



DAC-3421  
PWJ 0507752 424  
**RECEIVED**

March 15, 2005

MAR 16 2005  
Oil Conservation Division  
1220 S. Saint Francis Drive  
Santa Fe, NM 87505

Mr. William Jones  
New Mexico Oil Conservation Division  
1220 S. St. Francis Dr.  
Santa Fe, NM 87505

**RE: Application for Administrative Approval  
Downhole Commingling  
Potwin Pictured Cliffs, Dufers Point Gallup Dakota  
Shoofly No. 1  
Section 14, T24N R8W  
San Juan County, New Mexico**

Dear Mr. Jones:

Merrion Oil & Gas (Merrion) requests administrative approval for downhole commingling of the Potwin Pictured Cliffs and the Dufers Point Gallup Dakota in the subject wellbore. The following information is provided in support of this application.

**I. History and Justification**

The Shoofly No. 1 was drilled and completed in 1984 as a Gallup oil well. It produced approximately 23,400 BO through December 2004. The oil rate in September 2004 was about 2.5 BOPD and the gas rate about 10 MCFD. The Gallup was approaching its economic limit, so we did a study and determined that there could be uphole Pictured Cliffs potential.

The pump went down in October 2004 and we decided to add the coal at the point that we moved a rig on to do the pump change. The well has logged off and will not flow.

**II. Proposed Spacing Units**

Exhibit 1 is the C-102 plat for the Dufers Point Gallup Dakota Pool, a 160 acre spacing unit in the northwest quarter of Section 14. Exhibit 2 is the C-102 plat for the Potwin Pictured Cliffs, an 80 acre spacing unit in the east half of the northwest quarter of Section 14.

**III. Allocation Methodology**

Exhibit 3 is the decline curve for the Dufers Point Gallup Dakota production. Exhibit 4 is the decline curve for the Mesa No. 2, an offset Potwin Pictured Cliffs producer. Based on the Mesa No. 2 production, we project that the Shoofly No.1 will initially make about 50 MCFD from the Pictured Cliffs. Based on this data, we plan to allocate 100% of the oil

production to the Gallup. Depending upon the actual Pictured Cliffs production, we will adjust the gas allocation, but based on the data we have now, the gas will be allocated 85% to the Pictured Cliffs and 15% to the Gallup.

Merrion proposes to obtain stabilized production tests on the Pictured Cliffs and use a fixed percentage to allocate future production between this zone and the Gallup. If subsequent data indicate the need, additional testing may be done in the future to adjust the allocation percentages.

#### IV. Reservoir Fluid Compatibility

Water analyses are not available for wells in the immediate area. However, the waters of the Pictured Cliffs and the Gallup have been generally determined to be compatible across the basin based on other similar applications to the NMOCD. The Gallup does not make a significant amount of water in this well, and the Mesa No. 2 offset well only makes about 10 barrels of water per month from the Pictured Cliffs.

#### V. Cross Flow Between Zones

The reservoir pressure of the Pictured Cliffs is lower than the Gallup, but we anticipate that the liquids will be pumped up the tubing while the gas is produced up the casing/tubing annulus. The small volume of Gallup gas production should not crossflow into the Pictured Cliffs. The surface casing pressure will be about 40 psi, so all the gas will preferentially flow to the surface.

#### VI. Well Ownership Notification

The ownership of both zones is identical, so no notification is necessary.

#### VII. Summary

The well production is marginal under current conditions, but we believe there are additional reserves behind pipe in the Pictured Cliffs. The Potwin Pictured Cliffs would not justify drilling a new wellbore, however commingling with the Gallup will allow recovery of these additional reserves. Therefore, we request your approval of this application.

If you have questions or need additional information, please call me at (505)324-5326.

Sincerely,



Connie S. Dinning  
Production Engineer

Cc: Steve Hayden, Aztec NMOCD  
BLM, Farmington Field Office

File: s/operate/workovers/Huerfano/Shoofly 1 Commingle Just.doc



**District I**  
1625 N. French Dr., Hobbs, NM 88240

**District II**  
1301 W. Grand Avenue, Artesia, NM 88210

**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410

**District IV**  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department  
**OIL CONSERVATION DIVISION**  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised June 10, 2003  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number 30-045-26133	<sup>2</sup> Pool Code 19859	<sup>3</sup> Pool Name Dufers Point Gallup-Dakota
<sup>4</sup> Property Code 007842	<sup>5</sup> Property Name Shoofly	<sup>6</sup> Well Number 1
<sup>7</sup> OGRID No. 14634	<sup>8</sup> Operator Name Merrion Oil & Gas	<sup>9</sup> Elevation 6939' GL


<sup>10</sup> Surface Location

UL or lot no. C	Section 14	Township 24N	Range 8W	Lot Idn nenw	Feet from the 790'	North/South line north	Feet from the 1650'	East/West line West	County San Juan
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<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
<sup>12</sup> Dedicated Acres 160	<sup>13</sup> Joint 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

<sup>16</sup>	790' fnl	NM-16589	<sup>17</sup> OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i>  Signature Connie Dinning Printed Name Production Engineer, cdinning@merrion.bz Title and E-mail Address 3/15/05 Date
	1650' fw1		
			<sup>18</sup> SURVEYOR CERTIFICATION <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>  Date of Survey Signature and Seal of Professional Surveyor:  Certificate Number

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## State of New Mexico

Energy, Minerals &amp; Natural Resources Department

## OIL CONSERVATION DIVISION

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Form C-102

Revised June 10, 2003

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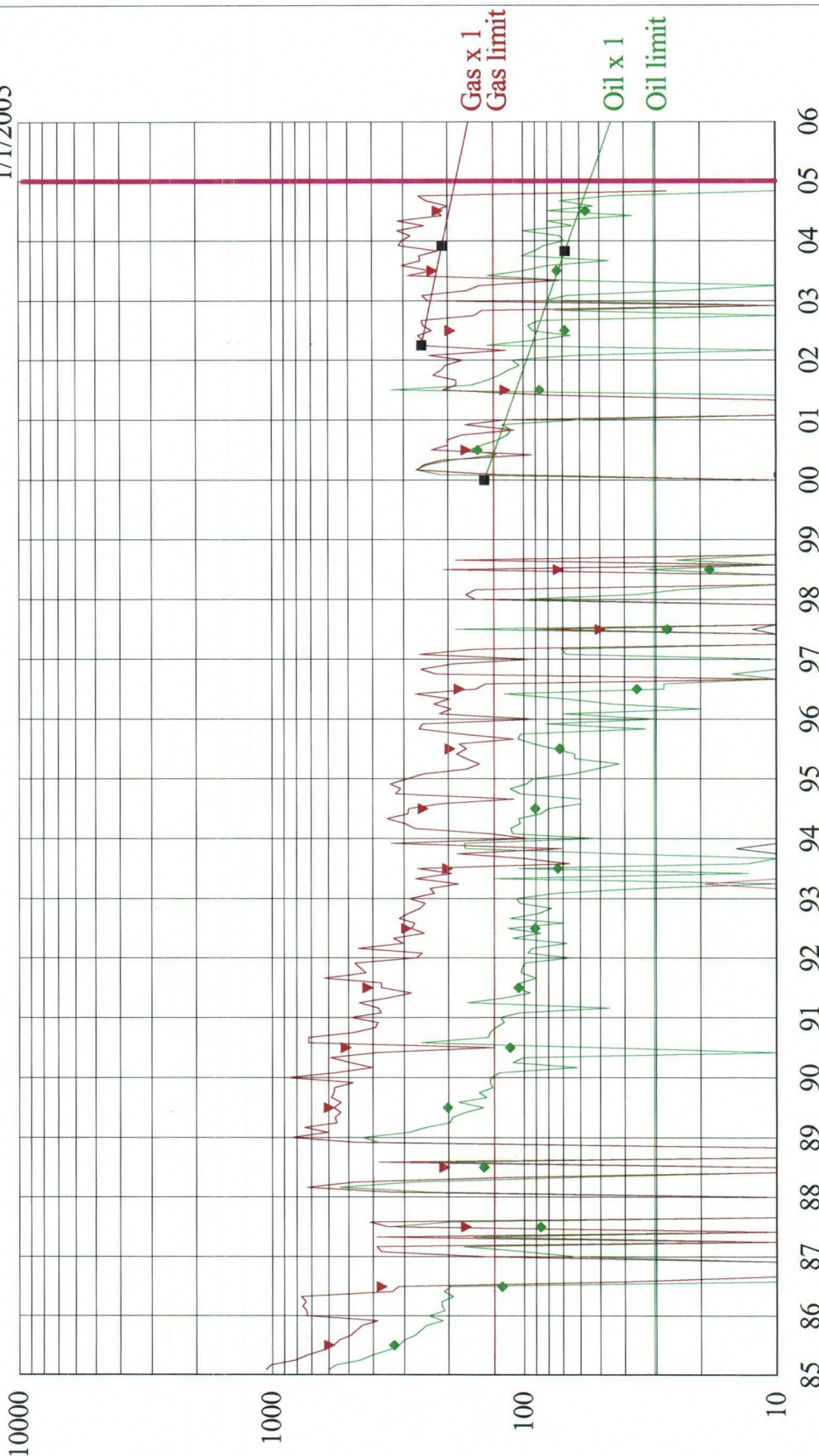
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# Shoofly 1 (1 - 100%), Dufers Pt. GLP/DK

Effective Date  
1/1/2005



15104524N08W14C00GD

Shoofly 1 (1 - 100%)

OLD

Dufers Pt. GLP/DK

San Juan, NM

[34526133]  
Dufers Pt. GLP/D  
14C 24N 8W

Cumulative:  
Remaining:  
Ultimate:

	Oil (bbl)	Gas (mcf)	Water (bbl)
	23,404	60,506	274
	1,425	5,429	277
	24,829	65,935	551

Lease Name: MESA  
 County, State: SAN JUAN, NM  
 Operator: DUGAN PRODUCTION CORPORATION  
 Field: POTWIN  
 Reservoir: PICTURED CLIFFS  
 Location: 16 24N 8W SW NE NW

MESA - POTWIN

