



Cross Timbers Operating Company

DHC = 8/2/99
2405

July 6, 1999

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

Re: Administrative Approval to Downhole Commingle
Cross Timbers Operating Co.
Schwerdtfeger A #5E
1,060 FEL, 850' FNL Sec. 6, T27N, R08W
San Juan County, New Mexico

Dear Ms. Wrotenbery,

Cross Timbers Operating Company hereby request administrative approval to downhole commingle the undesignated Gallup and Basin Dakota pools in the above mentioned well. The Gallup formation was recently perforated and completed in order to determine economic justification. Currently the Dakota formation has been plugback and only the Gallup formation is flowing to sales. In order to determine long term benefit and future re-completion practices, Cross Timbers feels that if the two formations are downhole commingled then economic justification can be obtained quicker based on the following reasons. 1) Returning the Dakota formation back to production, 2) eliminating the need for redundant sub-surface and surface production equipment and 3) using various types of artificial lift and compression to explore production optimization and formation response. Supporting documentation used for allocation determination is enclosed.

To comply with New Mexico Oil Conservation Rules, Cross Timbers Operating Co is submitting the following data for your approval of the proposed commingling:

1. C-107A Application for Downhole Commingle
2. C-102 Well Location & Acreage Dedication Plat
3. Production curves for the Dakota Formation
4. Offset Operators Plat
5. Well Location Plat

In accordance to New Mexico Oil Conservation Division Rule 303C, all offset operators are being notified of this application by certified mail. As an offset operator, if you do not have any objections to this application, you do not have to respond to this notification.

If additional information is needed, please feel free to contact Cross Timbers Operating Co.



Cross Timbers Operating Company

Sincerely,

Jeffery W. Patton
Production Engineer

CC: NMOCD –Aztec, Offset Operators, BLM, wellfile

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-107-A
New 3-12-96

DISTRICT II
811 S. First St., Artesia, NM 88210-2835

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 875054-6429

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

DISTRICT III
1000 Rio Brazos Rd, Aztec, NM 87410-1693

EXISTING WELLBORE

☒ YES ☐ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Cross Timbers Operating Company 2700 Farmington Ave., Bldg. K. Ste 1 Farmington, NM 87401
Operator Address

Schwerdtfeger A #5E A 6 27N 08W San Juan
Lease Well No. Unit Ltr. - Sec - Twp - Rge County

OGRID NO. 167067 Property Code 022634 API NO. 30-045-24790 Spacing Unit Lease Types: (check 1 or more)
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	Undesg. Gallup		Basin Dakota 71599
2. Top and Bottom of Pay Section (Perforations)	6,111' - 6,554' (perf'd)		7,042' - 7,147' (perf'd)
3. Type of production (Oil or Gas)	Oil & Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	a. (Current) 385 psig (calc)	a.	a. 474 psig (calc)
	b. (Original) 980 psig (calc)	b.	b. 1,340 psig (calc)
6. Oil Gravity (^o API) or Gas BTU Content)	40.6 grav / 1186 BTU		1156 BTU
7. Producing or Shut-In?	Producing		Shut In
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: Rates:	Date: Rates:	Date: 6/1/99 Rates: 0 bopd/20 MCFPD/0 bwpd
	Date: 7/7/99 Rates: 2 bopd/50 MCFPD/0 bwpd	Date: Rates:	Date: Rates:
8. Fixed Percentage Allocation Formula -% for each zone	Oil: 88 % Gas: 71 %	Oil: % Gas: %	Oil: 12 % Gas: 29 %

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
Have all offset operators been given written notice of the proposed downhole commingling? ☒ 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 in on, or communitized 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 all offset operators.
- * 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 Jeffery W Patton TITLE Production Engineer DATE 7/7/99

TYPE OR PRINT NAME Jeffery W Patton TELEPHONE NO(505) 324-1090

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

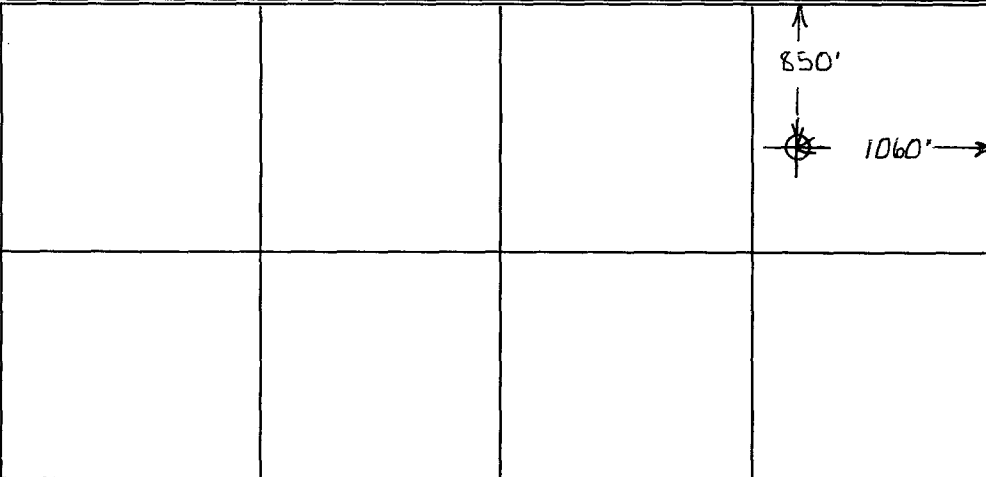
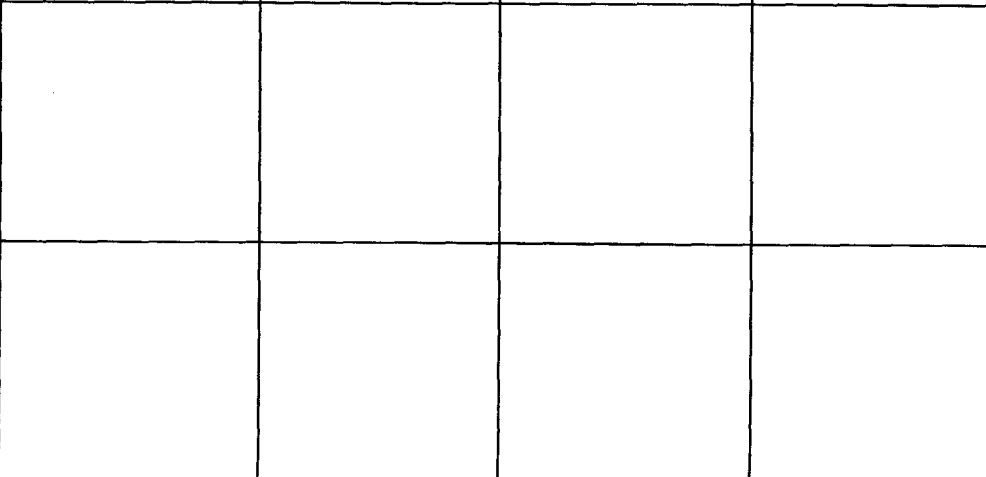
Form C-102
Revised October 18, 1999
Instructions on back
o Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

¹ API Number 30-045-24790	² Pool Code 71599 (Dakota)	³ Pool Name Undesignated Gallup / Basin Dakota
⁴ Property Code	⁵ Property Name Schwerdtfeger A	⁶ Well Number #5E
⁷ OGRID No. 167067	⁸ Operator Name Cross Timbers Operating Company	⁹ Elevation 6,456'

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
A	6	27N	08W		850	North	1,060	East	San Juan

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.			

	<div style="border-bottom: 1px solid black; padding-bottom: 5px;"> <p style="text-align: center;">17 OPERATOR CERTIFICATION</p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i></p> </div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"> <p style="text-align: right;"><i>W. Patton</i></p> </div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"> <p>Signature Jeffery W. Patton</p> </div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"> <p>Printed Name Production Engineer</p> </div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"> <p>Title 07/08/99</p> </div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"> <p>Date</p> </div>
	<div style="border-bottom: 1px solid black; padding-bottom: 5px;"> <p style="text-align: center;">18 SURVEYOR CERTIFICATION</p> <p><i>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.</i></p> </div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"> <p>Aug. 7, 1980</p> </div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"> <p>Date of Survey</p> </div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"> <p>Signature and Seal of Professional Surveyer: <i>ORIGINAL SIGNED BY</i> <i>FRED B KERR, JR.</i></p> </div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"> <p style="text-align: right;"># 3950</p> </div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"> <p>Certificate Number</p> </div>



Cross Timbers Operating Company

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

Re: Administrative Approval to Downhole Commingle
Cross Timbers Operating Co.
Schwerdtfeger A #5E
1,060' FEL, 850' FNL Sec. 6, T27N, R08W
San Juan County, New Mexico

Dear Offset Operator,

As an offset operator to the above mentioned well, you are hereby notified that Cross Timbers Operating Co is filing for downhole commingle approval.

If you do not have any objections to the above well being commingled, you can either sign this letter waiving your rights to an objection or let the twenty days, upon receipt of this letter, expire.

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

Cross Timbers Oil Co sincerely appreciate your prompt response concerning this approval.

Energen Resources Corp.	Signature:
Amoco Production Company	Signature:



Cross Timbers Operating Company

Schwerdtfeger A #5E
Offset Operator / Ownership Plat
Undesignated Gallup / Basin Dakota
Downhole Commingle

Township 27 N, Range 08 W

1. Energen Resources Corp.
2198 Bloomfield Hwy
Farmington, NM 87401
2. Amoco Production Company
200 Amoco Ct. 1717 Main
Farmington, NM 87401
3. Cross Timbers Operating Co.
2900 Farmington Ave. Bldg K, Suite 1
Farmington, NM 87401

Cross Timbers Oil Company

SCHWERTFEGER A 5E

CROSS TIMBERS
BASIN (DAKOTA)
SAN JUAN, NEW MEXICO
06A 27N 08W
RWT

SAN JUAN
71155

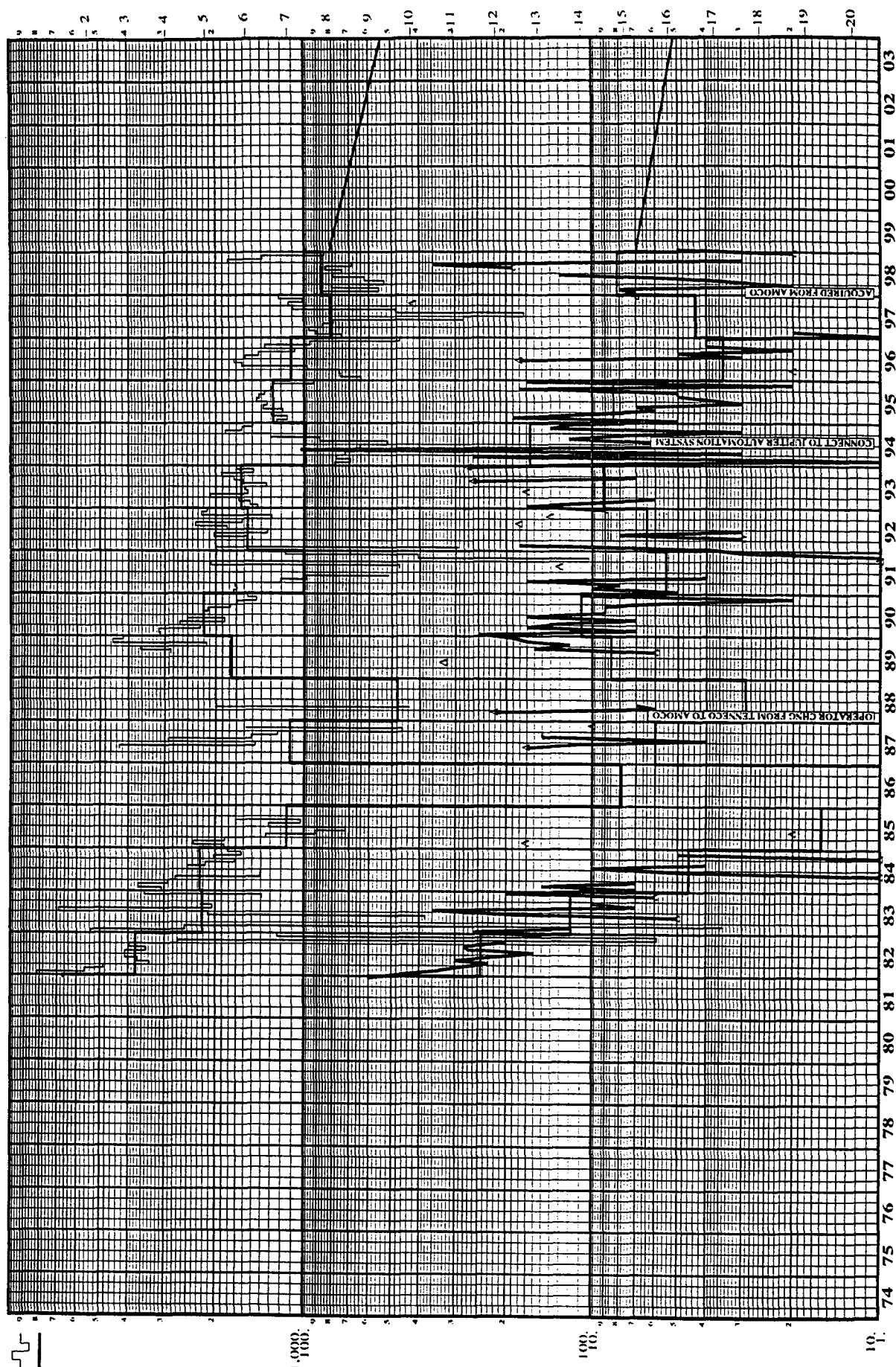
CO
524790

M & L - 1/99 FORECAST

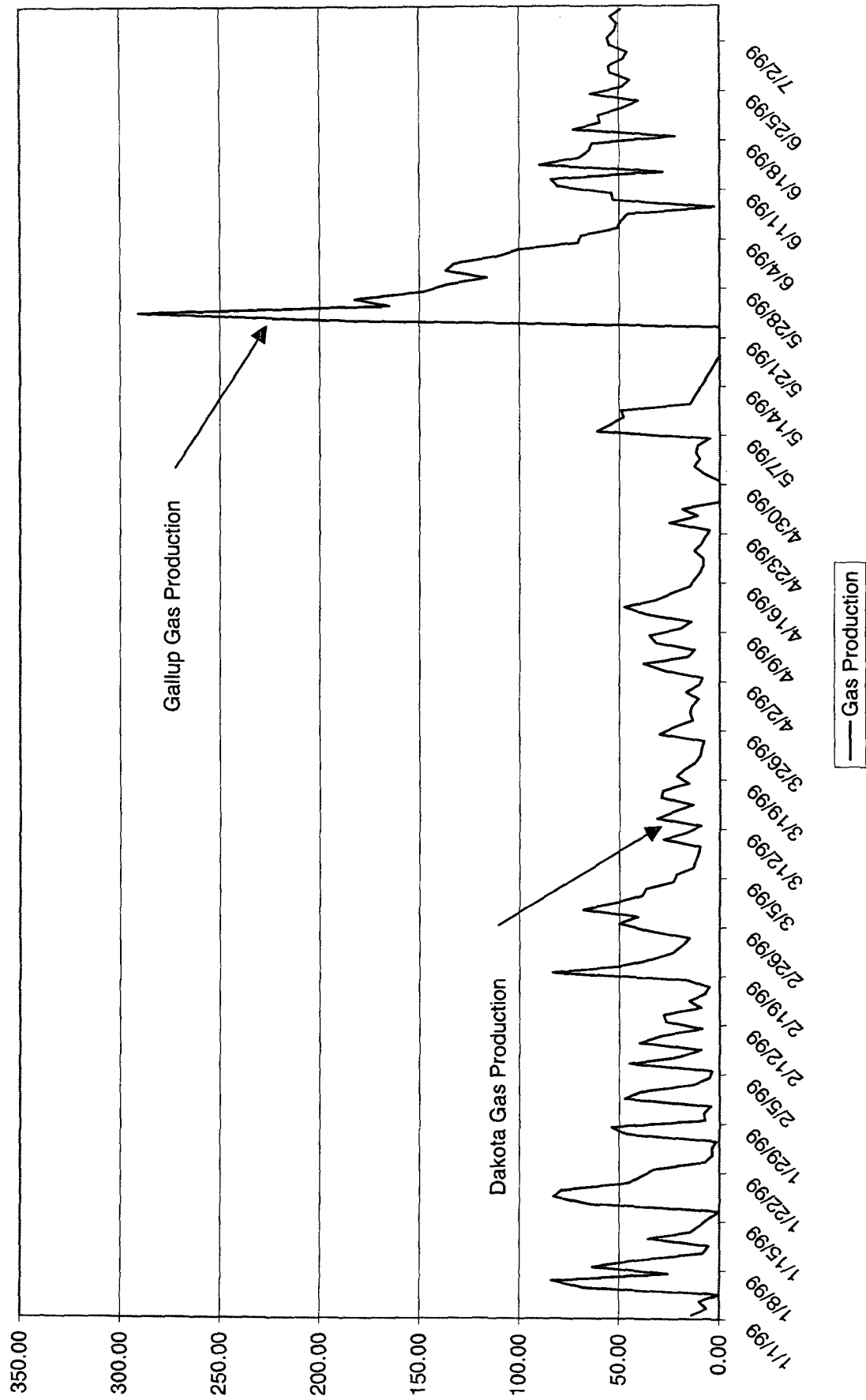
JWP DLM CP-K-WSS

Run Date: 04/1/99
Run Time: 11:57:53

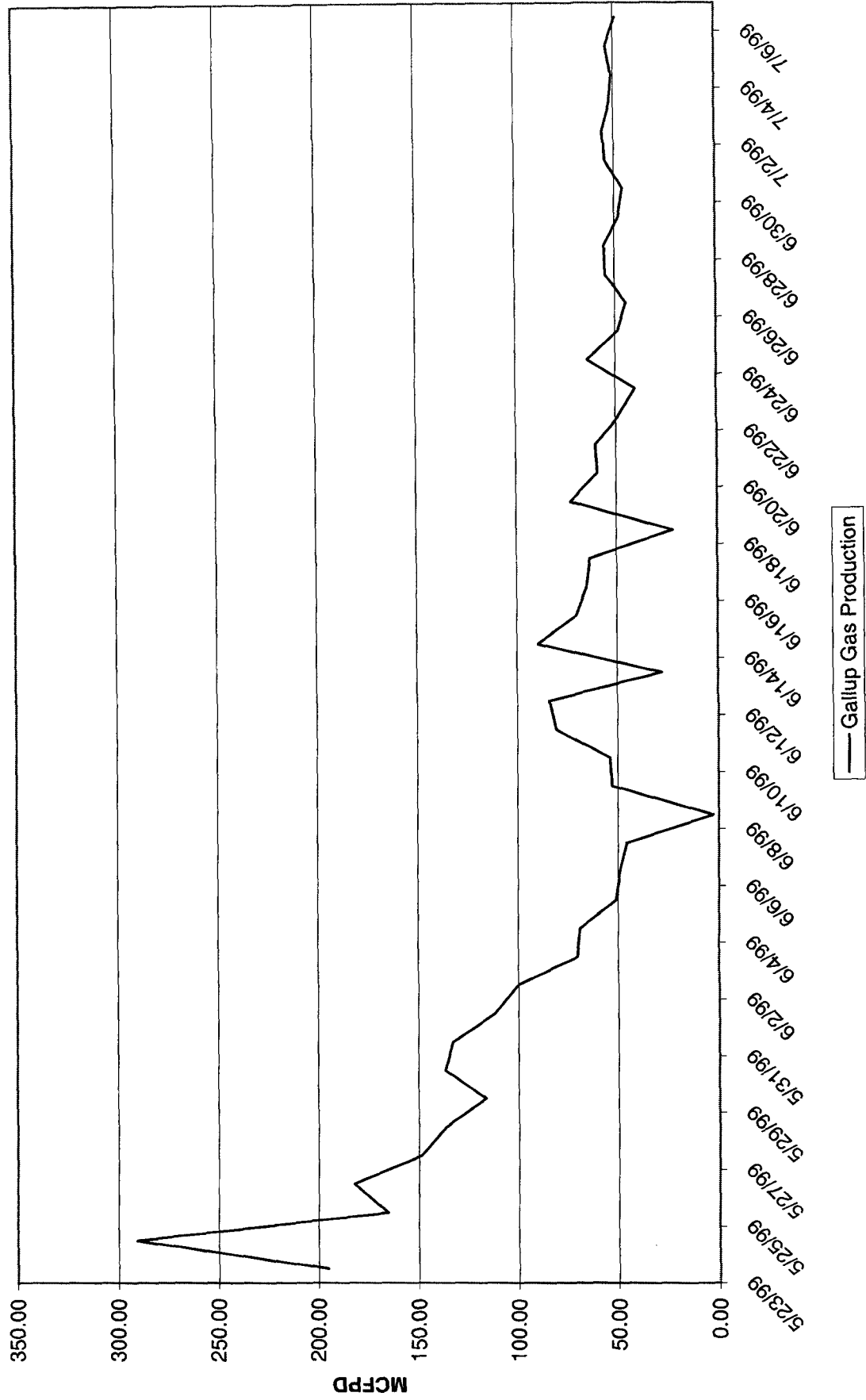
GAS (mcf/mo) ▽
OIL (bbls/mo) Δ



Schwerdtfeger A #5E



Schwerdtfeger A #5E



Schwerdtfeger A #5E

