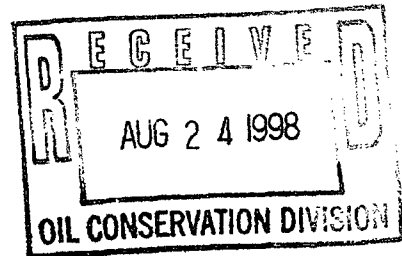


DHC 9/14/98
2102

CAULKINS OIL COMPANY

P. O. BOX 340
BLOOMFIELD, NEW MEXICO 87413
PHONE: 505-632-1544
FAX 505-632-1471



August 19, 1998

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

Re: Administrative Approval to Commingle
Breech "C" 144-E, Section 12, Township 26N, Range 6W, Unit Letter C
Basin Dakota, South Blanco Tocito, and Blanco Mesa Verde Formations

Dear Mr. Catanach:

This well was originally dual completed as a Basin Dakota, South Blanco Tocito well and was first delivered to pipeline in November 1990. Since being first delivered, Dakota has been capable of producing marginal volumes of gas against pipeline pressure. Tocito zone has required the use of compression to flow against pipeline pressure and due to low gas and oil volumes was very uneconomical to produce.

Approval to temporarily abandon Dakota and Tocito zones and recomplete well in Blanco Mesa Verde formation was obtained June 18, 1997. Mesa Verde zone has been completed and produced to pipeline since December 3, 1997. Following initial flush production, Mesa Verde zone has tested capable of producing marginal gas volumes to pipeline.

Caulkins Oil Company is requesting administrative approval to commingle all three zones in an effort to enhance overall production from the well and do away with compression that would be required to lift Tocito if produced separately.

Allocation percentages were calculated using the average production from monthly volume statements for the 12 month period that Dakota and Tocito zones were produced prior to being temporarily abandoned. Mesa Verde allocation percentage was calculated using a 24 hour test run on August 13, 1998.

Please find the enclosed documents:

- A. Form C-107-A
- B. Form C-102 for each zone
- C. Production data for Dakota, Tocito and Mesa Verde
- D. Bottom hole pressure tests
- E. Notification list of offset operators
- F. Vicinity map
- G. Sundry notice notifying BLM of intentions to commingle.

If you have any questions or need more information, please contact Robert L. Verquer at (505) 632-1544.

Sincerely,

A handwritten signature in cursive script that reads "Robert L. Verquer".

Robert L. Verquer,
Superintendent

DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II

811 South First St., 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

2040 South Pacheco
Santa Fe, New Mexico 87505-6429

APPLICATION FOR DOWNHOLE COMMINGLING

Form C-107-A

New 3-12-96

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

CAULKINS OIL COMPANY

P.O. BOX 340, BLOOMFIELD, NM 87413

OPERATOR

ADDRESS

BREECH "C"

144-E

C - SEC. 12-26N-6W

RIO ARRIBA

LEASE

WELL NO.

UNIT LTR. - SEC. - TWP. - RGE.

COUNTY

Spacing Unit Lease types: (check 1 or more)

OGRID NO. 003824 Property Code 2457 API NO. 30-039-24386 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	72318 South Blanco Mesa Verde	South Blanco Tocito 6460	Basin Dakota
2. Top and Bottom of Pay Section (Perforations)	4911' to 5816'	6896' to 6920'	7374' to 7593'
3. Type of production (Oil or Gas)	Gas and Condensate	Gas and Oil	Gas and Condensate
4. Method of Production (Flowing or Artificial Lift)	Flowing	Flowing	Flowing
5. Bottomhole Pressure Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	a. (Current) 7-8-98 761 psia	a. 7-10-97 458 psia	a. 7-10-97 569 psia
	b. (Original)	b.	b.
Oil Gravity (° API) or Gas BTU Content	1218 BTU	1340 BTU	1196 BTU
7. Producing or Shut-In	Producing	Shut-in Temp. Abandoned	Shut-in Temp. Abandoned
Production Marginal? (yes or no)	Yes	Yes	Yes
* If Shut-In, give date and oil/gas/water rates of last production <small>Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data</small>	Date:	Date: 12 month average	Date: 12 month average
	Rates:	Rates: 39 MCF/D + .20 BOPD	Rates: 105 MCF/D + .21 BOPD
* If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: 8-13-98	Date:	Date:
	Rates: 100 MCF/D + 1.93 BOPD	Rates:	Rates:
8. Fixed Percentag Allocation Formula - % for each zone	Oil 82 % Gas 41 %	Oil 9 % Gas 16 %	Oil 9 % Gas 43 %

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

15. NMOC Reference Cases of Rule 303© Exceptions: ORDER NO(S). DHC-1780, DHC-878, DHC-659

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 Robert L. Verquer TITLE SUPERINTENDENT DATE August 19, 1998

TYPE OR PRINT NAME ROBERT L. VERQUER TELEPHONE NO. (505) 632-1544

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

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised October 18, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-24386		² Pool Code 71599	³ Pool Name BASIN DAKOTA
⁴ Property Code 2457	⁵ Property Name BREECH "C"		⁶ Well Number 144-E
⁷ OGRID No. 003824	⁸ Operator Name Caulkins Oil Company		⁹ Elevation 6630 GR

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	12	26N	6W		990'	North	1650'	West	Rio Arriba

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.
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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

⁶ 	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and		
	Signature <i>Robert L. Verquer</i>		
	Printed Name Robert L. Verquer		
	Title Superintendent		
Date August 18, 1998			
¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by my supervision, and that the same is true and correct to the best of my knowledge and belief.	Date of Survey		
	Signature and Seal of Professional Surveyor:		
	Certificate Number		

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
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State of New Mexico
Energy, Minerals & Natural Resources Department

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2040 South Pacheco
Santa Fe, NM 87505

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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-24386	² Pool Code 06460	³ Pool Name SOUTH BLANCO TOCITO
⁴ Property Code 2457	⁵ Property Name BREECH "C"	
⁷ OGRID No. 003824	⁸ Operator Name Caulkins Oil Company	
		⁶ Well Number 144-E
		⁹ Elevation 6630 GR

¹⁰ Surface Location

UL or lot no. C	Section 12	Township 26N	Range 6W	Lot Idn	Feet from the 990'	North/South line North	Feet from the 1650'	East/West line West	County Rio Arriba
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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 80	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

¹⁶	¹⁷ OPERATOR CERTIFICATION	
	I hereby certify that the information contained herein is true and complete to the best of my knowledge and	
	Signature	
	Printed Name Robert L. Verquer	
	Title Superintendent	
	Date August 18, 1998	
	¹⁸ SURVEYOR CERTIFICATION	
	I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by my supervision, and that the same is true and correct to the best of my knowledge and belief.	
	Date of Survey	
	Signature and Seal of Professional Surveyor:	
	Certificate Number	

District I
PO Box 1980, Hobbs, NM 88241-1980
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State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised October 18, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-24386	² Pool Code 72319	³ Pool Name MESA VERDE
⁴ Property Code 2457	⁵ Property Name BREECH "C"	⁶ Well Number 144-E
⁷ OGRID No. 003824	⁸ Operator Name Caulkins Oil Company	⁹ Elevation 6630 GR

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	12	26N	6W		990'	North	1650'	West	Rio Arriba

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>⁶</p>	<p>¹⁷ OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and</p> <p><i>Robert L. Verquer</i></p> <p>Signature</p> <p>Printed Name Robert L. Verquer</p> <p>Title Superintendent</p> <p>Date August 18, 1998</p>	
	<p>¹⁸ 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 my supervision, and that the same is true and correct to the best of my knowledge and belief.</p> <p>Date of Survey</p>	
	<p>Signature and Seal of Professional Surveyor:</p>	
	<p>Certificate Number</p>	

**LAST 12-MONTHS PRODUCTION
FOR
BREECH C 144-E**

DAKOTA

MONTH	GAS	OIL	WATER	DAYS	GAS DPA	OIL DPA
10/96	2,192	3	0	20	110	0.150
11/96	3,571	3	0	30	119	0.100
12/96	2,998	5	1	15	200	0.333
01/97	3,023	6	1	31	98	0.194
02/97	2,276	6	1	28	81	0.214
03/97	3,193	6	1	30	106	0.200
04/97	1,912	8	1	30	64	0.267
05/97	3,714	9	1	29	128	0.310
06/97	2,882	10	2	30	96	0.333
07/97	1,836	4	1	21	87	0.190
08/97	2,469	8	1	30	82	0.267
09/97	2,688	0	0	29	93	0.000
	32,754	68	10		105	0.213

TOCITO

MONTH	GAS	OIL	WATER	DAYS	GAS DPA	OIL DPA
08/96	901	0	0	31	29	0.000
09/96	865	0	0	30	29	0.000
10/96	1,640	1	0	20	82	0.050
11/96	1,149	0	0	30	38	0.000
12/96	1,048	20	0	30	35	0.667
03/97	1,224	19	0	25	49	0.760
04/97	941	14	0	30	31	0.467
05/97	1,188	5	0	22	54	0.227
06/97	909	1	0	30	30	0.033
07/97	895	4	0	22	41	0.182
08/97	974	2	0	30	32	0.067
09/97	335	0	0	17	20	0.000
	12,069	66	0		39	0.204

MESA VERDE

MONTH	GAS	OIL	WATER	DAYS	GAS DPA	OIL DPA
12/97	5,267	105	16	29	182	3.621
01/98	5,119	79	12	29	177	2.724
02/98	4,738	60	9	28	169	2.143
03/98	4,562	52	8	31	147	1.677
04/98	2,122	17	3	11	193	1.545
05/98	4,707	44	7	31	152	1.419
06/98	1,947	25	4	26	75	0.962
	28,462	382	59		156	2.013

TEFTELLER INC

Pressure Gradient Report

COMP : CAULKINS OIL CO WELL : BREECH C # 144 E T : 0.0
 FIELD : RES : DAKOTA DATUM : 6831.0
 DATE : 07/10/1997 STATUS : S.I. HRS : 168.0
 TBG : DPTH : END : PKR : S N :
 CSG : DPTH : PERFS : GRAD : 0.013000 T D :

Depth (ft)	Pressure (psig)	Delta P (psi)	Gradient (psi/ft)
0	483.0		
1000	495.0	12.0	0.0120
2000	508.0	13.0	0.0130
3000	521.0	13.0	0.0130
4069	535.0	14.0	0.0131
5069	547.0	12.0	0.0120
6069	559.0	12.0	0.0120
6831	569.0	10.0	0.0131
6831	569.0	0.0	

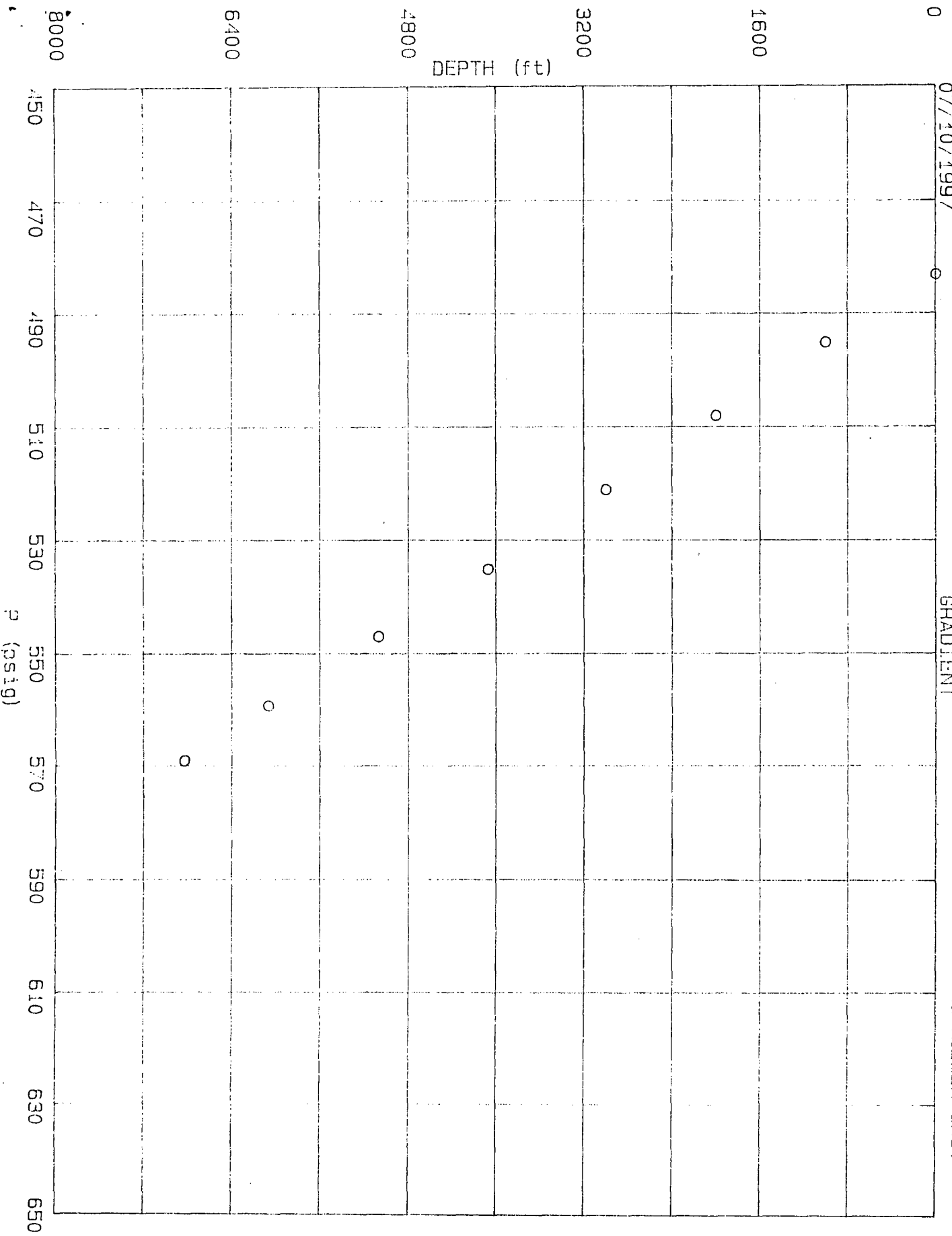
REMARKS : CASING PRESSURE : PKR

TUBING PRESSURE : 483

CAULKINS OIL CO
BREECH C # 144 E
07/10/1997

GRADIENT

TESTER INC.



TEFTELLER INC

Pressure Gradient Report

COMP : CAULKINS OIL CO WELL : BREECH C # 144 E T : 0.0
 FIELD : RES : TOCITO DATUM : 6882.0
 DATE : 07/10/1997 STATUS : S.I. HRS : 168.0
 TBG : DPTH : END : PKR : S N :
 CSG : DPTH : PERFS : GRAD : 0.430000 T D :

Depth (ft)	Pressure (psig)	Delta P (psi)	Gradient (psi/ft)
0	250.0		
1000	256.0	6.0	0.0060
2000	263.0	7.0	0.0070
3482	272.0	9.0	0.0061
4482	280.0	8.0	0.0080
5482	287.0	7.0	0.0070
6482	302.0	15.0	0.0150
6682	372.0	70.0	0.3500
6882	458.0	86.0	0.4300
6882	458.0	0.0	

REMARKS : CASING PRESSURE : 395
 TOP OF WATER @ 6637

TUBING PRESSURE : 249
 TOP OF OIL @ 6457

CAULKINS OIL CO
BREECH C # 144 E
02/20/1997

GRADIENT

TEFTILLER INC.

0

1600

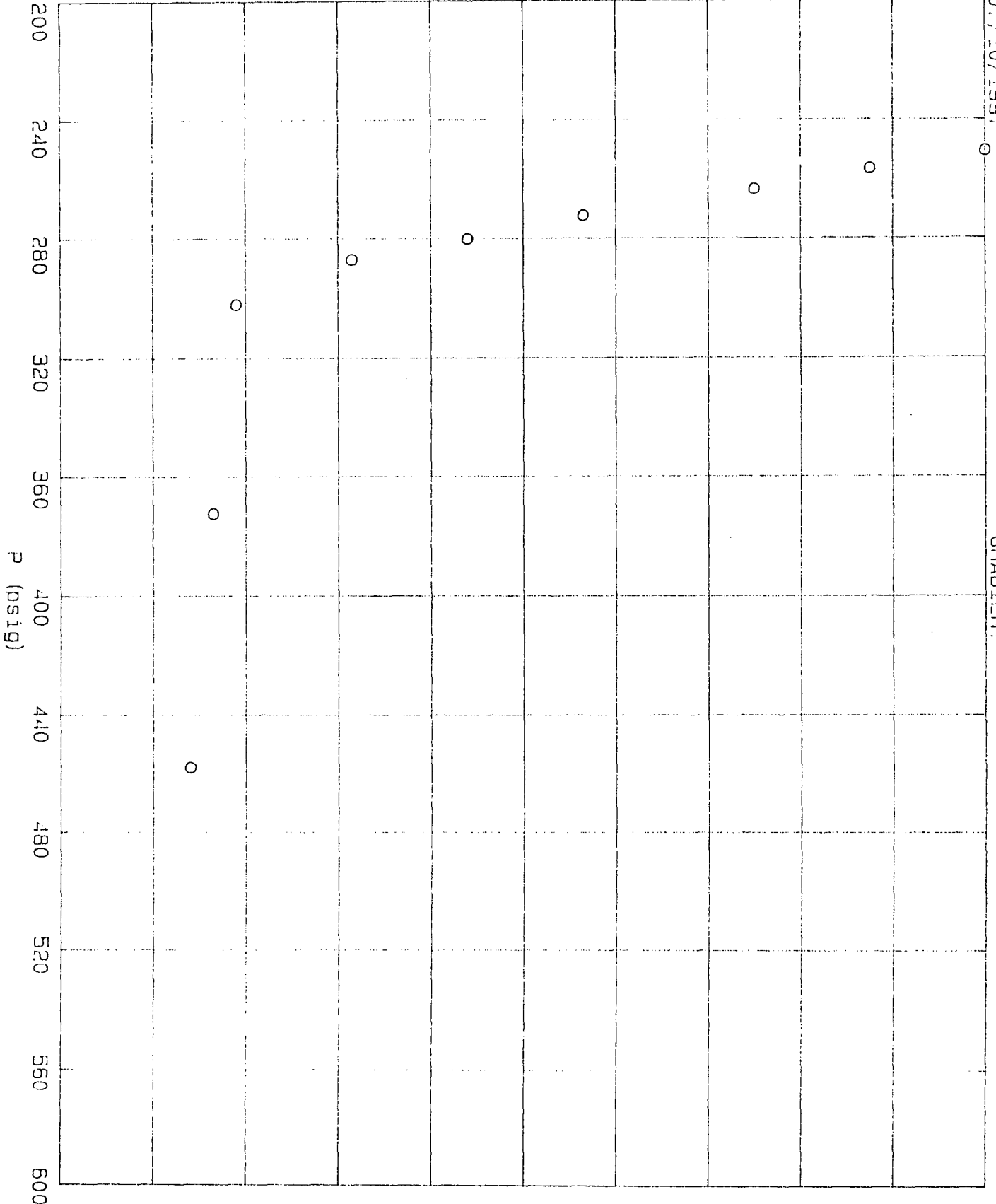
3200

4800

6400

8000

DEPTH (ft)



P (psig)

Company: CAULKINS OIL CO.
Well: BREECH #144-E
Field: MESA VERDE FORMATION
Engineer:
Gauge Type: AMERADA
Gauge Range:
Gauge Depth: 5810 ft
Serial No.: 44537

County: RIO ARRIBA
State: NEW MEXICO
Date: 07/08/1998
Well Type:
Test Type: STATIC GRADIENT
Status: SHUT-IN
File Name: 32107-1

Tubing: 2 3/8" TO 5879
Tubing: TO
Casing: TO
Perfs.:
Shut-in Time 216 hrs

Oil Level
H2O Level 5402 ft

Shut-in BHP 761 @ 5810 ft Shut-in BHT 0 F @ 0 ft
Shut-in WHP 502 Shut-in WHT 0 F
Casing CSGP 480

[Tefteller Incorporated]

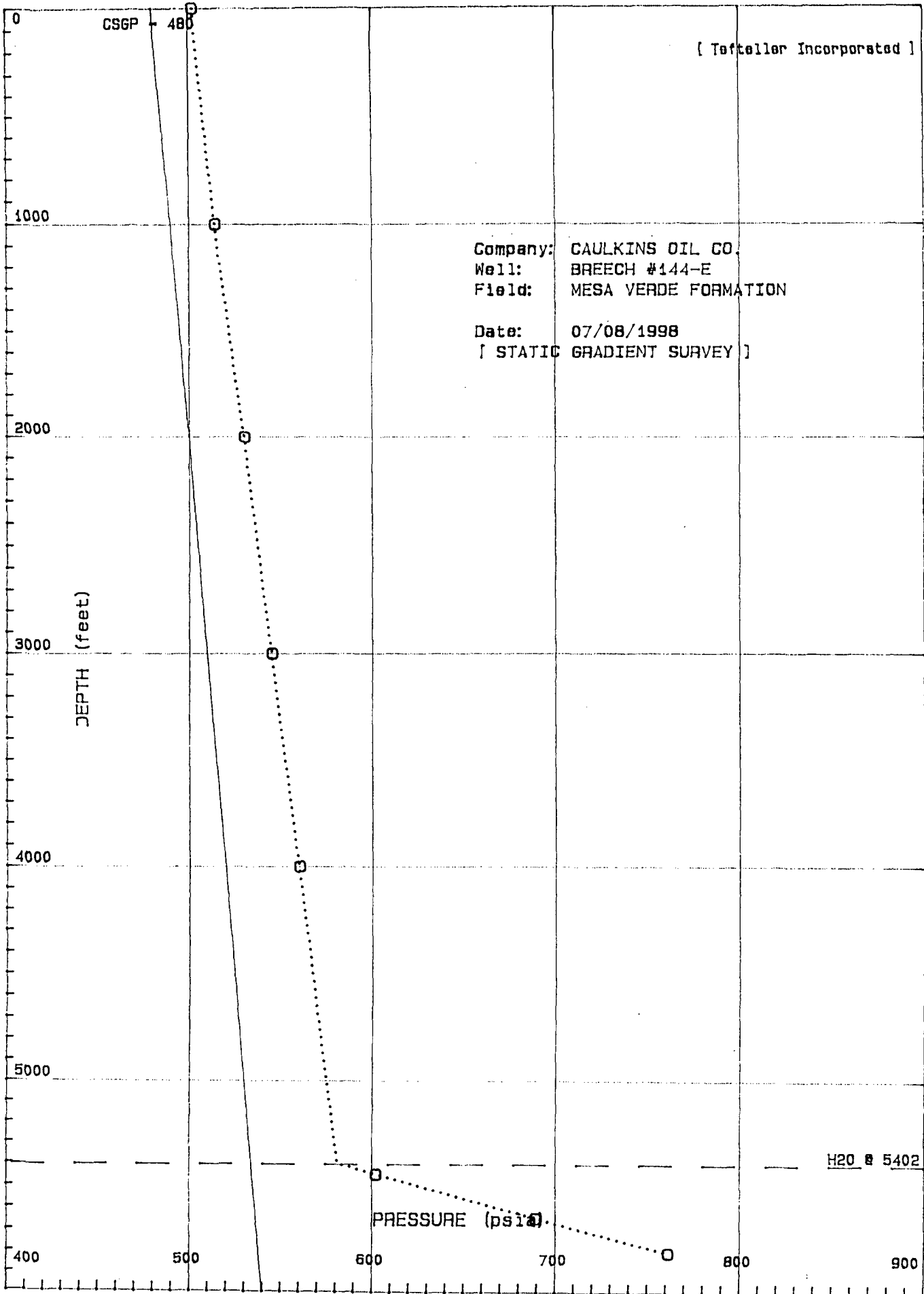
#	MD	TVD	PRESSURE	PSI/ft
1	0	0	502.00	
2	1000	1000	514.00	0.012
3	2000	2000	530.00	0.016
4	3000	3000	545.00	0.015
5	4000	4000	560.00	0.015
6	5450	5450	602.00	0.029
7	5650	5650	689.00	0.435
8	5810	5810	761.00	0.450

SET DOWN @ 5817'.

[Testeller Incorporated]

Company: CAULKINS OIL CO.
Well: BREECH #144-E
Field: MESA VERDE FORMATION

Date: 07/08/1998
[STATIC GRADIENT SURVEY]



CAULKINS OIL COMPANY

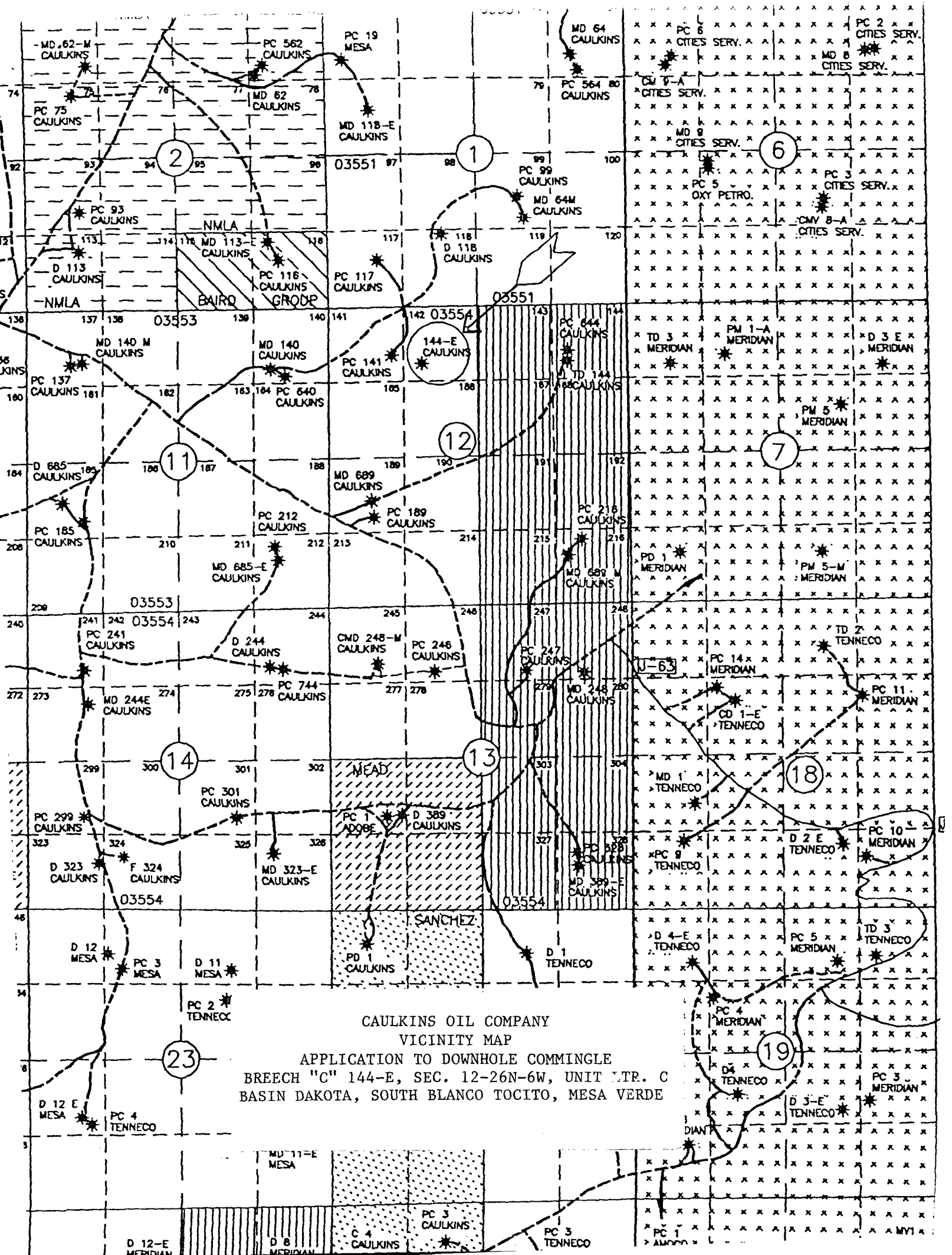
**P. O. BOX 340
BLOOMFIELD, NEW MEXICO 87413
PHONE: 505-632-1544
FAX 505-632-1471**

August 18, 1998

The following list is all the offset operators that Caulkins Oil Company has notified by certified mail of the application to downhole commingle of Breech "C" 144-E, section 12, township 26N, range 6W.

Conoco, Inc.
3315 Bloomfield Highway
Farmington, NM 87401

Taurus Exploration USA, Inc.
2198 Bloomfield Highway
Farmington, NM 87401



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 deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT--" for such proposals)

5. Lease

NMNM-03554

6. If Indian, Allottee or Tribe Name

7. Unit Agreement Name

8. Well Name and No.

BREECH "C" 144-E

9. API Well No.

30-039-24386-00-D1

10. Field and Pool, Exploratory Area

BASIN DAKOTA, MESA VERDE, TOCITO

11. Country or Parish, State

Rio Arriba Co., New Mexico

1. Oil Well ☐ Gas Well ☐ Other ☐

OIL & GAS WELL

2. Name of Operator:

Caulkins Oil Company

3. Address of Operator:

(505) 632-1544

P.O. Box 340, Bloomfield, NM 87413

4. Location of Well (Footage, Sec., Twp., Rge.)

990' F/N 1650' F/W

SEC. 12-26N-6W

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

TYPE OF SUBMISSION

TYPE OF ACTION

☒ Notice of Intent

☐ Subsequent Report

☐ Final Abandonment Notice

☐ Abandonment

☐ Recompletion

☐ Plugging Back

☐ Casing Repair

☐ Altering Casing

☒ Other Commingle Well

☐ Change of Plans

☐ New Construction

☐ Non-Routine Fracturing

☐ Water Shut-Off

☐ Conversion to Injection

☐ Dispose Water

17. Describe Proposed or Completed Operations:

8-18-98

Caulkins Oil Company has submitted an application to downhole commingle this well to the NMOCD.

Application and documents attached.

Upon approval of commingling application, well will be commingled by following procedures:

Rig up - kill well - nipple up BOP.

Note: Tubing now set at 5818' with retrieving head on bottom of tubing.

T.I.H. with 2 3/8" tubing to top of retrievable bridge plug set at 5879', release plug and T.O.H.

T.I.H. with 2 3/8" tubing to top of retrievable bridge plug set at 6926', release plug and T.O.H.

T.I.H. with 2 3/8" tubing cleaning out wellbore with air package to TD at 7647'.

Land 2 3/8" tubing for production string on doughnut at approximately 7590' for commingled production.

Dakota perforations: 7374' to 7593'

Tocito perforations: 6896' to 6920'

Mesa Verde perforations: 4911' to 5816'

No new surface will be disturbed, location area will be cleaned up when work is completed.

Estimated starting date: September 21, 1998

NOTE: The format is issued in lieu of U.S. BLM Form 3160-5

18. I HEREBY CERTIFY THE FOREGOING IS TRUE AND CORRECT

SIGNED:

Robert L. Verquer
ROBERT L. VERQUER

TITLE: Superintendent

DATE: August 19, 1998

APPROVED BY:

TITLE:

DATE:

CONDITIONS OF APPROVAL, IF ANY