STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

ADMINISTRATIVE ORDER DHC-1014

MW Petroleum Corporation
One Norwest Center, Suite 2000
1700 Lincoln Street
Denver, CO 20203-4520

Attention: Bobby Poirrier, Jr.

Jicarilla Apache "118" Well No. 15
Unit P, Section 25, Township 26 North, Range 3 West, NMPM,
Rio Arriba County, New Mexico.
Blanco-Mesaverde and Northeast Ojito Gallup-Dakota Pools

Dear Mr. Poirrier:

Reference is made to your recent application for an exception to Rule 303-A of the Division Rules and Regulations to permit the subject well to commingle production from both pools in the wellbore.

It appearing that the subject well qualifies for approval for such exception pursuant to the provisions of Rule 303-C, and that reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and any Division Order which authorized the dual completion and required separation of the two zones is hereby placed in abeyance.

In accordance with the provisions of Rule 303-C-4., total commingled oil production from the subject well shall not exceed 60 barrels per day, and total water production shall not exceed 120 barrels per day. The maximum amount of gas which may be produced daily from the well shall be determined by Division Rules and Regulations or by the gas allowable for each respective prorated pool as printed in the Division's San Juan Basin Gas Proration Schedule.

Assignment of allowable to the well and allocation of production from the well shall be on the following basis:

Mesaverde Pool	Oil	50%	Gas	55%
Gallup-Dakota	Oil	50%	Gas	45%

FURTHER: The operator shall notify the Aztec District Office of the Division upon implementation of the commingling process.

Pursuant to Rule 303-C-5, the commingling authority granted by the order may be rescinded by the Division Director if, in his opinion, conservation is not being best served by such commingling.

Approved at Santa Fe, New Mexico on this 25th day of May, 1994.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY
Director

S E A L

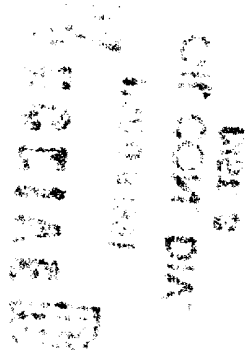
WJL/DRC/amg

cc: Oil Conservation Division - Aztec
US Bureau of Land Management - Farmington

Ernie Busch

From: Ernie Busch
To: David Catanach
Subject: MW CORP. C/O APACHE CORP. (DHC)
Date: Tuesday, May 17, 1994 1:53PM
Priority: High

WELL NAME & NO. JICARILLA APACHE A 118 #15
LOCATION P-25-26N-03W
RECOMMEND APPROVAL



District I
P.O. Box 1980, Hobbs, NM 88240
District II
P.O. Drawer DD, Artesia, NM 88210
District III *
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Operator's Monthly Report

Form C-115-Revised 1/1/89
See Distribution and Code
Information Bottom of Page

Company or Operator: Evergreen Operating Corporation

Address: 1512 Larimer Street, Suite 1000, Denver, CO 80202

For Month, Year: JAN 1991

POOL NAME (Underline) / Lease Name / well no unit sec twp rng	STATUS	INJECTION Volume	INJECTION Press.	TOTAL LIQUIDS PRODUCED Barrels Oil/Cond. Produced	Barrels of Water Produced	Gas Produced (MCF)	Days Prod.	DISPOSITION OF GAS Sold	Trans porter	Other	CODE	Oil on Hand at Beg. of Month	DISPOSITION OF OIL Barrels To Trans-porter	Trans por-ter	Other	CODE	Oil on Hand at End of Month
*LEASE NAME - Include State Land Lease Number or Federal Lease Number																	
BALLARD PC (GAS)																	
Egan																	
1A 18-24N-6W	S			0	0	0	0	0				0	0				0
SO. BLANCO PC (GAS)																	
McKenzie Lease																	
1M 25-25N-6W	G			0	0	1	1	1	EP			0	0				0
2H 25-25N-6W	G			0	0	120	30	120	EP			0	0				0
3I 25-25N-6W	S			0	0	0	0	0				0	0				0
4C 25-25N-6W	G			0	0	174	22	174	EP			0	0				0

RECEIVED
MAR 06 1991
OIL CON. DIV.
DIST. 3

DISTRIBUTION
Original OCD Santa Fe
One Copy OCD Dist. Office in which lease is located
One Copy to Transporter(s)

DUE DATE
To be postmarked by 24th of next succeeding month.

STATUS CODE
F ...Flowing
P ...Pumping
G ...Gas Lift
S ...Shut In
T ...Temp Aband
I ...Injection
D ...Discont.

"OTHER" GAS DISP. CODE
X ...Used Off Lease }
D ...Used For Drilling }
G ...Gas Lift }
L ...Lost (MCF Estimated)
E ...Explaination Attached
R ...Repressuring or Pressure Maintenance
V ...Vented
U ...Used on Lease

Detail on Form C-111

"OTHER" OIL DISP.
C ...Circulated Oil
L ...Lost
S ...Sediment (BS&W)
E ...Explain

I Hereby Certify That The Information Given Is True And Complete To The Best Of My Knowledge

Floyd Trujillo (NAME) (303) 534-0400 (PHONE)

Production Supervisor (POSITION)

(SIGNATURE) 04-Mar-91 (DATE)

SUITE 2000 ONE NORWEST CENTER/1700 LINCOLN STREET/DENVER, CO 80203-4520

Apache CORPORATION

303/837-5000

April 18, 1994

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

Attn: Director

RECEIVED
APR 21 1994
OIL CON. DIV.
DIST. 3

MW Petroleum Corporation
Bobby Poirrier Jr.
1700 Lincoln, Suite 2000
Denver, CO 80203-9911

Dear Director:

MW Corporation is submitting this application to seek an exception to Rule 303-A concerning segregation of production from pools.

We are requesting approval to commingle the Gallup/Dakota and the Mesa Verde in the Jicarilla Apache A118-15 well.

OPERATOR: MW Petroleum Corporation (Managed by Apache Corp.)
1700 Lincoln, Suite 2000
Denver, CO 80203-9911

WELL: Jicarilla Apache A118-15
SESE Sec. 25 T26N R3W
Rio Arriba County, NM
Gallup/Dakota and Mesa Verde

Plat of lease ownership and offset wells: See Attachment 'A'

Form C-116: See Attachment 'B'

Production decline curve:
The Gallup-Dakota was completed on October 18, 1985. The Mesa Verde was recompleted and began sales on October 6, 1993. It has been isolated from the Gallup-Dakota with a packer.

Mesa Verde production averages:

10/93	93	mcfd,	33	bwpd,	3	bopd
11/93	97	mcfd,	14	bwpd,	1	bopd
12/93	66	mcfd,	14	bwpd,	0	bopd
1/94	62	mcfd,	0	bwpd,	3	bopd

May 6, 1994

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

Attn: Director

MW Petroleum Corporation
Bobby Poirrier Jr.
1700 Lincoln, Suite 2000
Denver, CO 80203-9911

Dear Director:

MW Corporation is submitting this supplemental application for an exception to Rule 303-A concerning segregation of production from the Gallup/Dakota and Mesa Verde formations.

OPERATOR: MW Petroleum Corporation (Managed by Apache Corp.)
1700 Lincoln, Suite 2000
Denver, CO 80203-9911

WELL: Jicarilla Apache A118-15
SESE Sec. 25 T26N R3W
Rio Arriba County, NM
Gallup/Dakota and Mesa Verde

We had failed to include an allocation for oil for the formations. We recommend using a 50%-50% allocation for the oil in the Gallup/Dakota and Mesa Verde formations.

If there are any other inquiries, please let me know. I apologize for this inconvenience.

Thank you,

Bobby Poirrier Jr.
Production Engineer Tech.
(303) 837-5442

cc: Division Director, Santa Fe Office (3 copies)
Ernie Bush, Aztec Office (2 copies)

(See attachment 'C' for Gallup/Dakota decline curve)

Well resume and proposed commingling schematic: See Attachment 'D'

Estimated bottomhole pressures: See Attachment 'E'

Description of the fluid characteristics: See Attachment 'F'

Value of the commingled production, as of January, 1994

Jicarilla A118-15	Gallup-Dakota
Gas	$2.12/mcf
Oil	$13.75/bbl
Jicarilla A118-15	Mesa Verde
Gas	$2.12/mcf
Oil	$13.75/bbl

Formula for Allocation:

The allocation for production will be based on prior production from the Gallup/Dakota of 1500 mcf/m and current production from the Mesa Verde of 1900 mcf/m, or 55% Mesa Verde and 45% Gallup/Dakota.

Statements of notification ot offset operators and the BLM:
See Attachment 'G'

Ownership of the zones is common: See Attachment 'H'

This should complete all information needed to meet the requirements for the commingling approval. If further information is required, please contact me.

Thank you,

R E Poirrier Jr

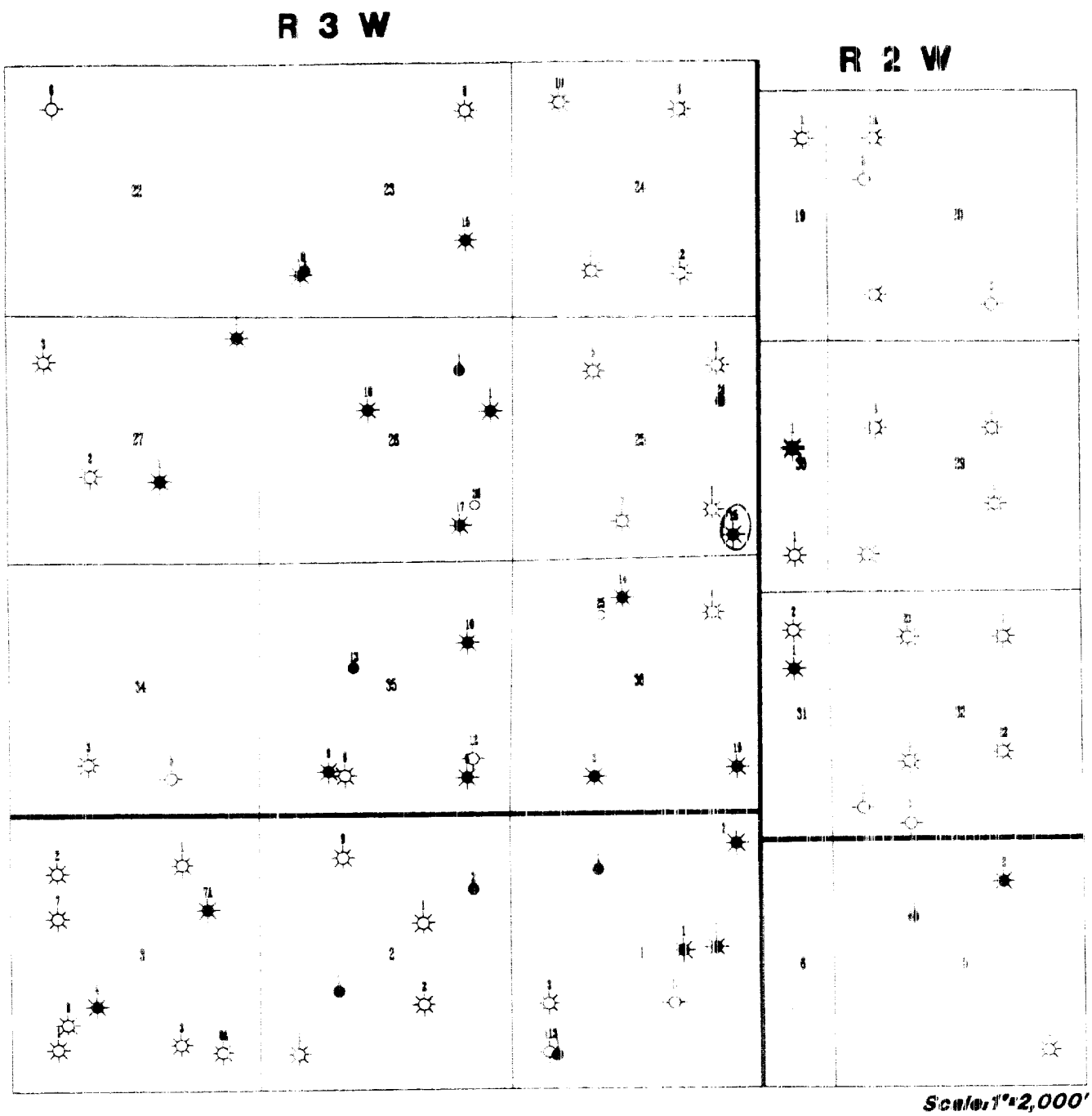
Bobby Poirrier Jr.
Production Engineer Tech.

Mark McCool
Production Superintendent

cc: Division Director, Santa Fe Office (3 copies)
Ernie Bush, Aztec Office (2 copies)

Attachment 'A'

Plat of lease ownership/offset wells



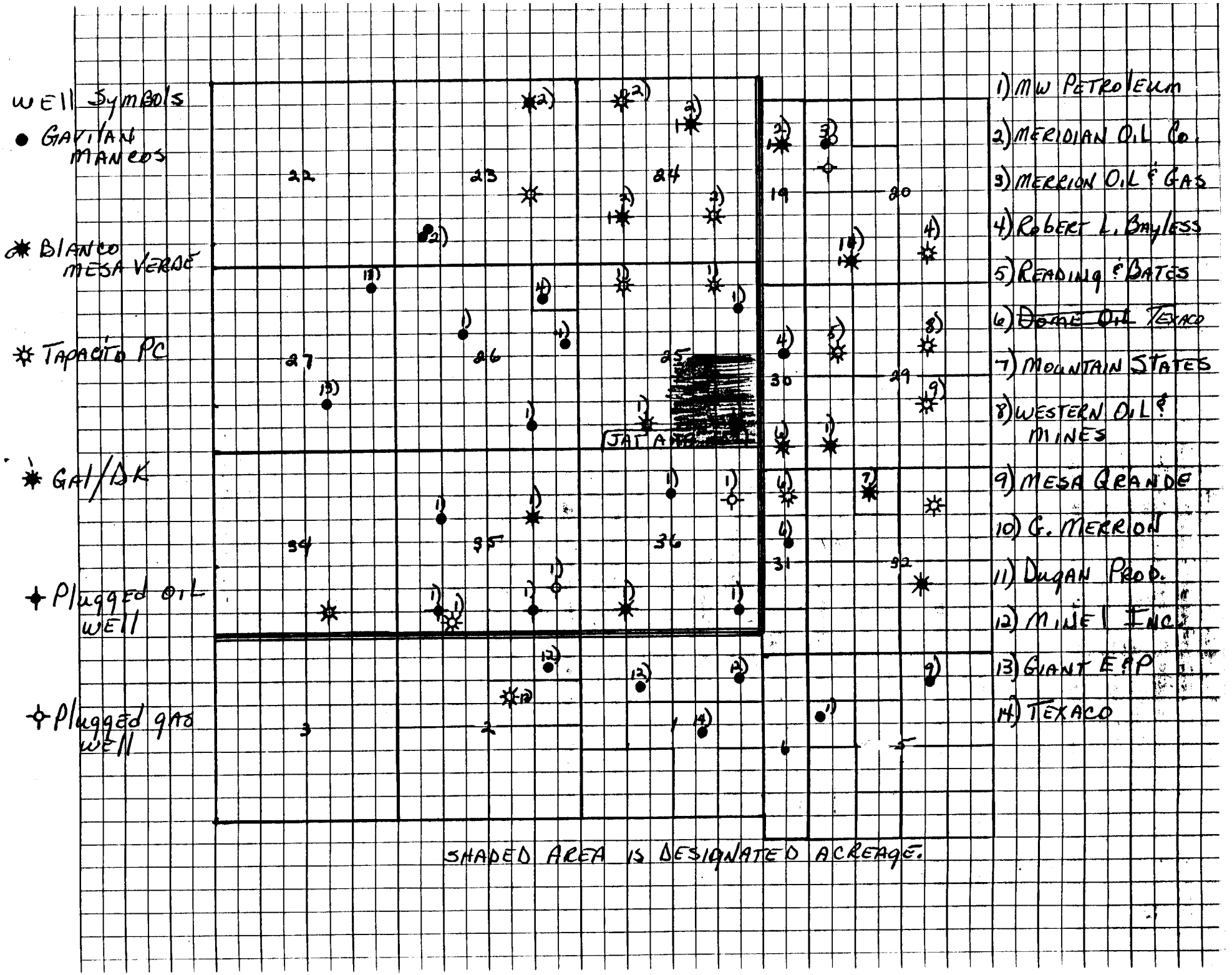
LEGEND

- LOCATION
- DRY HOLE
- GAS WELL
- OIL WELL
- OIL & GAS WELL
- ABANDONED OIL AND GAS

Apache CORPORATION
ROCKY MOUNTAIN REGION

LEASE 118

RIO ARRIBA COUNTY, NEW MEXICO


WELL SYMBOLS
GAVILAN MANCOS
BLANCO MESA VERDE
TAPACITO PC
GAL/DK
PLUGGED OIL WELL
PLUGGED GAS WELL
1) MW PETROLEUM
2) MERIDIAN OIL CO.
3) MERRION OIL & GAS
4) ROBERT L. BAYLESS
5) READING & BATES
6) ~~DOME OIL~~ TEXACO
7) MOUNTAIN STATES
8) WESTERN OIL & MINES
9) MESA GRANDE
10) G. MERRION
11) DUGAN PROD.
12) MINEL INC.
13) GIANT E&P
14) TEXACO
SHADED AREA IS DESIGNATED ACREAGE.

Attachment 'B'

Form C-116

Submit 2 copies to Appropriate District Office.
DISTRICT I
P.O. Box 1980, Hobbs, NM 88240
DISTRICT II
P.O. Drawer DD, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

Form C-116
Revised 1/1/89

GAS - OIL RATIO TEST

Operator: MW Petroleum Corporation
Pool: Mesa Verde
County: Rio Arriba
Address: 304 N. Behrend, Farmington, NM
TYPE OF TEST - (X): Scheduled [ ] Completion [ ] Special [XX]

LEASE NAME	WELL NO.	LOCATION U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS - OIL RATIO CU.FT/BBL.
Jicarilla Apache A118	15	P	25	26N	3W	3/8/94 to 3/14/94	P	NONE	235		84	50.95		4.18	459	110

Instructions:

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 Division.

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.

(See Rule 301, Rule 1116 & appropriate pool rules.)

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

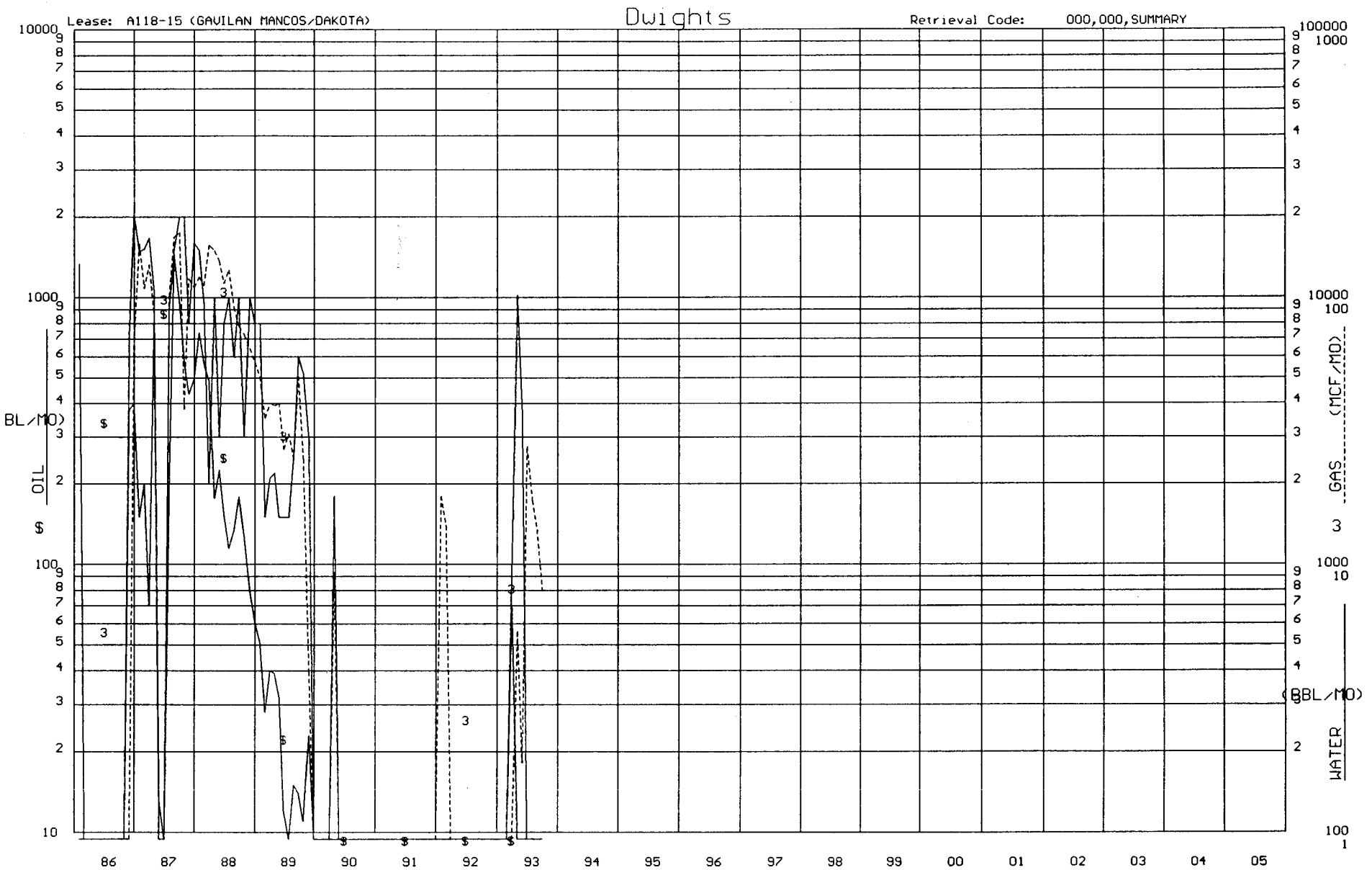
Signature

Robert E. Poirrier, Jr. Engineering Technici
Printed name and title

March 28, 1994 303 837-5442
Date Telephone No.

Attachment 'C'

Decline Curves



County: RIO ARRIBA State: NM
Field: OJITO NE (GALLUP DAKOTA) GD
Reservoir: GALLUP DAKOTA
Operator: M W PETROLEUM CORP
Oil Cum: 18082 Gas Cum: 302620
Location: 25P 26N 3W

F.P. Date 01-86

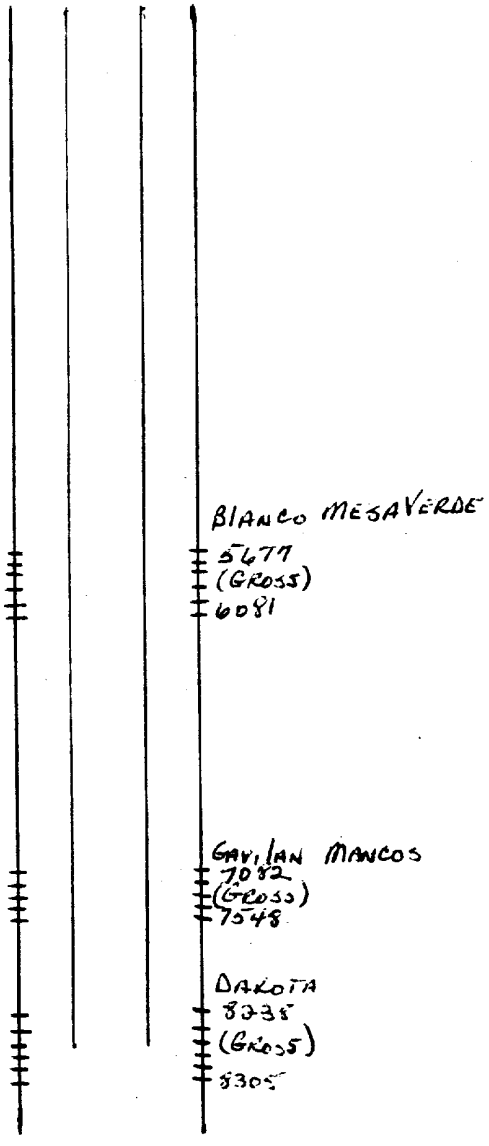
Date: 02-24-94

Attachment 'D'

Well resume and commingling schematic

JAT A 118 #15 Commingle

SKEMATIC



JAT - A-118 #15

10-2-85 Release drilling rig. PBTD @ 8494

10-18-85 Perf. Lower Dakota

10-19-85 Pump 361 bbls 2% KCL; break formation @ 1800 PSI
rate - 20 bpm @ 1500# avg.

10-22-85 Start swabbing fl/m 8433' 20 runs 103 bbl LW
IFL - 100' FFL - 1200' csg on VACUUM

10-23-85 Swab: 30 Runs IFL - 600' FFL - 2500' 39 BLW 17 BNO
ICP - 0 FCP - 60# ITP - 0 FTP - slight blow

10-24-85 SWAB: 24 Runs - IFL - 1100' FFL - 3000' 32 BLW 81 BNW
12 BNO ICP - 250# FCP - 300# ITP - 5# FTP - 0#

10-25-85 SWAB: 20 Runs IFL - 1900' FFL - 4700' 107 BNW 3 BNO
ICP - 550# FCP - 400# ITP - 325# FTP - 0 gas cut

10-26-85 SWAB: 23 Runs IFL - 2700' FFL - 4600' 127 BNW 2 BNO
ICP - 620# FCP - 550# ITP - 10# FTP - 0#

10-29-85 SWAB: 25 Runs IFL - 1100' FFL - 3400' 135 BNW 3 BNO
SICP - 900# FCP - 700# SITP - 25# FTP - 0#

10-30-85 Set drillable BP @ 8410' to perforate main Dak.

10-31-85 Perf & Break down main Dak.; broke @ 2500#
ave rate 25 BPM min PSI 1800# max PSI 2500#
ave PSI 1900# 370 BLWTR 15 BLW Flowed back

11-1-85 Set PKR @ 8100'

11-2-85 Swab & flow well: 6 runs & flow 15.25 hrs. TBG - 135# CSG - 0
69 - BLW 15 - BNO 259 MCF

11-3-85 Flow 24 hrs. - 20 - BLW 1.6 BNO 273 MCF
TBG - 135# CSG - 0

11-4-85 Flow 24 hr. - 7 BLW 5 BNO 273 MCF
TBG - 135# CSG - 0

11-5-85 24 hr flow - 4 BW 1.6 BO 273 mcf

135 TBG. @ 59 - 0

11-6-85 24 hr flow - 4 BW 3.3 BO 245 mcf

TBG. - 130 CSG - 0

11-6-85 Frac main Dak. w/ 60,000 gal 30# gel & 65,000# 20-40 Brady sand

11-9-85 Try to flow back frac. would not. Swab well: 5 runs 82 BLW

1600 BLW TR

11-12-85 Swab: 12 runs & start flowing recovered 121 BLW swabbing

Flowed 17.5 hrs.: 365 BLW 0-BO CP-550# TP-160

282 mcf

11-13-85 Flow 24 hr.: 130 BLW 0-BO 172-mcf TP-100# CP-5[illegible]

11-14-85 Flow 24 hrs.: 71 BLW 0-BO 288 mcf TP-110# CP-52[illegible]

11-15-85 24 hrs: 54 BLW 0-BO 234-mcf TP-100 CP-500

11-16-85 24 hrs: 50 BLW 0-BO 234 mcf TP-100 CP-470 24/64

11-17-85 24 hrs: 40 BLW 0-BO 250 mcf TP-110 CP-420 24/64

11-18-85 24 hrs: 35 BLW 0-BO 250 mcf TP-100 CP-420 24/64

11-19-85 Set Ret. B.P. w/ Wireline & runs C.B.L.

11-20-85 Perf gallup 7504 - 7548

11-21-85 Perf gallup 7174 - 7504

11-22-85 Perf gallup 7082 - 7174

11-23-85 Frac Gallup w/ 321,600 gal 30# gel & 323,200# sand

11-27-85 Clean out sand.

12-3-85 Swab: 16 runs 120-BLW 31 bbl O.

12-4-85 Swab: 18 runs 91-BLW 35 BO

12-5-85 Swab: 12 runs 108-BLW 39 BO

12-6-85 Swab: 2 runs 179 mcf

12-7-85 Flow-19 hrs: 130-BLW - 121-BO

12-8-85 21 hrs: 58 BLW 36-BO

12-9-85 8 hrs. - 0-BLW - 0-BO

12-10-85 6.5 hrs. - 60-BLW 33.3-BO

12-11-85 13 hrs - 80-BLW 130-BO

12-12-85 17 hrs - 60-BLW 131-BO

12-13-85 Retrieve B.P.

12-14-85 Run CBL from 3500' to surface

12-18-85 12 hrs - 111-BLW 113-BO 851 MCF 36/64

12-19-85 24 hrs - 25-BLW 123-BO 580 MCF 36/64

12-20-85 24 hrs - 3 BLW 116-BO 280 MCF 36/64

12-21-85 24 hrs - 17 BLW 133-BO 580 MCF 36/64

12-22-85 24 hrs. - 13-BLW 114-BO 364 MCF 16/64

12-23-85 24 hrs - 31-BLW 108-BO 461 MCF 16/64

12-24-85 21 hrs - 11-BLW 114-BO 578 MCF 18/64

12-25-85 24 hrs - 11-BLW 121-BO 595 MCF 18/64

12-26-85 24 hrs - 6-BLW NP-BO 497 MCF 18/64

12-27-85 24 hrs - 5-BLW 81-BO 760 MCF 18/64

12-28-85 24 hr - 5-BLW 130-BO 595 MCF 20/64

12-29-85 12 hrs - 3-BLW 57-BO 595 MCF 20/64 logged off

12-30 to 1-8-86 SI to clean out paraffin

1-8-86 flow thg & Csg.

1-9-86 IFL - 6350' thg clean

4-22-87 Cut Paraffin & retrieve pistons

4-23-87 Swab: 18 runs 130-BLW 20-BO

4-27-87 flow

4-28-87 Set CIBP @ 7750

4-29-87 Run BHP Bombs & Swab 45 BLW (used to run with pumps.)

7-14-87 Put on rod pump.

10-15-87 Mill out CIBP @ 7750

10-16-87 flowing up csg

10-17-87 flowing up csg

10-18-87 " " "

10-19-87 " " " convert to plunger

10-20-87 Kill well. land tbg @ 8317'. 3 swab runs: 13-BO

11-9-91 Run BHP Survey

11-15-91 Swab: IFL - 6900' 3 RUNS 16-BLW SITP - 175 SICP - 480

11-18-91 Swab: IFL - 7600' 10 Runs 11-BLW Tag fill & Talley out

SITP - 250 SICP - 500

11-19-91 Pull & Talley tbg. TIH w/ tbg.

11-20-91 Swab: 13 Runs IFL - 7000' FFL - 7900' 23.3 B-W 2.5-BO

10-21-91 Swab: 4 runs IFL - 7300' FFL - 7700' 6-BW SITP - 390 SICP-

11-26-91 Swab: 5 runs IFL - 6700' FFL - 7700' 6-BW FCP - 260

SITP - 360 SICP - 410

11-27-91 Swab: 1 run IFL - 6900' FFL - S.N. FCP - 270

Drop bumper spring, and piston.

12-2-91 Try to run piston - SITP - 360, SICP - 360,

12-3-91 Swab: 3 runs IFL - 7200' SICP - 380# NO PISTON

12-4-91 Swab: 2 runs IFL - 7100' SICP - 350# NO PISTON - ON COMPRESS

12-5-91 Swab: 2 runs IFL - 7200' SICP - 365# NO PISTON

12-6-91 Turned on to production. would not lift sold csg.

SUPPLEMENTAL INFORMATION TO FORM 3160-3

The geological name of the surface formation is the San Jua:.

Estimated tops of important potential hydrocarbon bearing formations:

FORMATION	DEPTH	ELEVATIO:
Ojo Alamo	3351	4212
Fruitland	3944	3619
Pictured Cliffs	4075	3488
Chacra	4732	2831
Cliffhouse	5750	1813
Menefee	5840	1723
Point Lookout	6241	1322
Gallup	7196	397
Dakota	8377	-814
Morrison Bluff		
Summerville		
Todilto		
Entrada		
Navajo		
Wingate		
Chinle		
DeChelly		
Hermosa		
Molas		
Mississippian Leadville		
T.D.	8577	-1014

Estimated KB elevation: 7518.

Drilling fluid to TD will be a low solids non-dispersed mud system. Open hole logging program will include logs from TD to below surface casing.

DIL-SP-GR, FDC-CNL-GR
Completion design will be based on these logs. No cores or drill stem tests will be taken.

Operations will commence when permitted and last approximately 10 wks weeks.

Amoco's standard blowout prevention will be employed (see attached drawing).

PE7

FARMINGTON DISTRICT COMPLETION PROCEDURE

Date: 10/1/85

WELL NAME: Jicarilla Apache A 118 # 15 FIELD: Otio Gallup-Dakota

LOCATION: SE/4 SE/4 Sec. 25 - T26N - R3W FORMATION(S): Gallup-Dakota

Rio Arriba County, NM

ELEVATIONS: KB: 7517' TD: 8540' PBD: 8494

CASING: 8 5/8" 24 # J-55 @ 339'

5 1/2" 15.5 # K-55 @ 8540'

LOGS: DIL-SP-GR, FDC-CNL-GR-Caliper

DV TOOL SET AT: 4557

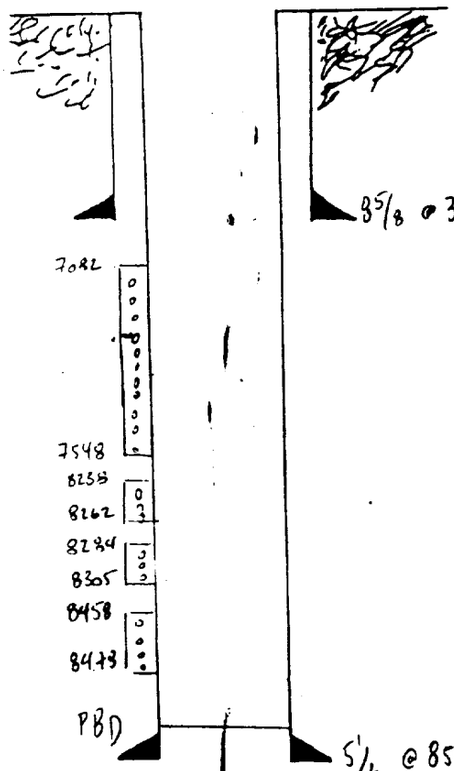
PURPOSE: Initial Completion

~~DBB~~ BJW TWE ~~GOM~~ ~~DHS~~ MCH (RGH) BVD GMK RWO/AJM 2DF ~~EDA~~ ~~ENGR~~ FILE

Perforating Co: Gearhart

Stimulation Co: Dowell

WELLBORE SKETCH



PROCEDURE

1) MIRUSU

2) TIH w/ 2 3/8" tbg and bit and clean out to PBD

3) Pressure test the casing to 3800 psi.

4) Displace the hole w/ 2% KCl water and circulate clean. Reciprocate and rotate the tbg. while circulating clean.

5) Run junk basket and gauge ring to bottom

6) Swab the fluid level down to 7500'.

7) Perforate the induction log interval from 8458 - 8478 w/ 4" casing guns, 4 JSPF, and 120° phasing. Use hollow steel carrier guns w/ Gearhart DML Densijet ~~X-X~~ charges.

DISTRICT MANAGER R.J. Boisseau

DISTRICT ENGINEER JBBlevins 100385

DISTRICT DRILLING SUPERVISOR T.W. Emmins

ENGINEER Ed Alizadeh x246 (326-2368)

DATE

ENGSPE

ENG-39

Jicarilla Apache A 118 #15

8) Breakdown the Lower Dakota with 15,000 gallons of 2% KCl water @ 15 BPM. ATP should be 2500 psi. Maximum pressure is 3800 psi.

9) Flow back the breakdown immediately after finishing the job. Swab if necessary.

10) Continue to test the lower Dakota until notified by the main office.

11) If necessary, a fracture design will be distributed for the Lower Dakota.
Otherwise, continue on with this procedure.

12) Set a CIBP @ 8400'

13) Swab the fluid level down to 7000'

14) Perforate the induction log intervals from 8238 - 8262 and 8284 - 8305 w/ 4" casing guns, 4 JSPF, and 120° phasing. Use hollow steel carrier guns w/ Gearhart DMC Densijet ~~V~~ X charges.

15) Breakdown the Main Dakota w/ 15,000 gallons of 2% KCl water @ 15 BPM. ATP should be 2500 psi. Maximum pressure is 3800 psi.

16) Flow back the breakdown immediately after finishing the job. Swab if necessary.

17) Test the Main Dakota until notified by the Main office.
This test will determine if we frac the Main Dakota.
If we decide to frac the Main Dakota, go to the next step;
If not Set a CIBP @ 8200 and go to step 26.

Jicarilla Apache A 113 # 15

18) Frac the Main Dakota down the casing w/ 60,000 gallons of 30 # gelled kcl water w/ 65,000 lbs. of 20-40 sand.

Add 1 gallon surfactant per 1000 gallons of fluid Average treating ~~pressure~~ should be 2000 psi @ 30 BPM. Maximum pressure is 3800 psi.

STAGE	FLUID VOL.	SLURRY VOL	SAND CONC	SAND
1	20,000 gal	20,000 gal	0	0
2	15,000 gal	15,683 gal	1.0	15,000 #
3	25,000 gal	27,275 gal	2.0	50,000 #
	60,000 gal	62,958 gal		65,000 #

NOTES:

1) Run ½ millicurie per 1000 lbs sand (32.5 millicuries)

2) Obtain ISIP, 5, 10, and 15 minute SIP's

3) Please steam clean all frac tanks, sieve test the sand, and check the gel quality of <u>all</u> tanks immediately prior to the job.

19) Flush w/ 8000 gallons of 2% kcl water or 30 # gelled water.

20) SI well 24 hrs. to allow frac to heal.

21) Run GR tracer survey.

22) TIH w/ tbg. and flow back frac. Start flowing through a ¼" choke DO NOT PRODUCE SAND

23) Flow test until notified by main office. Swab if necessary

24) TOH w/ tbg.

25) Set a retrievable BP @ 7700'

26) Pressure test the BP to 3800 psi Swab the fluid level down to 6000' prior to perforating.

27) Perforate the induction log interval from 7082-7348 w/ 4" casing guns, 1 JSPF, and 120° phasing Use hollow steel carrier guns w/ Gearhart DML Densijet XIX charges

Jicarilla Apache A 11B #15

28) Frac the Gallup down casing w/ 325,000 gallons of 30# gelled water w/ 330,000 pounds of 20-40 sand.

Add 1 gallon surfactant per 1000 gallons fluid. Average treating pressure should be 2500 psi @ 60 BPM. Maximum pressure is 3800 psi.

STAGE	FLUID VOL	SLURRY VOL	SAND CONC	SAND
1	120,000 gal	120,000 gal	0	0
2	80,000 gal	83,641 gal	1	80,000 #
3	125,000 gal	136,377 gal	2	250,000 #
	325,000 gal	340,018 gal		330,000 #

Notes: 1) obtain ISIP, 5, 10, and 15 minute SIP's.

2) Please steam clean all frac tanks, sieve test the sand, and check the gel quality of all tanks using a Fann V-G meter.

29) Flush w/ 6900 gallons of 2% kcl or 30# gelled water

30) SI overnight + 24 hrs to allow the frac to heal

31) TIH w/ tbg and flow back frac through a ¼" choke.
DO NOT PRODUCE SAND

32) Flow test until notified by main office.

33) TOH w/ tbg.

34) TIH w/ tbg and retrieving head and retrieve BP @ 7700'

35) TIH w/ tbg, w/ sawtooth collar and seating nipple and land @ 3310.

36) TIH w/ 2" x 1½" x 20' pump w/ 220 ¾" rods and 112 ⅞" rods.

37) Set a 320 pumping unit

38) Pump test for GOR and IP data until notified by main office

NOTE: 1) Use Brady Sand

2) Report BLW and BLWTR in the daily wire.

3) Perform all Quality Control Checks

FARMINGTON DISTRICT
DRILLING PROGRAM

Well Name: Jicarilla Contract A118 No. 15

Location: SE/4 SE/4, Section 25, T26N, R3W
Rio Arriba County, New Mexico

Elevations: 7505' GL 7352' KB

TWE AJM/RWO 2/FF RND ENGR. File

Estimated Formation Tops

Formation	Depth
Ojo Alamo	3310'
Fruitland	3840'
Pictured Cliffs	4030'
Chacra	4680'
Cliffhouse	5710'
Menefee	5800'
Point Lookout	6700'
Gallup	7155'
Dakota	8330'
TD	8540'

Drilling Program

Interval	Hole Size	Casing	Comments
0-300'	12 1/4"	8 5/8"	None.
300'- 8540'	7 7/8"	5 1/2"	Mesaverde lost circulation. Run Stratabit on daywork from 6350'-8180'. Run bit with a shock sub.

Logging Program

Log Type	Intervals
DIL-SP-GR	4000' - TD
FDC-CNL-GR-Caliper	4000' - TD
Caliper-GR	to surface casing.

Cementing Program

Casing Type	Cement
Surface:	300 sx. Class B, 2% $CaCl_2$
Production:	Stage tool @ 4500' Precede with 30 bbl water. Rotate casing on first stage and batch mix.

First Stage Lead: 65:35:6 Class B, 2 ppsk Tuffplug, 12.0 ppg, 1.98 ft^3/sk, 10.9 gal/sk.

First Stage Tail: 50:50:2 Class B, 10% salt, .6% FLA, .25#/sk Flocele, 13.93 ppg, 1.21 ft^3/sk, 5.24 gal/sk.

Second Stage: 65:35:6 Class B, 2 ppsk Tuffplug, 12.0 ppg, 1.98 ft^3/sk, 10.9 gal/sk.

District Drilling Supervisor _____

Drilling Engineer RND

Date 9/12/85

ENG19

DAILY COMPLETION REPORT
APACHE CORPORATION

K.B._____

DATE 9-25-93 DAY 05 WELL NAME A-118 #15

DAYS WELL ON COMPLETION_____ PBTD_____ SITP 50 HRS WSI 14

PRESENT OPERATIONS Clean out Frac.

FORMATION BEING TESTED Blanco Mesa Verde PRESENT PERFORATIONS 6046-6051, 6059-6081

SWABBING FOR DAY • IFL_____ NO OF RUNS_____ FFL_____ HRS SWABBED_____

REC:_____ BO_____ BW_____

24 HR PRODUCTION_____ BO_____ BW_____ MCF_____ CK_____ FTP

_____ SPM_____ STROKE LENGTH_____ PUMP SIZE

DAILY REPORT: (FOR PREVIOUS DAY)

TBG. COUNT	50# SITP. RU wellhead isolation tool.	PUMP SIZE
Size	RU B/S get 3 Frac tanks. Test	
Weight	lines to 4000 PSI (OK). Start Frac	
Grade	& Pump as follows:	ROD COUNT
Joints	Pad - 4 BPM 19 bbls 0 PSI	K-Bars
Feet	" - 10 BPM 84 bbls 0 PSI	3/4"
S.N.	" - 12 BPM 27 bbls 0 PSI	7/8"
Packer	" - 12 BPM 27 bbls. 900 PSI	1" Plain
Anchor	" - 20 BPM 192 bbls 1236 PSI	1" Scraper
Tail Pipe	Sand 1 PPG 20 BPM 114 bbls 1131 PSI	PONY RODS
	" 2 PPG 20 BPM 85 bbls 879 PSI	2'
CSG. SIZE	" 3 PPG 20 BPM 78 bbls 641 PSI	4'
7"	" 4 PPG 20 BPM 81 bbls 499 PSI	6'
5½"	" 5 PPG 20 BPM 123 bbls. 330 PSI	8'
	" 6 PPG 20 BPM 106 bbls 229 PSI	POLISH ROD
	Flush 20 BPM 111 bbls 188 PSI	

DAILY WELL COST_____ CUM WELL COST_____

RIG CO.
RIG NO.
RIG COST
B.O.P. & ACCUM.
SUPERVISION
TEST TANK
RENTAL TOOLS
TRUCKING
ROUSTABOUTS

SALT WATER
HOT OIL TRUCK
H_2S SAFETY
ACID
CEMENT
LOGGING
PERF.
WIRELINE
OTHER. _____

DAILY COMPLETION REPORT
APACHE CORPORATION

K.B._____

DATE 9-25-93 DAY 05 WELL NAME A-118 #15

DAYS WELL ON COMPLETION_____ PBTD_____ SITP_____ HRS WSI_____

PRESENT OPERATIONS _____

FORMATION BEING TESTED_____ PRESENT PERFORATIONS_____

SWABBING FOR DAY • IFL_____ NO OF RUNS_____ FFL_____ HRS SWABBED_____

REC:_____ BO_____ BW_____

24 HR PRODUCTION_____ BO_____ BW_____ MCF_____ CK_____ FTP

_____ SPM_____ STROKE LENGTH_____ PUMP SIZE

DAILY REPORT: (FOR PREVIOUS DAY)

TBG. COUNT	FLUSH 16 BPM 27 bbls 911 PSI	PUMP SIZE
Size	SHUT DOWN - ISIP 840#	
Weight	5 MIN SIP - 508# 10 MIN. SIP - 453#	
Grade	15 MIN. SIP - 421# RD D/S	ROD COUNT
Joints	RD WELLHEAD ISOLATION TOOL. SI W	K-Bars
Seal	SDFN.	3/4"
S.N.		7/8"
Packer	TOTALS PUMPED - WATER 922 BLWTR	1" Plain
Anchor	SAND 80,470#	1" Scraper
Tail Pipe		PONY RODS
		2'
CSG. SIZE		4'
7"		6'
5½"		8'
		POLISH ROD

DAILY WELL COST 34615 - CUM WELL COST 623165

RIG CO. FLINT	KCL WATER 1900
RIG NO.	HOT OIL TRUCK
RIG COST 1200	H_2S SAFETY
B.O.P. & ACCUM.	ACID
SUPERVISION 300	CEMENT
TEST TANK 550	LOGGING
RENTAL TOOLS 2785	PERF.
TRUCKING	WIRELINE
ROUSTABOUTS	OTHER. FRAC - 27,880 -

DAILY COMPLETION REPORT
APACHE CORPORATION

K.B._____

DATE 10-8-93 DAY 17 WELL NAME A-118 #15

DAYS WELL ON COMPLETION_____ PBTD_____ SITP_____ HRS WSI_____

PRESENT OPERATIONS CHECK FILL, LAND TBG. RETURN TO PROD.

FORMATION BEING TESTED BLANCO MV PRESENT PERFORATIONS 5677-5688, 5775-5788, 5871-5878, 5884-5888, 6046-6051, 6059-6081

SWABBING FOR DAY - IFL_____ NO OF RUNS_____ FFL_____ HRS SWABBED_____

REC: 8 BO 33. BW

24 HR PRODUCTION_____ BO_____ BW_____ MCF_____ CK_____ FTP

_____ SPM_____ STROKE LENGTH_____ PUMP SIZE

DAILY REPORT: (FOR PREVIOUS DAY)

TBG. COUNT	WELL FLOWED OVERNIGHT TO SYSTEM	PUMP SIZE
Size	FROM 1:00 PM. UNTIL 8:00 AM	
Weight	17 HR PRODUCTION —	
Grade	112 MCF	ROD COUNT
Joints	8 BO	K-Bars
Feet	33 BW	3/4"
S.N.	75# T.P. 440# C.P.	7/8"
Packer		1" Plain
Anchor	317 BLWTR @ 8:00 AM	1" Scraper
Tail Pipe		PONY RODS
		2'
CSG. SIZE		4'
7"		6'
5½"		8'
		POLISH ROD

DAILY WELL COST 2150 — CUM WELL COST 141567 —

RIG CO. FLINT
RIG NO.
RIG COST 1800
B.O.P. & ACCUM.
SUPERVISION 300
TEST TANK 150
RENTAL TOOLS
TRUCKING
ROUSTABOUTS

SALT WATER
HOT OIL TRUCK
H_2S SAFETY
ACID
CEMENT
LOGGING
PERF.
WIRELINE
OTHER. _____

DAILY COMPLETION REPORT
APACHE CORPORATION

K.B._____

DATE 10/21/93 DAY 27 WELL NAME Vic A118-15

DAYS WELL ON COMPLETION_____ PBTD_____ SITP_____ HRS WSI_____

PRESENT OPERATIONS on Production

FORMATION BEING TESTED_____ PRESENT PERFORATIONS_____

SWABBING FOR DAY - IFL____ NO OF RUNS____ FFL____ HRS SWABBED_____

REC:_____ BO_____ BW

24 HR PRODUCTION_____ BO_____ BW_____ MCF_____ CK_____ FTP

_____ SPM_____ STROKE LENGTH_____ PUMP SIZE

DAILY REPORT: (FOR PREVIOUS DAY)

TBG. COUNT	well pumping RDMOSU	PUMP SIZE
Size		
Weight	Csg 60	
Grade	Gas 148	ROD COUNT
Joints	oil 8.4	K-Bars
Feet	water 60.4	3/4"
S.N.		7/8"
Packer		1" Plain
Anchor		1" Scraper
Tail Pipe		PONY RODS
		2'
CSG. SIZE		4'
7"		6'
5½"		8'
		POLISH ROD

DAILY WELL COST 500- CUM WELL COST 168,834

RIG CO. Flint	SALT WATER
RIG NO.	HOT OIL TRUCK
RIG COST	H_2S SAFETY
B.O.P. & ACCUM.	ACID
SUPERVISION	CEMENT
TEST TANK	LOGGING
RENTAL TOOLS	PERF.
TRUCKING	WIRELINE
ROUSTABOUTS	OTHER. _____

DAILY COMPLETION REPORT
APACHE CORPORATION

K.B._____

DATE 10-22-93 DAY 28 WELL NAME A-118 #15

DAYS WELL ON COMPLETION_____ PBTD_____ SITP_____ HRS WSI_____

PRESENT OPERATIONS Well Pumping

FORMATION BEING TESTED MV PRESENT PERFORATIONS_____

SWABBING FOR DAY - IFL____ NO OF RUNS____ FFL____ HRS SWABBED____

REC:_____BO_____BW

24 HR PRODUCTION_____ BO_____ BW_____ MCF_____ CK_____FTP

_____SPM_____STROKE LENGTH_____PUMP SIZE

DAILY REPORT: (FOR PREVIOUS DAY)

TBG. COUNT	oil - 1.67	PUMP SIZE
Size	water - 73.4	
Weight	gas - 161 MCF	
Grade		ROD COUNT
Joints	Well pumping. Test Reports	K-Bars
Feet	being sent.	3/4"
S.N.		7/8"
Packer	Final Report	1" Plain
Anchor		1" Scraper
Tail Pipe		PONY RODS
		2'
CSG. SIZE		4'
7"		6'
5½"		8'
		POLISH ROD

DAILY WELL COST 0 CUM WELL COST 168,834

RIG CO.	SALT WATER
RIG NO.	HOT OIL TRUCK
RIG COST	H_2S SAFETY
B.O.P. & ACCUM.	ACID
SUPERVISION	CEMENT
TEST TANK	LOGGING
RENTAL TOOLS	PERF.
TRUCKING	WIRELINE
ROUSTABOUTS	OTHER. _____

Daily Mileage End:.....

Beginning:.....

TOTAL:.....

Daily Gas Operations

APACHE CORP.

Lease Operator Jic A11B-15 DATE

WELL					METER				(1) TANKS (2)				PRODUCTION	REMARKS
site Date Name	Formation	Choke Size	Tubing Pressure	Casing Pressure	Static	Differential	Orfice	MCF Volume	Ft.	In.	water Ft.	water In.	Oil Daily Bbls.	
10-16-93				95				149				39	8.4	MV Recompletion oil recovered from swab tank
10-17				55				90				0	0	
10-18				45				90				0	0	change pump
10-19				45				90				5	0	change pump - swab
10-20				60				148				60.4	8.4	RDMOSU Recovered all Load
10-21				60				161				73.4	1.67	
10-22				60				171				49.5	3.34	
10-23				60				169				46.35	0	
10-24				50				112				19.18	8.35	PMP UNIT DOWN - STARTED UP -
10-25				60				84				31.75	1.67	PMP UNIT DOWN - STARTED
10-26				40				179				38.75	2.51	
10-27				65				170				28.4	0.84	
10-28				34				170				26.7	2.50	
10-29				40				169				24.3	1.67	
10-30				40				120				25.1	.84	comp. down 3 hrs. - Low Lube Oil
10-31				40				136				19.2	.42	" " " " " "
11-1				52				155				25.1	1.25	
11-2				60				66				18.3	1.67	comp. dn. 10 hrs.
11-3														
11-4					0	2"	Avg	140.5 mcf			33	8 WPD	2.72 BOPD	

Previously T/A

Daily Gas Operations

APACHE CORP.

Daily Mileage End:.....
Beginning:.....
TOTAL:.....

Lease Operator A118-15 DATE

WELL					METER				(1) TANKS (2)				PRODUCTION	REMARKS
Name	Formation	Choke Size	Tubing Pressure	Casing Pressure	Static	Differential	Orfice	Volume	Ft.	In.	Ft	In.	Daily Bbls.	water
12-5														ROMOSU left S.I.
12-6								0						Would not unload S.I. equalized
12-7														S.I.
12-8														S.I.
12-9			260	260	- Hrs would not unload -									Start comp. Back on. csg only
12-10								313					0	
12-11								0					0	Comp down 24 hrs. ?.
12-12								101					0	
12-13								101	est				0	
12-14								101					0	
12-15								0					0	S.I. 24 hrs EPNG Line freeze
12-16								0					0	S.I. 24 hrs EPNG Line freeze
12-17								0					0	Turn BACK ON
12-18								192					0	
12-19								197					0	
12-20								258					0	
12-21								258					0	
12-22								258					0	
12-23								258					0	
12-24								299					0	
12-25								299	est.				0	
12-26								40					0	High numbers before?
12-27								40						
12-28								40						
12-29								40						FINAL Report

APACHE CORPORATION

JIC APACHE A118 #15

Fracture Treatment Execution Report

Prepared for: RUSSELL PULLIN

WEST LINDRITH DAKOTA

LOWER MESAVERDE

RIO ARRIBA

NEW MEXICO

TREATMENT LOG

TIME HH:MM:SS	PUMP-TIM MIN	TR-PRES PSI	SLUR-RAT BPM	TOT-SLUR BBL	TOT-FLUI BBL	PROP-CON PPA	TOT-PROP lb
11:03:36	8.13	-5	12.12	57.0	57.0	0.0	0
11:03:51	8.38	920	12.12	60.0	60.0	0.0	0
11:04:06	8.63	1103	12.00	63.0	63.0	0.0	0
11:04:21	8.88	1195	13.62	66.3	66.3	0.0	0
11:04:36	9.13	1204	14.75	69.8	69.8	0.0	0
11:04:51	9.38	1195	15.25	73.6	73.6	0.0	0
11:05:06	9.63	1190	16.12	77.5	77.5	0.0	0
11:05:21	9.88	1236	18.87	82.2	82.2	0.0	0
11:05:36	10.13	1222	20.50	87.1	87.1	0.0	0
11:05:51	10.38	1199	19.25	92.0	92.0	0.0	0
11:06:06	10.63	1181	20.25	97.0	97.0	0.0	0
11:06:21	10.88	1172	20.12	102.0	102.0	0.0	0
11:06:36	11.13	1154	20.12	107.1	107.1	0.0	0
11:06:51	11.38	1131	20.12	112.1	112.1	0.0	0
11:07:06	11.63	1135	20.12	117.1	117.1	0.0	0
11:07:21	11.88	1126	20.12	122.2	122.2	0.0	0
11:07:36	12.13	1158	20.12	127.2	127.2	0.0	0
11:07:51	12.38	1167	20.12	132.2	132.2	0.0	0
11:08:06	12.63	1181	20.12	137.3	137.3	0.0	0
11:08:21	12.88	1186	20.12	142.3	142.3	0.0	0
11:08:36	13.13	1172	20.12	147.3	147.3	0.0	0
11:08:51	13.38	1186	20.12	152.4	152.4	0.0	0
11:09:08	13.67	1181	20.12	158.1	158.1	0.0	0
11:09:25	13.95	1172	20.12	163.8	163.8	0.0	0
11:09:40	14.20	1167	20.12	168.8	168.8	0.0	0
11:09:55	14.45	1176	20.12	173.8	173.8	0.0	0
11:10:10	14.70	1167	20.12	178.9	178.9	0.0	0
11:10:25	14.95	1167	20.12	183.9	183.9	0.0	0
11:10:40	15.20	1163	20.25	188.9	188.9	0.0	0
11:10:55	15.45	1154	20.12	194.0	194.0	0.0	0
11:11:10	15.70	1158	20.12	199.0	199.0	0.0	0
11:11:25	15.95	1163	20.12	204.1	204.1	0.0	0
11:11:40	16.20	1154	20.12	209.1	209.1	0.0	0
11:11:55	16.45	1158	20.12	214.1	214.1	0.0	0
11:12:10	16.70	1140	20.12	219.2	219.2	0.0	0
11:12:25	16.95	1163	20.25	224.2	224.2	0.0	0
11:12:40	17.20	1144	20.12	229.2	229.2	0.0	0
11:12:55	17.45	1163	20.12	234.3	234.3	0.0	0
11:13:10	17.70	1154	20.12	239.3	239.3	0.0	0
11:13:24	Changed PROP-CON Calibration						
11:13:32	START RECORDING POD DATA						
11:13:50	18.37	1163	20.12	252.8	252.8	0.0	0

TREATMENT LOG

TIME HH:MM:SS	PUMP-TIM MIN	TR-PRES PSI	SLUR-RAT BPM	TOT-SLUR BBL	TOT-FLUI BBL	PROP-CON PPA	TOT-PROP lb
11:14:05	18.62	1144	20.12	257.8	257.8	0.0	0
11:14:20	18.87	1144	20.25	262.8	262.9	-0.1	0
11:14:35	19.12	1149	20.12	267.9	267.9	-0.1	0
11:14:37	START PUMPING PROPPANT						
11:14:55	19.45	1135	20.12	274.6	274.7	0.0	-11
11:15:10	19.70	1131	20.25	279.6	279.6	0.6	66
11:15:25	19.95	1126	20.25	284.7	284.5	0.9	239
11:15:30	NEW STAGE						
11:15:45	20.28	1103	20.25	291.4	291.0	0.9	483
11:16:00	20.53	1099	20.37	296.5	295.8	0.9	669
11:16:15	20.78	1076	20.37	301.6	300.7	0.9	858
11:16:30	21.03	1067	20.37	306.6	305.6	0.9	1051
11:16:50	21.35	1057	20.12	313.1	311.7	1.1	1334
11:17:05	21.60	1035	20.25	318.1	316.5	1.1	1548
11:17:20	21.85	1039	20.37	323.2	321.4	0.9	1768
11:17:35	22.10	1007	20.25	328.3	326.2	1.2	1985
11:17:50	22.35	998	20.37	333.4	331.0	1.8	2255
11:18:06	22.60	989	20.37	338.5	335.8	1.2	2523
11:18:25	22.93	966	20.37	345.2	342.2	1.4	2873
11:18:40	23.18	961	20.37	350.3	347.0	1.6	3147
11:18:56	23.43	952	20.37	355.4	351.8	1.4	3424
11:19:12	NEW STAGE						
11:19:31	24.03	925	20.37	367.6	363.2	1.5	4133
11:19:46	24.28	911	20.37	372.7	368.0	1.6	4453
11:20:01	24.53	906	20.37	377.8	372.7	1.7	4786
11:20:16	24.78	906	20.37	382.9	377.5	1.7	5116
11:20:31	25.03	893	20.37	388.0	382.2	1.8	5454
11:20:46	25.28	879	20.37	393.1	386.9	1.9	5822
11:21:01	25.53	865	20.37	398.2	391.6	1.9	6209
11:21:16	25.78	838	20.37	403.3	396.2	2.1	6595
11:21:31	26.03	824	20.37	408.4	400.9	2.1	6976
11:21:46	26.28	801	20.37	413.5	405.6	2.0	7386
11:22:01	26.53	792	20.37	418.6	410.2	2.0	7793
11:22:16	26.78	778	20.37	423.7	414.9	2.2	8213
11:22:31	27.03	760	20.37	428.8	419.5	2.4	8657
11:22:46	27.28	746	20.37	433.8	424.1	2.3	9099
11:23:01	27.53	742	20.37	438.9	428.7	2.2	9547
11:23:02	NEW STAGE						
11:23:21	27.87	723	20.37	445.7	434.8	2.5	10179

TREATMENT LOG							
TIME HH:MM:SS	PUMP-TIM MIN	TR-PRES PSI	SLUR-RAT BPM	TOT-SLUR BBL	TOT-FLUI BBL	PROP-CON PPA	TOT-PROP lb
11:23:36	28.12	705	20.37	450.8	439.4	2.6	10654
11:23:51	28.37	700	20.37	455.9	444.0	2.6	11148
11:24:06	28.62	687	20.37	461.0	448.5	2.7	11663
11:24:21	28.87	668	20.37	466.1	453.1	2.7	12165
11:24:39	29.17	645	20.37	472.2	458.5	2.8	12780
11:24:56	29.45	641	20.37	478.0	463.6	3.0	13383
11:25:11	29.70	623	20.37	483.1	468.1	2.8	13927
11:25:26	29.95	613	20.37	488.2	472.6	3.2	14487
11:25:41	30.20	613	20.37	493.3	477.1	2.9	15062
11:25:56	30.45	604	20.37	498.4	481.6	3.1	15642
11:26:12	30.72	591	20.37	503.8	486.4	3.1	16263
11:26:27	30.97	581	20.50	508.9	490.8	3.4	16886
11:26:42	31.22	563	20.37	514.0	495.2	3.2	17493
11:26:57	31.47	572	20.37	519.1	499.7	3.6	18116
11:27:01	NEW STAGE						
11:27:17	31.80	545	20.37	525.9	505.5	3.4	18953
11:27:32	32.05	540	20.37	531.0	510.0	3.5	19600
11:27:47	32.30	517	20.37	536.1	514.3	3.6	20262
11:28:02	32.55	517	20.37	541.2	518.7	3.5	20913
11:28:17	32.80	508	20.50	546.3	523.1	3.8	21589
11:28:32	33.05	499	20.37	551.4	527.5	3.7	22264
11:28:47	33.30	490	20.37	556.5	531.8	4.0	22966
11:29:02	33.55	481	20.50	561.6	536.2	4.0	23678
11:29:17	33.80	467	20.37	566.7	540.5	4.0	24398
11:29:32	34.05	458	20.37	571.8	544.8	4.0	25121
11:29:47	34.30	472	20.50	576.9	549.2	4.1	25862
11:30:02	34.55	453	20.50	582.1	553.5	4.2	26607
11:30:18	34.80	439	20.37	587.2	557.8	4.0	27344
11:30:33	35.05	430	20.50	592.3	562.1	4.0	28088
11:30:48	35.30	407	20.50	597.4	566.4	4.4	28866
11:31:03	35.55	435	20.50	602.5	570.7	4.3	29634
11:31:10	NEW STAGE						
11:31:28	35.97	412	20.62	611.0	577.8	4.5	30945
11:31:43	36.22	385	20.50	616.2	582.1	4.3	31735
11:31:58	36.47	394	20.62	621.3	586.3	4.7	32568
11:32:13	36.72	366	20.62	626.5	590.6	4.7	33399
11:32:28	36.97	394	20.62	631.6	594.8	4.5	34232
11:32:46	37.25	385	20.62	637.5	599.6	4.8	35195
11:33:02	37.53	330	20.62	643.3	604.5	4.8	36152
11:33:17	37.78	375	20.62	648.5	608.7	5.0	37012
11:33:32	38.03	316	20.62	653.6	612.9	4.8	37888

TREATMENT LOG							
TIME HH:MM:SS	PUMP-TIM MIN	TR-PRES PSI	SLUR-RAT BPM	TOT-SLUR BBL	TOT-FLUI BBL	PROP-CON PPA	TOT-PROP lb
11:33:47	38.28	371	20.62	658.8	617.1	4.5	38765
11:34:02	38.53	311	20.62	663.9	621.3	5.0	39625
11:34:17	38.78	353	20.62	669.1	625.5	5.0	40508
11:34:32	39.03	320	20.62	674.2	629.7	5.0	41396
11:34:47	39.28	293	20.62	679.4	633.9	5.1	42298
11:35:02	39.53	334	20.62	684.5	638.1	5.2	43201
11:35:17	39.78	298	20.62	689.7	642.3	5.3	44124
11:35:32	40.03	293	20.62	694.8	646.4	5.3	45050
11:35:47	40.28	307	20.62	700.0	650.6	5.3	45976
11:36:02	40.53	266	20.62	705.2	654.7	5.4	46905
11:36:17	40.78	288	20.62	710.3	658.9	5.4	47853
11:36:32	41.03	261	20.62	715.5	663.0	5.4	48805
11:36:47	41.28	275	20.62	720.6	667.1	5.6	49757
11:36:51	NEW STAGE						
11:37:08	41.62	261	20.62	727.5	672.6	5.6	51042
11:37:27	41.95	256	20.62	734.4	678.1	5.8	52323
11:37:42	42.20	243	20.62	739.5	682.2	5.4	53304
11:37:57	42.45	234	20.62	744.7	686.3	5.8	54263
11:38:12	42.70	238	20.62	749.8	690.4	5.6	55246
11:38:27	42.95	234	20.62	755.0	694.5	5.7	56231
11:38:42	43.20	229	20.62	760.1	698.6	6.1	57219
11:38:57	43.45	220	20.62	765.3	702.6	5.9	58257
11:39:12	43.70	215	20.50	770.4	706.7	5.9	59281
11:39:27	43.95	220	20.62	775.6	710.7	5.9	60307
11:39:42	44.20	220	20.62	780.7	714.8	5.8	61325
11:39:57	44.45	206	20.62	785.9	718.8	6.0	62345
11:40:12	44.70	215	20.62	791.1	722.9	5.8	63378
11:40:27	44.95	211	20.62	796.2	727.0	6.1	64400
11:40:32	NEW STAGE						
11:40:47	45.28	211	20.62	803.1	732.3	6.0	65778
11:41:06	45.60	206	20.62	809.6	737.5	5.9	67064
11:41:21	45.85	201	20.62	814.8	741.5	6.1	68096
11:41:36	46.10	183	20.62	819.9	745.6	6.0	69112
11:41:51	46.35	174	20.62	825.1	749.7	5.8	70124
11:42:06	46.60	183	20.62	830.2	753.7	6.3	71147
11:42:21	46.85	169	20.62	835.4	757.8	6.1	72166
11:42:36	47.10	183	20.62	840.5	761.8	6.0	73196
11:42:51	47.35	174	20.62	845.7	765.9	6.0	74227
11:43:06	47.60	174	20.62	850.8	769.9	6.2	75255
11:43:21	47.85	183	20.62	856.0	773.9	5.7	76298
11:43:36	48.10	188	20.62	861.2	778.4	1.5	76942

TREATMENT LOG

TIME HH:MM:SS	PUMP-TIM MIN	TR-PRES PSI	SLUR-RAT BPM	TOT-SLUR BBL	TOT-FLUI BBL	PROP-CON PPA	TOT-PROP lb
11:43:37	STOP PUMPING PROPPANT						
11:43:56	48.43	234	20.62	868.0	785.1	-0.1	76962
11:44:12	48.68	275	20.62	873.2	790.3	-0.1	76962
11:44:14	NEW STAGE						
11:44:32	49.02	293	20.62	880.1	797.2	0.0	76962
11:44:47	49.27	330	20.62	885.2	802.4	0.0	76962
11:45:02	49.52	385	20.50	890.4	807.5	-0.1	76962
11:45:17	49.77	407	20.50	895.5	812.7	0.0	76962
11:45:32	50.02	444	20.50	900.7	817.8	-0.1	76962
11:45:47	50.27	494	20.50	905.8	823.0	0.0	76962
11:46:02	50.52	531	20.50	910.9	828.1	-0.1	76962
11:46:17	50.77	577	20.37	916.0	833.3	-0.1	76962
11:46:32	51.02	600	20.37	921.1	838.4	-0.1	76962
11:46:47	51.27	632	20.37	926.2	843.5	-0.1	76962
11:47:02	51.52	678	20.37	931.3	848.6	0.0	76962
11:47:17	51.77	710	20.37	936.4	853.7	-0.1	76962
11:47:32	52.02	746	20.37	941.5	858.8	0.0	76962
11:47:47	52.27	806	20.37	946.6	863.9	0.0	76962
11:48:02	52.52	856	20.37	951.7	869.0	0.0	76962
11:48:17	52.77	888	20.37	956.8	874.1	0.0	76962
11:48:34	53.05	911	20.37	962.6	879.9	-0.1	76962
11:48:51	53.33	980	20.37	968.3	885.7	0.0	76962
11:49:06	53.58	916	20.37	973.4	890.8	-0.1	76962
11:49:21	53.83	911	16.62	977.7	895.3	-0.7	76962
11:49:37	54.08	998	16.62	981.9	899.5	-0.7	76962
11:49:57	54.42	1039	16.62	987.4	905.2	-0.7	76962
11:50:16	54.75	1003	16.62	992.9	910.9	-0.7	76962
11:50:31	55.00	1007	16.62	997.1	915.2	-0.9	76962
11:50:47	55.25	1117	16.62	1001.3	919.6	-0.8	76962
11:51:06	55.58	938	0.00	1004.2	922.6	-1.2	76962
11:51:21	55.83	861	0.00	1004.2	922.6	-1.2	76962
11:51:36	56.08	819	0.00	1004.2	922.6	-1.3	76962
11:51:51	56.33	783	0.00	1004.2	922.6	-1.2	76962
11:52:06	56.58	746	0.00	1004.2	922.6	-1.2	76962
11:52:21	56.83	710	0.00	1004.2	922.6	-1.3	76962
11:52:36	57.08	687	0.00	1004.2	922.6	-1.1	76962
11:52:51	57.33	668	0.00	1004.2	922.6	-0.9	76962
11:53:06	57.58	650	0.00	1004.2	922.6	-0.6	76962
11:53:21	57.83	632	0.00	1004.2	922.6	-0.6	76962
11:53:36	58.08	613	0.00	1004.2	922.6	-0.4	76962

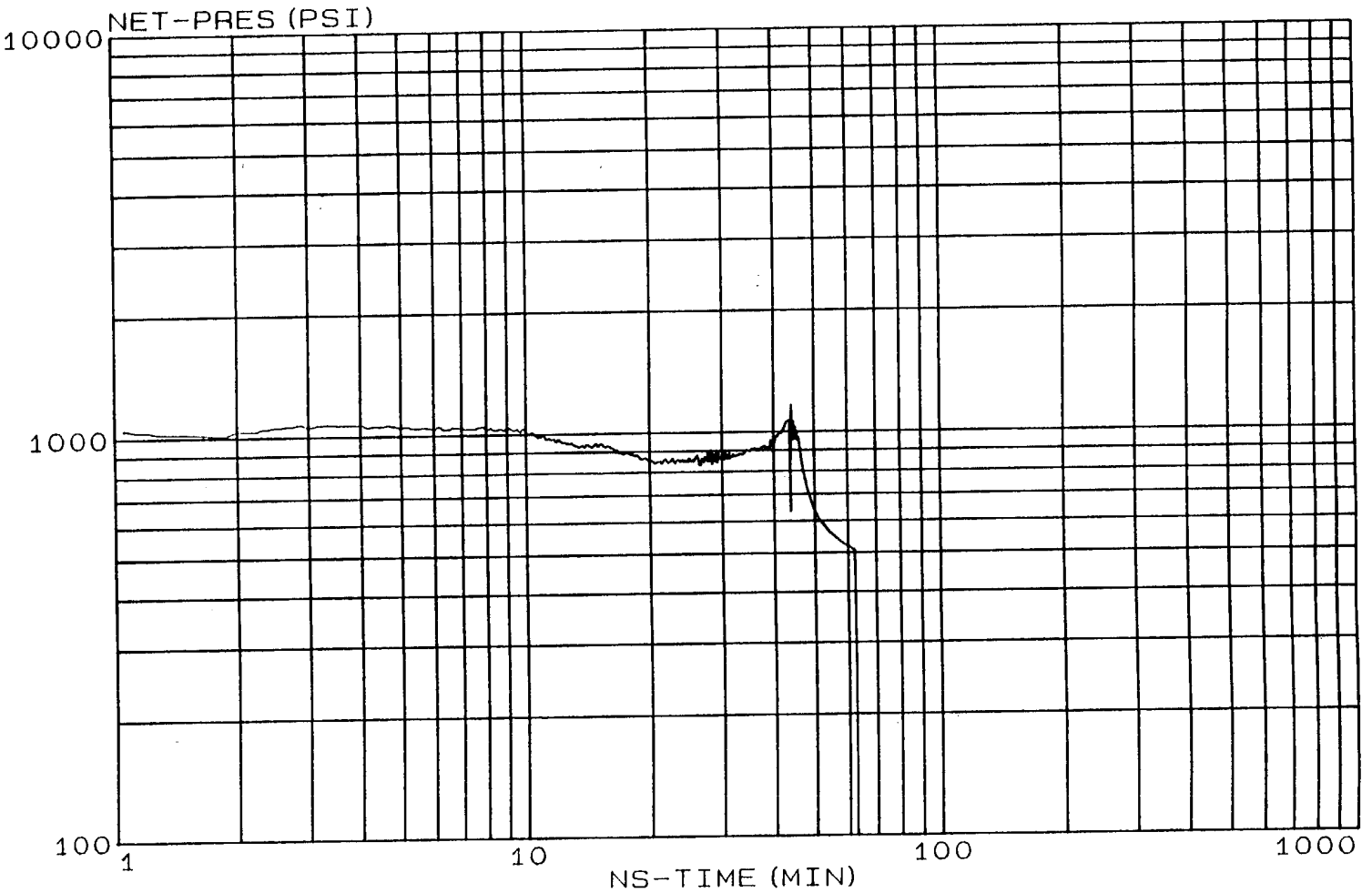
TREATMENT LOG							
TIME HH:MM:SS	PUMP-TIM MIN	TR-PRES PSI	SLUR-RAT BPM	TOT-SLUR BBL	TOT-FLUI BBL	PROP-CON PPA	TOT-PROP lb
11:53:51	58.33	600	0.00	1004.2	922.6	-0.4	76962
11:54:06	58.58	586	0.00	1004.2	922.6	-0.5	76962
11:54:21	58.83	577	0.00	1004.2	922.6	-0.4	76962
11:54:36	59.08	568	0.00	1004.2	922.6	-0.3	76962
11:54:51	59.33	559	0.00	1004.2	922.6	-0.3	76962
11:55:06	59.58	549	0.00	1004.2	922.6	-0.3	76962
11:55:21	59.83	540	0.00	1004.2	922.6	-0.3	76962
11:55:36	60.08	531	0.00	1004.2	922.6	-0.4	76962
11:55:51	60.33	526	0.00	1004.2	922.6	-0.3	76962
11:56:06	60.58	522	0.00	1004.2	922.6	-0.2	76962
11:56:21	60.83	517	0.00	1004.2	922.6	-0.2	76962
11:56:36	61.08	508	0.00	1004.2	922.6	-0.2	76962
11:56:51	61.33	504	0.00	1004.2	922.6	-0.2	76962
11:57:06	61.58	504	0.00	1004.2	922.6	-0.2	76962
11:57:23	61.87	494	0.00	1004.2	922.6	-0.2	76962
11:57:40	62.15	490	0.00	1004.2	922.6	-0.2	76962
11:57:55	62.40	490	0.00	1004.2	922.6	-0.2	76962
11:58:10	62.65	485	0.00	1004.2	922.6	-0.2	76962
11:58:25	62.90	481	0.00	1004.2	922.6	-0.2	76962
11:58:40	63.15	476	0.00	1004.2	922.6	-0.2	76962
11:58:55	63.40	476	0.00	1004.2	922.6	-0.2	76962
11:59:10	63.65	472	0.00	1004.2	922.6	-0.1	76962
11:59:25	63.90	467	0.00	1004.2	922.6	-0.1	76962
11:59:40	64.15	467	0.00	1004.2	922.6	-0.2	76962
11:59:55	64.40	462	0.00	1004.2	922.6	-0.2	76962
12:00:10	64.65	462	0.00	1004.2	922.6	-0.2	76962
12:00:25	64.90	458	0.00	1004.2	922.6	-0.2	76962
12:00:40	65.15	458	0.00	1004.2	922.6	-0.1	76962
12:00:55	65.40	453	0.00	1004.2	922.6	-0.1	76962
12:01:10	65.65	453	0.00	1004.2	922.6	-0.1	76962
12:01:25	65.90	449	0.00	1004.2	922.6	-0.1	76962
12:01:40	66.15	449	0.00	1004.2	922.6	-0.2	76962
12:01:55	66.40	449	0.00	1004.2	922.6	-0.1	76962
12:02:10	66.65	444	0.00	1004.2	922.6	-0.2	76962
12:02:25	66.90	444	0.00	1004.2	922.6	-0.1	76962
12:02:40	67.15	439	0.00	1004.2	922.6	-0.1	76962
12:02:55	67.40	439	0.00	1004.2	922.6	-0.1	76962
12:03:10	67.65	439	0.00	1004.2	922.6	-0.1	76962
12:03:25	67.90	435	0.00	1004.2	922.6	-0.2	76962
12:03:40	68.15	435	0.00	1004.2	922.6	-0.1	76962
12:03:55	68.40	430	0.00	1004.2	922.6	-0.1	76962
12:04:10	68.65	430	0.00	1004.2	922.6	-0.2	76962
12:04:25	68.90	430	0.00	1004.2	922.6	-0.1	76962

TREATMENT LOG							
TIME HH:MM:SS	PUMP-TIM MIN	TR-PRES PSI	SLUR-RAT BPM	TOT-SLUR BBL	TOT-FLUI BBL	PROP-CON PPA	TOT-PROP lb
12:04:40	69.15	430	0.00	1004.2	922.6	-0.1	76962
12:04:55	69.40	426	0.00	1004.2	922.6	-0.2	76962
12:05:10	69.65	426	0.00	1004.2	922.6	-0.1	76962
12:05:25	69.90	426	0.00	1004.2	922.6	-0.1	76962
12:05:40	70.15	421	0.00	1004.2	922.6	-0.1	76962
12:05:55	70.40	421	0.00	1004.2	922.6	-0.2	76962
12:06:12	70.68	421	0.00	1004.2	922.6	-0.1	76962
12:06:29	70.97	417	0.00	1004.2	922.6	-0.1	76962
12:06:44	71.22	417	0.00	1004.2	922.6	-0.1	76962
12:06:59	71.47	417	0.00	1004.2	922.6	-0.1	76962
12:07:14	71.72	417	0.00	1004.2	922.6	-0.1	76962
12:07:29	71.97	412	0.00	1004.2	922.6	-0.1	76962
12:07:44	72.22	41	0.00	1004.2	922.6	0.0	76962
12:07:59	72.47	-23	0.00	1004.2	922.6	0.0	76962

PPR TREATMENT REPORT

24 Sep 93

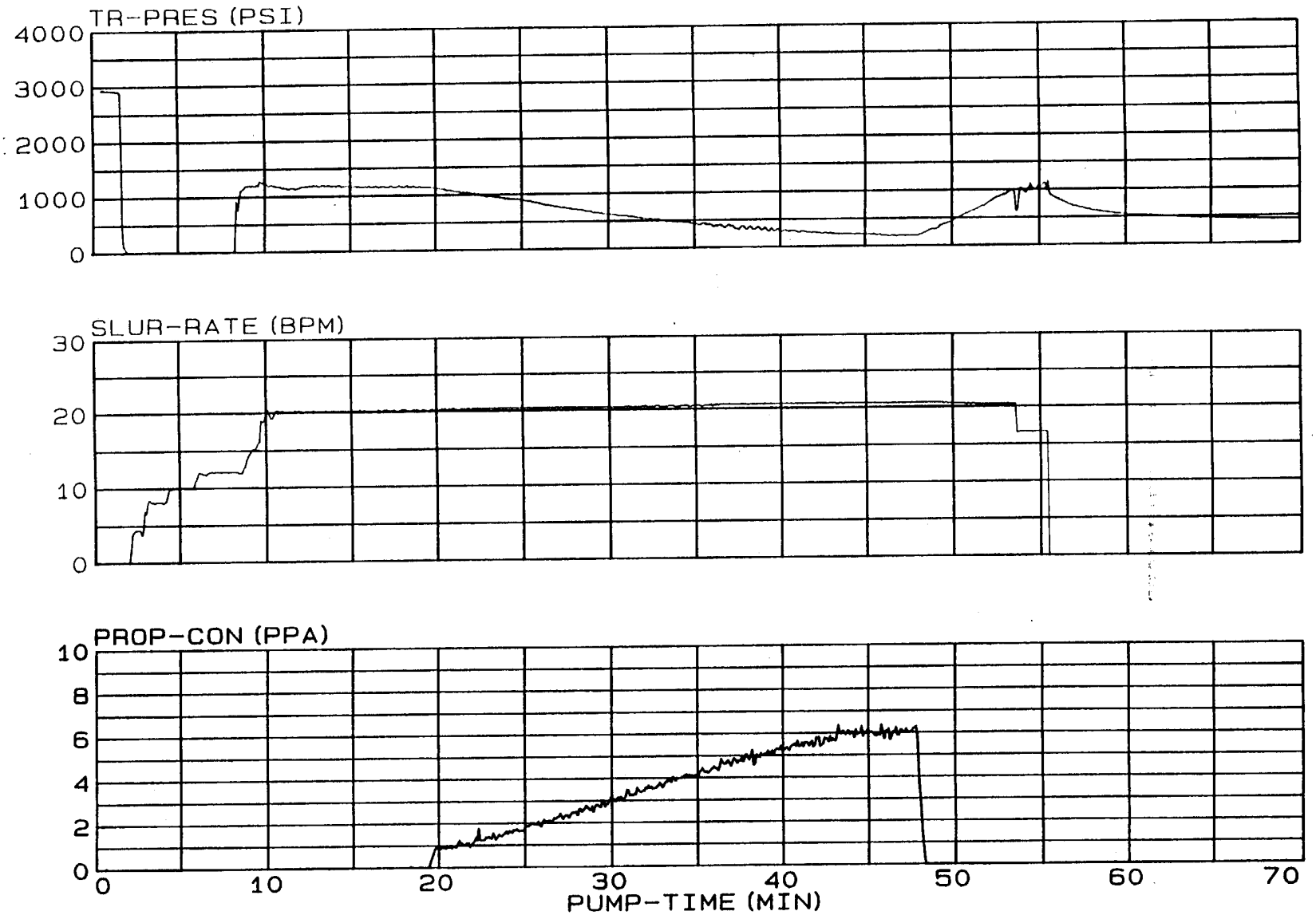
APACHE CORP.
JIC APACHE A118 #15
YF-130 MESAVERDE



PPR TREATMENT REPORT

24 Sep 93

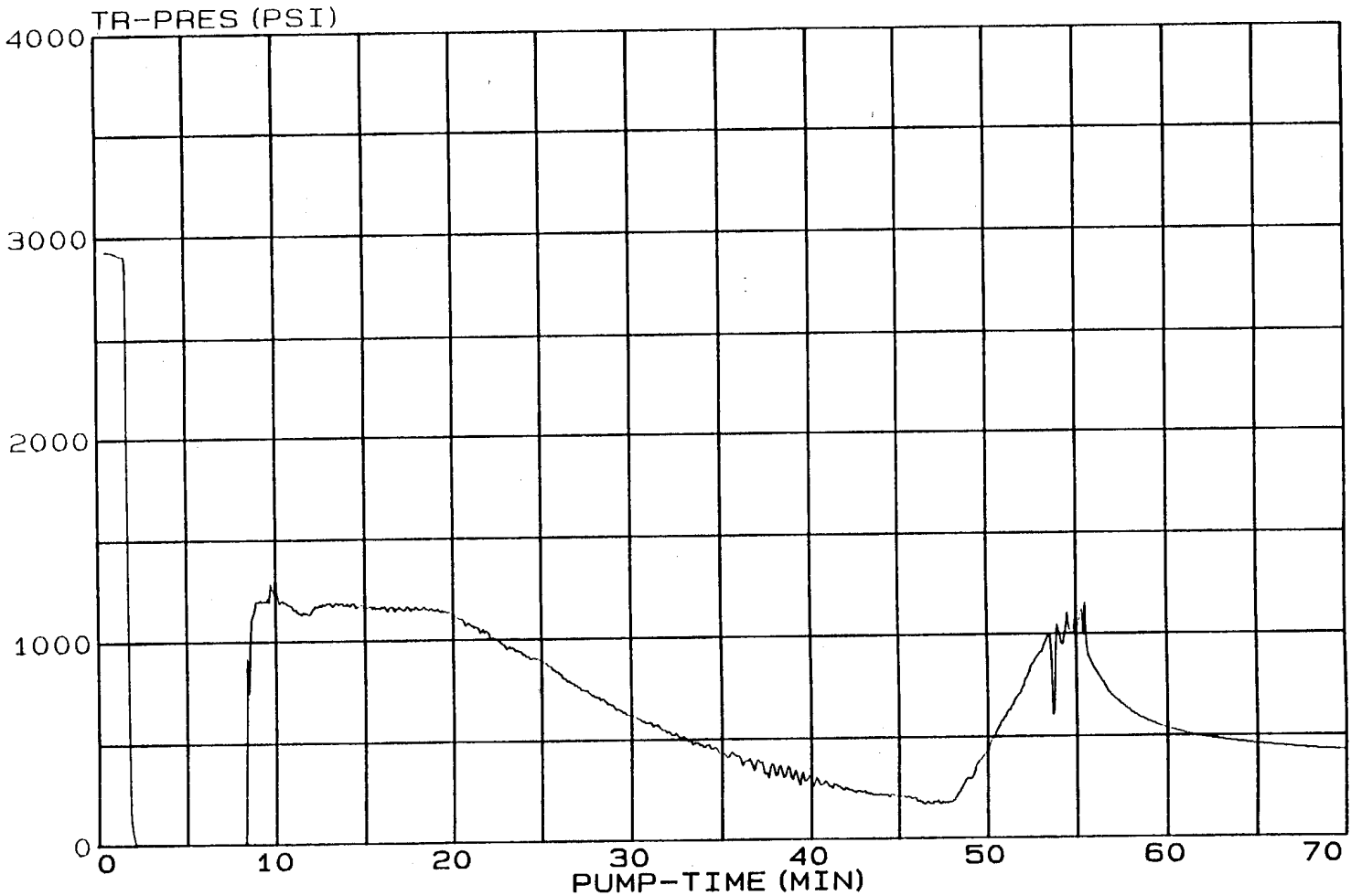
APACHE CORP.
JIC APACHE A118 #15
YF-130 MESAVERDE



PPR TREATMENT REPORT

24 Sep 93

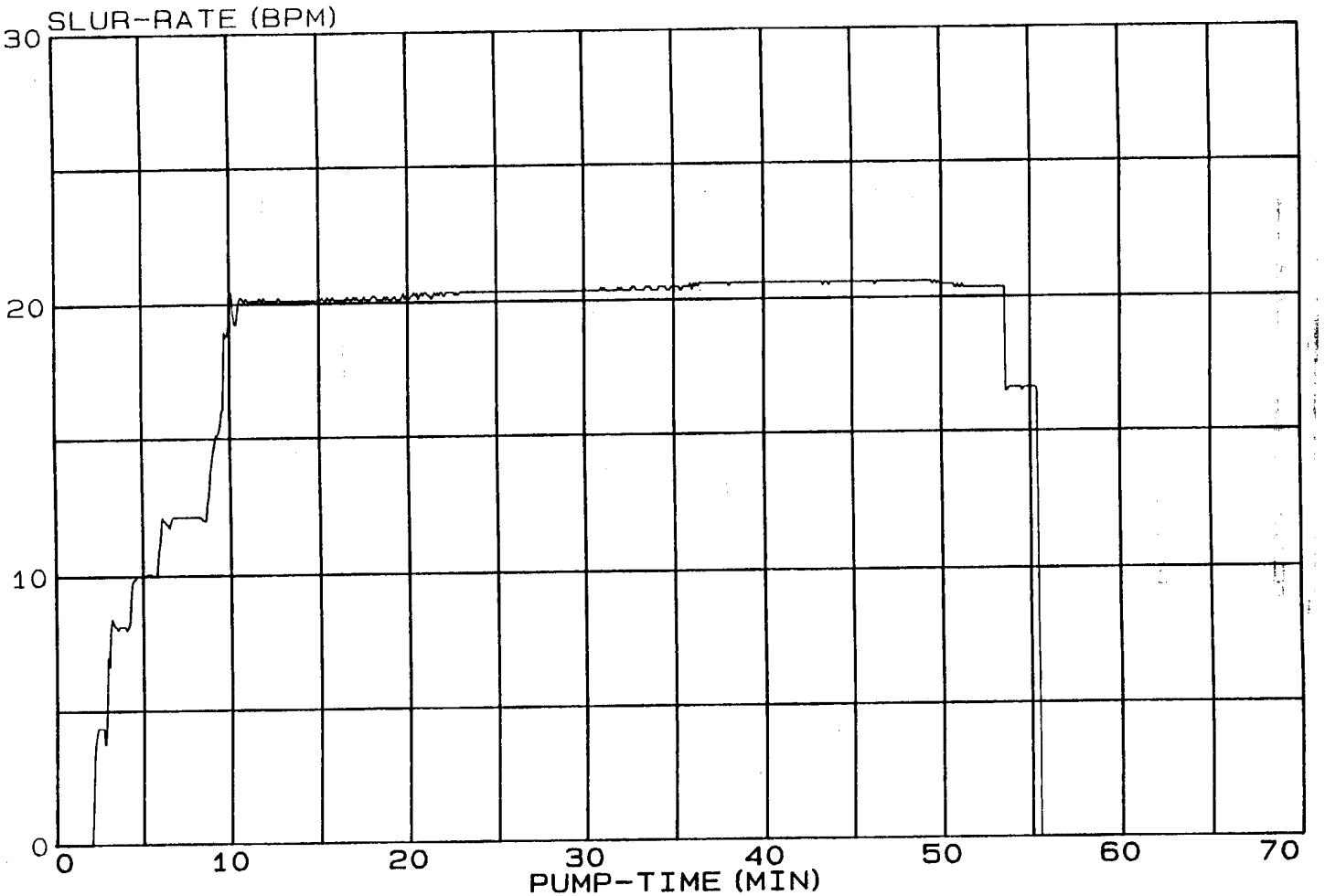
APACHE CORP.
JIC APACHE A118 #15
YF-130 MESAVERDE



PPR TREATMENT REPORT

24 Sep 93

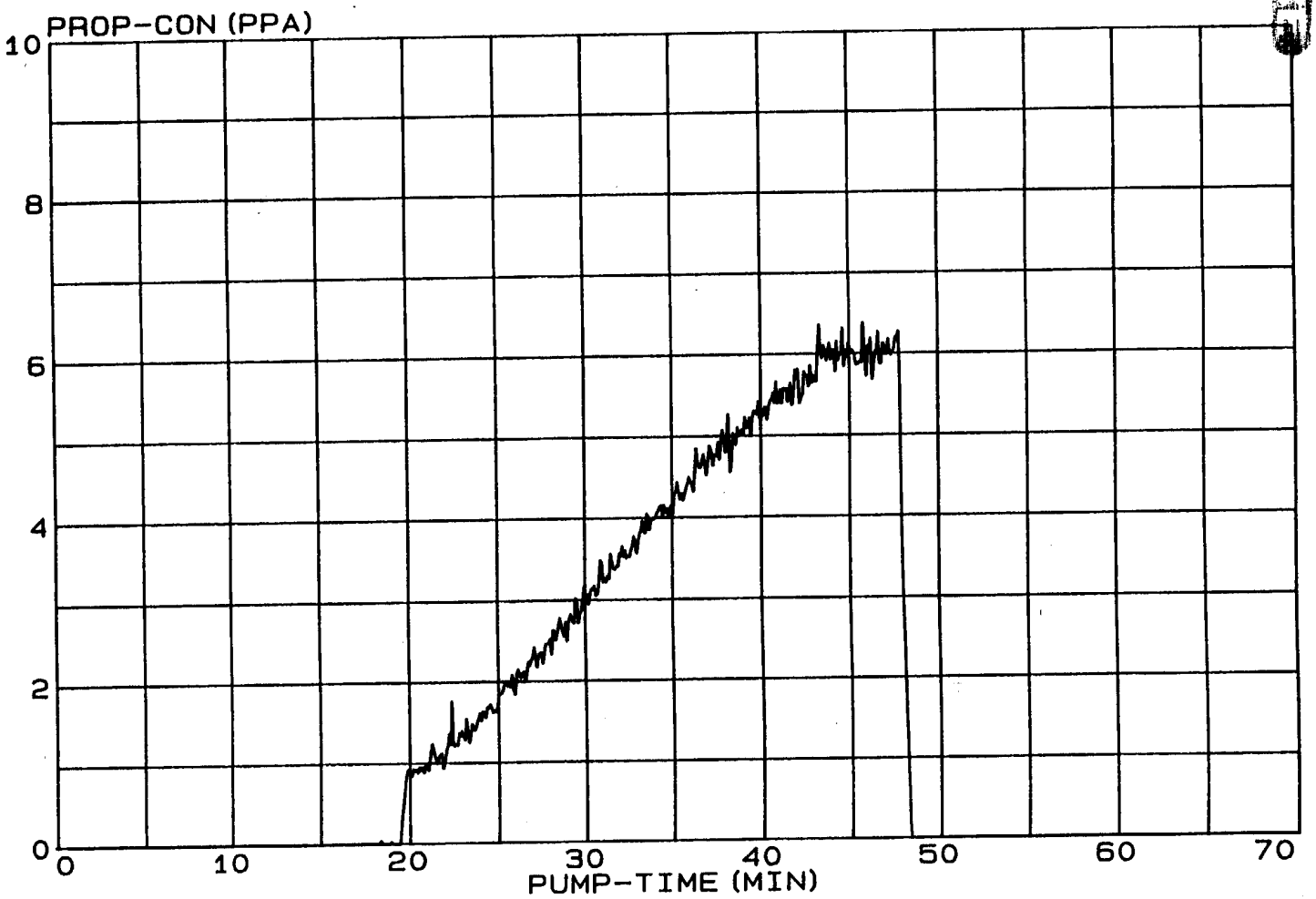
APACHE CORP.
JIC APACHE A118 #15
YF-130 MESAVERDE



PPR TREATMENT REPORT

24 Sep 93

APACHE CORP.
JIC APACHE A118 #15
YF-130 MESAVERDE



[redacted]

Attachment 'E'

Estimated bottomhole pressures

Bottom Hole Pressure Calculations

MESA VERDE:

There was a 7-day pressure build-up run ending December 8th, 1993 on the Mesa Verde formation. The final pressure recorded was 542 psi with a fluid level of 6042' (Assumed the fluid in hole was water). Using the gas analysis for the Mesa Verde:

SG = .7168
Avg z = .996
Avg T = 540 R
Avg H = 6042'

The bottom hole pressure was calculated to be ~ **700 psi.**

GALLUP/DAKOTA:

The well was returned to production in March, 1993. The shut-in casing pressure was 320 psi with a fluid level of 6500' (Assumed the fluid in hole was water). Using the gas analysis for the Gallup/Dakota the bottom hole pressure was determined to be ~ **930 psi.**

Attachment 'F'

Fluid Characteristics

WORKSTATION 112 - USER LOG - Luz O. Beltran

10:14:15 am Thursday March 24, 1994

```
****          1         2         3         4         5         6         7         8 ****
**** 1234567890123456789012345678901234567890123456789012345678901234567890123456789012 ****
```

MEASUREMENT SYSTEM

Gas Analysis (Chromatograph)

Display

Meter Station 95976 JIC APACHE A 118 #15 — Status PERMANENT DISCONNECT
ME Strip Type ACQUISITION — Source ORIFICE CHART
Volume Type WELLHEAD

Analysis Effective On 09/01/1993 — Test Liquid — Record Type 2 ACTUAL

Sample Taken On 08/09/1993 — Analysis Run On 08/14/1993
Lab Location 0 DANIELS FN — GPM Type Test
Chromp Mode — H2S Grains 0

Component Normalized %

Carbon Dioxide	0.67	Hydr Sulphide	0.00	Nitrogen	0.37
Methane	31.32	Ethane	9.60	Propane	2.09
Iso Butane	0.64	Normal Butane	1.30	Iso Pentane	0.42
Normal Pentare	0.36	Hexane & Heavier	0.43	Hexane	0.00
Heptane	0.00	Octane	0.00	Nonane	0.00

3) Next Screen — 21) YTD Volumes
8) Query — 22) Vel Calc Parms
10) Additional PFKeys — 24) Meter Status — 16) Exit

```
****          1         2         3         4         5         6         7         8 ****
**** 1234567890123456789012345678901234567890123456789012345678901234567890123456789012 ****
```

GL/DK FormaTion

Gas Analysis

Post-it™ brand fax transmittal memo

To Bobby Poirier	From Craig Moulton
Co. Apache	Co. Apache
Dept. Prod	Phone # 505-325-0318
Fax #	Fax # 505-325-0328

GAS ANALYSIS SERVICE

ANALYSIS NO. APA30005

WELL/LEASE INFORMATION

COMPANY: APACHE CORPORATION

WELL NAME: JIC A-118 #15 — LINE PRESSURE: 61 PSIG

LOCATION: — SAMPLE TEMP.: 80 DEG.F

LEASE: — WELL FLOWING: YES

FORMATION: MESAVERDE — DATE SAMPLED: 10/6/93

METER NO.: — SAMPLED BY: CRAIG MOULTON

REMARKS:

ANALYSIS

COMPONENT	MOLE%	GPM
NITROGEN	0.402	0.0000
CO2	0.508	0.0000
METHANE	81.450	0.0000
ETHANE	9.390	2.5616
PROPANE	4.743	1.3333
I-BUTANE	0.716	0.2389
N-BUTANE	1.347	0.4332
I-PENTANE	0.418	0.1560
N-PENTANE	0.376	0.1389
HEXANE+	0.650	0.2892
TOTAL	100.000	5.1510

COMPRESSIBILITY FACTOR	(1/Z)	1.0036
BTU/CU.FT. (DRY) CORRECTED FOR (1/Z)		1272.7
BTU/CU.FT. (WET) CORRECTED FOR (1/Z)		1250.6
REAL SPECIFIC GRAVITY		0.7168

ANALYSIS RUN AT 15.025 PSIA & 60 DEGREES F

CYLINDER PRESSURE: 50 PSIG

DATE RUN: 10/7/93

ANALYSIS RUN BY: SHEILA FELTMAN

MAR 25 '94 03:50PM APACHE PROD P

Receipt for
Certified Mail

The Western Company of North America

3250 South Side River Road
Farmington, New Mexico 87401
Phone (505)327-6222
Fax (505)327-5766

API WATER ANALYSIS

Company Apache Corp. W.C.N.A. Sample No. 5103994 Date Sampled _____

Field _____ Legal Description _____ County or Parish San Juan State N. M.

Lease or Unit Jic Apache Well A11B #75 Depth _____ Formation M.V. Water S/D _____

Type of Water (Produced, Supply, ect.) After Frac Sampling Point _____ Sampled By _____

DISSOLVED SOLIDS

CATIONS	mg/l	me/l
Sodium, Na (calc.)	3427	149
Calcium, Ca	40	2
Magnesium, Mg	—	—
Barium, Ba	—	—
Potassium	450	12

ANIONS		
Chloride, Cl	5971	163
Sulfate, SO_4	—	—
Carbonate, CO_3	—	—
Bicarbonate, HCO_3	2159	35

Total Dissolved Solids (calc.) 11,847

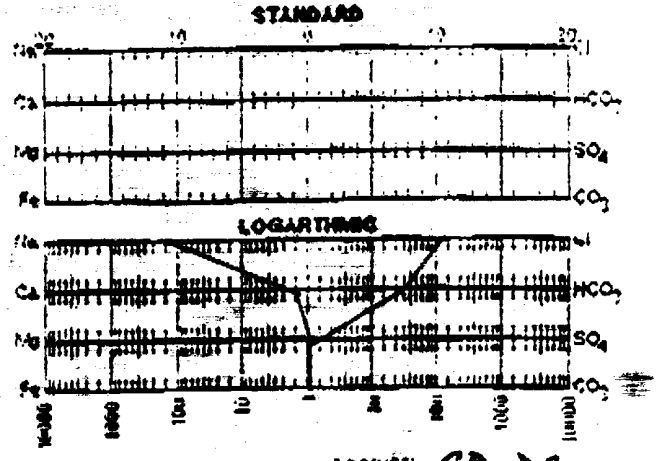
Iron, Fe (total) —
Sulfide, as H_2S —

OTHER PROPERTIES

pH	7.90
Specific Gravity, 60/60 F.	1.015
Resistivity (ohm-meters) 70° F.	.59
Total Hardness	300

REMARKS & RECOMMENDATIONS:

WATER PATTERNS-me/l



Analyst: CR DC
Date Analized: 3-25-94

WATER ANALYSIS TESTING ENVIRONMENTAL REPORTS

1115 Fa[illegible] Farmington, [illegible] 87401

(505) 325-1065

Lab Sample No.: W93-89

Standard A.P.I. Water Analysis Report

Collected By: Russell Pullen

Company: Apache Corparation

Collection Date: 25-Mar-93

Well Name: JAT A118 #15

Collection Time: unknown

Formation: UNKNOWN DAKOTA

County: Rio Arriba State: NM

Location: UNKNOWN

Analyst: S. Spencer

Remarks: NONE

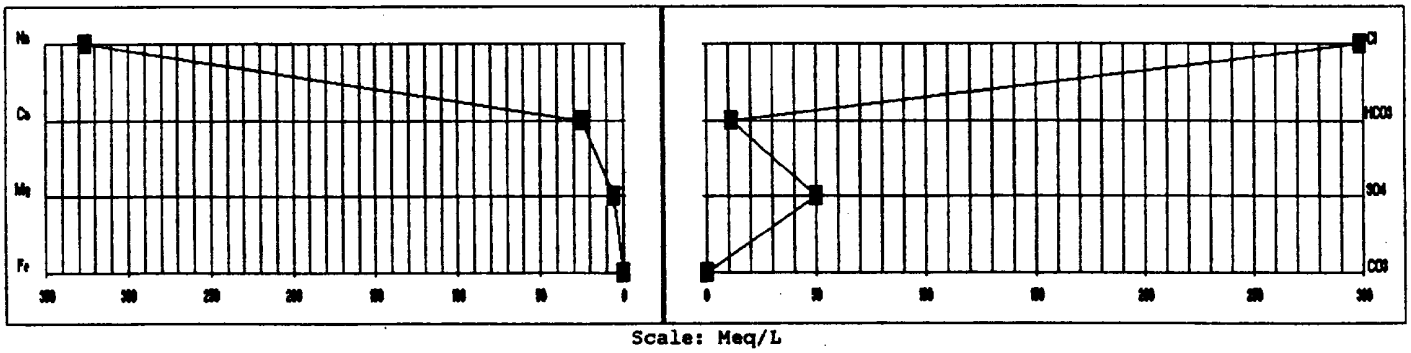
PARAMETER	as Ion		Comment	PARAMETER	as Ion		Comment
Sodium , Na	7,500	mg/l		Chloride , Cl	10,583	mg/l	
Potassium, K	170	mg/l					
Calcium , Ca	493	mg/l		Sulfate, SO4	2406	mg/l	
				Hydroxide, OH	0	mg/l	
Magnesium , Mg	68	mg/l		Carbonate, CO3	0	mg/l	
Iron, Fe (Total)	0.1	mg/l		Bicarbonate,HCO3	704	mg/l	
Hydrogen Sulfide	NR	mg/l	NR	Resistivity (@25 Degrees C)	0.297	ohm-m	
pH	7.60	Units		Conductivity	33,700	uS	
				Specific Gravity (@ 60 Degrees F)	1.016	Units	
TDS	23,130	mg/l					

Remarks: Sample not acid preserved for iron determination. 25 ppm total iron before filtering.

NR = Test Not Run

Anion/Cation: 99.8%

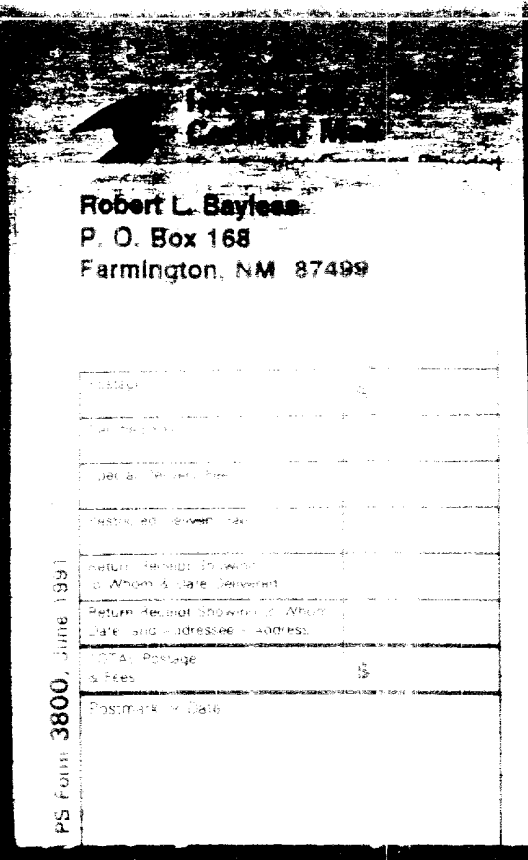
Stiff Diagram



Scale: Meq/L

Attachment 'G'

Notification of offset operators and BLM

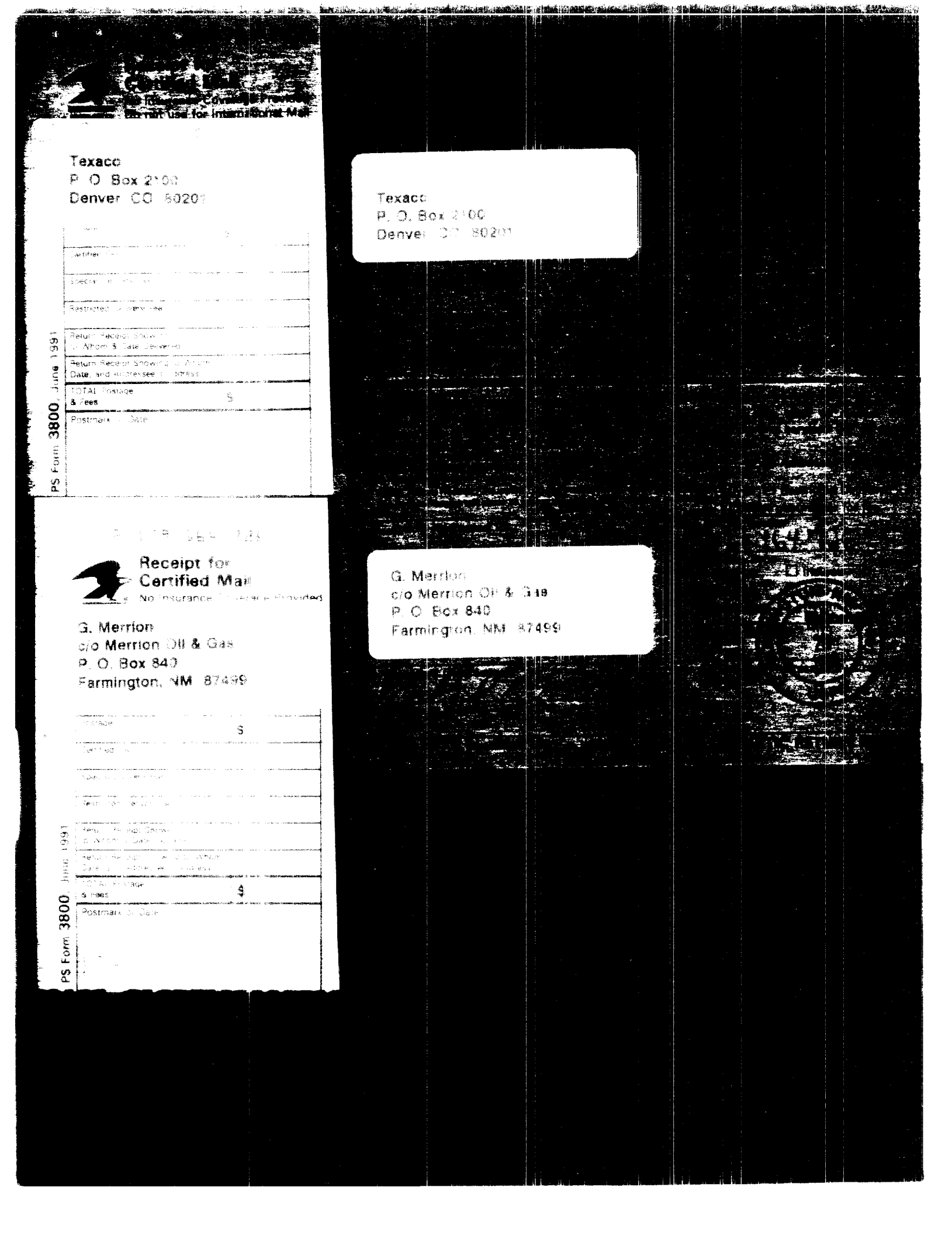


Robert L. Bayless
P. O. Box 168
Farmington, NM 87499

PS Form 3800, June 1991

Postage
Certified Fee
Special Delivery Fee
Restricted Delivery Fee
Return Receipt Showing to Whom & Date Delivered
Return Receipt Showing to Whom, Date, and Addressee's Address
TOTAL Postage & Fees $
Postmark or Date

Robert L. Bayless
P. O. Box 168
Farmington, NM 87499



Texaco
P. O. Box 2100
Denver, CO 80201

Texaco
P. O. Box 2100
Denver, CO 80201

Receipt for
Certified Mail
No Insurance Coverage Provided
Do not use for International Mail

G. Merrion
c/o Merrion Oil & Gas
P. O. Box 840
Farmington, NM 87499

G. Merrion
c/o Merrion Oil & Gas
P. O. Box 840
Farmington, NM 87499

PS Form 3800, June 1991

Receipt for
Certified Mail
No Insurance Coverage Provided

Mesa Grande Resources, Inc.
1200 Philtower Bldg.
Tulsa, OK 74103

PS Form 3800, June 1991

Mesa Grande Resources,Inc.
1200 Philtower Bldg
Tulsa OK 74103

5. Signature (Addressee)

6. Signature (Agent)

PS Form 3811, December 1991

DOMESTIC RETURN RECEIPT

SENDER:
1. Complete items 1 and/or 2 for additional services.
2. Complete items 3, and 4a & b.
3. Print your name and address on the reverse of this form so that we can return this card to you.
4. Attach this form to the front of the mailpiece, or on the back if space does not permit.
5. Write "Return Receipt Requested" on the mailpiece below the article number.
6. The Return Receipt will show to whom the article was delivered and the date delivered.

3. Article Addressed to:

Western Oil and Minerals, Ltd.
P.O. Drawer 1228
Farmington, NM 87499-1228

5. Signature (Addressee)

6. Signature (Agent)

PS Form 3811, December 1991

DOMESTIC RETURN RECEIPT

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery
Consult postmaster for fee.

4a. Article Number
P 119 164 724

4b. Service Type
☐ Registered ☐ Insured
☐ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery
MAR 25 1992

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

FARMINGTON NM MAR 25 1992 USPS

Receipt for
Certified Mail
No Insurance Coverage Provided

Western Oil and Minerals, Ltd.
P.O. Drawer 1228
Farmington, NM 87499-1228

PS Form 3800, June 1991

P 179 164 730

Receipt for Certified Mail

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

UNITED STATES POSTAL SERVICE

Curtis Newstrom
c/o Meridian Oil Co.
3535 E. 30th St.
Farmington, NM 87401

	$
Total Postage & Fees	$
Postmark or Date	

PS Form 3800, June 1991

P 179 164 724

Receipt for Certified Mail

No Insurance Coverage Provided
Do not use for International Mail

UNITED STATES

Merrion Oil & Gas
P. O. Box 840
Farmington, NM 87499

	$
Total Postage & Fees	$
Postmark or Date	

PS Form 3800, June 1991

• The Return Receipt will show to whom the article was delivered.

☐ Restricted Delivery
Consult postmaster for fee.

3. Article Addressed to:

Curtis Newstrom
c/o Meridian Oil Co.
3535 E. 30th St.
Farmington, NM 87401

4a. Article Number
P 179 164 730

4b. Service Type
☐ Registered ☐ Insured
☐ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery
2-14-94

5. Signature (Addressee)

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

6. Signature (Agent)
Frances Bond

PS Form 3811, December 1991 ☆ U.S.G.P.O.: 1992-307-530 **DOMESTIC RETURN RECEIPT**

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery
Consult postmaster for fee.

3. Article Addressed to:

Merrion Oil & Gas
P. O. Box 840
Farmington, NM 87499

4a. Article Number
P 179 164 724

4b. Service Type
☐ Registered ☐ Insured
☐ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery
MAR 28 1994

5. Signature (Addressee)
Michael Duncan

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

6. Signature (Agent)

FARMINGTON, N.M. 87401
USPS

PS Form 3811, December 1991 ☆ U.S.G.P.O.: 1992-307-530 **DOMESTIC RETURN RECEIPT**

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
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- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery
Consult postmaster for fee.

3. Article Addressed to:

Reading & Bates Petroleum Co.
c/o RB Operating Company
P. O. Box 94990
Tulsa, OK 74194

4a. Article Number
P 179 164 720

4b. Service Type
☐ Registered ☐ Insured
☐ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery
MAR 21 1994

5. Signature (Addressee)

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

6. Signature (Agent)

PS Form 3811, December 1991 ☆ U.S.G.P.O.: 1992-307-530 **DOMESTIC RETURN RECEIPT**

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

SUITE 2000 ONE NORWEST CENTER/1700 LINCOLN STREET/DENVER, CO 80203-4520

Apache CORPORATION

303/837-5000

March 22, 1994

Western Oil and Minerals, Ltd
P.O. Drawer 1228
Farmington, NM 87499-1228

Apache Corporation
1700 Lincoln, Suite 2000
Denver, CO 80203-9911

Dear Operator,

We are presently filing for an exception to the New Mexico Oil Conservation Division's rule 303-A to permit us to commingle the Gavilan Mancos/Dakota and Mesa Verde formations Jicarilla Apache A118-#15 well (SESE SEC. 25 TWP. 26N R3W)

As an offset operator to this well, we are required to notify you of this filing and give you the option of approving or disapproving out intent of commingling.

Enclosed are two (2) self addressed envelopes - one addressed to us and the other to David Catanach in the Santa Fe office of the NMOCD.

We would like to request that you mark your preference on this letter and mail one to us and the other to Mr. Catanach.

Thank you for your efforts and consideration in this matter.

Sincerely,

RE Poirrier

Bobby Poirrier Jr.
Production Engineer
APACHE CORPORATION
Farmington District
(303) 837-5442

APPROVE ✓
DISAPPROVE _____
SIGNATURE _____
TITLE _____
DATE 4-4-94

SUITE 2000 ONE NORWEST CENTER/1700 LINCOLN STREET/DENVER, CO 80203-4520

Apache CORPORATION

303/837-5000

March 22, 1994

G. Merrion
c/o Merrion Oil & Gas
P.O. Box 840
Farmington, NM 87499

APACHE CORPORATION
1700 Lincoln, Suite 2000
Denver, CO 80203-9911

Dear Operator,

We are presently filing for an exception to the New Mexico Oil Conservation Division's rule 303-A to permit us to commingle the Gavilan Mancos and Dakota formations in the Jicarilla Apache A118-#15 well (SESE SEC. 25 TWP. 26N R3W)

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Sincerely,

Bobby Poirrier Jr.
Production Engineer
APACHE CORPORATION
Farmington District

APPROVE X
DISAPPROVE
SIGNATURE T. Greg Merrion
TITLE President
DATE 4-6-94

SUITE 2000 ONE NORWEST CENTER/1700 LINCOLN STREET/DENVER, CO 80203-4520

Apache CORPORATION

303/837-5000

March 22, 1994

Merrion Oil & Gas
P.O. Box 840
Farmington, NM 87499

APACHE CORPORATION
1700 Lincoln, Suite 2000
Denver, CO 80203-9911

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Sincerely,

Bobby Poirrier Jr.
Production Engineer
APACHE CORPORATION
Farmington District

APPROVE X
DISAPPROVE
SIGNATURE T. Gregerman
TITLE President
DATE 4-8-94

SUITE 2000 ONE NORTHWEST CENTER/1700 LINCOLN STREET/DENVER, CO 80203-4520

Apache CORPORATION

303/837-5000

March 22, 1994

Texaco
P.O. Box 2100
Denver, CO 80201

APACHE CORPORATION
1700 Lincoln, Suite 2000
Denver, CO 80203-9911

Dear Operator,

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Sincerely,

RE Poirrier

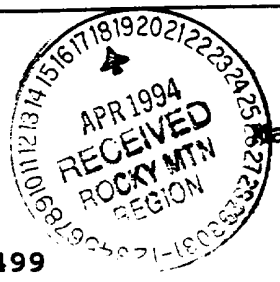
Bobby Poirrier Jr.
Production Engineer
APACHE CORPORATION
Farmington District

APPROVE X
DISAPPROVE
SIGNATURE
TITLE Account Manager
DATE 4/12/94

SUITE 2000 ONE NORWEST CENTER/1700 LINCOLN STREET/DENVER, CO 80203-4520

Apache CORPORATION

303/837-5000



March 22, 1994

Robert L. Bayless
P.O. Box 168
Farmington, NM 87499

Apache Corporation
1700 Lincoln, Suite 2000
Denver, CO 80203-9911

Dear Operator,

We are presently filing for an exception to the New Mexico Oil Conservation Division's rule 303-A to permit us to commingle the Gavilan Mancos/Dakota and Mesa Verde formations Jicarilla Apache A118-#15 well (SESE SEC. 25 TWP. 26N R3W)

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RE Poirrier Jr.

Bobby Poirrier Jr.
Production Engineer
APACHE CORPORATION
Farmington District
(303) 837-5442

APPROVE X
DISAPPROVE
SIGNATURE
TITLE
DATE 4-14-94

SUITE 2000 ONE NORWEST CENTER/1700 LINCOLN STREET/DENVER, CO 80203-4520

Apache CORPORATION

303/837-5000

March 22, 1994

Mountain States
P.O. Box 1936
Roswell, NM 88201

Apache Corporation
1700 Lincoln, Suite 2000
Denver, CO 80203-9911

Dear Operator,

We are presently filing for an exception to the New Mexico Oil Conservation Division's rule 303-A to permit us to commingle the Gavilan Mancos/Dakota and Mesa Verde formations Jicarilla Apache A118-#15 well (SESE SEC. 25 TWP. 26N R3W)

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Sincerely,

RE Poirrier

Bobby Poirrier Jr.
Production Engineer
APACHE CORPORATION
Farmington District
(303) 837-5442

APPROVE_____
DISAPPROVE_____
SIGNATURE_____
TITLE_____
DATE_____

3/25/94 MOUNTAIN STATES IS NOT AN OFFSET OPERATOR TO THIS LOCATION.

Attachment 'H'

Ownership of the zones is common

SUITE 2000 ONE NORWEST CENTER/1700 LINCOLN STREET/DENVER, CO 80203-4520

Apache CORPORATION

303/837-5000

This is to certify that MW Petroleum (Managed by Apache Corp.) has 100 % ownership of both the Gallup/Dakota and the Mesa Verde formations in the Jicarilla Apache A118-15 well in SESE Sec. 25 T26N R3W in Rio Arriba County, NM.