

Mid-Continent Region
Production United States

6/16/96

POC 1244

P.O. Box 552
Midland, TX 79702-0552
Telephone 915/682-1626

Mr David Catanach
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

RE: Amend Order # CTB 397

Marathon Oil Co. requests an exception to Rule 303 (Segregation of Production from Pools). Marathon is authorized under the referenced order to surface commingle South Dagger Draw/Upper Penn Associated production from the leases referenced in the order. A copy of the referenced order is attached.

Marathon is requesting that the order be amended to allow surface commingling of Indian Basin Upper Penn production as well. The leases involved are the same as listed on the referenced order. All well presently producing into the commingled battery are South Dagger Draw Upper Penn Associated producers. The two Indian Basin Upper Penn wells which will be added are the Comanche Federal "3" # 1 and, N. Indian Basin Unit Gas Com # 3. Both wells are included in the order CTB 397 for off lease measurement and storage. Both wells produce minimal amounts of oil. Production allocation will be as per the detailed attachment. Hydrocarbon value will not be lowered by the proposed commingling. All production will be metered prior to commingling. Production data and value calculations are also attached along with lease and flow diagrams.

Sincerely

A handwritten signature in cursive script that reads "Thomas M. Price".

Thomas M. Price

Advanced Engineering Technician

	NO. of Wells	Avg Daily Prod. BPD	API Gravity	Selling Price	Income Per Day
South Dagger Draw Upper Penn Assoc.	34	5250	43.0	\$20.25	\$106,313
Indian Basin Upper Penn	2	2	47.5	\$20.25	\$41
Commingled Gravity			43.0		
Total Revenue of Crude Sold From Seperate Source					\$106,353
Commingled Values					\$106,353
Loss In Value As a Result of Commingling					\$0

**Upper Penn Commingling Application
North Indian Basin Unit, Stinking Draw,
Bone Flats Federal 12 & MOC Federal, North Indian Basin Unit Com
South Dagger Draw Field
Eddy County, New Mexico**

Production Allocation - Lease

OIL

Daily gross production for the consolidated facility will be based on daily oil sales and daily tank gauges.

$$\text{Production} = \text{Oil Sales} + (\text{Tank Gauge Change})$$

Daily oil production will be allocated back to each property based on its daily oil meter readings and the gross daily production.

$$\text{North Indian Basin Unit Production} = \frac{(\text{sum of oil readings from North Indian Basin Unit})}{(\text{Sum of all oil readings})} \times \text{Gross Consolidated Facility Production}$$

$$\text{Bone Flats Federal 12} = \frac{(\text{sum of oil readings from Bone Flats Federal 12})}{(\text{Sum of all oil readings})} \times \text{Gross Consolidated Facility Production}$$

$$\text{MOC Federal} = \frac{(\text{sum of oil readings from MOC Fed})}{(\text{Sum of all oil readings})} \times \text{Gross Consolidated Facility Production}$$

$$\text{Stinking Draw} = \frac{(\text{sum of oil readings from Stinking Draw})}{(\text{Sum of all oil readings})} \times \text{Gross Consolidated Facility Production}$$

$$\text{North Indian Basin Unit "Com"} = \frac{\text{North Indian Basin Unit Com NM-SW 242}}{\text{Sum of all oil readings}}$$

GAS

Monthly production for the consolidated facility based on the six inch gas meter (master meter) located at the discharge of the dehydration unit.

Monthly gas production will be allocated back to each property will be based on its monthly gas meter readings and the gross monthly production.

$$\text{North Indian Basin Unit Production} = \frac{(\text{sum of oil readings from North Indian Basin Unit})}{(\text{Monthly Master Gas Readings})} \times \text{Gross Consolidated Facility Production}$$

$$\text{Bone Flats Federal 12} = \frac{(\text{sum of oil readings from Bone Flats Federal 12})}{(\text{Monthly Master Gas Readings})} \times \text{Gross Consolidated Facility Production}$$

$$\text{MOC Federal} = \frac{(\text{sum of oil readings from MOC Fed})}{(\text{Monthly Master Gas Readings})} \times \text{Gross Consolidated Facility Production}$$

$$\text{Stinking Draw} = \frac{(\text{sum of oil readings from Stinking Draw})}{(\text{Monthly Master Gas Readings})} \times \text{Gross Consolidated Facility Production}$$

$$\text{North Indian Basin Unit "Com"} = \frac{\text{North Indian Basin Unit Com NM-SW 242}}{(\text{Monthly Master Gas Readings})}$$

Production Allocation - Well

The production attributable to wells within a specific lease which are not individually metered shall be allocated as follows:

$$\text{Well production} = \frac{\text{Production well test}}{\text{sum of all production well tests}} \times \text{lease allocated production}$$

**Upper Penn Commingling Application
North Indian Basin Unit, Stinking Draw,
Bone Flats Federal 12 & MOC Federal, North Indian Basin Unit Com
South Dagger Draw Field
Eddy County, New Mexico**

Production Facilities - Zone

Wells producing from the same zone will be connected to a production header. Each production header will be equipped with a three-phase production vessel to separate and meter oil, gas and water production.

*Oil production will be metered through a positive displacement meter. The non-resetting counter head will measure fluids in barrels. Taps will be installed to accommodate meter proving. The meter will be installed between the separator and dump valve to maintain a constant head pressure on the meter.

*Water production will be metered utilizing turbine meters. Taps will be installed to accommodate meter proving.

*Gas production will be measured using a gas meter run and three-pen chart recorder (static, differential and temperature).

After separation oil, gas and water will be delivered to the consolidated battery.

Production Facilities - Test facilities

Wells will be periodically tested using a common test vessel. All lease production will be separated and metered in the same manner as described above. However, after metering the fluid will be recombined and returned to the wells respective production vessel for final separation and metering.

Production Facilities - Consolidated battery

Oil production delivered to the consolidated battery will be further processed through a heater treater prior to storage at the tank battery. Sales will be accomplished through a LACT Unit.

Water production from the field will be stored in tankage at the consolidated facility and then pumped into a disposal system.

Gas production delivered to the consolidated facility will be further processed through a dehydrator after compression but prior to delivery to a common trunkline system for further processing at a gas processing plant.

OIL CONSERVATION DIVISION

XC: ~~TMP~~
~~TEG~~
~~APG~~
 file

AMENDED COMMINGLING ORDER CTB-397

Marathon Oil Company
 P.O. Box 552
 Midland, Texas 79702-0559

Attention: Mr. R.A. Biernbaum

The above named company is hereby authorized to commingle Indian Basin Upper Penn Pool production from the following leases:

Lease: North Indian Basin Unit (Including Com # NM-SW 242)
 Including: Federal Lease Nos. NM-0487-B, NM-05608, NM-05551,
 NM-05551-B and NM-SW242; State Lease Nos. E-7906 and E-10170
 Description: Section 2, S/2 Section 3, Section 10 and Section 11, Twp 21-S, Rge 23-E

Lease: Comanche Federal Lease (Including Com # NM-SW 242)
 Including: Federal Lease No. NM-04827-B and NM-34623
 Description: N/2 of Section 3, Twp 21-S, Rge 23-E

Lease: Bone Flats Federal 12 Lease
 Including: Federal Lease Nos. NM-05608, NM-81677 and NM-05551-A.
 Description: Section 2, Twp 21-S, Rge 23-E

Lease: MOC Federal Lease
 Including: Federal Lease No. NM-04827-B
 Description: Sections 1, Twp 21-S, Rge 23-E

Lease: Stinking Draw Lease
 Including: State Lease Nos. K-1877 and E-10169-1
 Description: Section 36, Twp 20 1/2-S, Rge 23-E

All in Eddy County, New Mexico.

Production shall be allocated to each lease by separately metering the production from each pool prior to commingling.

NOTE: The commingled production shall be stored in the 'MOC Central' tank battery facility located in Unit Letter D of Section 1, Township 21 South, Range 23 East.

*Amended Commingling Order CTB-397
Marathon Oil Company*

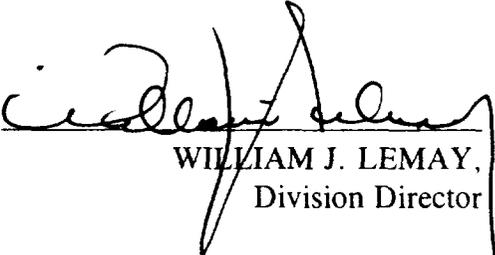
Page 2

NOTE: This installation shall be installed and operated in accordance with the applicable provisions of Rule 303 of the Division Rules and Regulations and the Division "Manual for the Installation and Operation of Commingling Facilities." It is the responsibility of the producer to notify the transporter of this commingling authority.

FURTHER: The operator shall notify the supervisor of the Artesia district office prior to implementation of the commingling process.

PROVIDING: Validation of this authority shall be accomplished by like approval by the New Mexico Commissioner of Public Lands and the U.S. Bureau of Land Management.

DONE at Santa Fe, New Mexico, on this 19th day of January, 1996.


WILLIAM J. LEMAY,
Division Director

cc: Oil Conservation Division - Artesia
State Land Office - Oil & Gas Division
U.S. Bureau of Land Management - Carlsbad