



DHC - 206

no waiting

MIDLAND PRODUCTION DISTRICT

**SUN PRODUCTION COMPANY** 901 W. WALL, POST OFFICE BOX 1861, MIDLAND, TEXAS 79701 (915) 682-8271

September 24, 1976

State of New Mexico Oil Conservation Commission  
P. O. Box 2088  
Santa Fe, New Mexico 87501

RE: Request to Downhole Commingle

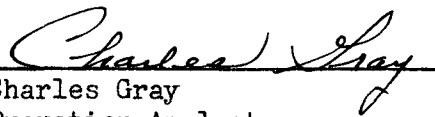
Gentlemen:

Sun Oil Company respectfully requests approval to downhole commingle Penrose Skelly and Blinbry pool production in our E. Elliott "B" Well #1 located in the NW $\frac{1}{4}$ NW $\frac{1}{4}$  of Sec. 20, T-21-S, R-37-E, Lea County, New Mexico.

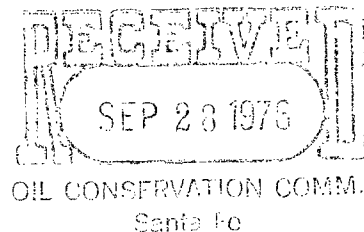
Attached are copies of waivers from all offset operators and commingling data.

If additional information is required, please advise.

Very truly yours,  
SUN OIL COMPANY

  
Charles Gray  
Proration Analyst

CG/g  
cc: Mr. Jerry Sexton - NMOCC Hobbs





# United States Department of the Interior

GEOLOGICAL SURVEY

P. O. Box 1157  
Hobbs, New Mexico 88240

September 8, 1976


Sun Oil Company  
P. O. Box 1861  
Midland, Texas 79701

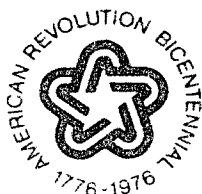
Gentlemen:

Your letter application of August 31 requests approval to commingle Penrose Skelly pool and Blinebry pool production in the well bore at your well No. 1 E. Elliott "B" Federal in the NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 20, T. 21 S., R. 37 E., Lea County, New Mexico, lease Las Cruces 032591(b).

Downhole commingling of Penrose Skelly and Blinebry pool production as proposed is hereby approved subject to like approval by the New Mexico Oil Conservation Commission.

Sincerely yours,

  
Arthur R. Brown  
District Engineer





NORTH AMERICAN EXPLORATION AND PRODUCTION GROUP  
Midland Area Land Office and Production District

SUN OIL COMPANY

901 W. WALL, POST OFFICE BOX 1861, MIDLAND, TEXAS 79701 (915) 682-8271

August 31, 1976

U.S.G.S.  
Box 1157  
Hobbs, New Mexico 88240

MC-1596A

Re: E. Elliot -B- #1

Gentlemen:

Sun Oil Co. respectfully submits the following data in application to downhole commingle production from the Penrose-Skelly and Blinebry reservoirs in the E. Elliot -B- #1. Location of the well is in Unit D, Sec. 20, Township 21-S, Range 37-E, Lea County, New Mexico.

The subject well, formerly completed in the Drinkard, was plugged back in July 1976 as this zone is no longer capable of economic production. The Penrose-Skelly perms 3626-3756 were treated and put on rod pump and tested and was found to be uneconomical to produce. On August 16, 1976 it tested 3 barrels of oil, 4 barrels of load water, and 11.1 MCF gas, GOR 3700/1, pumping 24 hours. Following this test the Blinebry was tested on rod pump below a packer set at 5700'. On August 29, 1976 it produced in 24 hours 14 barrels of oil, 12 barrels of water and 13 MCF gas, GOR 929/1. Based on these tests it is expected that the commingled production will be 17 barrels of oil daily with a gas oil ratio of 1400/1. Also based on these tests, it is proposed that 82% of the oil produced and 54% of the gas production be allocated to the Blinebry and the remainder being credited to the Penrose-Skelly.

Estimated bottom hole pressure of the Blinebry is 950# based on a shut in tubing pressure obtained in July 1975. Bottom hole pressure of the Penrose-Skelly is estimated to be approximately 500# based on fluid levels obtained during swab testing the well prior to being put on rod pump. Crossflow will be prevented since the pumping equipment installed in the well is capable of keeping the fluid pumped down.

The Penrose-Skelly production will be approximately 3 barrels of 36.90 API gravity oil per day. After load water is recovered from this zone the production should be relatively water free. The Blinebry will produce approximately 14 barrels of 420 API gravity oil per day. There should be no detrimental results of commingling the fluids downhole.

The value of the commingled production cannot be calculated as there was not an analysis of the Penrose-Skelly oil. In the event that downhole commingling is not permitted the Penrose-Skelly cannot be produced as it is not economically feasible.

*Blinebry 14 Bbls  
Penrose - Skelly*

*Penrose - Skelly 3626-3756 - 380 - 18%*  
*Blinebry 5754-5896 - 1480 - 82%*  
*17*

8/31/76

A list of offset operators who will be notified of the proposed commingling is attached.

Approval of the application will allow production of oil and gas from the Penrose-Skelly which could not otherwise be economically recovered. Therefore, waste will be prevented by downhole commingling production from this well.

Your consideration of this matter will be appreciated. Please contact me in Sun Oil Company's Midland, Texas office if any other information is required.

Very truly yours,

Jerome Vahalik III  
Jerome Vahalik III

JV/nc

- a) Sun Oil Company  
P. O. Box 1861  
Midland, Texas 79701
- b) E. Elliot -B- #1  
Unit D, Section 20, Township 21-S, Range 37-E  
Lea County, New Mexico
- c) Penrose-Skelly perfs 3626-3756  
Blinebry perfs 5754-5896

Order MC-1596-A authorized triple completion of the subject well in the Penrose-Skelly, Blinebry Oil and Drinkard Pools.

- d) Tests: 8/16/76 Penrose-Skelly, 24 hours pumping 3 BO, 4 BLW, 11.1 MCF gas, GOR 3700/l.

8/29/76 Blinebry, 24 hours pumping, 14 BO, 12 BW, 13 MCF gas, GOR 929/l.

- e) Neither zone has been produced in this well other than having been tested during a workover. Penrose-Skelly: 1965 perforated w/1 JS at: 3626, 3736, 3740, 3743, 3756, 3822, 3825, 2845, 3847, 3866. Acidized w/1000 gal. spear head acid. Max. press. 2400# min 700, ISIP 1000#. Fractured w/20,000 gal ref. oil, 20,000# sand and 20 RBS. Max press 3600, min 2900, ISIP 1800#. Tested 9 BO and 256 BW in 24 hrs pumping. Sqzd. Penrose-Skelly perfs w/200 sks High Early cmt mixed w/diesel oil, FP 2400#. Acidized w/500 gal SRA-2. Max press 2100#, min press 1200, ISIP 1000. Pumped 12 BO and 14 BW in 24 hours. TA'd in May 1965 following workover.

In July & August 1976 acidized Penrose-Skelly perfs 3626-3756 w/1000 gal. 15% NEHCl. In 24 hours pumping 2 BO, no water, 9 MCF gas. Fractured perfs 3626-3756 w/7000 gal 3% gelled acid and 7000# 20-40 sand. Max press 2200, min press 2100 FP 2100. ISIP 1350. Tested 3 BO & 4 BLW in 24 hours pumping.

Blinebry: 1965 perforated 1 JS at: 5754, 5784, 5849, 5860, 5879, 5896. Acidized w/3000 gal BDA. Fractured w/20,000 gal ref. oil & 20,000# sand. Max press 4150, min press 3900, ISIP 2300. Flowed in 24 hours 136 BO, 27 BW, 445 MCF gas, GOR 3272/l. 20/64 Chk, FTP 325#. TA'd in February 1965 until acreage is released from gas unit.

In August 1976 put on pump to test production. Gas unit well has been reclassified to an oil well. Tested 14 BO & 12 BW in 24 hours pumping.

- f) Estimated BHP - Both zones will be artificially lifted.

Penrose-Skelly: 500 psi - based on fluid levels obtained while swabbing.

Blinebry: 950 psi - based on SITP obtained in July 1975.

g) Fluid characteristics:

Penrose-Skelly: 3 barrels of 36.9° API gravity oil and no water.

Blinebry: 14 barrels of 42° API gravity oil and 12 barrels of formation brine

Fluids should be compatible in the well bore.

h) Oil value - was not determined as no analysis of the Penrose-Skelly oil was obtained.

i) Offset operators will be notified of the application for commingling.

D. E. Price, et al

D. E. Price, et al

Hawk

Sohio

18

Texaco

Sun

Conoco,  
Et al  
"A"

D. E. Price, et al

Sohio

"Alves"

Gulf

"C"

Conoco, Et al  
Peery

M. Weatherly

H. T. Mattern, Tr

Marathon

Petro.-Lewis

W. W. Weatherly

Lockhart

I. G.  
Warlick

I. G.  
Warlick

Lockhart

P. O. Hardy

Petro.-Lewis

19

Sun

Campbell-Hedrick

A. R. Co.

Warlick

Elliott B

W. E. Lee

Petro.-Lewis

Sun

4 Petro.-Lewis

"A"

J. G. Randle

J. G. Randle

A. M. York

Gulf

Marathon

Warlick

D. C. Hardy

J. W. Peery

Getty

OFFSET OPERATORS

E. ELLIOT -B- #1  
LEA COUNTY, NEW MEXICO

Cambell & Hedrick  
P. O. Box 401  
Midland, Texas 79701

Getty Oil Company  
P. O. Box 1231  
Midland, Texas 79701

Continental Oil Company  
P. O. Box 460  
Hobbs, New Mexico 88240

Petro-Lewis  
607 Austin St.  
Levelland, Texas 79336



Date 9/24, 1976

WAIVER

U.S.G.S.  
Box 1157  
Hobbs, New Mexico 88240

Gentlemen:

This is to advise that as an offset operator, we have been duly informed by Sun Oil Company of their application to commingle the Penrose-Skelly and Blinbry formations in the Elliot -B- #1, located in Unit D, Section 20, Township 21-S, Range 37-E, Lea County, New Mexico.

As the authorized agent of this company you are respectfully advised that we hereby waive notice and hearing on the application described above.

Very truly yours,

Signed:

*Scott Campbell*

Title:

Company:

CAMPBELL & NEDEICK

cc: Sun Oil Company  
P. O. Box 1861  
Midland, Texas 79701

File

Date 9-7, 1976

WAIVER

U.S.G.S.  
Box 1157  
Hobbs, New Mexico 88240

Gentlemen:

This is to advise that as an offset operator, we have been duly informed by Sun Oil Company of their application to commingle the Penrose-Skelly and Blinbry formations in the Elliot -B- #1, located in Unit D, Section 20, Township 21-S, Range 37-E, Lea County, New Mexico.

As the authorized agent of this company you are respectfully advised that we hereby waive notice and hearing on the application described above.

Very truly yours,

Signed: David A. Samers  
Title: Prod. Supt.  
Company: Continental Oil Co.

cc: Sun Oil Company  
P. O. Box 1861  
Midland, Texas 79701

File

Date September 3, , 1976

WAIVER

U.S.G.S.  
Box 1157  
Hobbs, New Mexico 88240

Gentlemen:

This is to advise that as an offset operator, we have been duly informed by Sun Oil Company of their application to commingle the Penrose-Skelly and Blinbry formations in the Elliot -B- #1, located in Unit D, Section 20, Township 21-S, Range 37-E, Lea County, New Mexico.

As the authorized agent of this company you are respectfully advised that we hereby waive notice and hearing on the application described above.

Very truly yours,

Signed:	<u>Original Signed By</u> <u>RICHARD L. WHITE</u>
Title:	<u>DIST. PROD. MANAGER</u>
Company:	<u>GETTY OIL COMPANY</u>

cc: Sun Oil Company  
P. O. Box 1861  
Midland, Texas 79701

File

Date September 9, 1976

WAIVER

U.S.G.S.  
Box 1157  
Hobbs, New Mexico 88240

Gentlemen:

This is to advise that as an offset operator, we have been duly informed by Sun Oil Company of their application to commingle the Penrose-Skelly and Blinbry formations in the Elliot -B- #1, located in Unit D, Section 20, Township 21-S, Range 37-E, Lea County, New Mexico.

As the authorized agent of this company you are respectfully advised that we hereby waive notice and hearing on the application described above.

Very truly yours,

Signed:

Title:

Company:

J. Douglas Lang  
Project Engineer-New Mexico  
Petro-Lewis Corp.

cc: Sun Oil Company  
P. O. Box 1861  
Midland, Texas 79701

File

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

Charles Gray *Charles Gray*

## Proration Analyst

August 31, 1976

(Date)

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Charles Gray

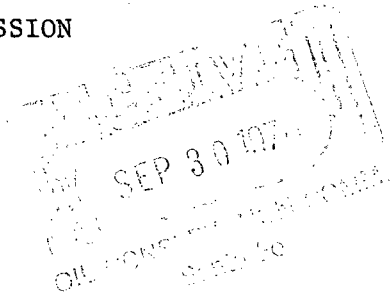
Proration Analyst

August 31, 1976

(Title)	(Date)

OIL CONSERVATION COMMISSION  
HOBBS DISTRICT

OIL CONSERVATION COMMISSION  
BOX 2088  
SANTA FE, NEW MEXICO



DATE 9-28-76

RE: Proposed MC \_\_\_\_\_  
Proposed DHC x \_\_\_\_\_  
Proposed NSL \_\_\_\_\_  
Proposed SWD \_\_\_\_\_  
Proposed WFX \_\_\_\_\_  
Proposed PMX \_\_\_\_\_

Gentlemen:

I have examined the application dated \_\_\_\_\_  
for the Sun Oil Company E. Elliott "B", #1-D 20-21-37  
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

OK---JS  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yours very truly,