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BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION



2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

ADMINISTRATIVE ORDER DHC-1051

Meridian Oil Inc.
P. O. Box 4289
Farmington, New Mexico 87499-4289

Attention: Arden L. Walker, Jr.

*Huerfano Unit No. 101
Unit F, Section 19, Township 27 North, Range 10 West, NMPM,
San Juan County, New Mexico.
Basin-Dakota and Angel Peak-Gallup Pools*

RECEIVED
NOV - 9 1994

OIL CON. DIV.
DIST. 3

Dear Mr. Walker:

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.

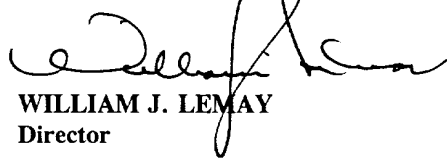
In accordance with the provisions of Rule 303-C-4., total commingled oil production from the subject well shall not exceed 40 barrels per day, and total water production shall not exceed 80 barrels per day. The maximum amount of gas which may be produced daily from the well shall be determined by Division 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.

In accordance with the provisions of Rule 303-C, the supervisor of the Aztec District Office of the Oil Conservation Division shall determine the proper allocation of production from the subject well following its completion.

Pursuant to Rule 303-C-5, the commingling authority granted by the order may be rescinded by the Division Director if, in his opinion, conservation is not being best served by such commingling.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 3rd day of November, 1994.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


WILLIAM J. LEMAY
Director

S E A L

WJL/DC/kv

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

Ernie Busch

From: Ernie Busch
To: David Catanach
Subject: MERIDIAN OIL INC. (DHC)
Date: Thursday, September 15, 1994 8:36AM
Priority: High

HUERFANO UNIT #101
F-19-27N-10W
RECOMMEND: APPROVAL

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210
DISTRICT III
1000 Rio Grande Rd., Aztec, NM 87410

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

Form C-115 - Revised 1/1/89

For Month, Year Oct 91 Page 1 of 1
Zg 88401

Loose Name

WELL NO.	UNIT	SEC.	TWP	RNG
1	1	1	1	1
2	1	1	1	1
3	1	1	1	1
4	1	1	1	1
5	1	1	1	1
6	1	1	1	1
7	1	1	1	1
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90	1	1	1	1
91	1	1	1	1
92	1	1	1	1
93	1	1	1	1
94	1	1	1	1

LEADS PAGE - Includes State Lead Lines Number or Federal Leads Number

Lybrook Gallup
#1 Quinella
D-31-23N-6W

INJECTION			PRODUCTION			DISPOSITION OF GAS				DISPOSITION OF OIL						
	VOLUME	PERCENT	BARRELS OF OIL PRODUCED	BARRELS OF WATER PRODUCED	GAS PRODUCED (MCF)	DAYS PROD.	BOULD	THREAT. PER	OTHER	C O D E	OL ON HAND AT END OF MONTH	BARRELS TO THREAT. PORTER	THREAT. PER	OTHER	C O D E	OL ON HAND AT END OF MONTH
G			18	0	1480	31	1476	El Paso	4	U	190	0	Giant			208

RECEIVED
NOV 2 0 1991
OIL CON. DIV
DIST. 3

RECEIVED
NOV 2 0 1991
OIL CON. DIV
DIST. 3

Original OCD Santa Fe
One Copy OCD Data Office

in which house is located

One Copy to Transpoder (2)

DATE:

To be presented by 2nd day of next
proceeding month.

WHAT TO DO

F..... FLOWERS
P..... PLUMBER
Q..... QAS LEFT
S..... SHUT IN
T..... TEMP ABANDONED
L..... LUBRICATION
D..... DISCONTINUED

JOINT COMMISSION CODE

K. USED OFF LEASE
 D. USED FOR DRILLING } SET
 L. USED LIFT } ON
 I. LOST PACE ESTIMATED } FORM
 E. EXPLANATION ATTACHED } C-1111
 R. REPAIRS REQUIRED ON
 V. VENTED
 U. USED ON LEASE

INTERCOLLEGIATE FOOTBALL

C.....CONSULTING OR
L.....LOST
S.....SODENATION IS A W
E.....EXPLANATION ATTACHED
T.....THEFT

I HEREBY CERTIFY THAT THE INFORMATION GIVEN IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE

Floyd C. Parker

505-461-4055

PHONE NUMBER

President

POSITION

SIGNATURE Joseph J. Ladd DATE 11/18/91

August 26, 1994

New Mexico Oil Conservation Division
Attn: Mr. William LeMay
P. O. Box 2088
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501

RECEIVED
AUG 30 1994

OIL CON. DIV.
DIST. 3

RE: Huerfano Unit #101
Unit F, Section 19, T27N, R10W
San Juan County, New Mexico
Downhole Commingling Request

Dear Mr. LeMay:

Meridian Oil Inc. is applying for an administrative downhole commingling order for the referenced well in the Angel Peak Gallup and the Basin Dakota fields. The ownership of the zones to be commingled is common. The offset operators to this well are Conoco, Inc., Amoco Production Company, States, Inc., BBL, Ltd., Bonnierville Fuels Corporation, Marathon Oil Company, Vastar Resources, Inc. and Amax Petroleum Corporation. The Bureau of Land Management and the above mentioned operators have received notification of this downhole commingle.

The Gallup and Dakota wells producing in this area operated by Meridian and others are becoming marginally productive. Based on offset production in this area, drilling of separate wells, dual completions, or major expensed repairs necessary to produce the Gallup and Dakota are no longer economically justified. The only economical way to recover the Gallup and Dakota reserves in this drill block is to downhole commingle production from both zones in this well.

It is proposed to remove all tubing and packers, repair casing failures and eliminate surface casing flows. Once this has been accomplished, a single string of tubing will be ran and both zones produced together. The reservoir characteristics of each of the subject zones are such that underground waste will not be caused by the proposed commingling. Neither producing interval makes oil, and only minimal amounts of similar water are produced in the offset wells. The shut-in pressures for the Dakota and Gallup are 428 and 274 psi, respectively.

The allocation of the commingled production will be calculated using the attached allocation formula. Testing and implementation of the allocation formula will be coordinated with the Aztec, NM office of the NMOCD. This formula is based on production testing of each horizon, and uses accepted Reservoir Engineering methods to allocate the production and reserves.

New Mexico Oil Conservation Division
Mr. Bill LeMay
Huerfano Unit #101
Downhole Commingling Request
Page Two

Approval of this commingling application will allow for the prevention of wasted resources and protection of correlative rights. Included with this letter are plats showing ownership of offsetting leases for both the Dakota and Gallup, a copy of letters to the BLM and offset operators, wellbore diagrams, pertinent data sheet, and an allocation formula.

Sincerely,

A handwritten signature in black ink, appearing to read "Arden Walker, Jr.", written in a cursive style.

Arden L. Walker, Jr.
Regional Production Engineer

SBD:tdg
Attachments

cc: Frank T. Chavez - NMOCD/Aztec

August 24, 1994

Bureau of Land Management
1235 La Plata Highway
Farmington, New Mexico 87401

RE: Huerfano Unit #101
Unit F, Section 19, T27N, R10W
San Juan County, New Mexico
Downhole Commingling Request

Gentlemen:

Meridian Oil Inc. is in the process of applying for a downhole commingling order from the New Mexico Oil Conservation Division (NMOCD) for the referenced well located in San Juan County, New Mexico. The approved application will commingle the Angel Peak Gallup and the Basin Dakota fields.

The purpose of this letter is to notify you of Meridian's application. If you have no objections to the NMOCD issuing a commingling order, we would appreciate your signing this letter and returning the original to Mr. LeMay at the following address with a copy to this office:

New Mexico Oil Conservation Division
Mr. William LeMay
P.O. Box 2088
Santa Fe, New Mexico 87501

Your prompt attention to this matter would be appreciated.

Sincerely,



Scott B. Daves
Production Engineer

**The undersigned hereby waives objection to the referenced
Downhole Commingle Request.**

Company/Owner: _____

Title: _____

Date: _____

MERIDIAN OIL

August 24, 1994

Conoco, Inc.
10 Desta Drive
Suite 100 W
Midland, Texas 79702

RE: Huerfano Unit #101
Unit F, Section 19, T27N, R10W
San Juan County, New Mexico
Downhole Commingling Request

Gentlemen:


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Scott B. Daves
Production Engineer

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Downhole Commingle Request.**

Company/Owner: _____

Title: _____

Date: _____

MERIDIAN OIL

August 24, 1994

Amoco Production Company
P.O. Box 800
Denver, Colorado 80201

RE: Huerfano Unit #101
Unit F, Section 19, T27N, R10W
San Juan County, New Mexico
Downhole Commingling Request

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Scott B. Daves
Production Engineer

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Company/Owner: _____

Title: _____

Date: _____

MERIDIAN OIL

August 24, 1994

States, Inc.
P.O. Box 911
Breckenridge, Texas 76424

RE: Huerfano Unit #101
Unit F, Section 19, T27N, R10W
San Juan County, New Mexico
Downhole Commingling Request

Gentlemen:

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Mr. William LeMay
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Santa Fe, New Mexico 87501

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Sincerely,



Scott B. Daves
Production Engineer

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Downhole Commingle Request.**

Company/Owner: _____

Title: _____

Date: _____

MERIDIAN OIL

August 24, 1994

BBL, Ltd
P.O. Box 911
Breckenridge, Texas 76424

RE: Huerfano Unit #101
Unit F, Section 19, T27N, R10W
San Juan County, New Mexico
Downhole Commingling Request

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Mr. William LeMay
P.O. Box 2088
Santa Fe, New Mexico 87501

Your prompt attention to this matter would be appreciated.

Sincerely,



Scott B. Daves
Production Engineer

**The undersigned hereby waives objection to the referenced
Downhole Commingle Request.**

Company/Owner: _____

Title: _____

Date: _____

August 24, 1994

Bonneville Fuels Corporation
1660 Lincoln
Suite 1800
Denver, Colorado 80264

RE: Huerfano Unit #101
Unit F, Section 19, T27N, R10W
San Juan County, New Mexico
Downhole Commingling Request

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Mr. William LeMay
P.O. Box 2088
Santa Fe, New Mexico 87501

Your prompt attention to this matter would be appreciated.

Sincerely,



Scott B. Daves
Production Engineer

**The undersigned hereby waives objection to the referenced
Downhole Commingle Request.**

Company/Owner: _____

Title: _____

Date: _____

MERIDIAN OIL

August 24, 1994

Marathon Oil Company
P.O. Box 552
Midland, Texas 79702

RE: Huerfano Unit #101
Unit F, Section 19, T27N, R10W
San Juan County, New Mexico
Downhole Commingling Request

Gentlemen:

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Mr. William LeMay
P.O. Box 2088
Santa Fe, New Mexico 87501

Your prompt attention to this matter would be appreciated.

Sincerely,



Scott B. Daves
Production Engineer

**The undersigned hereby waives objection to the referenced
Downhole Commingle Request.**

Company/Owner: _____

Title: _____

Date: _____

August 24, 1994

Vastar Resources, Inc.
15375 Memorial Drive
Houston, Texas 77069

RE: Huerfano Unit #101
Unit F, Section 19, T27N, R10W
San Juan County, New Mexico
Downhole Commingling Request

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Mr. William LeMay
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Santa Fe, New Mexico 87501

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Sincerely,



Scott B. Daves
Production Engineer

**The undersigned hereby waives objection to the referenced
Downhole Commingle Request.**

Company/Owner: _____

Title: _____

Date: _____

MERIDIAN OIL

August 24, 1994

Amax Petroleum Corporation
P.O. Box 297007
Houston, Texas 77297

RE: Huerfano Unit #101
Unit F, Section 19, T27N, R10W
San Juan County, New Mexico
Downhole Commingling Request

Gentlemen:

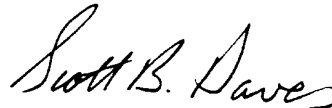
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Mr. William LeMay
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Santa Fe, New Mexico 87501

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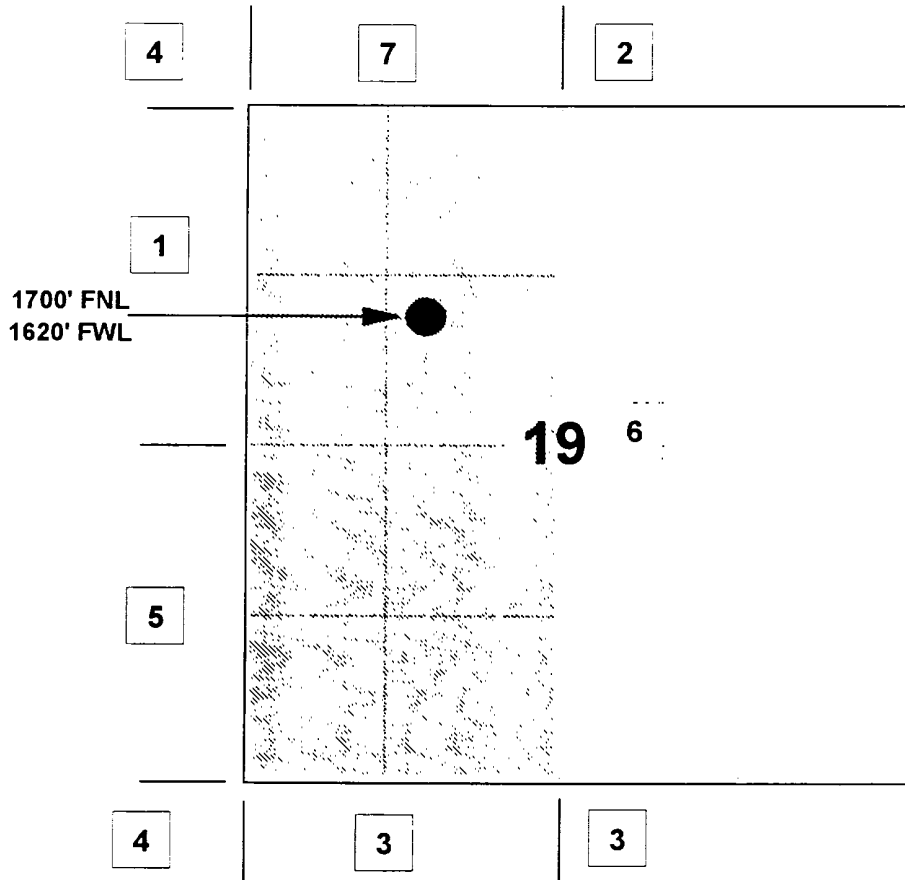
MERIDIAN OIL INC

HUERFANO UNIT #101

OFFSET OPERATOR \ OWNER PLAT

Dakota / Gallup Formation Commingle Well

Township 27 North, Range 10 West



1) Meridian Oil Inc.	&	
Conoco, Inc.		10 Desta Dr., Suite 100W, Midland, TX 79702
2) Meridian Oil Inc.,		
Conoco, Inc.	&	
Amoco Production Company		PO Box 800, Denver, CO 80201
3) Meridian Oil Inc.,		
States, Inc.		PO Box 911, Breckenridge, TX 76424 &
BBL, Ltd		PO Box 911, Breckenridge, TX 76424
4) Meridian Oil Inc.,		
Bonneville Fuels Corporation		1660 Lincoln, Suite 1800, Denver, CO 80264 &
Conoco, Inc.		
5) Bonneville Fuels Corporation &		
6) Marathon Oil Company		PO Box 552, Midland, TX 79702
7) Meridian Oil Inc.,		
Vastar Resources, Inc		15375 Memorial Dr., Houston, TX 77069 ,
Amax Petroleum Corp.		PO Box 297007, Houston, TX 77297 ,
Amoco Production Company, Conoco, Inc. & Marathon Oil Company		

Gallup Formation

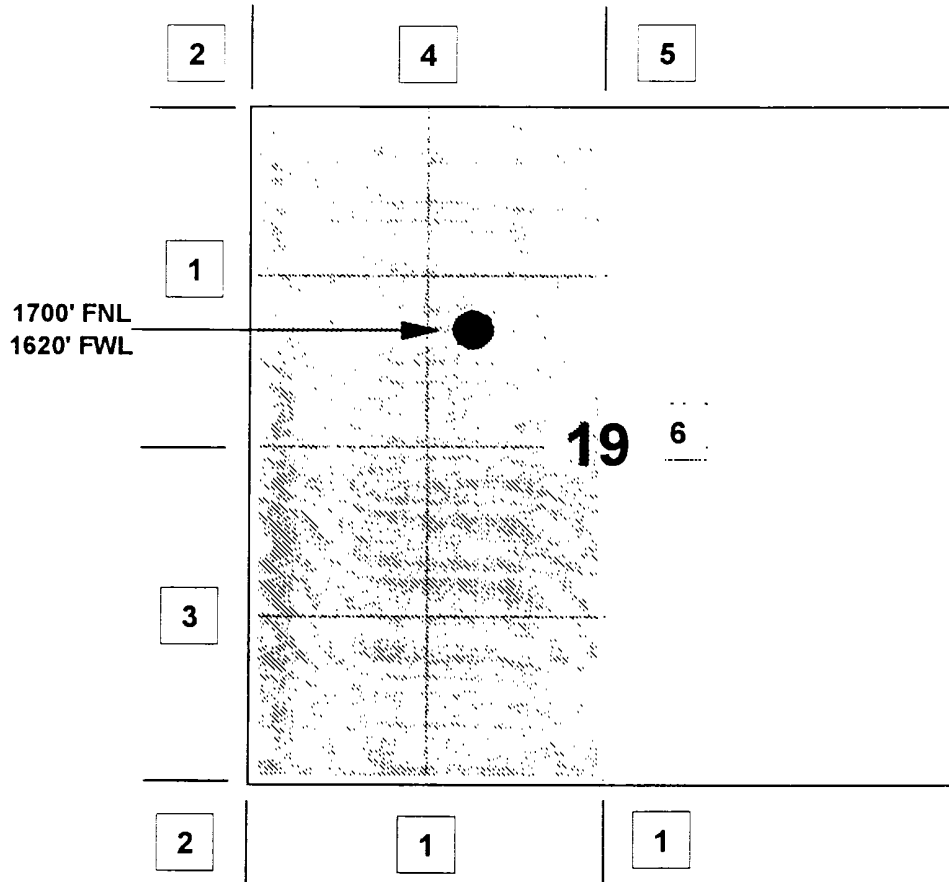
MERIDIAN OIL INC

HUERFANO UNIT #101

OFFSET OPERATOR \ OWNER PLAT

Gallup / Dakota Commingle Well

Township 27 North, Range 10 West



1) Meridian Oil Inc

2) Meridian Oil Inc &

Bonneville Fuels

1660 Lincoln, Suite 1800, Denver, CO

80264

3) Bonneville Fuels

4) Amax Petroleum

PO Box 297007, Houston, TX 77297

5) Amoco Production Co

PO Box 800, Denver, CO 80201

6) Marathon Oil Company

PO Box 552, Midland, TX 79702

Dakota Formation

PERTINENT DATA SHEET

6/21/94

WELLNAME: Huerfano Unit #101	DP NUMBER: 53048A Gallup 53048B Dakota																																																								
WELL TYPE: Basin Dakota	ELEVATION: GL: 5891' KB: 5903'																																																								
LOCATION: 1700' FNL 1620' FWL Sec. 19, T27N, R10W San Juan County, New Mexico	INITIAL POTENTIAL: AOF 9,765 Mcf/D Dakota 1,000 Mcf/D Gallup SICP: 440 psi June, 1993																																																								
OWNERSHIP: GWI: 61.8659% NRI: 46.8468%	DRILLING: SPUD DATE: 10-03-60 COMPLETED: 10-17-60 TOTAL DEPTH: 6340' PBTD: 6291'																																																								
CASING RECORD: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">HOLE SIZE</th> <th style="text-align: left;">SIZE</th> <th style="text-align: left;">WEIGHT</th> <th style="text-align: left;">GRADE</th> <th style="text-align: left;">DEPTH</th> <th style="text-align: left;">EQUIP.</th> <th style="text-align: left;">CEMENT</th> <th style="text-align: left;">TOC</th> </tr> </thead> <tbody> <tr> <td>12 1/4"</td> <td>9 5/8"</td> <td>32.3#</td> <td>H40</td> <td>290'</td> <td></td> <td>172 sx</td> <td>Surface-circ</td> </tr> <tr> <td>8 3/4"</td> <td>7"</td> <td>23#</td> <td>N80</td> <td>6337'</td> <td>DV tool @ 1794'</td> <td>240 sx</td> <td>TS 1500'</td> </tr> <tr> <td colspan="8">Baker Model D packer @ 5536'</td> </tr> <tr> <td><i>Tubing</i></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>195 jts</td> <td>2 3/8"</td> <td>4.7#</td> <td>J55</td> <td>6172'</td> <td>3' Perf jt@ 6137'-6140', SN @ 6136"</td> <td>Dakota</td> <td></td> </tr> <tr> <td>177 jts</td> <td>2 3/8"</td> <td>4.7#</td> <td>J55</td> <td>5508'</td> <td>3' Perf jt @ 5474'-5477', SN @ 5473</td> <td>Gallup</td> <td></td> </tr> </tbody> </table>		HOLE SIZE	SIZE	WEIGHT	GRADE	DEPTH	EQUIP.	CEMENT	TOC	12 1/4"	9 5/8"	32.3#	H40	290'		172 sx	Surface-circ	8 3/4"	7"	23#	N80	6337'	DV tool @ 1794'	240 sx	TS 1500'	Baker Model D packer @ 5536'								<i>Tubing</i>								195 jts	2 3/8"	4.7#	J55	6172'	3' Perf jt@ 6137'-6140', SN @ 6136"	Dakota		177 jts	2 3/8"	4.7#	J55	5508'	3' Perf jt @ 5474'-5477', SN @ 5473	Gallup	
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PERFORATIONS Gallup: 5336'-5518' w/ 2 spf (total of 116 shots), Dakota: 6078'-6182' w/ 2 spf (total of 62 shots)																																																									
STIMULATION: Gallup: 45,474 gal oil, 60,000# 20/40 sand, Dakota: 48,560 gal oil, & 50,000# 20/40 sand.																																																									
WORKOVER HISTORY: <p>March 1989: Gallup swabbed one day. Report stated 200' mud plug in tbg.</p> <p>June 1989: Gallup swabbed for 5 days. Well logged off soon after each run.</p> <p>April 1994: Gallup tbg pulled. 3' perf jt removed. CO to top of packer. TIH w/ 2 3/8" tbg, landed @ 5489, SN @ 5456'. Dakota tbg could not be pulled. Tbg plug stuck in F nipple.</p>																																																									
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Huerfano Unit #101

Current

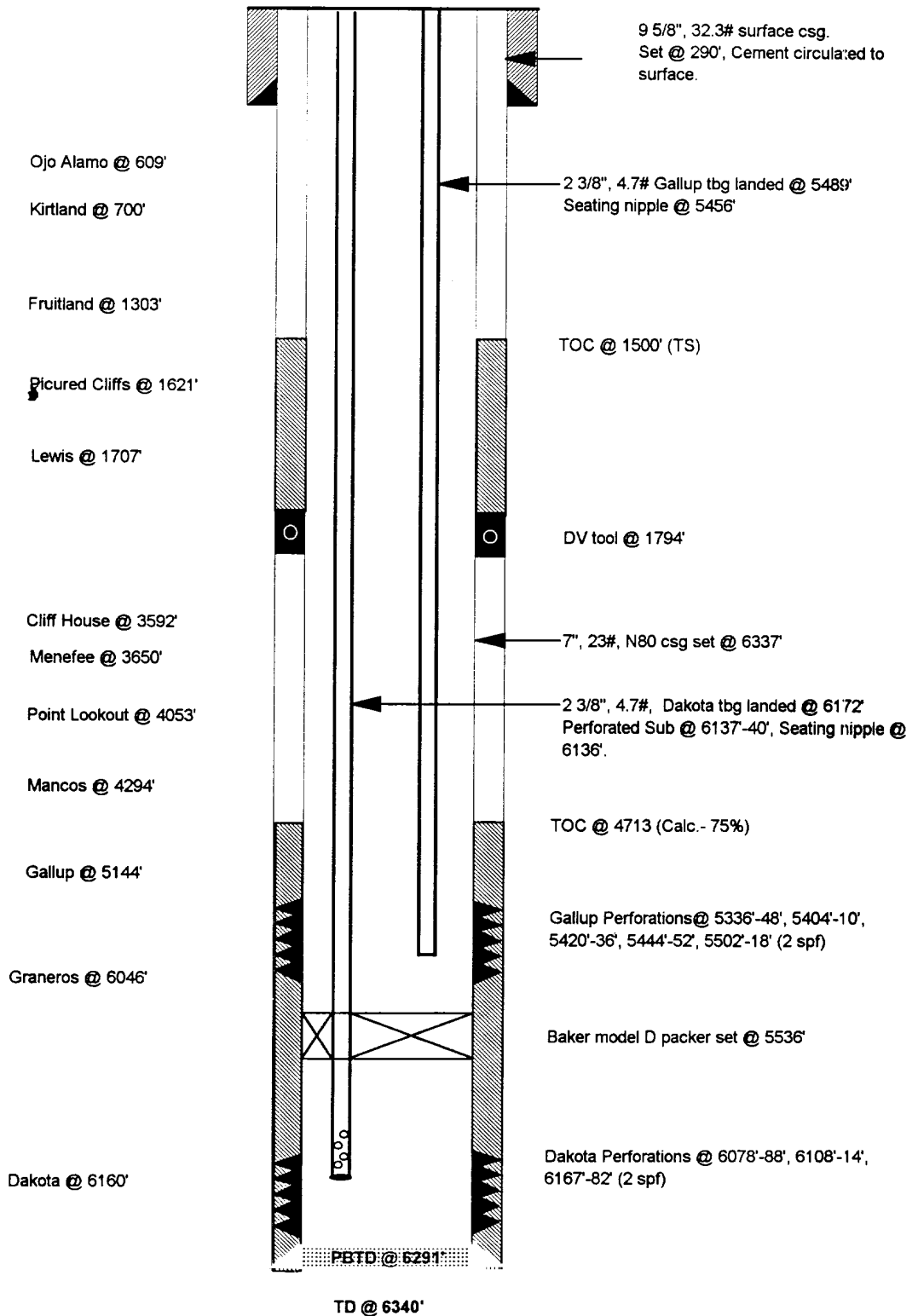
Gallup / Dakota
DPNO 53048A, 53048B

1700' FNL, 1620' FWL

Section 19, T27N, R10W, San Juan Co., NM

Spud: 10-03-60

Completed: 10-17-60



Huerfano Unit #101

Proposed

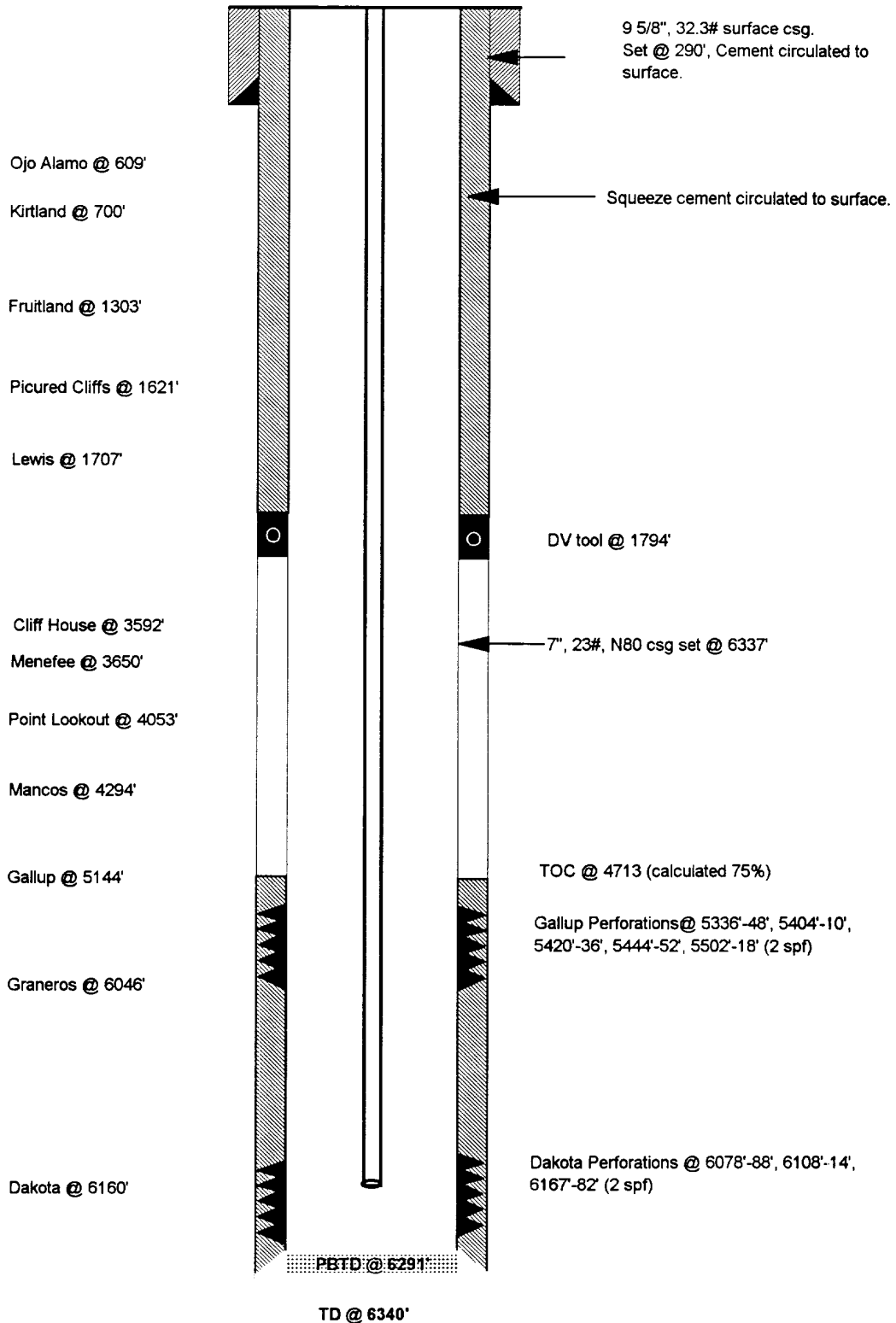
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HUERFANO UNIT #101

MONTHLY GAS PRODUCTION ALLOCATION FORMULA

GENERAL EQUATION

$$Q_t = Q_{gp} + Q_{dk}$$

WHERE: Q_t = TOTAL MONTHLY PRODUCTION {MCF, BO & BW}/MONTH
 Q_{gp} = GALLUP (gp) MONTHLY PRODUCTION {MCF, BO, & BW}
 Q_{dk} = DAKOTA (dk) MONTHLY PRODUCTION {MCF, BO, & BW}

TESTING PROCEDURE:

$$Q_{gp} = Q_t \times q(gp) / (q(gp) + q(dk))$$

WHERE:

$q(gp)$ = tested production rates from Gallup formation in MCF/D, BOPD, & BWPD

$q(dk)$ = tested production rates from Dakota formation in MCF/D, BOPD, & BWPD

EACH FORMATION WILL BE TESTED FOR 24 HRS THROUGH A 3 PHASE SEPARATOR TO DETERMINE GAS OIL & WATER RATES UPON COMPLETION OF REMEDIAL OPERATIONS.

ALL PRODUCTION/EXPENSES FROM REDELIVERY UNTIL ABANDONMENT WILL BE ALLOCATED BASED UPON THE RESULTS OF THE PRODUCTION TESTS

MCF = 1000 SCF NATURAL GAS

BO = BARRELS OF OIL/CONDENSATE

BW = BARRELS OF WATER
