

app # 25698

DHC 7/19/00

Houston Division
Production Operations, United States



**Marathon
Oil Company**

P.O. Box 2490
Hobbs, New Mexico 88240
Telephone 505/393-7106

June 26, 2000

Mr. Mark Ashley
Petroleum Engineering Specialist
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505

2788

RECEIVED
JUN 29 2000

Re: Request for Exception to Rule 303-A
Downhole & Surface Commingling
William Lightfoot 20' State No. 1
810' FSL & 660' FWL
Sec. 20, T-18-S, R-28-E
Wildcat; Wolfcamp & Winchester; Upper Penn West Pools
Eddy County, New Mexico

Dear Mr. Ashley:

Marathon Oil Company requests administrative approval for an exception to Rule 303-A to permit the downhole and surface commingling of production in the above subject well from the Wildcat; Wolfcamp and Winchester; Upper Penn West pools.

The well was an Upper Penn producer, and had reached its producible economic limit. For this reason, Marathon recompleted the Wolfcamp with the Upper Penn to maximize the economical production from the well. Rod pumping equipment is being utilized to keep the PBHP as low as possible to prevent crossflow.

Marathon currently downhole and surface commingles production from the Travis; Upper Penn and Travis; Wolfcamp pools in the Edward Mitchusson '4' St. No. 1, Sec 4, T-19-S, R-28-E (DHC 2233) and in the Samuel Burns '34' State No. 2, Sec 34, T-18-S, R-28-E (DHC 2027) with no compatibility problems.

Enclosed is pertinent data supporting this application as outlined in Rule 303-A. If additional information is necessary, please advise.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Andrew J. Schwandt'.

Andrew J. Schwandt
Production Engineer
(505) 393-7106

Enclosure



**Marathon
Oil Company**

P.O. Box 2490
Hobbs, New Mexico 88240
Telephone 505/393-7106

June 26, 2000

Mr. Pete Martinez
Commissioner of Public Lands
State Land Office Building
P.O. Box 1148
Santa Fe, NM 87504-1148

Re: Request for Exception to Rule 303-A
Downhole & Surface Commingling
William Lightfoot '20' State No. 1
810' FSL & 660' FWL
Sec. 20, T-18-S, R-28-E
Wildcat; Wolfcamp & Winchester; Upper Penn West Pools
Eddy County, New Mexico

Dear Mr. Martinez:

Marathon Oil Company requests administrative approval for an exception to Rule 303-A to permit the downhole and surface commingling of production in the above subject well from the Wildcat; Wolfcamp and Winchester; Upper Penn West pools.

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Andrew J. Schwandt
Production Engineer
(505) 393-7106

Enclosure



**Marathon
Oil Company**

P.O. Box 2490
Hobbs, New Mexico 88240
Telephone 505/393-7106

June 26, 2000

Mr. Tim Gum
District 2 Supervisor
Oil Conservation Division
811 S. First St.
Artesia, NM 88210

Re: Request for Exception to Rule 303-A
Downhole & Surface Commingling
William Lightfoot '20' State No. 1
810' FSL & 660' FWL
Sec. 20, T-18-S, R-28-E
Wildcat; Wolfcamp & Winchester; Upper Penn West Pools
Eddy County, New Mexico

Dear Mr. Gum:

Marathon Oil Company requests administrative approval for an exception to Rule 303-A to permit the downhole and surface commingling of production in the above subject well from the Wildcat; Wolfcamp and Winchester; Upper Penn West pools.

The well was an Upper Penn producer, and had reached its producible economic limit. For this reason, Marathon recompleted the Wolfcamp with the Upper Penn to maximize the economical production from the well. Rod pumping equipment is being utilized to keep the PBHP as low as possible to prevent crossflow.

Marathon currently downhole and surface commingles production from the Travis; Upper Penn and Travis; Wolfcamp pools in the Edward Mitchusson '4' St. No. 1, Sec 4, T-19-S, R-28-E (DHC 2233) and in the Samuel Burns '34' State No. 2, Sec 34, T-18-S, R-28-E (DHC 2027) with no compatibility problems.

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Sincerely,

A handwritten signature in black ink, appearing to read 'Andrew J. Schwandt'.

Andrew J. Schwandt
Production Engineer
(505) 393-7106

Enclosure

REQUEST FOR EXCEPTION TO RULE 303-A
William Lightfoot '20' State No. 1
Winchester Field

A: Operator

Marathon Oil Company
P.O. Box 2409
Hobbs, NM 88241-2409

B: Lease Name and Well Number

William Lightfoot '20' State No. 1
810' FSL & 660' FWL
Sec. 20, T-19-S, R-28-E
Eddy Co., New Mexico
Wildcat; Wolfcamp and Winchester; Upper Penn West

C: Plats

Attached

D: Form C-116

Attached

E: Production Decline Curves

Attached

F: Estimated Bottomhole Pressures

Wildcat (Wolfcamp) – est. 2000 psi
Winchester (Upper Penn West) – est. 2000 psi

G: Fluid Characteristics

Marathon currently downhole and surface commingles production from the Travis; Upper Penn and Travis; Wolfcamp pools in the Edward Mitchusson '4' St. No. 1, Sec 4, T-19-S, R-28-E (DHC 2233) and in the Samuel Burns '34' State No. 2, Sec 34, T-18-S, R-28-E (DHC 2027) with no compatibility problems.

H: Value

Marathon receives the same price for the products from each zone and value will not be adversely affected.

I: Production Allocation

<u>Pool</u>	<u>BOPD</u>	<u>MCFPD</u>	<u>BWPD</u>	<u>Test Method</u>
Wildcat (Wolfcamp)	8	39	3	Post work incremental
Winchester (Upper Penn West)	<u>10</u>	<u>47</u>	<u>0</u>	3/31/00 Production
	18	86	3	6/25/00 Production

<u>Allocated Percentages</u>	<u>Oil %</u>	<u>Gas %</u>	<u>Water %</u>
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Post-workover utilizing above production

Wildcat (Wolfcamp)	44%	45%	100%
Winchester (Upper Penn West)	<u>56%</u>	<u>55%</u>	<u>0%</u>
Total	100%	100%	100%

J: Ownership

Ownership of all zones is common and correlative rights will not be violated.

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

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

District I
 PO Box 1980, Hobbs, NM 88241-1980
 District II
 811 S. 1st Street, Artesia, NM 88210-2834
 District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 District IV
 2040 South Pacheco, Santa Fe, NM 87505

☐ **AMENDED REPORT**

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-30247		² Pool Code 96810		³ Pool Name Winchester; Upper Penn West	
⁴ Property Code 23345		⁵ Property Name William Lightfoot '20' State			⁶ Well Number 1
⁷ OGRID No. 014021		⁸ Operator Name Marathon Oil Company			⁹ Elevation 3468

¹⁰ Surface Location									
UL or lot no. M	Section 20	Township 19-S	Range 28-E	Lot. Idn	Feet from the 810	North/South Line South	Feet from the 660	East/West line West	County Eddy

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 40	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>¹⁷ OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i></p> <p align="right"><i>Andrew Schwandt</i></p> <p>Signature Andrew Schwandt Printed Name Production Engineer Title 6-26-00 Date</p>
				<p>¹⁸ 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></p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyer:</p> <p>Certificate Number</p>

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 S. 1st Street, Artesia, NM 88210-2834
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 30-015-30247	² Pool Code	³ Pool Name Wildcat; Wolfcamp
⁴ Property Code 23145	⁵ Property Name William Lightfoot '20' State	⁶ Well Number 1
⁷ OGRID No. 014021	⁸ Operator Name Marathon Oil Company	⁹ Elevation 3468


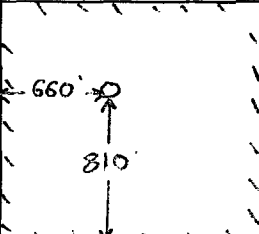
¹⁰ Surface Location

UL or lot no. M	Section 20	Township 19-S	Range 28-E	Lot. Idn	Feet from the 810	North/South Line South	Feet from the 660	East/West line West	County Eddy
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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 40	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

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				¹⁸ 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
				

State of New Mexico
Energy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION
2040 Pacheco St.
Santa Fe, NM 87505

Form C-116
Revised 1/1/89

GAS - OIL RATIO TEST

Operator Marathon Oil Company		Pool Wildcat; Wolfcamp / Winchester; Upper Penn West		County Eddy										
Address P.O. Box 2490 Hobbs, NM 88240		TYPE OF TEST - (X)		Completion <input type="checkbox"/> Special <input checked="" type="checkbox"/>										
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TBG PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS-OIL RATIO CU/FT/BBL	
		U	S	T						R	WATER BBL.S.	GRAV. OIL		OIL BBL.S.
William Lightfoot 20 State	1	M	20	19S	28E	6/25/00	P			24	3	18	86	
DHC 011x Gasx														
Wolfcamp 44 45												8	39	4875
Upper Penn 56 55												10	47	4700
FOR INFORMATION ONLY														

Instructions:

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 Division.

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.

(See Rule 301, Rule 1116 & appropriate pool rules.)

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

Andrew J. Schwandt
Signature

Andrew J. Schwandt

Printed name and title

June 27, 2000

Date

393-7106

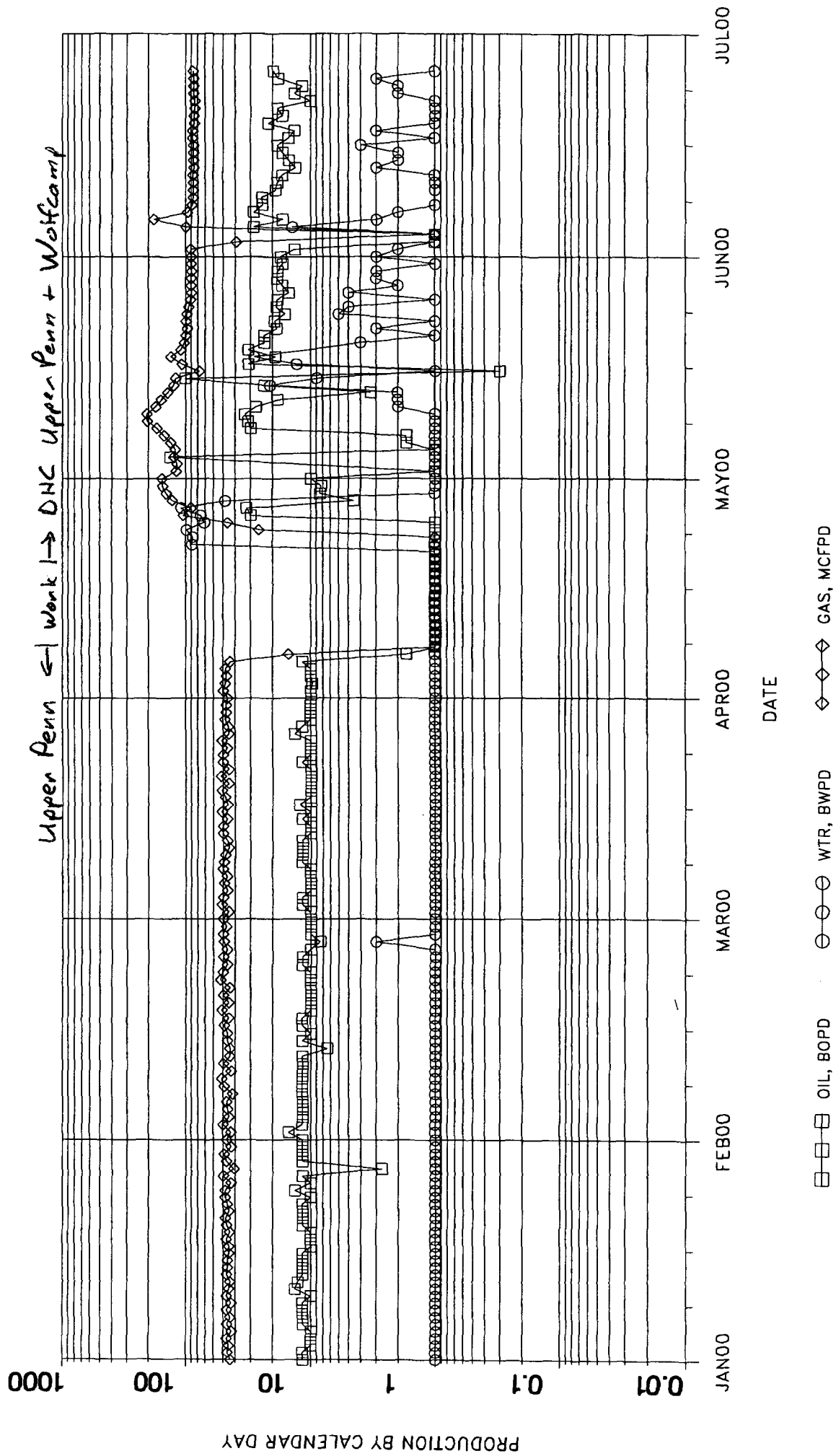
Telephone No.

Midland Operations

Handheld Battery Production Data

Daily Handheld Production from 01/01/00 to current

LIGHTFOOT BTRY



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 S. Pacheco
Santa Fe, New Mexico 87505-6429

Form C-107-A
New 3-12-96

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Operator Marathon Oil Company Address PO Box 2490 Hobbs, NM 88240
Well No. William Lightfoot 20 State No. 1 Unit Ltr. - Sec - Twp - Rge UL M, Sec. 20, T-19-S, R-28-E County Eddy
OGRID NO. 014021 Property Code 23345 API NO. 30-015-30247 Federal ☐ State ☒ (and/or) Fee ☐
Spacing Unit Lease Types: (check 1 or more)

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zones	Lower Zone
1. Pool Name and Pool Code	Wolfcamp		Upper Penn 96810
2. Top and Bottom of Pay Section (Perforations)	8814-8824'		9624-9724'
3. Type of production (Oil or Gas)	Oil		Oil
4. Method of Production (Flowing or Artificial Lift)	Artificial Lift		Artificial Lift
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	a. (Current) 2000 b. (Original) 2500	a. b.	a. 2000 b. 2500
6. Oil Gravity (° API) or Gas BTU Content	42		45
7. Producing or Shut-In?	Producing		Producing
Production Marginal? (yes or no)	Yes		Yes
* If Shut-In, give date and oil/gas/water rates of last production Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data	Date: Rates:	Date: Rates:	Date: Rates:
* If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: 6/25/00 Rates: 8/39/3	Date: Rates:	Date: 3/31/00 Rates: 10/47/0
8. Fixed Percentage Allocation Formula - % for each zone	Oil: 44 % Gas: 45 %	Oil: % Gas: %	Oil: 56 % Gas: 55 %

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 rate 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 of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ☐ No

15. NMOCD Reference Cases for Rule 303(C) Exceptions: ORDER NO(S). R-11112

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 Andrew J. Schwandt TITLE Production Eng. DATE 6/27/00

TYPE OR PRINT NAME Andrew J. Schwandt TELEPHONE NO. (505) 393-7106