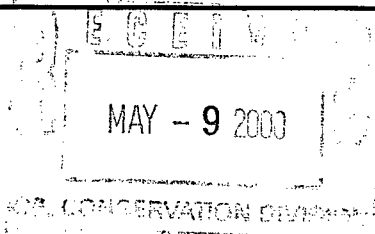


# Mallon Oil Company

♦ Denver & Durango, Colorado ♦  
♦ Carlsbad, New Mexico ♦

*a Mallon Resources subsidiary*

Mr. David Catanach  
State of New Mexico  
Oil Conservation Division  
2040 S Pacheco  
Santa Fe, NM 87505



May 5, 2000

RE: Application for Administrative Approval of Downhole Commingling  
Jicarilla 460-16 No. 5  
Sec. 16, T30N R3W  
Rio Arriba County, New Mexico

Dear Mr. Catanach:

Mallon Oil Company (Mallon) operates the above-referenced well, the Jicarilla 460-16 No. 5. The well currently produces from the Ojo Alamo zone and the San Jose zones, which are completed separately. It is not economical to continue to operate both zones separately, and Mallon believes the zones should be produced at this time to prevent any further potential depletion. The pressure expected in the San Jose formation is approximately 260 psi or less. The initial Ojo Alamo reservoir pressure is in the range of 1,100 psi as detailed in the in the attachment; after drawdown has occurred, it is expected that the Ojo Alamo reservoir pressure will drop to pressures similar to the San Jose formation pressure.

Mallon respectfully requests administrative approval for down-hole commingling of the Ojo Alamo and the San Jose formations in the well. The commingling is necessary to permit all zones to be effectively produced in this well. There will not be crossflow between zones. It is intended that by commingling zones the bottom hole pressure will be reduced below that of the San Jose and that the combined gas flow and open-ended tubing configuration will allow for better lifting of produced water and ultimately improved daily production. Additionally, this configuration will allow for use of a plunger lift to more consistently lift produced water from the well bore. The flowing well bottom-hole pressure will be less than the zones' reservoir pressures.

The ownership from all current producing and proposed zones is common. The enclosed attachments detail the information required by rule 303C for administrative approval of downhole commingling.

Please do not hesitate to contact me if you have any questions about this matter.

Sincerely,  
MALLON OIL COMPANY

A handwritten signature in cursive script, appearing to read "Ray E. Jones".

Ray E. Jones  
Vice President, Engineering

Attachments

cc: Bureau of Land Management (BLM) - Albuquerque  
Banko Petroleum Management, Inc.

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

Mallon Oil Company

999 18<sup>th</sup> Street, Suite 1700, Denver, CO 80202

Operator

Address

Jicarilla 460-16

No. 5

Unit O (SW/4 SE/4) Sec. 16 T30N R3W

Rio Arriba

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 013925 Property Code 22183 API NO. 30-039-25864 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	Cabresto Canyon San Jose Ext. 96822		Cabresto Canyon Ojo Alamo Ext. 96538
2. Top and Bottom of Pay Section (Perforations)	1,692' - 2,056'		3,314 - 3,359'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	a. (Current)  b. (Original)	a.  b.	a. 340 psi  b.
6. Oil Gravity (EAPI) or Gas BTU Content	1,081.9 BTU Dry @ 15.025 psia		1,113.5 BTU Dry @ 15.025 psia
7. Producing or Shut-In?	Producing		Producing
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	Date: N/A Rates:	Date: Rates:	Date: N/A Rates:
* If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: February 2000 Rates: 264.3 mcf/d gas 1.810 mb water	Date: Rates:	Date: February 2000 Rates: 54.3 mcf/d gas 5.171 mb water
8. Fixed Percentage Allocation Formula - % for each zone (total of %'s to equal 100%)	Oil: % Gas: 83.0 %	Oil: % Gas: %	Oil: % Gas: 17.0 %

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 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). NSL 2831-A

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 Ray E. Jones TITLE V.P Engineering DATE May 5, 2000

TYPE OR PRINT NAME Ray E. Jones TELEPHONE NO. (303) 293-2333, ext 1450

# Mallon Oil Company

*a Mallon Resources subsidiary*

♦ Denver & Durango, Colorado ♦  
♦ Carlsbad, New Mexico ♦

---

Mr. Brian Davis  
Bureau of Land Management  
Albuquerque Field Office  
435 Montañito Road NE  
Albuquerque, NM 87107-4935

May 5, 2000

RE: Application for Administrative Approval of Downhole Commingling  
Jicarilla 460-16 No. 5  
Sec. 16, T30N R3W  
Rio Arriba County, New Mexico

Dear Mr. Davis:

Enclosed please find a commingling application for the above-referenced well. The original was sent to the State of New Mexico Oil Conservation Division. Also, enclosed is a completed Sundry Notice, form 3160-5, for your use.

Please do not hesitate to contact me if you have any questions about this matter.

Sincerely,

MALLON OIL COMPANY



Ray E. Jones  
Vice President, Engineering

Attachments

cc: Banko Petroleum Management, Inc.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill, or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

## SUBMIT IN TRIPLICATE

## 1. TYPE OF WELL

Oil Well ☐ Gas Well ☒ Other: \_\_\_\_\_

## 2. NAME OF OPERATOR

Mallon Oil Company

## 3. ADDRESS AND TELEPHONE NO.

999 18th Street, Suite 1700  
Denver, CO 80202CONTACT: Ray E. Jones  
PHONE: 303-293-2333

## 4. LOCATION OF WELL (Footage, T, R, M, or Survey Description)

1,039' FSL 1,840' FEL Sec. 16 T 30N R 3W  
Unit O (SW/4 SE/4)

## 5. LEASE SERIAL NO.

Jicarilla 460

## 6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Jicarilla Apache

## 7. IF UNIT OR CA, AGREEMENT DESIGNATION

N/A

## 8. WELL NAME AND NO.

Jicarilla 460-16 No. 5

## 9. API WELL NO.

30-039-25864

## 10. FIELD AND POOL, OR EXPLORATORY AREA

E. Blanco

## 11. COUNTY OR PARISH, STATE

Rio Arriba NM

## 12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

## TYPE OF SUBMISSION

- ☒ Notice of Intent
- ☐ Subsequent Report
- ☐ Final Abandonment Notice

## TYPE OF ACTION

- |   |   |  |   |
|---|---|--|---|
| <input type="checkbox"/> Acidize              | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production (start/resume) | <input type="checkbox"/> Water Shut-Off   |
| <input type="checkbox"/> Alter Casing         | <input type="checkbox"/> Reclamation      | <input type="checkbox"/> Reclamation               | <input type="checkbox"/> Well Integrity   |
| <input type="checkbox"/> Casing Repair        | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete                | <input checked="" type="checkbox"/> Other |
| <input type="checkbox"/> Change Plans         | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon       | <u>Commingle</u>                          |
| <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back        | <input type="checkbox"/> Water Disposal            |   |

13. Describe Proposed or completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with the BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Mallon Oil Company intends to commingle the Ojo Alamo zone and the San Jose zone. An application has been made (see attached) to the State of New Mexico Oil Conservation Division for approval to down hole mingle the Ojo Alamo and the San Jose zones.

## 14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)

Ray E. Jones

Title: Vice President - Engineering

Signature

Date: May 5, 2000

## THIS SPACE FOR FEDERAL OR STATE OFFICE USE.

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

**Application for Downhole Commingling  
Under NMOCD Rule 303C  
For Gas Wells**

**Jicarilla 460-16 No. 5**

- a) By operator:  
Mallon Oil Company  
999 18<sup>th</sup> Street, Suite 1700  
Denver, CO 80202
- b) In the well:  
Jicarilla 460-16 No. 5  
Well location: Unit O (SW/4 SE/4) Sec. 16 T30N R3W  
Rio Arriba County, New Mexico  
Lease description: SE/4 Sec. 16 T30N R3W  
(See attached "Well Location and Acreage Dedication Plat")

For the pools:

Cabresto Canyon – Ojo Alamo Ext  
Cabresto Canyon – San Jose Ext

- c) A plat of the area surrounding the Jicarilla 460-16 No. 5 well showing the ownership of direct and diagonal offset locations is included.
- d) The Ojo Alamo and the San Jose zones in this well produce dry gas; therefore, no state form C116 is required or available for the current completion.
- e) A production decline curve is included that shows the Ojo Alamo zone production. The San Jose has also been completed in this well, but is completed separately from the Ojo Alamo. A production decline curve is also included that shows the San Jose zone production.
- f) The San Jose bottom hole pressure was measured on May 21, 1999 after a one-day shut in and was 142 psi at 1,534'. The gradient is primarily filled with gas, as a static gas gradient was established very early in the test. Flowing bottomhole pressure for the Ojo Alamo was measured at 341 psi at 3,135'. It is intended that by commingling zones the bottom hole pressure will be reduced below that of the San Jose and that the combined gas flow and open-ended tubing configuration will allow for better lifting of produced water and ultimately improved daily production. Additionally, this configuration will allow for use of a plunger lift to more consistently lift produced water from the well bore.
- g) There will be no loss in total gas quality or value due to mixing of the production streams.
- The Ojo Alamo and the San Jose zones produce gas with no condensate. A copy of a gas analysis from each of these zones is included. The gas from the Ojo Alamo is 92.1 % methane; from the San Jose, 94.3% methane.
- h) Because of reduced operation costs per zone, commingling of the zones would allow each individual zone to be produced to a lower economic rate and would increase ultimate recovery from both zones.

- i) No commingling presently occurs in the well.

The San Jose was flow tested during completion and has been measured during 1999. This rate and the well rate for 1999 from the Ojo Alamo will be used to determine an allocation factor. The allocation factor for the San Jose formation is 0.83.

- j) A reference map for the Jicarilla 460-16 No. 5 well and surrounding wells has been included. A circle with a radius of approximately one mile has been drawn around this well for reference only. The direct and diagonal offset wells:

<b>Well Name</b>	<b>Location</b>	<b>Operator</b>
Jicarilla 460-16 1	SW/4 NW/4 Sec. 15 T30 N R3W	Mallon Oil Company
Jicarilla 460-16 SJ 1	SW/4 NW/4 Sec. 15 T30 N R3W	Mallon Oil Company
Jicarilla 460-16 4	SW/4 SW/4 Sec. 15 T30 N R3W	Mallon Oil Company
Jicarilla 460-16 SJ 4	SW/4 SW/4 Sec. 15 T30 N R3W	Mallon Oil Company
Jicarilla 460-16 6	NW/4 NE/4 Sec. 15 T30 N R3W	Mallon Oil Company
Jicarilla 460-21 1	NW/4 NE/4 Sec. 21 T30N R3W	Mallon Oil Company
Jicarilla 460-21 2	SE/4 NE/4 Sec. 21 T30N R3W	Mallon Oil Company
Jicarilla 459-17 11	SW/4 SE/4 Sec. 16 T30N R3W	Mallon Oil Company

The ownership of the two producing zones for the Jicarilla 460-16 No. 5 well is common so notification of this application is not necessary. The following is a list of the working, royalty, and overriding royalty interest owners for this well for both formations.

Jicarilla Apache Contract 459  
MMS Aid #609-000459-0-000  
Bureau of Indian Affairs  
PO Box 507  
Dulce, NM 87528

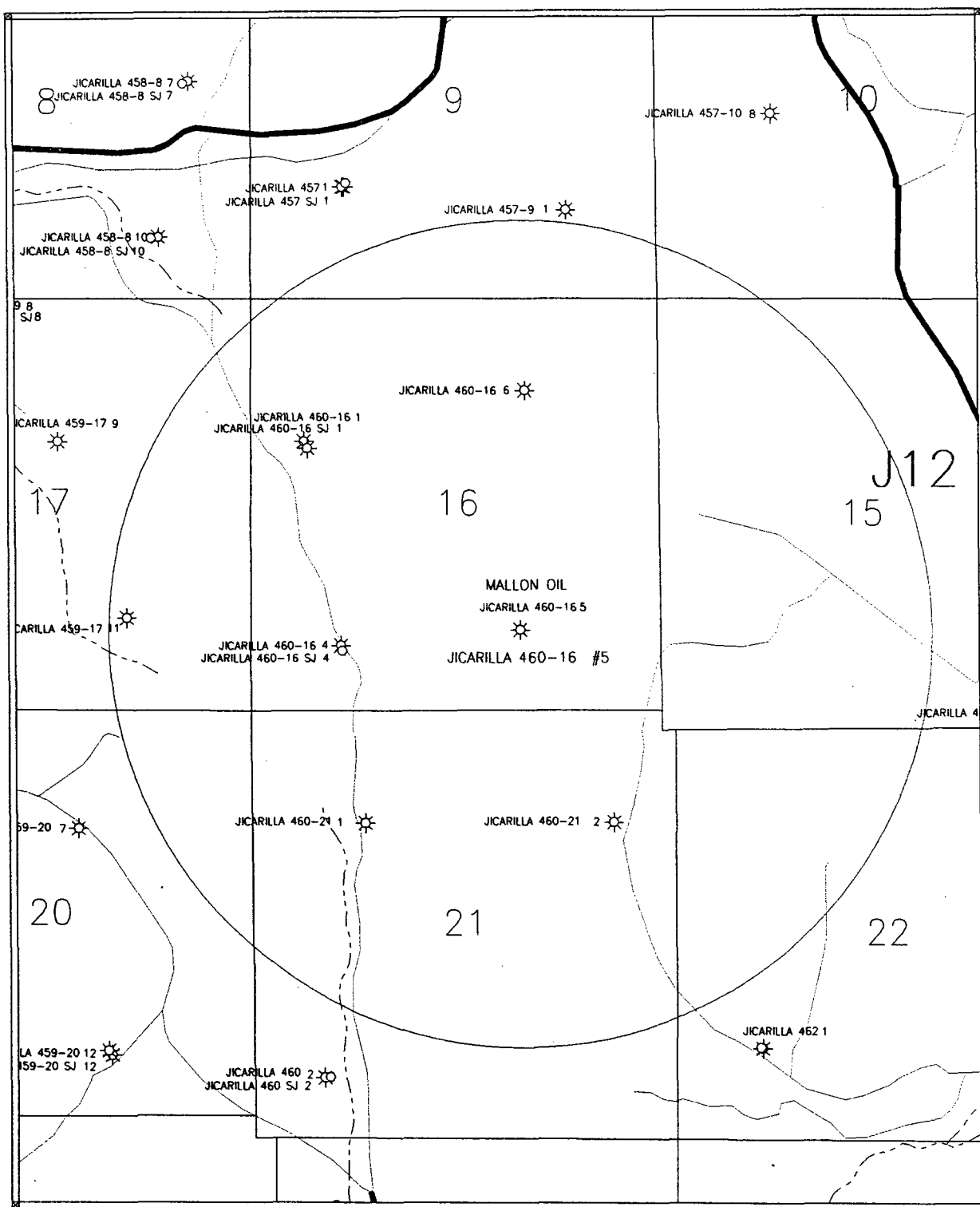
Bayless Grandchildren's Trust  
c/o Tommy Roberts, Trustee  
PO Box 129  
Farmington, NM 87499

Jaco Production Company  
PO Box 1807  
Bakersfield, CA 93303

Ken Kamon  
PO Box 10589  
Midland, TX 79702

Kevin Fitzgerald  
c/o Mallon Oil Company  
999 18th Street, Suite 1700  
Denver, CO 80202

Mallon Oil Company  
999 18th Street, Suite 1700  
Denver, CO 80202



Scale 1:24000.

0.1 0. 0.1 0.2 0.3 0.4 0.5 miles

MALLON OIL COMPANY

One Mile Radius Map  
Jicarilla 460-16 #5  
Rio Arriba County, New Mexico

46016\_SM.GPF

J. Moore

03/30/2000

DISTRICT III  
1000 Rio Brazos Rd., Artesia, N.M. 87410

# OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, NM 87504-2088

DISTRICT IV  
PO Box 2088, Santa Fe, NM 87504-2088

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number <b>30-039-25864</b>		*Pool Code	*Pool Name <b>Cabresto Canyon; Ojo Alamo</b>
*Property Code <b>22183</b>	*Property Name <b>Jicarilla 460-16</b>		*Well Number <b>#5</b>
*OGRD No. <b>013925</b>	*Operator Name <b>Mallon Oil Co.</b>		*Elevation <b>7324'</b>

### <sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
	16	30 N	3 W		1039	South	1840	East	Rio Arriba

### <sup>11</sup> 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

*Dedicated Acres <b>160</b>	*Joint or Intill	*Consolidation Code	*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

<div style="position: relative; height: 400px;"> <div style="position: absolute; top: 0; left: 0; width: 100%; height: 100%; border: 1px solid black;"></div> <div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%);"> <p>1039'</p> <p>1840'</p> </div> </div>	<p>1917 B.C.</p> <p>S89-57-00E</p> <p>5304.4'</p> <p>1917 B.C.</p>		<p><sup>17</sup> OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><u>Christy Serrano</u> Signature</p> <p><u>Christy Serrano</u> Printed Name</p> <p><u>Production Secretary</u> Title</p> <p><u>7-23-98</u> Date</p>
	<p>1917 B.C.</p> <p>S89-57-00E</p> <p>5304.4'</p> <p>1917 B.C.</p>		<p><sup>18</sup> SURVEYOR CERTIFICATION</p> <p>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><u>2-2-98</u> Date of Survey</p> <p><u>JOHN RUSH</u> Signature and Title of Registered Professional Land Surveyor</p> <p><u>8894</u> Certificate Number</p>
	<p>1917 B.C.</p> <p>S89-57-00E</p> <p>5304.4'</p> <p>1917 B.C.</p>		<p><u>2-2-98</u> Date of Survey</p> <p><u>JOHN RUSH</u> Signature and Title of Registered Professional Land Surveyor</p> <p><u>8894</u> Certificate Number</p>
	<p>1917 B.C.</p> <p>S89-57-00E</p> <p>5304.4'</p> <p>1917 B.C.</p>		<p><u>2-2-98</u> Date of Survey</p> <p><u>JOHN RUSH</u> Signature and Title of Registered Professional Land Surveyor</p> <p><u>8894</u> Certificate Number</p>



DISTRICT III  
1000 Rio Arriba Rd., Artes, N.M. 87410  
DISTRICT IV  
PO Box 2088, Santa Fe, NM 87504-2088

# OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, NM 87504-2088

State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-039-25864</b>	<sup>2</sup> Pool Code	<sup>3</sup> Pool Name <b>Cabresto Canyon; San Jose Ext.</b>
<sup>4</sup> Property Code <b>22183</b>	<sup>5</sup> Property Name <b>Jicarilla 460-16</b>	<sup>6</sup> Well Number <b>#5</b>
<sup>7</sup> OGRD No. <b>013925</b>	<sup>8</sup> Operator Name <b>Mallon Oil Co.</b>	<sup>9</sup> Elevation <b>7324'</b>

### <sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot 1/4	Feet from the	North/South line	Feet from the	East/West line	County
	16	30 N	3 W		1039	South	1840	East	Rio Arriba

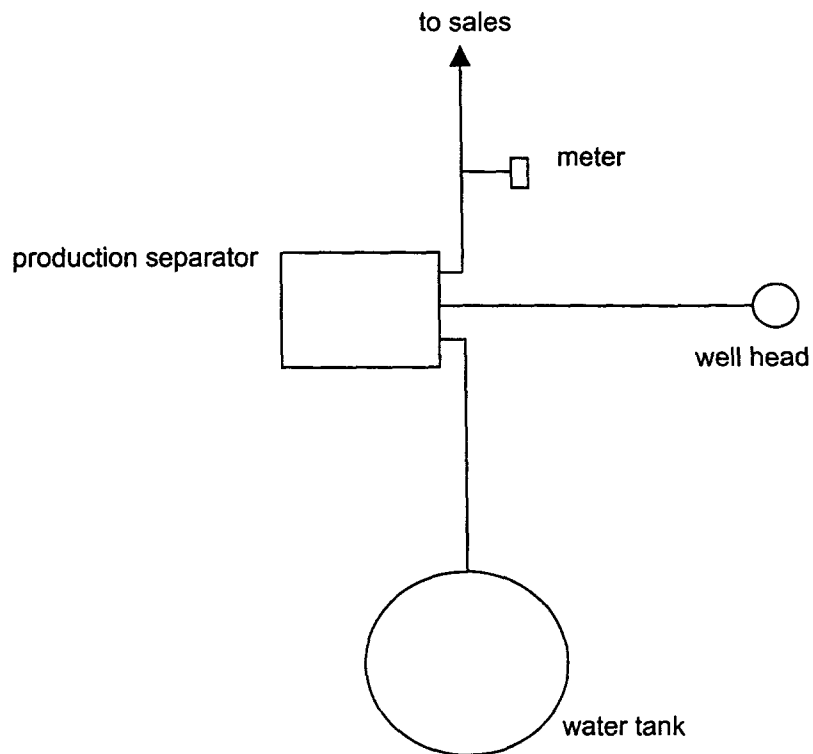
### <sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot 1/4	Feet from the	North/South line	Feet from the	East/West line	County

<sup>12</sup> Dedicated Acres <b>160</b>	<sup>13</sup> Lot or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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

<div><div>14</div><div>1917 B.C.</div><div>1840'</div><div>1039'</div><div>5304.4'</div><div>1917 B.C.</div><div>589-57-00E</div></div>	<div><div><sup>17</sup> OPERATOR CERTIFICATION</div><div>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</div><div><u>Christy Serrano</u></div><div>Signature</div><div><u>Christy Serrano</u></div><div>Printed Name</div><div><u>Production Secretary</u></div><div>Title</div><div><u>7-23-98</u></div><div>Date</div></div>	
	<div><div><sup>18</sup> SURVEYOR CERTIFICATION</div><div>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.</div><div><u>2-7-98</u></div><div>Date of Survey</div><div><u>DOUGLAS RUSH</u></div><div>Signature and Title</div><div><u>NEW MEXICO</u></div><div><u>REGISTERED PROFESSIONAL LAND SURVEYOR</u></div><div><u>8894</u></div><div>Certificate Number</div></div>	



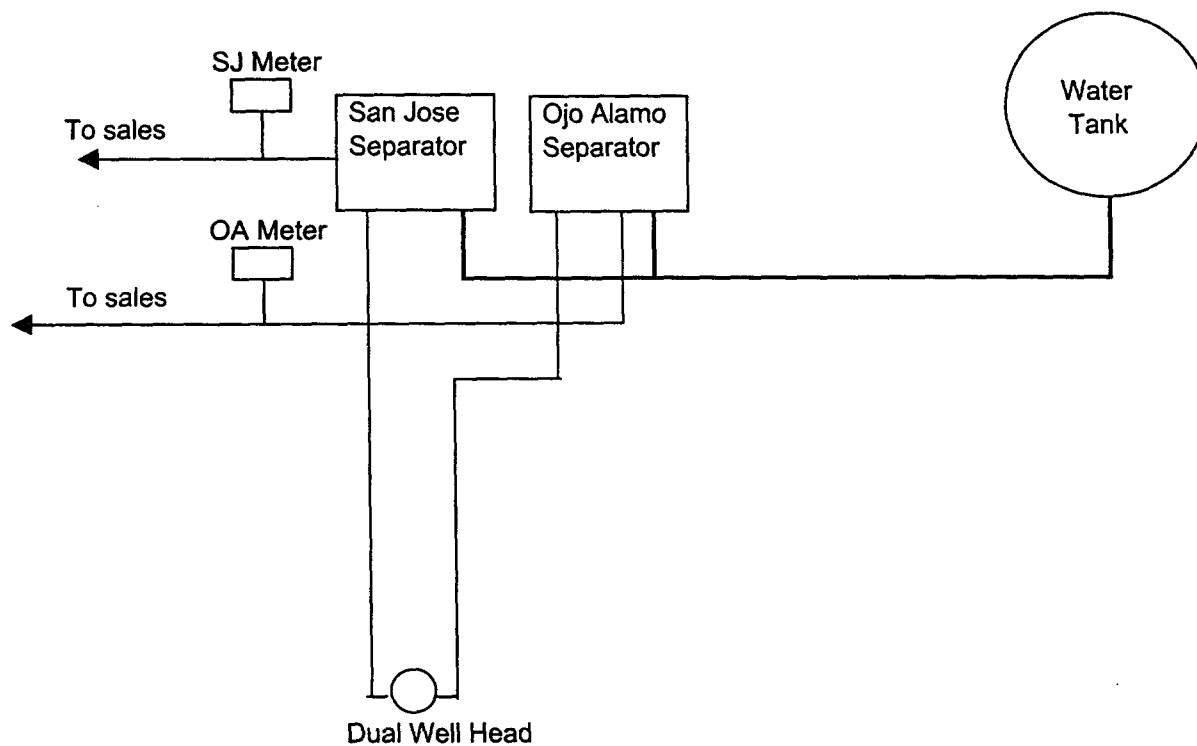
Site Facility Diagram Available At:

Mallon Oil & Gas Company  
848 East 2nd Avenue  
P.O. Box 2797  
Durango, CO 81302

Telephone: 970-382-9100

Site Facility Diagram:

Company: Mallon Oil  
Lease: Jicarilla  
Well Name: 460-16 no. 5  
Location: Sec 16, T30N R3W  
County/State: Rio Arriba, NM



### Dual Completion

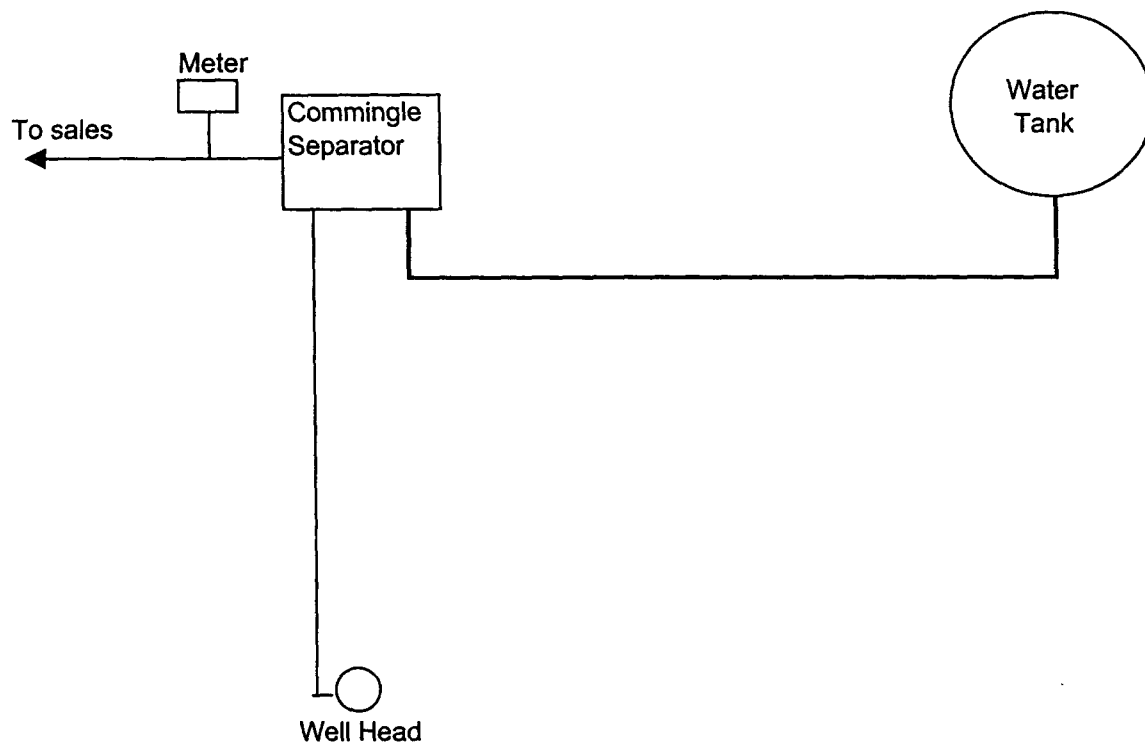
Site Facility Diagram Available At:

Mallon Oil & Gas Company  
848 East 2nd Avenue  
P.O. Box 2797  
Durango, CO 81302

Telephone: 970-382-9100

Site Facility Diagram:

Company: Mallon Oil  
Lease: Jicarilla  
Well Name: 460-16 no. 5  
Location: Sec 16, T30N R3W  
County/State: Rio Arriba, NM



### Commingled Completion

Site Facility Diagram Available At:

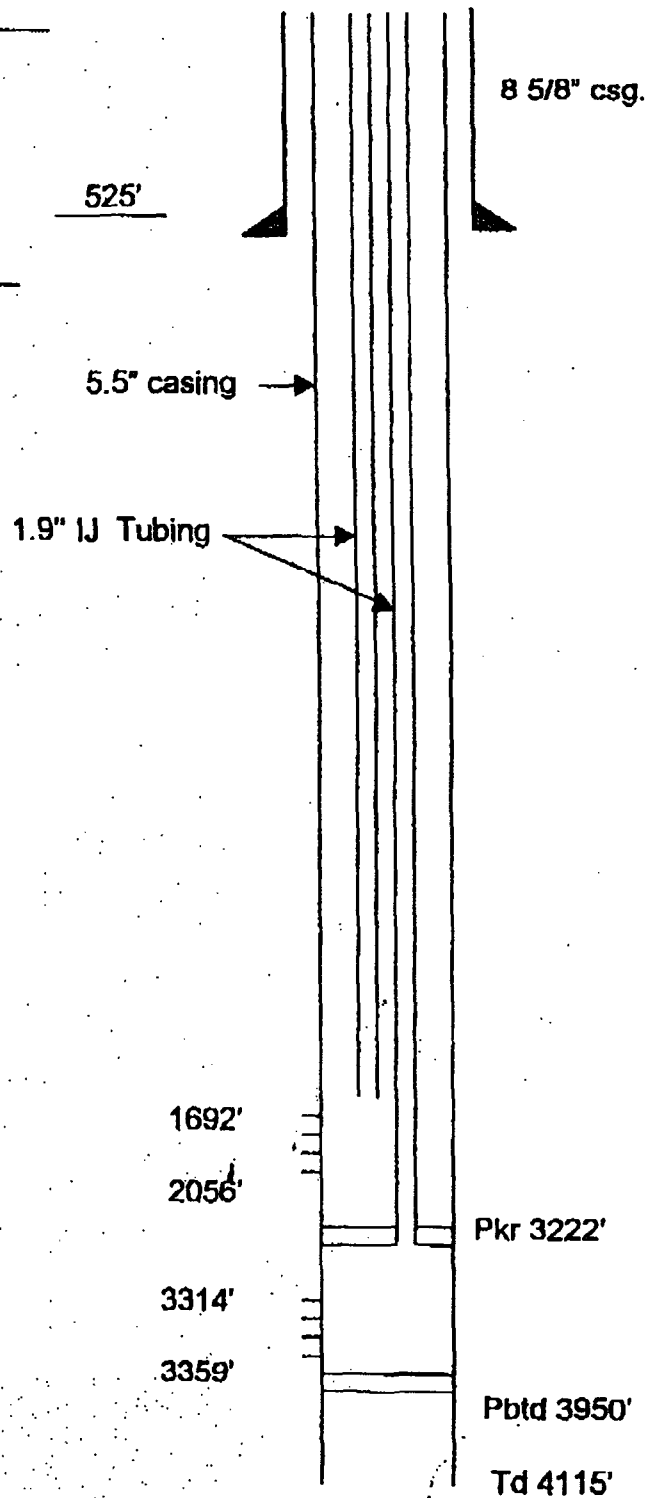
Mallon Oil & Gas Company  
848 East 2nd Avenue  
P.O. Box 2797  
Durango, CO 81302

Telephone: 970-382-9100

Site Facility Diagram:

Company: Mallon Oil  
Lease: Jicarilla  
Well Name: 460-16 no. 5  
Location: Sec 16, T30N R3W  
County/State: Rio Arriba, NM

F

WELL NAME: JICARILLA 460-16 No. 5FIELD: EAST BLANCOLEGAL: SEC 16 TN 30 RW 03PRODUCING INTERVAL: 1692'-2056'3314'-3359'NOTES: San Jose perms 1692'-2056'Ojo Alamo perms 3314'-3359'

JIC 460-16 #05 (OA)  
 RIO ARriba CO., NM - O 16 T30N R03W  
 BLANCO EAST (OJO ALAMO)  
 MALLON OIL COMPANY  
 OJO ALAMO  
 1PDP

DATE: 05/03/\*\*  
 TIME: 08:44:13  
 FILE: 2000  
 GET : 396  
 STID: 1Q2000  
 .CMD: JUNK  
 .OUT: JIC\_PROD

P R O D U C T I O N   D A T A

THROUGH 2/28/2000

PERIOD ENDING	DAYS PROD	OIL, MB	OIL BBL/D	GAS, MMF	GAS MCF/D	YIELD BBL/MMF	WATER, MB	WATER PCT	CUM. OIL, MB	CUM. GAS, MMF	CUM. WATER, MB	FTP, PSI
PRIOR 1/98		0.000		0.000		0.000	0.000	0.0	0.000	0.000	0.000	
1/98	0	0.000	0.0	0.000	0.0	0.000	0.000	0.0	0.000	0.000	0.000	0
2/98	0	0.000	0.0	0.000	0.0	0.000	0.000	0.0	0.000	0.000	0.000	0
3/98	0	0.000	0.0	0.000	0.0	0.000	0.000	0.0	0.000	0.000	0.000	0
4/98	0	0.000	0.0	0.000	0.0	0.000	0.000	0.0	0.000	0.000	0.000	0
5/98	0	0.000	0.0	0.000	0.0	0.000	0.000	0.0	0.000	0.000	0.000	0
6/98	0	0.000	0.0	0.000	0.0	0.000	0.000	0.0	0.000	0.000	0.000	0
7/98	8	0.000	0.0	1.584	198.0	0.000	0.123	100.0	0.000	1.584	0.123	0
8/98	24	0.000	0.0	7.349	306.2	0.000	0.217	100.0	0.000	8.932	0.340	0
9/98	30	0.000	0.0	4.804	160.1	0.000	0.507	100.0	0.000	13.737	0.847	0
10/98	6	0.000	0.0	1.124	187.3	0.000	0.029	100.0	0.000	14.861	0.876	0
11/98	0	0.000	0.0	0.000	0.0	0.000	0.000	0.0	0.000	14.861	0.876	0
12/98	0	0.000	0.0	0.000	0.0	0.000	0.000	0.0	0.000	14.861	0.876	0
YR 98	68	0.000	0.0	14.861	218.5	0.000	0.876	100.0	0.000	14.861	0.876	
1/99	0	0.000	0.0	0.000	0.0	0.000	0.000	0.0	0.000	14.861	0.876	0
2/99	21	0.000	0.0	2.029	96.6	0.000	0.039	100.0	0.000	16.889	0.915	0
3/99	31	0.000	0.0	2.730	88.1	0.000	0.223	100.0	0.000	19.619	1.138	0
4/99	30	0.000	0.0	2.470	82.3	0.000	0.355	100.0	0.000	22.089	1.493	0
5/99	31	0.000	0.0	1.291	41.6	0.000	0.395	100.0	0.000	23.380	1.887	0
6/99	30	0.000	0.0	2.036	67.9	0.000	0.396	100.0	0.000	25.415	2.283	0
7/99	31	0.000	0.0	1.721	55.5	0.000	0.405	100.0	0.000	27.137	2.688	0
8/99	31	0.000	0.0	1.757	56.7	0.000	0.465	100.0	0.000	28.894	3.153	0
9/99	30	0.000	0.0	1.508	50.3	0.000	0.428	100.0	0.000	30.402	3.581	0
10/99	31	0.000	0.0	1.340	43.2	0.000	0.240	100.0	0.000	31.742	3.821	0
11/99	30	0.000	0.0	1.152	38.4	0.000	0.447	100.0	0.000	32.894	4.268	0
12/99	31	0.000	0.0	0.898	29.0	0.000	0.312	100.0	0.000	33.792	4.580	0
1/00	31	0.000	0.0	1.150	37.1	0.000	0.270	100.0	0.000	34.942	4.850	0
2/00	29	0.000	0.0	0.928	32.0	0.000	0.321	100.0	0.000	35.870	5.171	0
YR 00	387	0.000	0.0	21.009	54.3	0.000	4.295	100.0	0.000	35.870	5.171	
SUB TOTAL	455	0.000	0.0	35.870	78.8	0.000	5.171	100.0	0.000	35.870	5.171	-
TOTAL		0.000		35.870		0.000	5.171	100.0	0.000	35.870	5.171	

JIC 460-16 #05 (SJ)  
 RIO ARRIBA CO., NM - O 16 T30N R03W  
 BLANCO EAST (SAN JOSE)  
 MALLON OIL COMPANY  
 SAN JOSE  
 1PDP

DATE: 05/03/\*\*  
 TIME: 08:44:13  
 FILE: 2000  
 GET : 449  
 STID: 1Q2000  
 .CMD: JUNK  
 .OUT: JIC\_PROD

PRODUCTION DATA

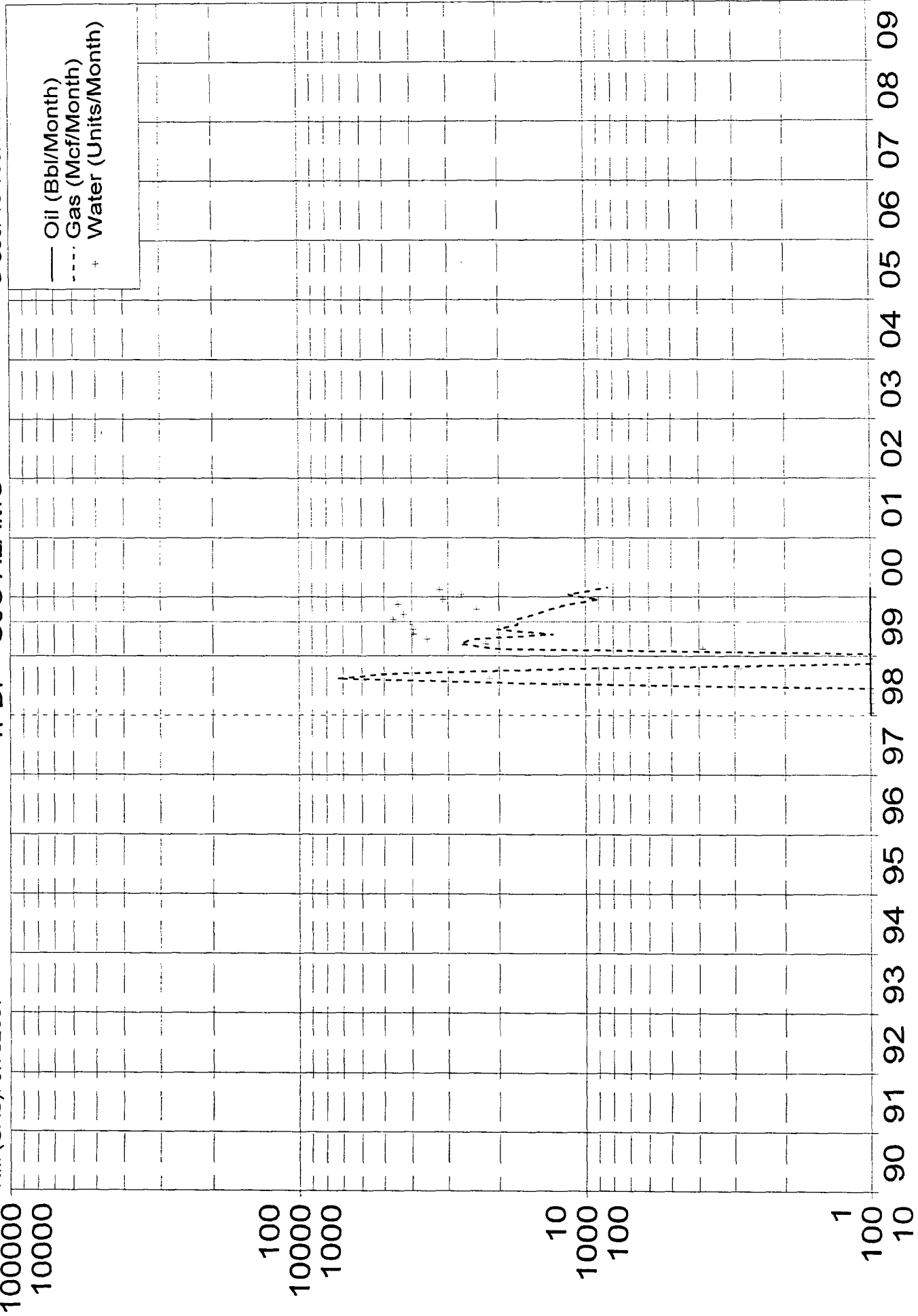
THROUGH 2/28/2000

PERIOD ENDING	DAYS PROD	OIL, MB	OIL BBL/D	GAS, MMF	GAS MCF/D	YIELD BBL/MMF	WATER,MB	WATER PCT	CUM. OIL, MB	CUM. GAS, MMF	CUM. WATER,MB	FTP,PSI
PRIOR 1/98		0.000		0.000		0.000	0.000	0.0	0.000	0.000	0.000	
1/98	0	0.000	0.0	0.000	0.0	0.000	0.000	0.0	0.000	0.000	0.000	0
2/98	0	0.000	0.0	0.000	0.0	0.000	0.000	0.0	0.000	0.000	0.000	0
3/98	0	0.000	0.0	0.000	0.0	0.000	0.000	0.0	0.000	0.000	0.000	0
4/98	0	0.000	0.0	0.000	0.0	0.000	0.000	0.0	0.000	0.000	0.000	0
5/98	0	0.000	0.0	0.000	0.0	0.000	0.000	0.0	0.000	0.000	0.000	0
6/98	0	0.000	0.0	0.000	0.0	0.000	0.000	0.0	0.000	0.000	0.000	0
7/98	0	0.000	0.0	0.000	0.0	0.000	0.000	0.0	0.000	0.000	0.000	0
8/98	0	0.000	0.0	0.000	0.0	0.000	0.000	0.0	0.000	0.000	0.000	0
9/98	0	0.000	0.0	0.000	0.0	0.000	0.000	0.0	0.000	0.000	0.000	0
10/98	14	0.000	0.0	5.670	405.0	0.000	0.300	100.0	0.000	5.670	0.300	0
11/98	30	0.000	0.0	13.703	456.8	0.000	0.938	100.0	0.000	19.374	1.238	0
12/98	31	0.000	0.0	12.712	410.1	0.000	0.137	100.0	0.000	32.086	1.375	0
YR 98	75	0.000	0.0	32.086	427.8	0.000	1.375	100.0	0.000	32.086	1.375	
1/99	31	0.000	0.0	11.666	376.3	0.000	0.095	100.0	0.000	43.751	1.470	0
2/99	26	0.000	0.0	8.616	331.4	0.000	0.068	100.0	0.000	52.367	1.538	0
3/99	31	0.000	0.0	10.537	339.9	0.000	0.043	100.0	0.000	62.904	1.581	0
4/99	30	0.000	0.0	8.982	299.4	0.000	0.053	100.0	0.000	71.886	1.634	0
5/99	16	0.000	0.0	4.801	300.1	0.000	0.059	100.0	0.000	76.688	1.693	0
6/99	30	0.000	0.0	9.043	301.4	0.000	0.057	100.0	0.000	85.731	1.750	0
7/99	31	0.000	0.0	8.521	274.9	0.000	0.060	100.0	0.000	94.252	1.810	0
8/99	31	0.000	0.0	7.793	251.4	0.000	0.000	0.0	0.000	102.046	1.810	0
9/99	30	0.000	0.0	7.733	257.8	0.000	0.000	0.0	0.000	109.779	1.810	0
10/99	31	0.000	0.0	7.252	233.9	0.000	0.000	0.0	0.000	117.031	1.810	0
11/99	30	0.000	0.0	6.368	212.3	0.000	0.000	0.0	0.000	123.399	1.810	0
12/99	31	0.000	0.0	5.984	193.0	0.000	0.000	0.0	0.000	129.383	1.810	0
1/00	31	0.000	0.0	5.566	179.5	0.000	0.000	0.0	0.000	134.949	1.810	0
2/00	29	0.000	0.0	4.968	171.3	0.000	0.000	0.0	0.000	139.917	1.810	0
YR 00	408	0.000	0.0	107.831	264.3	0.000	0.435	100.0	0.000	139.917	1.810	
SUB TOTAL	483	0.000	0.0	139.917	289.7	0.000	1.810	100.0	0.000	139.917	1.810	
TOTAL		0.000		139.917		0.000	1.810	100.0	0.000	139.917	1.810	

MALLON OIL COMPANY  
W.I.: 1  
R.I. (OIL):  
R.I. (GAS): 0.752657

BLANCO EAST (OJO ALAMO)  
JIC 460-16 #05 (OA)  
1PDP - OJO ALAMO

Major Phase: GAS  
Case: 396  
NM0363OA  
O Sec. 16 T30N R03W





MALLON OIL COMPANY  
W.I.: 1  
R.I. (OIL):  
R.I. (GAS): 0.752657

BLANCO EAST (SAN JOSE)  
JIC 460-16 #05 (SJ)  
1PDP - SAN JOSE

Major Phase: GAS  
Case: 449  
NM0363SJ  
O Sec: 16 T30N R03W

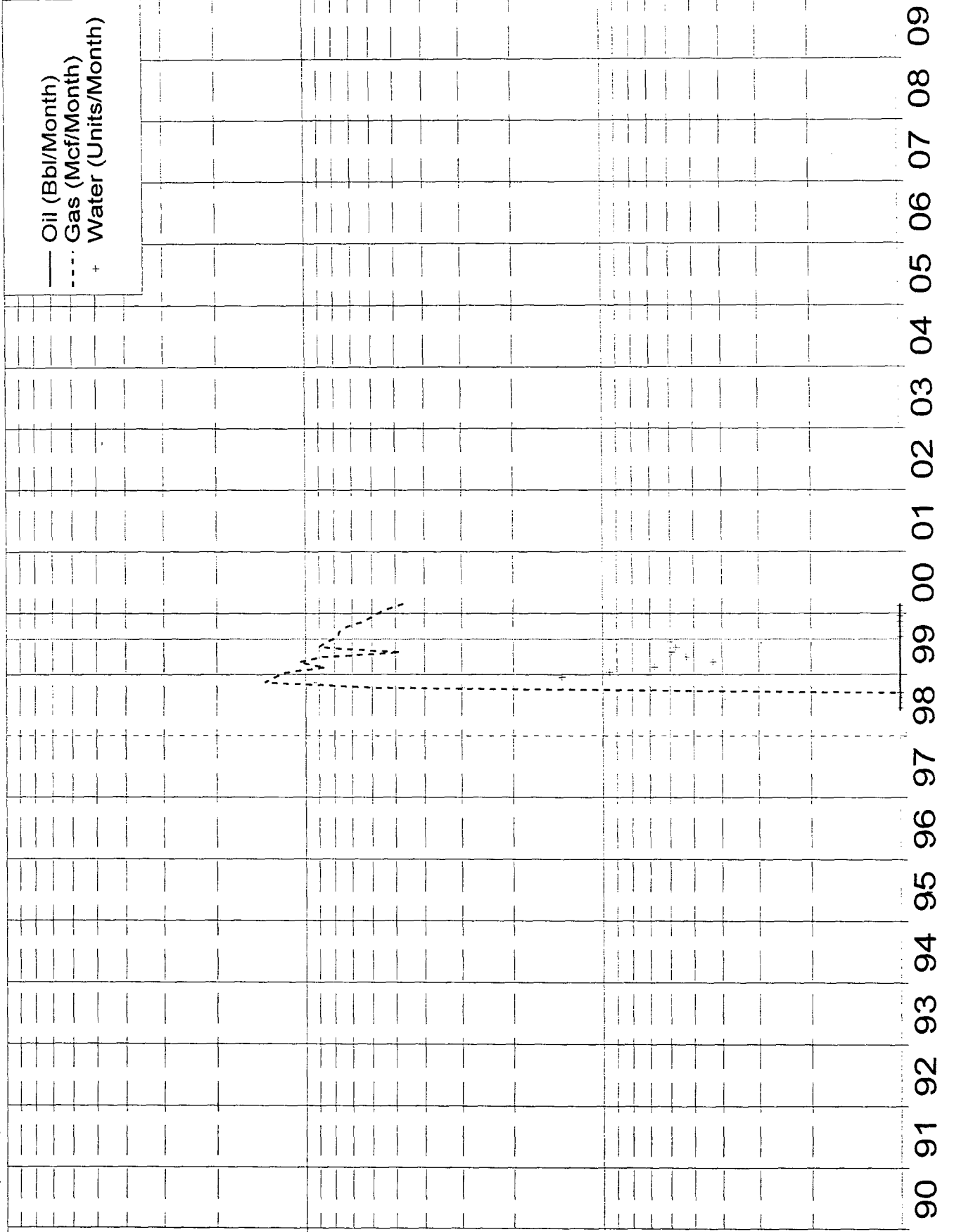
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10000  
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1000  
100

1  
100  
10

— Oil (Bbl/Month)  
- - - Gas (Mcf/Month)  
+ Water (Units/Month)





2030 AFTON PLACE  
FARMINGTON, N.M. 87401  
(505) 325-6622

ANALYSIS NO. CES90204  
CUST. NO. 16900- 10460

### WELL/LEASE INFORMATION

CUSTOMER NAME CDS ENVIROMENTAL SVCS  
WELL NAME JIC 460-16 # 5 OA  
COUNTY/STATE RIO ARRIBA NM  
LOCATION  
FIELD  
FORMATION OJO ALAMO  
CUST.STN.NO.

SOURCE N/A  
PRESSURE PSI  
SAMPLE TEMP DEG.F  
WELL FLOWING N/A  
DATE SAMPLED 7/12/99  
SAMPLED BY JDW  
FOREMAN/ENGR.

REMARKS MALLON OIL COMPANY  
H2S = 50 PPM

### ANALYSIS

COMPONENT	MOLE %	GPM**	B.T.U.*	SP.GR *
NITROGEN	0.251	0.0000	0.00	0.0024
CO2	0.032	0.0000	0.00	0.0005
METHANE	92.075	0.0000	932.08	0.5100
ETHANE	6.106	1.6334	108.30	0.0634
PROPANE	0.826	0.2276	20.83	0.0126
I-BUTANE	0.253	0.0828	8.25	0.0051
N-BUTANE	0.141	0.0445	4.61	0.0028
I-PENTANE	0.087	0.0318	3.49	0.0022
N-PENTANE	0.023	0.0083	0.92	0.0006
HEXANE PLUS	0.206	0.0899	10.59	0.0066
TOTAL	100.000	2.1183	1,089.07	0.6062

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

\*\* @ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z) 1.0024  
BTU/CU.FT (DRY) CORRECTED FOR (1/Z) 1,091.7  
BTU/CU.FT (WET) CORRECTED FOR (1/Z) 1,072.7  
REAL SPECIFIC GRAVITY 0.6077

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

DRY BTU @ 14.650 1,085.8  
DRY BTU @ 14.696 1,089.2  
DRY BTU @ 14.730 1,091.7  
DRY BTU @ 15.025 1,113.5

CYLINDER # 016  
CYLINDER PRESSURE 42 PSIG  
DATE RUN 7/19/99  
ANALYSIS RUN BY ANDREW ZEC



2030 AFTON PLACE  
FARMINGTON, N.M. 87401  
(505) 325-6622

ANALYSIS NO. CES90203  
CUST. NO. 16900- 10295

### WELL/LEASE INFORMATION

CUSTOMER NAME CDS ENVIROMENTAL SVCS  
WELL NAME JIC 460-16 # 5 SJ  
COUNTY/STATE RIO ARRIBA NM  
LOCATION  
FIELD  
FORMATION SAN JOSE  
CUST.STN.NO.

SOURCE N/A  
PRESSURE 61 PSI  
SAMPLE TEMP DEG.F  
WELL FLOWING N/A  
DATE SAMPLED 7/12/99  
SAMPLED BY JDW  
FOREMAN/ENGR.

REMARKS MALLON OIL COMPANY  
H2S = 0 PPM

### ANALYSIS

COMPONENT	MOLE %	GPM**	B.T.U.*	SP.GR *
NITROGEN	0.569	0.0000	0.00	0.0055
CO2	0.018	0.0000	0.00	0.0003
METHANE	94.281	0.0000	954.41	0.5222
ETHANE	4.342	1.1615	77.01	0.0451
PROPANE	0.359	0.0989	9.05	0.0055
I-BUTANE	0.143	0.0468	4.66	0.0029
N-BUTANE	0.054	0.0170	1.77	0.0011
I-PENTANE	0.052	0.0190	2.09	0.0013
N-PENTANE	0.013	0.0047	0.52	0.0003
HEXANE PLUS	0.169	0.0737	8.69	0.0054
TOTAL	100.000	1.4217	1,058.20	0.5896

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

\*\* @ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z) 1.0023  
BTU/CU.FT (DRY) CORRECTED FOR (1/Z) 1,060.6  
BTU/CU.FT (WET) CORRECTED FOR (1/Z) 1,042.2  
REAL SPECIFIC GRAVITY 0.5910

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

DRY BTU @ 14.650 1,054.9  
DRY BTU @ 14.696 1,058.2  
DRY BTU @ 14.730 1,060.6  
DRY BTU @ 15.025 1,081.9

CYLINDER # 049A  
CYLINDER PRESSURE 45 PSIG  
DATE RUN 7/16/99  
ANALYSIS RUN BY MATTIE MONTANO