas (Sold, used for fuel, vented, etc.)

To be sold

Test Witnessed By

cc: Beta Dev - Pioneer - Getty

Original Signed By
D.D. Lawson

TITLE District Adm. Supervisor

DATE 9/19/83

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be completed by one copy of all data obtained from the well and a copy of all special tests conducted, including drill stem tests. All depths reported shall be measured depths, in the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, from "A" through "M" shall be reported for each zone. The form is to be filed in quadruplicate except on state bond, where six copies are required, see Rule 1152.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

Northwestern New Mexico

T. Anhy _____	T. Canyon _____	T. Ojo Alamo _____ 537	T. Penn. "B" _____
T. Salt _____	T. Strawn _____	T. Kirtland-Fruitland _____ 1395	T. Penn. "C" _____
D. Salt _____	T. Atoka _____	T. Pictured Cliffs _____ 1880	T. Penn. "D" _____
T. Yates _____	T. Miss _____	T. Cliff House _____ 3450	T. Leadville _____
T. 7 Rivers _____	T. Devonian _____	T. Menefee _____ 3566	T. Madison _____
T. Queen _____	T. Silurian _____	T. Point Lookout _____ 4170	T. Elbert _____
T. Grayburg _____	T. Montoya _____	T. Mancos _____ 4420	T. McCracken _____
T. San Andres _____	T. Simpson _____	T. Gallup _____ 5380	T. Ignacio Qtzite _____
T. Glorieta _____	T. McKee _____	Dose Greenhorn _____	T. Granite _____
T. Paddock _____	T. Ellenburger _____	T. Dakota _____	T. _____
T. Blinebry _____	T. Gr. Wash _____	T. Morrison _____	T. _____
T. Tubb _____	T. Granite _____	T. Todilto _____	T. _____
T. Drinkard _____	T. Delaware Sand _____	T. Entrada _____	T. _____
T. Abo _____	T. Bone Springs _____	T. Wingate _____	T. _____
T. Wolfcamp _____	T. _____	T. Chinle _____	T. _____
T. Penn. _____	T. _____	T. Persian _____	T. _____
T. Cisco (Bough C) _____	T. _____	T. Penn. "A" _____	T. _____

OIL OR GAS SANDS OR ZONES

No. 1, from _____ to _____	No. 4, from _____ to _____
No. 2, from _____ to _____	No. 5, from _____ to _____
No. 3, from _____ to _____	No. 6, from _____ to _____

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from _____ to _____ feet
No. 2, from _____ to _____ feet
No. 3, from _____ to _____ feet
No. 4, from _____ to _____ feet

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
537	884	347	Ojo Alamo				
1395	1880	485	Fruitland				
1880	1968	88	Pictured Cliffs				
2503	3200	697	Chacra				
3450	3566	116	Cliffhouse				
3566	4170	604	Menefee				
4170	4420	250	Pt. Lookout				
5380	---	---	Gallup				

All distances must be from the corner boundaries of the Section.

JUN 1 1983
RSH
DDL
TKA
GOM
DMS
BDY
SMH
BJW
TWE
TLE

Operator AMOCO PRODUCTION COMPANY			Lease ABRAMS "U"		Well No. 1 A
Unit Letter I	Section 26	Township 29N	Range 10W	County San Juan	
Actual Footage Location of Well: 1350 feet from the South line and 350 feet from the East line					
Ground Level Elev. 5554	Producing Formation Mesaverde		Pool B lanco Mesaverde		Dedicated Acreage 320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.

Sec. 26

1350'

350'

Scale: 1"=1000'

CERTIFICATION

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

Dale H. Shoemaker

Name
DALE H. SHOEMAKER

Position
DISTRICT ENGINEER

Company
AMOCO PRODUCTION COMPANY

Date
MARCH 15, 1983

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 knowledge and belief.

Date Surveyed
February 24, 1983

Registered Professional Engineer and Land Surveyor

Fred B. Kern Jr.
Fred B. Kern Jr.

Certificate No. **3950**

B & R SERVICE, INC.

P. O. Box 1048

Farmington, New Mexico 87401

(505) 325-2393

* Renamed Abrams G.C. L# 1A

Company Amoco Production Co. Lease Abrams G.C. "K" Well #1
County San Juan State New Mexico Date 4-5-95
Shut-In 7 Days Zero Point G.L. Tbg. Pressure 879
Casing Pressure 950 Tbg. Depth _____ Casing Perf. _____
Max. Temp. _____ Fluid Level 4190'

<u>DEPTH</u>	<u>TEMP</u>	<u>GRADIENT</u>
0	879	----
1000	910	.031
2000	939	.029
3000	966	.027
4000	990	.024
5000	1326	.336
5150	1316	.300
5250	1131	.450

B & R SERVICE, INC.

P. O. Box 1048

Farmington, New Mexico 87401

(505) 325-2393

* RENAMED ABRAMS L# 1A

Company Amoco Production Co. Lease Abrams G.C. "K" Well 1
County San Juan State New Mexico Date 4-17-85
Shut-In 7 Days Zero Point G.L. Tbg. Pressure 549
Casing Pressure 999 (Mesa Verde) Tbg. Depth _____ Casing Perf. _____
Max. Temp. _____ Fluid Level 5000'

<u>DEPTH</u>	<u>PSIG</u>	<u>GRADIENT</u>
0	549	----
1000	566	.017
2000	581	.015
3000	598	.017
4000	615	.017
5000	631	.016
5500	827	.392
5600	870	.430

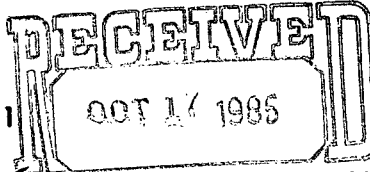


STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178

OIL CONSERVATION DIVISION
BOX 2088
SANTA FE, NEW MEXICO 87501



DATE October 10, 1985 OIL CONSERVATION DIVISION
SANTA FE

RE: Proposed MC _____
Proposed DHC a _____
Proposed NSL _____
Proposed SWD _____
Proposed WFX _____
Proposed PMX _____

Gentlemen:

I have examined the application dated September 30, 1985
for the Amow Abram L #14 I-26-29N-10W
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Approve

Yours truly,

Ernest C. Day