



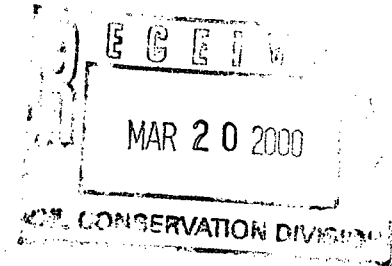
Cross Timbers Operating Company

DHC 4/10/00

March 17, 2000

Ms. Lori Wrotenbery
New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

0703



Re: Administrative Approval to Downhole Commingle
C. A. McAdams D #1
1,910' FSL & 1,540' FWL Sec 20, T27N, R10W
San Juan County, New Mexico

Dear Ms. Wrotenbery,

Cross Timbers Operating Company requests administrative approval to downhole commingle the Angel Peak Gallup and the Basin Dakota pools in the referenced well.

The Dakota was completed in 1965. In September 1999 the Dakota was isolated and the well recompleted to the Gallup. During the recompletion it was determined the well had a casing leak. This was repaired prior to completing the Gallup. Both the Gallup and the Dakota production are marginal and the economics of the well would benefit by commingling.

The proposed allocation of commingled production is based on the most recent tests that are representative of each formation. The Dakota production was evaluated through June 1998. Production after June 1998 is unreliable due to a casing leak. The Gallup test is based on January 2000 production. See attached allocation method sheet for the proposed calculations.

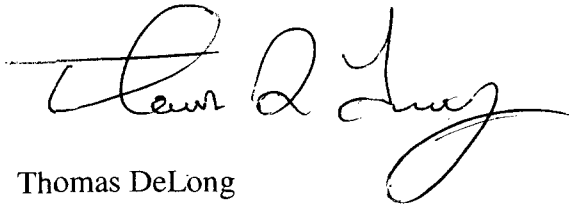
The following is enclosed for you review of the proposed commingling:

1. C-107-A
2. C-102 (Dakota and Gallup)
3. Well Location Map
4. Production Curve (Dakota)
5. Allocation Method Sheet
6. Interest owner list
7. Notification Letter

All working, royalty and override interest and the Farmington District BLM office are being notified by certified mail of this proposed commingling.

If you need additional information or have any questions, please feel free to contact me at (505)-324-1090.

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas DeLong". The signature is fluid and cursive, with a large initial "T" and "D".

Thomas DeLong
Production Engineer

CC: NMOCD – District III (Aztec)
BLM (Farmington District Office)

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

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-6429

Form C-107-A
Revised August 1999

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Operator Cross Timbers Operating Co. Address 2700 Farmington Ave. K#1 Fmn, NM 87401

Lease C.A. McAdams D Well No. 1 Unit Ltr. - Sec - Twp - Rge K-Sec. 20 T27N, R10W County San Juan

OGRID NO. 167067 Property Code 022599 API NO. 30-045-11561 Federal ☒ State ☐ (and/or) Fee ☐

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Angel Peak Gallup 02170		Basin Dakota 71599
2. Top and Bottom of Pay Section (Perforations)	5,278' - 5,560'		6,154' - 6,232'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Artificial Lift (Rod Pump System)		Flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	a. (Current) 3960 psig (measured) b. (Original)	a. b.	a. b. 2,474 (card)
6. Oil Gravity (EAPI) or Gas BTU Content	1,283		1,262
7. Producing or Shut-In?	SI		SI
Production Marginal? (yes or no)	Yes		Yes
* If Shut-In, give date and oil/gas/water rates of last production Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data * If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: 2/13/2000 Rates: 23 BOPD/1 BWPD/04 MCFD	Date: Rates:	Date: 9/21/99 Rates: 1 BOPD/0 BWPD/29 MCFD
8. Fixed Percentage Allocation Formula - % for each zone (total of %'s to equal 100%)	Oil: 87.5 % Gas: 77.11 %	Oil: % Gas: %	Oil: 12.5 % Gas: 22.89 %

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones? ☒ Yes ☐ No
If not, have all working, overriding, and royalty interests been notified by certified mail? ☒ Yes ☐ No

11. Will cross-flow occur? ☒ Yes ☐ No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. ☒ Yes ☐ No (If No, attach explanation)

12. Are all produced fluids from all commingled zones compatible with each other? ☒ Yes ☐ No

13. Will the value of production be decreased by commingling? ☐ Yes ☒ No (If Yes, attach explanation)

14. If this well is on, or communized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ☐ No

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). _____

16. ATTACHMENTS:

- * C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- * Production curve for each zone for at least one year. (If not available, attach explanation.)
- * For zones with no production history, estimated production rates and supporting data.
- * Data to support allocation method or formula.
- * Notification list of working, overriding, and royalty interests for uncommon interest cases.
- * Any additional statements, data, or documents required to support commingling.

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

SIGNATURE Thomas DeLong TITLE Production Engineer DATE 3/17/2000

TYPE OR PRINT NAME Thomas DeLong TELEPHONE NO. (505) 324-1090

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-100
Revised October 18, 1999
Instructions on back
Submit to Appropriate District Clerk
State Lease - 4 Copies
Fee Lease - 3 Copies

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 S. 1st Street, Artesia, NM 88210-2834
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505
RECEIVED
BLM

99 JUN -9 PM 12:43 ☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-11562	² Pool Code 02170	³ Pool Name Angel Peak Gallup
⁴ Property Code 022599	⁵ Property Name C. A McAdams D	⁶ Well Number #1
⁷ OGRID No. 167067	⁸ Operator Name Cross Timbers Operating Company	⁹ Elevation 5973' KB

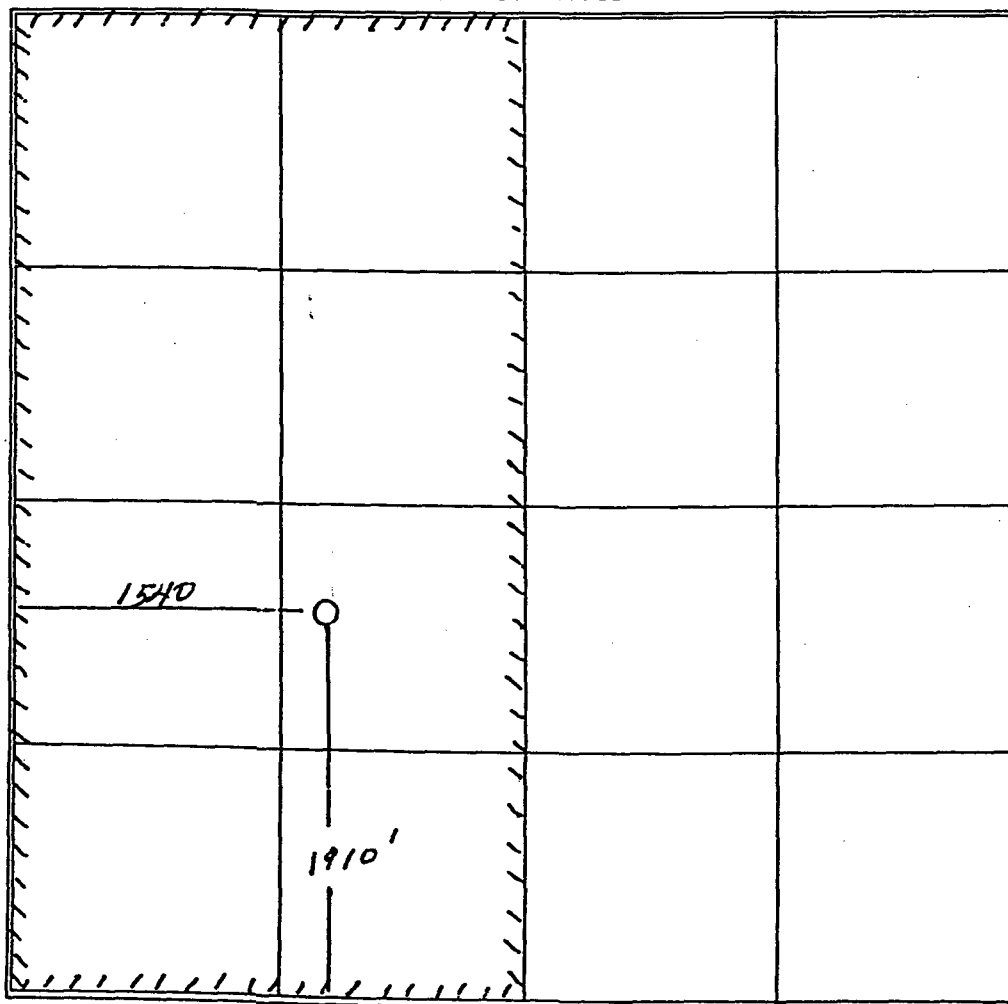
¹⁰ Surface Location

UL or lot no. K	Section 20	Township 27 N	Range 10 W	Lot. Idn	Feet from the 1910	North/South Line South	Feet from the 1540	East/West line West	County San Juan
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p>¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Loren W. Fothergill</i> Signature Loren W. Fothergill Printed Name Operations Engineer Title June 4, 1999 Date</p>
	<p>¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>October 13, 1965 Date of Survey Signature and Seal of Professional Surveyer: <i>Signed by</i> Ernest V. Echols 3602 Certificate Number</p>

**NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102
Supersedes C-128
Effective 1-1-65

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

Operator Pan American Petroleum Corporation			Lease C. A. McAdams "D"		Well No. 1
Unit Letter K	Section 20	Township 27 North	Range 10 West	County San Juan	
Actual Footage Location of Well: 1910 feet from the South line and 1540 feet from the West line					
Ground Level Elev: Report Later	Producing Formation Dakota		Pool Basin Dakota		Dedicated Acreage: 320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure 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.

CERTIFICATION

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

G. W. Eaton, Jr.

Name

G. W. Eaton, Jr.

Position

Area Engineer

Company

Pan American Petroleum Corp.

Date

October 13, 1965

Date Surveyed

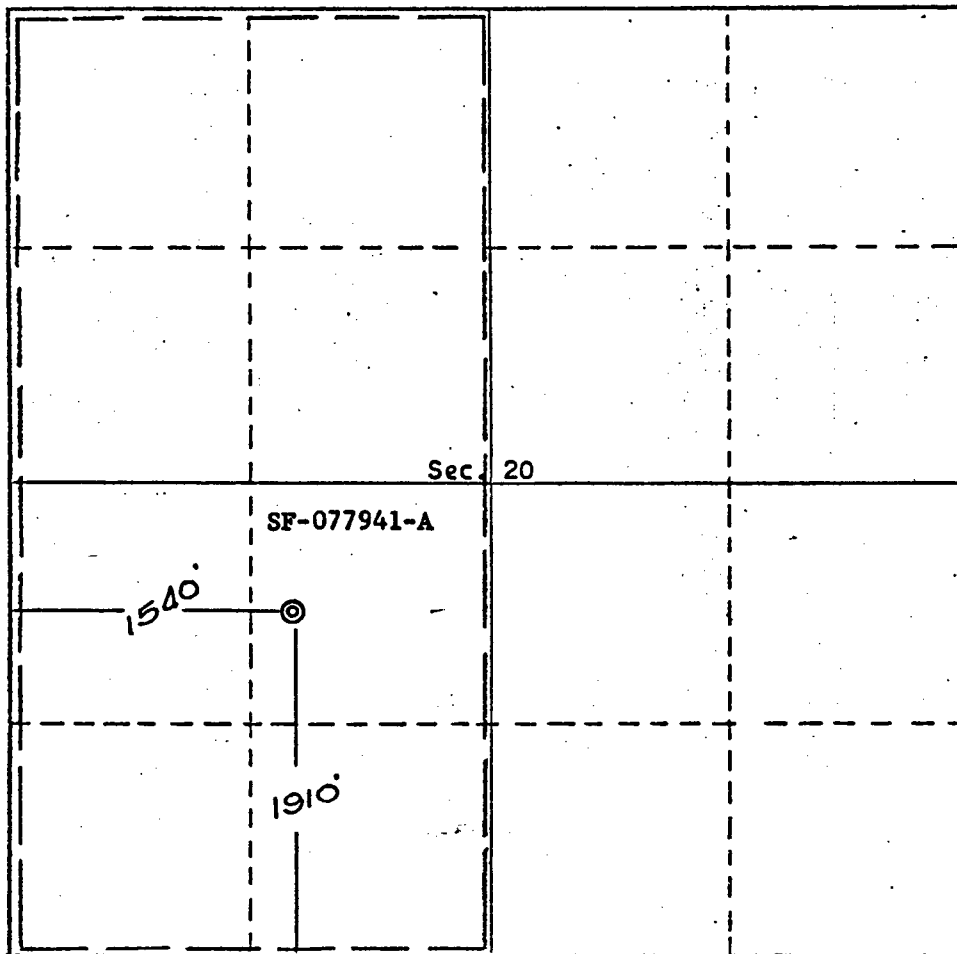
October 5, 1965

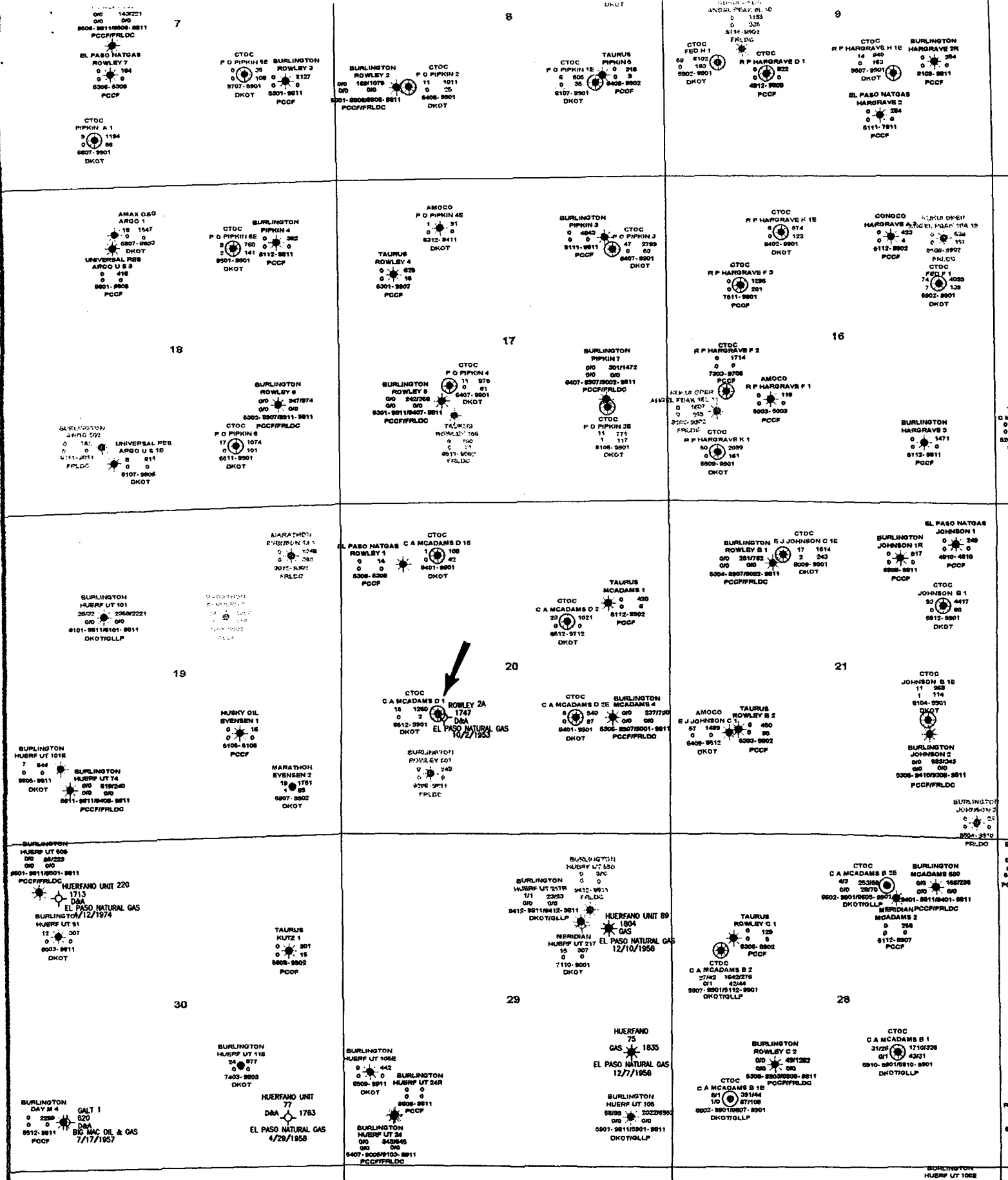
Registered Professional Engineer
and/or Land Surveyor

E. H. Cook

Certificate No.

3602





C. A. McAdams D #1
K Sec 20 T27N R10W
San Juan County, New Mexico

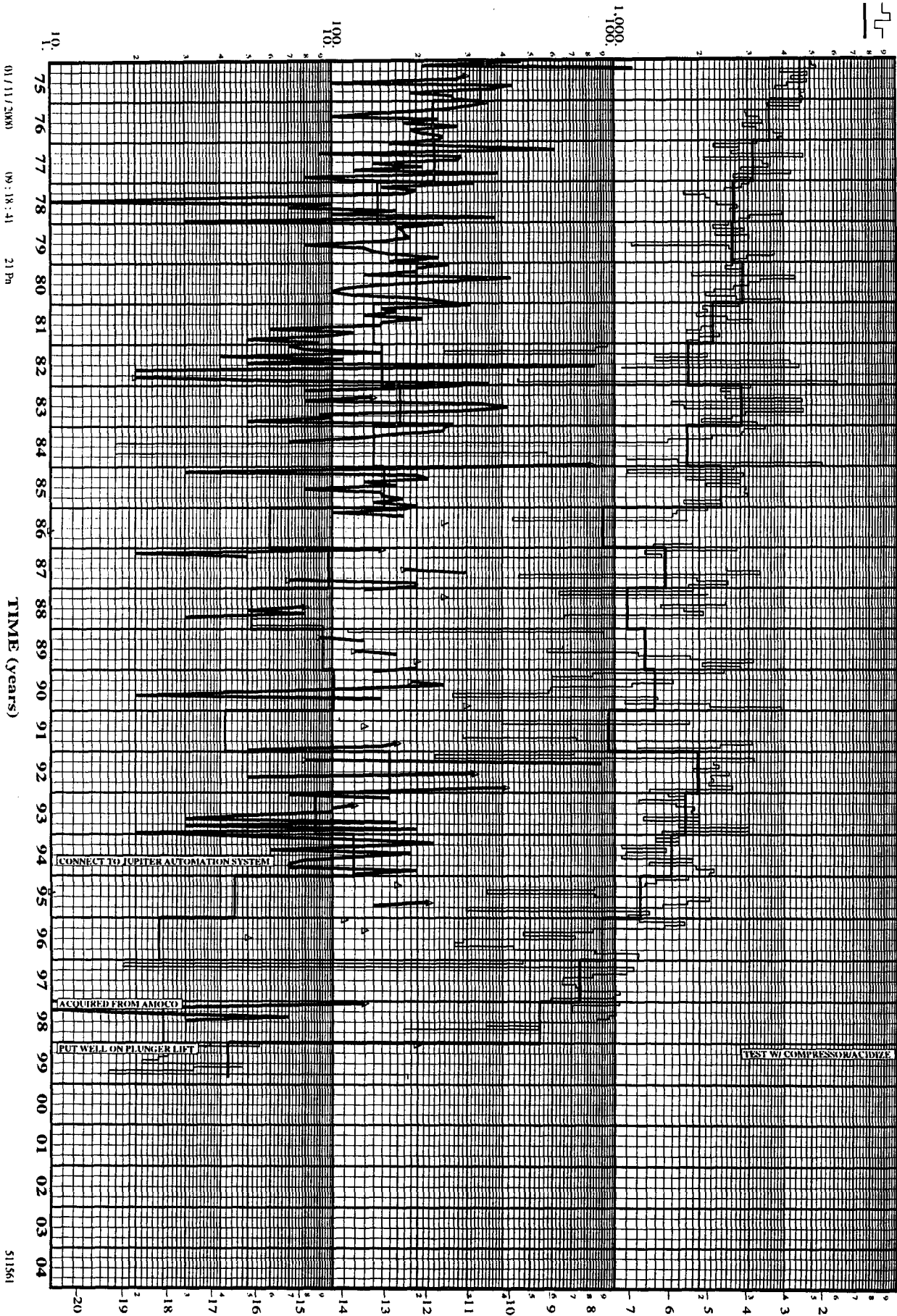
Cross Timbers Oil Company

MCADAMS, CA D 1
CROSS TIMBERS
BASIN (DAKOTA)
SAN JUAN, NEW MEXICO
20 27N 10W K
BGV
BASE
511561
SAN JUAN
70703

Run Time: 15:49:02

M & L - 1/99 FORECAST TWD JCR CP-CD

GAS (mcf/mo) ▽
OIL (bbl/mo) Δ



01/11/2000

09:18:41

21 Pm

TIME (years)

511561

CROSS TIMBERS OPERATING COMPANY

C. A. McAdams D #1
K Sec 20 T27N R10W
San Juan County, New Mexico

Gallup & Dakota Allocation Method

Current production potential was determined for each formation. Rate for the Dakota was determined by analyzing the attached production decline curve. It should be noted that the well had downhole mechanical problems (casing leak) which, from analysis of the decline curve, has effected production since June 1998. The casing leak was repaired prior to completing the Gallup. The Dakota is projected to have a potential of 950 MCFPM and 10 BOPM.

The Gallup was completed in September 1999. Production was erratic for several months. January 2000 production was reasonably stable and was used as the Gallup potential.

Angel Peak Gallup potential: 70 BOPM
3.200 MCFPM

Basin Dakota potential: 10 BOPM
950 MCFPM

Oil Allocation: Gallup $\frac{70}{10+70} = .875$ or 87.5% of total commingled production.

$$\text{Dakota} \quad \frac{10}{10 + 70} = .125 \quad \text{or} \quad 12.5\% \text{ of total commingled production}$$

Gas Allocation: Gallup $\frac{3,200}{3,200 + 950} = .7711$ or 77.11% of total commingled production.

$$\text{Dakota } \frac{950}{3,200 + 950} = .2289 \quad \text{or} \quad 22.89\% \text{ of total commingled production}$$

**C. A. McAdams D #1
Sec. 20, T27N, R10W
San Juan County, New Mexico**

INTEREST OWNERS

J. Burton Veteto
607 Abo
Hobbs, NM 88240

Julie Ann Antweil Trust
Julie A. Silverman, Trustee
4408 Canyon Court NE
Albuquerque, NM 87111

Union Oil Co. of California
Attn: Revenue Accounting
PO Box 841055
Dallas, TX 75284-1055

United Pipe & Supply Co.
3622 Ranch Creek Dr.
Austin, TX 78730

H.W. Smith Estate
Gary Harvey, Indep Executor
300 S.W. 21st Street
Seminole, TX 79360

Robert M. Williams
408 East Alto
Hobbs, NM 88240

Rachel Lyman
PO Box 3726
Midland TX 79702

C.V. Lyman Trust
Rachel Lyman & Thomas Brown
Trustees U/W/O
PO Box 3726
Midland, TX 79702

James L. Sharp & Kathryn B
Sharp Revoc Living Trustee Dated
4/11/97, JL & KB Sharp, Trstes
1020 Foxwood Lane
Wylie, TX 75098

**C. A. McAdams D #1
Sec. 20, T27N, R10W
San Juan County, New Mexico**

INTEREST OWNERS

White Star Energy, Inc
PO Box 51108
Midland, TX 79710

Singer Brothers
Dept. 1063
Tulsa, OK 74182

Silverado Oil and Gas
PO Box 51338
Midland, TX 79710-1338

Evelyn Smith
10412 Stone Canyon
Dallas, TX 75230-4834

Dansby, Ben, Jr Estate
Michael Fitz-Gerald and James
Fitz-Gerald III, Co Pers Rep
PO Box 710
Midland, TX 79702-0710

Conoco Inc.
Attn: Tammy P. Herring-DU3056
PO Box 2197
Houston, TX 77252-2197

Energen Resources Corp
2198 Bloomfield Hwy
Farmington, NM 87401

Burlington Resources
Attn: Dawn Garretson
PO Box 4289
Farmington, NM 87499

March 16, 2000

RE: Downhole Commingling Application
C. A. McAdams D #1
1,910' FSL & 1,540' FWL Sec. 20, T27N, R10W
San Juan County, New Mexico

Dear Interest Owner;

Cross Timbers Operating Company is filing the attached application to downhole commingle the Gallup and Dakota formations in the subject well. Records indicate you are an interest owner in the C.A. McAdams D #1 and this letter is notification of the proposed commingling.

If you do not have any objections to the proposed commingling, you can sign a copy of this letter or allow twenty days, from receipt of this letter, to expire. If you wish to object to commingling, it must be done within twenty days from receipt of this letter.

Please return this letter or a letter of objection to Mr. David Catanach at the following address:

Mr. David Catanach
New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Your prompt attention to this matter is appreciated

Sincerely,

Thomas DeLong
Production Engineer

TD/ks

Enclosure (1)

I do not object to the proposed commingling.

By: _____

Date: _____

For: _____



Cross Timbers Operating Company

March 16, 2000

Union Oil Co. of California
Attn: Revenue Accounting
PO Box 841055
Dallas, TX 75284-1055

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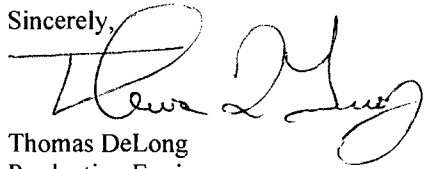
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Sincerely,


Thomas DeLong
Production Engineer

TD/ks

Enclosure (1)

I do not object to the proposed commingling.

By: 
For: 

Date: 3/31/2000



Cross Timbers Operating Company

March 16, 2000

Energen Resources Corp
2198 Bloomfield Hwy
Farmington, NM 87401

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C. A. McAdams D #1
1,910' FSL & 1,540' FWL Sec. 20, T27N, R10W
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Santa Fe, New Mexico 87505

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Sincerely,

Thomas DeLong
Production Engineer

TD/ks

Enclosure (1)

I do not object to the proposed commingling.

By: Richard Cochran

Date: 3-23-00

For: ENERGEN RESOURCES Corp.

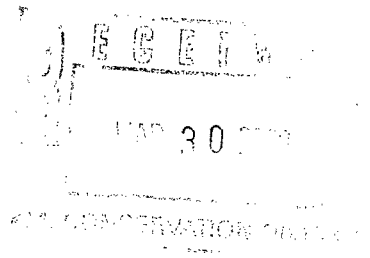
MAR 23 2000



Cross Timbers Operating Company

March 16, 2000

Singer Brothers
Dept. 1063
Tulsa, OK 74182



RE: Downhole Commingling Application
C. A. McAdams D #1
1,910' FSL & 1,540' FWL Sec. 20, T27N, R10W
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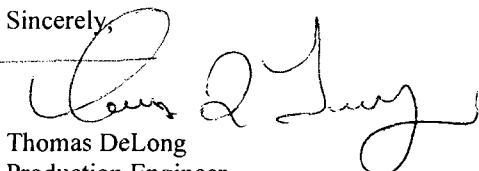
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2040 South Pacheco Street
Santa Fe, New Mexico 87505

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Sincerely,



Thomas DeLong
Production Engineer

TD/ks

Enclosure (1)

I do not object to the proposed commingling.

By:



Date:

3/23/00

For:

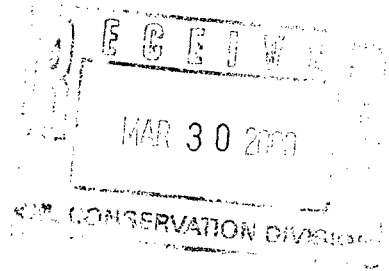
Singer Bros.



Cross Timbers Operating Company

March 16, 2000

J. Burton Veteto
607 Abo
Hobbs, NM 88240



RE: Downhole Commingling Application
C. A. McAdams D #1
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Santa Fe, New Mexico 87505

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Sincerely,

Thomas DeLong
Production Engineer

TD/ks

Enclosure (1)

I do not object to the proposed commingling.

By:

For:

Date:

3/28/00