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PATRICK H. LYONS COMMISSIONER

State of New Mexico Commissioner of Public Lands

310 OLD SANTA FE TRAIL P.O. BOX 1148 SANTA FE, NEW MEXICO 87504-1148 COMMISSIONER'S OFFICE

Phone (505) 827-5760 Fax (505) 827-5766 www.nmstatelands.org

PECENED

MAY 0 6 2000

CIL CONSERVATION LIMISION

May 5, 2003

Tipton Oil & Gas Acquisitions P.O. Box 1234 Lovington, New Mexico 88260

Attn: Mr. Clay Tipton

Re: 2003 Plan of Development Double L Queen Unit Chaves County, New Mexico

Dear Mr. Tipton:

The Commissioner of Public Lands has, of this date, approved the above-captioned Plan of Development. Our approval is subject to like approval by all other appropriate agencies.

The possibility of drainage by wells outside of the unit area and the need for further development of the unit may exist. You may be contacted at a later date regarding these possibilities.

If you have any questions or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

PATRICK H. LYONS COMMISSIONER OF PUBLIC LANDS

BY:

JAMI BAILEY, Director Oil, Gas and Minerals Division (505) 827-5744

PL/JB/cpm xc: Reader File

OCD

BLM

COMMISSIONER'S OFFICE Phone (505) 827-5760 Fax (505) 827-5766

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GENERAL COUNSEL Phone (505) 827-5713 Fax (505) 827-4262

PUBLIC AFFAIRS Phone (505) 827-1245 Fax (505) 827-5766

April 10, 2002

Tipton Oil & Gas Acquisitions P.O. Box 1234 Lovington, New Mexico 88260

Attn: Ms. Debbie McKelvey

Re: 2002 Plan of Development Double L Queen Unit Chaves County, New Mexico

Dear Ms. McKelvey:

The Commissioner of Public Lands has, of this date, approved the above-captioned Plan of Development. Our approval is subject to like approval by all other appropriate agencies.

The possibility of drainage by wells outside of the unit area and the need for further development of the unit may exist. You may be contacted at a later date regarding these possibilities.

If you have any questions or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

RAY POWELL, M.S., D.V.M. COMMISSIONER OF PUBLIC LANDS

BY:

JAMI BAILEY, Director Oil, Gas and Minerals Division (505) 827-5744

RP/JB/cpm xc: Reader File

OCD

BLM

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SURFACE RESOURCES Phone (505) 827-5793 Fax (505) 827-5711



New Mexico State Land Office

Commissioner of Public Lands

Ray Powell, M.S., D.V.M.

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April 10, 2002

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SURFACE RESOURCES Phone (505) 827-5793 Fax (505) 827-5711

Tipton Oil & Gas Acquisitions P.O. Box 1234 Lovington, New Mexico 88260

Attn: Ms. Debbie McKelvey

Re: Resignation/Designation of Successor Unit Operator Double L Queen Unit Chaves County, New Mexico

Dear Ms. McKelvey:

We are in receipt of your resignation/designation of successor unit operator, wherein Saga Petroleum Limited Liability Company has resigned as unit operator of the Double L Queen Unit and designated Tipton Oil & Gas Acquisitions as the successor unit operator.

The Commissioner of Public Lands has this date approved the resignation of wherein Saga Petroleum Limited Liability Company and the designation of Tipton Oil & Gas Acquisitions as the successor unit operator of this unit.

This change in operators is effective August 1, 2001. In accordance with this approval, Tipton Oil & Gas Acquisitions is now responsible for all operations and the reporting of all production from the unit.

If you have any questions or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

RAY POWELL, M.S., D.V.M. COMMISSIONER OF PUBLIC LANDS

BY: Com Caro

JAMI BAILEY, Director Oil/Gas and Minerals Division (505) 827-5744

RP/JB/cpm xc: Reader File

Saga Petroleum Limited Liability Company OCI

OCD- -Roy Johnson

BLM

TRD

EXHIBIT SUMMARY McCLELLAN OIL CORPORATION PROPOSED DOUBLE "L" UNIT CHAVES COUNTY, NEW MEXICO

Exhibit No.

Item

I	Engineering Committee Report 10-1-73
II	Reservoir Performance Curve, Unit
III	Reservoir Performance Curve, MOC
IV	Economic Limit Determination, Old
v	Economic Limit Determination, New
VI	Status of Primary Production
VII	Future Primary Reserve Allocation
VIII	Immediate Net Income Loss, MOC
IX	Recommendations

Tom Plant

PROPOSED DOUBLE L QUEEN FIELD UNIT CHAVES COUNTY, NEW MEXICO

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BEFO	RE EXAMINER STAMETS
OIL CO	NEERVATION COMMISSION
	DAMET NO. <u>I</u>
CASENS	5596
Substitutes	McClellAnetal
Hearing	Daie 12-3-75
Hearing	Daie 12-3-75

SECOND EDITION ENGINEERING COMMITTEE REPORT OCTOBER 1, 1973

TABLE OF CONTENTS

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INTRODUCTION	1-2
SUMMARY AND CONCLUSION	3
SECONDARY RESERVES	4-6
ECONOMICS	7-10
GEOLOGY	11-12
WATER AVAILABILITY	13
FLOOD PATTERN	14
PARAMETERS	15-16

CURVE PRODUCTION HISTORY AND ESTIMATE

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MAP	NO.	1	•••	Location Map Chaves County
		2	-	Lease Map & Tenative Pattern
		3	-	Isopach Map

PROPOSED DOUBLE L QUEEN FIELD CHAVES COUNTY, NEW MEXICO

INTRODUCTION

The Double L Queen Field is located in Township 14 and 15 South and Range 29 and 30 East which is 15 miles north of Loco Hills in southeastern Chaves County, New Mexico.

Production from the field was first secured in April 1969 from Dalport's Spurck State Lease. The field developed rapidly thereafter with peak production reached in August 1970 with a monthly average of 1439 barrels per day. Production as of November 1972 averaged 606 barrels per day and cumulative production as of 12/1/72 is 1,123,912 barrels. There have been eleven dry holes drilled during the process of outlining the field and there are presently 55 wells in the field usable for flood purposes.

Completion practices did not vary widely from well to well in the field. Most wells were completed by setting either 4 1/2 or 5 1/2 inch casing through the formation and cementing. The casing then being perforated for completion and sandfraced with an average of some 20,000 gallons of treating fluid and 25,000 pounds of sand.

Crude oil is approximately 36.5 API and proceeds to the producer at this time are approximately \$3.77 per barrel after deducting taxes. The purchaser is Navajo Refining Co.

There are approximately 2790.27 surface acres in the properties being considered for inclusion in the flood.

First, discussion toward unitization was had at an operators meeting held June 9, 1970 in Dallas and efforts to unitize have continued since that time, the last meeting being held in Midland on September 12, 1973.

SUMMARY & CONCLUSIONS

The engineering committee anticipates that:

- (1) Secondary oil can be produced at a ratio of 1.14 to that of estimated ultimate primary which would yield approximately 1,865,000 barrels of additional oil.
- (2) The life of the flood would extend
 over a period of approximately 10
 years.
- (3) A total profit of \$4,701,501 before Federal Income Taxes would be gathered over the life of the flood.
- (4) An effort to unitize the field should be made using an acceptable formula including a portion of the enclosed parameters.
- (5) Continued operation on a primary basis
 would result in remaining profits before
 Interest Laurane Cases 64 \$418,457 before
 reaching the economic limit.

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SECONDARY RESERVES

The nearest Queen Sand flood is that of the Sulimar field which is directly south of this property and operated by Jack McClellan. The Sulimar flood is relatively new as water injection was started in January of 1972. The lowest production rate obtained from the Sulimar area was approximately 3900 barrels in February 1972 and has increased to an indicated monthly rate of 11500 barrels over the first few days of November, 1972. Premature water breakthrough has not been a problem. The purpose of the above is to indicate that floodable Queen Sand is located in the immediate vicinity of the proposed Double L Unit. It is, of course, well known that there have been many successful Queen Sand floods over a portion of New Mexico and Western Texas.

Secondary reserves and associated water requirements have been calculated in the following manner.

BASIC DATA:

55 wells on 40 acre spacing, 2,200 proration acres. Volume = 10,077 acre feet. (V) Average t = 4.16 feet Porosity = .21 (Ø) Connate water = .35 (Sw, estimated from Sulimar report) Initial reservoir pressure = 730 psi @ D = 1,950 feet Boi = 1.13 Vol/Vol Bo flood start = 1.07 Vol/Vol (200 psi) Rt = 94° F (estimated at 80'/°F) Crude Gravity = 34° AFI Primary Recovery (Decline Curve) = 1.470 MMB

PORE VOLUME

Vp = 7,758 .V. Ø Vp = 7,758 10,077 .21 = 16.417 MME · ·

ORIGINAL OIL IN PLACE

N = Vp(1-Sw)/Boi = 16.417 (1-.35)/1.13 = 9.444 MMB

PRIMARY RECOVERY EFFICIENCY - Percent of oil in place

Ep = Np/100N = 1.470/9.444 = 15.56%

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REMAINING PRIMARY RECOVERY, 9-1-72

=	1,470	М ВЪ
**	1,124	
	=	= 1,470 = 1,124

Remaining Primary = 346

OIL SATURATION AT FLOOD START

Assume water injection starts at pr = 200 psi on 1-1-74 with cumulative recovery = 1.277 MMB. Sos = (N-Np) Bo = (9.44 - 1.277) 1.07 = .532 Vp 16.417

GAS SATURATION AT FLOOD START

Sg = 1 - Sos - SW = 1 - .532 - .350 = .118

THEORETICAL FILL UP VOLUME

Wf = Sg . Vp - .118 . 16.417 = 1.937 MMB Assume 50% of injection is affective requirement = 3.874 MMB

INJECTION RATE

From Sulimar Pool experience average injection rate is a sumed to be 300 B/D/well during fill-up.

FILL-UP TIME

For 25 injection well depletion plan injection volume = 225. MB/month T = 3.874/225 = 17.2 months after start of full scale injection. (Use 18 mo. @ 7,000 E/D)

WATERFLOOD RECOVERY - From Flood Start

Caprock Queen residual oil after flooding was 58.6% Vphc Assume floodable portion of Double "L" is same. Sor = .586 . (1-SW) = .38 Hf = Vpc (Sos - Sor) /Bo Vpc = pore volume contacted by flood. Vpc = 80% of total pore volume from prelimary examination of injection pattern. Nf = 16,417 (.80) (.532 - .380) /1.07 Nf = 1.865 MB

SECONDARY RECOVERY

Ns = Nf - Np (remaining) Ns = 1,865 - (1,470 - 1,277) = 1,672 MB

ULTIMATE RECOVERY: RECOVERY FACTOR

Nu = 1,672 + 1,470 = 3,142 MB (1430 B/ac or 311.8 B/acft) Recovery Factor = 1.672/1.470 = 1.14 Secondary/Primary

PEAK RATE

With an "effective" injection of 125 MB/month the peak producing rate is expected to be about 25% of injection rate or 30 MB/Mo. This is 75% of the 40 MB/Mo. primary producing rate experienced and is considered reasonable. (Average for 28 wells = 35.7 B/well/day)

WATER REQUIREMENT

Total water injected is expected to be 0.8 pore volume or 13 million barrels. Raw water necessary for fill-up is expected to be 3.874 MMB and oil replacement at twice the produced volume will be 3.4 MMB for a total of 7.3 MMB.

ECONOMICS

The economic analysis which follows has been determined using figures which are thought reasonable for the depth and area.

OPERATING COSTS

Average Operating Costs are expected to be \$2,500/well/year, including district level overhead. Raw water required for fill-up and make-up is estimated to cost 2.75¢/ barrel. Handling of produced and make-up water is estimated to cost 0.5¢/barrel (Includes plant operating expense) Workover Cost at \$500/well/year - first 3 years.

INVESTMENTS - FLOOD INSTALLATION

Well conversion expense @ \$2,000/well, 25 wells= \$50,000Water Plant - designed to handle 7,500 B/D= 37,500Injection Lines & System, \$2,500/well, 25 wells= 62,500Water Return System. 5 miles @ \$10,000/mile= 50,000Relocate Batteries & Consolidate \$3,000/prod. well= 75,000

\$275,000

ECONOMIC LIMIT OF OPERATIONS

SECONDARY

During the final stages of operation the operated wells will decline, however, equally compensating increase in lifting cost is assumed. The economic limit of operation is considered to be 3 Bb1./Well/Day for 50 wells.

PRIMARY

Economic limit is considered to be 3 Bbl./Well/Day with 50 wells operating.

ECONOMIC ANALYSIS - WATERFLOOD, Unit Effective 1-1-74 Oil Price = \$4.05/Bb1. Gas Price 10.5¢/MCF Production Tax - Oil = 28¢/Barrel ; Gas = .060 \$/\$ Gross INCOME: Gross Oil 1,865.0 MB @ \$4.05 \$7,553,250 3,431.0 MMCF @ 10.5¢ Gross Gas 360,255 7,913,505 Total Net Income After .125 Royalty 6,924,316 543,815 Less Production Tax (Oil & Gas) -Total WI Income \$ 6,380,501 EXPENSE: \$275,000 Investment 78,000 Workover Well Operation 1,060,000 201,000 Water Cost 65,000 \$1,679.000 Water Handling Profit BFIT \$4,701,501 ECONOMIC ANALYSIS - Remaining Primary (From 1-1-74) INCOME: \$ 781,650 Gross Oil 193.0 MB @ \$4.05 Gross Gas 2,402.0 MMCF @ 10.5¢ 252,210 1,033,860 Total 904,627 Net Income After .125 Royalty 69,172 Less Production Tax (0il & Gas) \$ 835,455 Total W.I. Income EXPENSE 177,000 Well Operation \$ \$ 658,455 Profit BFIT

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	INSTANG \$M	120.0										120.0				
	TANG \$M	155.O										155.0				
	TOTAL	231.3	312	312 317.8	300 148.0	2.28 139.0	276 132.2	240 114.5	216	7-0 96.5	78 38.5	1,404.0			<u>3</u> u	وووا و
	WORKOVERS	32.0	26.0	20.0											Intal	25 120 120
ENSE \$M	PRODUCED WATER	0.5	2.5	5.5	6.5	8.0	0.6	0.6	0.0	0.9	6.0	65.0		ESTMENT \$M	Tang	50.0 37.5 37.5 30.0 155.0
PERATING EXP	RAW WATER	68.8	66.0	22.3	16.5	11.0	8.2	5.5	2.7	o	0	201.0	•	NNI		rsions t Lines ater Return location
0	WELL	572 130.0	3 77- 130.0	130.0	125.0	120.0	115.0	100.0	90.0	87.5	32.5	1,060.0				Well Conve Water Plan Injection Produced W Battery Re
WELLS	OPERATED	52	52	52	50	40	46	40	36	35	13					
GAS	MMCF	1,019	967	360	312	240	180	126	102	75	50	3, 431			-	
011	MB	101.9	288.5	360.0	312.0	240.0	180.0	138.0	104.4	79.2	61.0	1,865.0				
	YEAR	1974	1975	1976	1977	1978	1979	1980	1961	1982	1983	·				

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DOUBLE "L" QUEEN FIELD UNITIZED - SECONDARY RECOVERY

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QUEEN	PRIMARY
2	6
DOUBLE	CONTINU

•						•				*		
		OPERATING EXPENSE (\$M)	125.0	52.0	177.0	r						
		WELLS OPERATED	50	50								
	UBLE "L" QUEEN NTINUED PRIMARY	GAS MMCF	1494.0	908.0	2402.0						,	
	ά S	OIL MB	120.0	73.0	193.0							
		YEAR	1974	1975								

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GEOLOGY

The Queen Sand which is Permian in Geologic Age is encountered in this field at a depth of approximately 1950 feet. The field is a large stratigraphic trap caused by loss of porosity and permeability updip to the west, forming a concave-eastward pinchout line. This field is a terrace with southeast dip of 40' to 60' per mile. A gasoil contact is at +1937, and GOR's have increased along this contact due to the large gas cap. This gas contains 60-65% nitrogen.

The oil-water contact is erratic and tilts down to the north. In the southern part of the field, water is at +1915, but in the northeastern portion of the field it is at +1895. No effective water drive has been determined for the field, as the drive mechanism is due to expansion of the gas cap and solution gas. Updip and downdip margins of the field are delineated by loss of porosity.

The pay is gray-brown, fine-grained to very fine-grained, fairly well sorted, subrounded quartz sand. Average core data is as follows:

Net pay (over 5 md) 6.2'		Oil Saturation	17.3%
Porosity 21.0%	•	SW Saturation	42.7%
Permeability 121 md		Formation Vol.	Factor 1.2

Thickest pay is found in the SW 1/4 Sec. 31, 14S-30E, NW 1/4 Sec. 6, 15S-30E, the east-central portion of Sec. 12, 15S-29E, and NW 1/4 Sec. 18, 15S - 30E.

From Gamma Ray Neutron logs accurate net pay thickness is hard to determine as the Queen interval is characterized by two different sands. One is a non-productive "red" sand which is not permeable. The productive sand is "gray" and it is hard to differentiate between the two without cores or an accurate sample analysis. All available information

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was used to determine net sand to the best ability of those concerned.

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WATER AVAILABILITY

It appears that the only readily available water supply is that furnished by Double Eagle Corporation of New Mexico. This company has laid a line into the Sulimar field and is furnishing water for that flood. It is understood that Sulimar is paying 2.75¢ for the water delivered to one central point and this is the figure used for the economic analysis. The general manager of Double Eagle was recently contacted and indicated that extra capacity should be available for the Double L Flood. The Double L flood should require more water over the life of the flood than Sulimar and it might be possible to negotiate a better price.

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FLOOD PATTERN

A map is included which indicates possible injection wells. It will be necessary to surround the field with wells in order to establish a proper drive especially in view of the fact the gas cap to the West will have to be blocked. The wells shown are tenative as final determination will be made at a later date.

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		PAR DOUBLE L CHAVES COUN	AMETERS QUEEN FIELD TY _ NEW MEXICO				
	CUMULATIVE PRODUCTION 12/1/72	PERCENT CUM. PRODUCTION	6/1-12/1/72 PERIOD PRODUCTION	PERCENT PERIOD PRODUCTION	REMAINING PRIMARY	PERCENT REMAINING PRIMARY	ULTIMATE
Amoco Production Co.							
Falgout A	1,673	.149	323	288	1,000	.288	2.673
Lusk A	61,133	5.439	3,083	2,740	4,016	1,158	65,149
State EK	$\frac{73,368}{136,174}$	6.528 12.116	$\frac{11,391}{14,797}$	<u>10,125</u> 13,153	$\frac{33,180}{38,196}$	9.566 11.012	174,370
Dalport				•	•		
Amco Federal	171,057	15.220	12,503	11,114	50,000	14.416	221,057
Rob	48,785	4.341	5,145	4,573	13,400	3.863	62,185
Spurck State	170,602	15.179	10,598	9,420	31,250	9.010	201.852
Sunset State	<u>66,899</u> 457,343	<u>5.952</u> 40.692	<u>5,279</u> 33,525	4,692 29,799	$\frac{35,940}{130,590}$	<u>10.362</u> 37.651	<u>102,839</u> 587 933
Exxon						+	
De Smet Fed.	45,532	4.052	3.453	3.069	8.500	2.451	54 033
Hesse Federal	32,865	2.924	2,759	2,452	5,700	1.643	38,565
Florence Lusk	<u>168,247</u>	14.970 21 0/6	14,056 20,268	<u>12,494</u> 18 015	52,000	14.992	220,247
Tark MrClallan		0	×0.9 ×0.0	CTO 607	007,000	000.CT	J14,044
Pack Incortinging Party and Party an	56 901	5 063	5 751	5 11 2			
tryse Toto State	102,000	200°C	10110	2115 2117	14, 800	0.03L	106.67
Lisa B. Federal	65.087	5,791	16.310	14.497	39,600	11 417	104,400
Sun State	17.781	1.582	2,150	1.911	3,100	708	100 401
Sue Federal	28,089	2.499	1,722	1.531	2,500	102	20 580
Barbara Federal	7,304	. 650	1,068	676	3,700	1.067	11,004
Marion		1	1	ľ		1	
Mary Jane Fed.	$\frac{46,375}{257,197}$	4.126 22.884	$\frac{7,130}{38,751}$	6, 338 34, 445	14,740 101,440	4.250 29.247	<u>61,115</u> 358,637
.olfson					•	• • •	
Amerada Fed.	4,109	.365	1,005	893	1,300	.375	5,409
Roark & Hooker							
Sun State	9,886	.880	3,569	3,172	8,120	2.341	18,006
Corrine Grace	12 660	2 T T T	000		•		
State	600°7T	111.1	0000	570	1,000	.288	13,559
TOTALS	1,123,912	100.000	112,503	100,000	346,846	100.000	1,470,758

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	Ê,			NO LIETTO		Ĉ
	PERCENT	NO. WELLS	PERCENT WELLS	PRORATION	ACRE	PERCENT ACRE
Amoco Production Co.	ULTIMATE PRIMARY	USEABLE	USEABLE	SCHEDULE	ř tří	raar /
Falgout A	,182	F -1	1 818	-	C 77 F	
Lusk A	4.430	1 ന	0TO T	4 0	740.7 737 5	064°T
State EK	7.244) V1	9.092	4 เก	404 C 404 C	4.312
	11.856		16.364	3	1.021.7	10 138
Dalport						007107
Amco Fede ral	15,030	ŝ	9.092	ŝ	1.556.1	15 440
Rob	4.228	e G	5.454	ŝ	626.1	£ 213
Spurck State	13,724	11	20,000	6	1.921.6	10 0690
Sunset State	6.992 30.97/	7	3.636	2	542.2	5.380
Humble			38.182		4,646.0	46.104
De Smet Fed.	3.674	7	3 636		r 267	
Hesse Federal	2.622	2	3.636	4	761 6	4.234
Florence Lusk	14.975	4	7.274	+ 4	1.450.6	060.2
	21.271		14.546		2.138.9	1 205
Jack McClellan						4 4 9 4 4 9
Elyse	5,433	5	3.636	2	269.4	7 673
Lois State	3.431	-1	1.818		230.1	2007
Lisa B. Federal	7.118	4	7.274	4	576.4	2,203
Sun State	1.420	-1	1.818	-	195.7	1 0/0
Sue Federal	2.080	2	3.636	10	295.9	7.742 7 036
Barbara Federal	.748		1.818	-	96.1	710
Marion	1	H	1.818	40		404 ·
Mary Jane Fed.	4.155	7	3.636	2	2.000	(7).
Section 13			8 6 1	ł	0.4	976.7 970
Lolfeon	24.385		25.454		1,970.5	19.553
		•				
Amerada red. Sartion 31	.358	-4	1.818	٦	36.5	.362
Section 6					10.5	.104
					6.5 5.6	.065
Roark & Hooker						166.
Sun State	1.224	H	1.818	н	83.9	.833
Corrine Grace						
State	.922	-1	1.818	Ħ	162.8	1.616
TOTALS:	100.000	55	100.000	49	10,077.3	100.000

PARAMETERS DOUBLE L QUEEN FIELD PARAMETERS DOUBLE L QUEEN FIELD (CONTINUED)

,

	6 MONTHS PERIO	D PERCENT
	TOTAL INCOME	PERIOD TICCHE
Amoco Production Co.		
Falgout A	\$3,268.36	\$ 0.786
Lusk A	10,517.86	2.529
State EK	47,293.47	11.371
	61,079.69	14.686
Dalport		
Amco Federal	44,435.34	10.684
Rob	18,705.45	4.498
Spurck State	40,548.01	9.749
Sunset State	20,475.05	4,923 29,854
Humble		• • • •
De Smet Fed.	11,676.29	2.808
Hesse Federal	9,744.13	2.343
Florence Lusk	40,963,44 71,383,86	12.013
tack McClallan	00'COC'T/	+0T • /T
UDON RECEPTAIL	10 /16 87	660
	10°074°27	4.007
	C0*67C*0T	4/6°C
Lisa B. Federal	12.896.57	13.921
Sun State	7,338.03	1.764
Sue Federal	6,213.24	1.494
Barbara Federal	5,741.76	1.381
Marion	ł	
Mary Jane Fed.	24,216.32	5.823 33.026
Wolfson		
Amerada Fed.	5,532.60	1.330
Roark & Hooker		
Sun State	12,239.60	2.943
Corrine Grace		
State	4,148.16	0.997
	TOTALS: 415,900.18	100.000

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DOUBLE L QUEEN FIELD T 14 S , R 29 E CHAVES CO., NEW MEXICO SCALE: 1" +1000











OIL PRODUCTION - BARRELS PER MONTH



OIL PRODUCTION ----- BARRELS PER MONTH

EXHIBIT IV

ECONOMIC LIMIT DETERMINATION DOUBLE "L" FIELD WELL CHAVES COUNTY, NEW MEXICO AS OF APRIL 4, 1973

Data:

- 1. Economic Limit, Primary: 3 barrels of oil per day per well*
- 2. Price of oil after taxes: \$3.95 per barrel*
- 3. Working Interest Ownership: 0.81 (Estimated)
- 4. Calculations:

3 BO/Day/Well x 30.4 Days/Mo = 91.2 B/W/Mo.

91.2 B/W/Mo. x .81 = 73.9 B/W/Mo. to W.I.

5. Income to W.I. at \$3.95/Barrel

73.9 B/W/Mo. x 3.95/B = 291.91/W/Mo.

* Source - Second Edition Engineering Committee Report Double "L" Queen Field Unit

BEFORE	EXAMINER STAMETS
OIL CONS	ERVATION COMMISSION
	EXHIBIT NO. TT
CASE NO.	5596
Submitted b	Mcclellanetal
Hearing Do	ite 12-3-75

EXHIBIT V

ECONOMIC LIMIT DETERMINATION DOUBLE "L" FIELD WELL CHAVES COUNTY, NEW MEXICO AS OF NOVEMBER 1, 1975

Data:

Average Operating Expense, per well/mo.
 Note: Based on average well in 13 well Double "L" operation during past four months. Includes labor and Administrative Overhead.

\$291.91

- 2. Price of Oil after taxes: \$11.74 Note: Includes Gas at 0.10/Bbl.
- 3. Working Interest Ownership: 0.81 (Estimated)

4. Calculation:

<u>\$291.91/Well</u> = \$360.38 100% Income From Well .81

<u>\$360.38</u> = 30.70/Bbls/Month/Well <u>\$11.74/Bbl</u>.

or 1.02 Bbls/Day/Well

1	BEFORE EXAMINER STAMETS
	OIL CONSERVATION COMMISSION
	EXHIBIT NO.
	CASE NO. 5596
1	Submitted by MCClellAN_ctal
	Hearing Date 12-3-75

EXHIBIT VI

STATUS OF PRIMARY PRODUCTION PROPOSED DOUBLE "L" UNIT CHAVES COUNTY, NEW MEXICO

Barrels

1.	Cumulative Oil Production to 1-1-75:	1,404,080
	Oil Production 1-1-75 to 11-1-75	63,686
	Sub Total	1,467,766
	Estimated November, 1975 production	6,000
	Sub Total	1,473,766
	Estimated December, 1975 production	5,500
	Estimated Production as of 1-1-76	1,479,266
_		
<u></u>	motol Production necessary to reach Phogo II	

2. Total Production necessary to reach Phase II Ownership

1,470,758

DEFORE	AMINER STAMETS
OIL COMPANY	ABIT NO.
CAGE NO. <u>S</u>	596 Clellan etal
Heorieg Dets_	12-3-75

EXHIBIT VII

FUTURE PRIMARY RESERVE ALLOCATION SUMMARY McCLELLAN OIL CORPORATION GROUP PROPOSED DOUBLE "L" FIELD UNIT CHAVES COUNTY, NEW MEXICO

- 1. Present McClellan Operation*: See Exhibit III*
- 2. Under Immediate Unitization as of January 1, 1976 as proposed by Burk Royalty:

Future Unit Primary Reserves McClellan Reserve Allocation Phase II of 0.222105 54,480+Bbls.

40,379 Bbls.

181,800 Bbls.

14,101 Bbls.

+\$ 33,551

+\$100,655

4. Cost to McClellan Group:

\$11.75/Bb1. x 0.81 x 14,101 Bb1s. = \$134,206

5. Increases to other operators: Estimated

Exxon Dalport and Burk

6. Note:

3. Difference:

(a) Other operators hurt include:

Amoco
 Roark & Hooker
 Cleary
 Other operators helped include:

 Corine Grace

* Without Unitization

	and a second and a second s
i	BEFORE EXAMINER STAMETS
	OIL COMSERVATION COMMISSION
;	EXHIBIT NO. TH
	CASE NO. 5596
	Subnimed by MCClellan etas
,	Hearing Date 12-3-75
	The set of statistic attention and an applicable and the database of set terms.

EXHIBIT VIII

IMMEDIATE NET INCOME LOSS TO McCLELLAN PROPOSED DOUBLE "L" UNIT W/O CHANGE CHAVES COUNTY, NEW MEXICO

Without Unit

	1. P	resent Monthly Income: 1750 Bbls. x .81 x \$11.74 =	\$16,641
	2. P	resent Monthly Expense: \$292/well x 13 wells =	3.796
	3. P	resent Profit to MOC	<u>\$12,845</u>
With	<u>Unit,</u>	as proposed:	
	1. E	stimated Monthly Income: 5100 Bbls. x .81 x .222105 x \$11.74 =	\$10.772
	2. E	stimated Monthly Expenses 50 wells x \$292/well (Est.) x .222105 =	3,243
	3. E	stimated Profit to MOC	\$ 7,529
Diffe	erence	· · · · ·	-\$ 5,316/Mo.
Note:	Wit	h changes in Unit Agreement as proposed by MOC:	· · · ·
	(a) (b)	Income from Unit: 5100 Bbls. x .81 x .311365 x \$11.74 = Expense: 50 wells x \$292/well x .311365 =	\$15,101 4,546
	(c)	Profit to MUC =	ŞIU,555

Difference from Present:

-

-\$ 2,290

هد. :	BEFORE EXAMINER STAMETS OIL CONSERVATION COMMISSION
ł	EXHIBIT NO. TIL
	Submitted by MCCle/AN etal
	Hearing Date <u>12-3-75</u>

EXHIBIT IX

RECOMMENDATIONS PROPOSED DOUBLE "L" FIELD UNIT . CHAVES COUNTY, NEW MEXICO

- 1. Deny Forced Unitization on January 1, 1976 as proposed by Burk Royalty.
- Require amendment to Unit Agreement, Page 10 to reflect true primary reserves in "A" and Ultimate Primary Recovery in "C". These reserves to be determined by Emergency Meeting Technical Sub Committee.
- 3. Amendment to be ratified by Working Interest (Minimum of 75%) prior to January 1, 1976.
- 4. Unit to become effective January 1, 1976.

BEFORE EXAMINER STAMETS OIL CONSELVATION COMMISSION EXMICIT NO. TT
COSTNO. 5596
Submitted by MOOTE/IAN etal
Hearing Date 12-3.75

EXHIBIT V

ECONOMIC LIMIT DETERMINATION DOUBLE "L" FIELD WELL CHAVES COUNTY, NEW MEXICO AS OF NOVEMBER 1, 1975

Data:

1. Average Operating Expense, per well/mo. Note: Based on average well in 13 well Double "L" operation during past four months. Includes labor and Administrative Overhead.

\$291.91

- 2. Price of Oil after taxes: \$10.36 Note: Includes Gas at 0.10/Bbl.
- 3. Working Interest Ownership: 0.81 (Estimated)

4. Calculation:

<u>\$291.91/Well</u> = \$360.38 100% Income From Well .81

\$360.38 \$10.36 / Bbl. = 34.78 / Bbls / Month / Well

or 1.14 Bbls/Day/Well

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. A
5596
CASE NO. 307
Submitted by MCClellANetal
Job Data 1-7-76
Hearing Date

EXHIBIT NO. 1

SUMMARY OF PAST AND ESTIMATED FUTURE OIL PRODUCTION DOUBLE "L" FIELD CHAVES COUNTY, NEW MEXICO

Primary Production

Operator Lease	Cum. Oil Production to 1-1-75	011 Prod. 1-1-75 to 11-1-75	Future Primary As of 11-1-75 Bbls.	Total Primary Recovery Bbls.
Amoco Falgout A Lusk "A" State EK Sub-Total	2,070 68,599 <u>100,823</u> 171,492	36 1,895 6,955 8,886	0 2,604 18,120 20,724	2,106 0.7.83 73,098 4.752 125,898 19744 201,102
Cleary Oil Company Amerada "C"	6,454	541	234	7,229 (). 1425
Dalport Amco Rob Sp. State Sunset St. Sub-Total	206,031 62,705 200,786 90,041 559,563	10,276 3,876 6,253 4,054 24,459	32,520 10,500 9,600 <u>9,312</u> 61,932	248,827 /5.22/1 77,081 / 7/2 216,639 /32:12 103,407 (
Exxon De Smet Heese Lusk Sub-Total	53,366 37,113 204,552 295,031	1,715 612 7,568 9,895	7,692 190 20,160 28,042	$\begin{array}{r} 62,773 & 3.847\\ 37,915 & 3.945\\ \underline{232,280}\\ 332,968 \end{array}$
Grace State	12,559	0	0	12,559 v. 46 4
McClellan Barbara Elyse Lisa B Lois Marian M. Jane Sue S. State Sub-Total	11,240 71,006 94,633 47,393 734 62,715 32,540 21,768 342,029	1,080 3,588 5,370 2,558 0 3,981 1,013 <u>903</u> 18,493	4,116 13,068 17,340 8,004 0 9,576 924 1,248 54,276	$16,436 1.0^{-1}$ $87,662 5.3645$ $117,343 7,1805$ $117,955 3,5466$ $734 - 57,955 3,5466$ $734 - 57,955 3,5466$ $734 - 57,955 3,5466$ $734 - 57,955$ $34,477 2.1097$ $23,919 1.4637$ $414,798$
Roark & Hooker	16,952	1,220	1,320	19,492/1 ⁹²⁸
Total	1,404,080	63,494	BEPOR228KAMIN OIL CONSERVATION	A COMMERCIA
			CASEND. 5596 Selective Date 1-	<u>ellanetal</u> 1-76

Phase II Tract Participations of each Tract as shown in Exhibit "C" were determined in accordance with the following formulas:

Tract Participation during Phase I: 50% A + 50% B Phase II: 55% C + 45% D

Where A = Ratio of the volume of oil determined to be producible after ll-l-75 from each Tract to the summation of the volume of producible oil after ll-l-75 from all Tracts being 166,528 barrels.

- B = Ratio of the gross income from each Tract to the summation of the gross income from all Tracts for the period 5/1/75 to 11/1/75 being \$495,691.
- C = Ratio of the volume of oil determined to be ultimately producible from each Tract to the summation of the volume determined to be ultimately producible from all Tracts being 1,634,102 barrels.
- D = Ratio of the Acre-Feet of originally productive oil reservoir from each Tract to the summation of Acre-Feet from all Tracts being 10,077.3 acre feet.

Phase I shall begin on the Effective Date of this Agreement and continuing until the first day of the calendar month next following the date on which the total number of barrels of oil produced from the Unitized Formation underlying all Tracts described in the original Exhibit "B" hereof equals 1,634,102 barrels as determined from the official production reports (currently know as C-115 reports) filed with the New Mexico Conservation Commission. Phase II shall begin with the termination of Phase I and continue for the remainder of the term of this Agreement.

In the event less than all Tracts are qualified on the Effective Date hereof, the Tract Participations shall be calculated on the basis of all such qualified Tracts rather than all Tracts in the Unit Area. The total number of barrels of oil to be produced before Phase II begins shall remain at 1,634,102 barrels; however, oil produced from all Tracts within the Unit Area, qualified as well as non-qualified Tracts, shall count toward the required total of 1,634,102 barrels.

SECTION 14. TRACTS QUALIFIED FOR PARTICIPATION. On and after the Effective Date hereof the Tracts within the Unit Area which shall be

 	STRO STRONGLE STRAFTS
-	
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	MCClellANeta)
	1-7-76

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EXHIBIT "C" To Unit Agreement

DOUBLE L QUEEN UNIT Chaves County, New Mexico January 1, 1975

	TRACT PA	RTICIPATION %
TRACT NO.	PHASE I	PHASE II
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	$\begin{array}{c} 9.2788\\ 0.0000\\ 6.5708\\ 0.0000\\ 17.6758\\ 0.0000\\ 0.9823\\ 0.4485\\ 3.7435\\ 0.0000\\ 0.7637\\ 0.1763\\ 5.7429\\ 3.0963\\ 5.7674\\ 7.6392\\ 4.2917\\ 11.3272\\ 6.2703\\ 1.2436\\ 1.0652\\ 0.0000\\ 2.2161\\ 11.7004\end{array}$	$\begin{array}{c} 6.5230\\ 0.0221\\ 4.1534\\ 0.0468\\ 15.3238\\ 0.0292\\ 2.4816\\ 2.4444\\ 4.0180\\ 0.0359\\ 0.4062\\ 0.7234\\ 3.9045\\ 0.9825\\ 5.9014\\ 15.8726\\ 2.9780\\ 6.2066\\ 5.3903\\ 1.0310\\ 1.6790\\ 1.1499\\ 4.4007\\ 14.2957\end{array}$
	100.0000	100.0000

3,67,62273 R. COMMERCICAL CRE CAL 80. **Z** CASE MO. 5596 Submitted by MCCIOIIANETA Hearing Date 1-7-76.

(CONTINUED) EXHIBIT "E" To Unit Operating Agreement DOUBLE L QUEEN UNIT Chaves County, New Mexico January 1, 1976

OPERATOR	TRACT	% PARTICIPATION PHASE I	% PARTICIPATION PHASE II
Amoco	12 18 23	0.1763 11.3272 2.2161 13.7196	0.7234 6.2066 <u>4.4007</u> 11.3307
Corine Grace	22	0.0000	1.1499
Dalport Oil Corp.	5 15 16 19	17.6758 5.7674 7.6392 6.2703 37.3527	15.3238 5.9014 15.8726 5.3903 42.4881
Exxon Corporation	8 9 24	0.4485 3.7435 <u>11.7004</u> 15.8924	2.4444 4.0180 <u>14.2957</u> 20.7581
McClellan Oil Corporation	1 2 3 7 10 13 14 17 21	9.2788 0.0000 6.5708 0.9823 0.0000 5.7429 3.0963 4.2917 1.0652 31.0280	6.5230 0.0221 4.1534 2.4816 0.0359 3.9045 0.9825 2.9780 1.6790 22.7600
Roark & Hooker	20	1.2436	1.0310
Cleary Oil Company	4 6 11	0.0000 0.0000 <u>0.7637</u> 0.7637	0.0468 0.0292 0.4062 0.4822

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an Charl an	Hearing Date 1-7-76

EXHIBIT "E" To Unit Operating Agreement DOUBLE L QUEEN UNIT Chaves County, New Mexico January 1, 1976

	Unit	Participation %
	PHASE I	PHASE II
Abby Corporation	1.6427	1.0384
Amoco	13.7196	11.3307
Warren D. Barton	0.0166	0.0262
Albert J. Black	3.2089	2.2627
Burk Royalty Co.	18.9103	22.4904
Wallace G. Comer	0.0333	0.0525
Crown Central Petroleum Corporation	0.7209	0.7377
Dalport Oil Corporation	17.0006	18.5223
George Eng	0.0666	0.1049
Exxon	15.8924	20.7581
Corine Grace	0.0000	1.1499
Robert L. Graham	4.6347	3.2644
G. W. Green	0.0166	0.0262
L. C. Harris	4.7751	3.4874
Charles H. Juni	0.0333	0.0525
W. W. LaForce, Jr.	0.2663	0.4197
McClellan Oil Corporation	6.5609	4.7064
A. N. Norwood	0.1331	0.2099
Alan Q. Norwood	0.0666	0.1049
Robert M. Patterson	4.6368	3.2656
W. B. Perry, Jr.	0.0333	0.0525
Roark & Hooker	1.0881	0.9021
Tom Schneider	0.1332	0.2099
J. Penrod Toles	4.6369	3.2660
Wall Street Oil Corporation	0.1331	0.2099
Walters Amusements, Inc.	0.7209	0.7377
Cleary Oil Company	0.7637	0.4822
J. C. Monk	0.1555	0.1289
	100.0000	100.0000

	فالمحمد ومحمد والمحافظ فاستنب والمحادث وتعملت والتركيب والالتكريب والالتكريب والالتجار والمحمد و
	BEFORE EXAMINER STAMETS
	OIL CONSTRUCTION COMMISSION
	5 (AD15 NO. F
	CASENO. 5596
	Submitted by MCC/ellaNetal
	Hearing Date 1-7-76
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10019 Coors Road, N. W. Albuquerque, New Mexico 87114

December 2, 1975

Burk Royalty Company 800 Oil & Gas Building Wichita Falls, Texas 76301

> Re: Proposed Double "L" Waterflood Chaves County, New Mexico

Gentlemen:

The undersigned has heretofore conditionally delivered to you a ratification and joinder of a proposed Unit Agreement dated January 1, 1975 entitled Unit Agreement, Double "L" Queen Unit, County of Chaves, New Mexico. The undersigned has also ratified the Unit Operating Agreement, conditionally, bearing the same date.

The undersigned has now determined that the participating factors used in the Unit Agreement are not fair and reasonable and as a consequence he desires to revoke the previous ratification and joinder. It would be appreciated if you would abide by my request herein and consider the interest owned by me and my wife as not being committed.

Respectfully submitted,

Wex J. Bac

Albert J. Black

APPROVED:

Mary Øane Black, wife of Albert J. Black

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. G
CASE NO. 5596
Submitted by MCClellan to
Hearing Date 1-7-76

.4 " "D."A. Limbell, Zoroldent Ion II, Bear, U. Y. D. C. Dohner, Becy.-Treas.

Burk Royalty Co.

ann Oil & Gas Building Wichita Halls, Texas 76301

June 27, 1973

Operators Double "L" Queen Field

C

Gentlemen:

As you know, there was a Technical Sub-Committee meeting held on May 9th and May 18th for the purpose of determining acre feet by the grid method. A tabulation of the corrected acre feet was attached and a ballot sent out requesting approval of the corrected figures. Thereafter ensued considerable discussion with reference to the method in which the acre feet were corrected for varying acreage within the leases.

The acre feet have again been corrected by taking the New Mexico Land Map and using the acreage shown on the Land Map as the proper acreage for correcting relative to 40 acres. On the attached tabulation this * corrected acre feet figure as well as percentage is shown.

It is hoped that this time we can again secure approval of the acre feet in order that we might progress with the unitization of this field. I have enclosed a ballot and it would be greatly appreciated if you would execute same as soon as possible and return to the writer.

Very truly yours,

BURK ROYALTY Joh H. Bear

JHB:jk Encls.

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Com Darling, N. D. Eng. Bill Dunsun, B. Y. Prod.

DOUBLE L QUEEN ACRE-FEET TECHNICAL SUB COMMITTEE GRID METHOD

C

	ACRE	CORRECTION	CORRECTED	
	FEET	ACRES	ACRE FEET	PERCENTAGE
Amoco				.
Falgout A	146.2	· 0 ·	146.2	1.4 50 ~
Lusk A	432.4	6 -100	434.5	4.312 -
#1	264.9	4025	266.6	
#3	53.8	4028	54.2	
Remaining	113.7	0	113.7	
State EK	441.0	0	441.0	4.376
	•			10.138
Dalport				
Amco Federal	1,590.6		1,556.1	15.442
#1	324.4	3858	312.9	
# 2	232.1	3852	223.5	
#3	426.7 ·	3865	412.3	· · · · ·
Remaining	607.4	0	607.4	
Rob	626.1	0	626.1	6.213
Spurck State	1,921.6	0	1.921.6	19.069
Sunset State	542.2	0	542.2	5.380
		· ·		46.104
Exxon		•		
DeSmet Federal	435.4		426.7	4.234
#1 . ·	313.2	3914	306.5	
#2	122.2	3933	120.2	
Hessee Federal	265.1		261.6	2,596
#1	95.2	3944	93.9	
# 2	169.9	3948	167.7	
Florence Lusk	1.468.7		1.450.6	14.395
#1	388.8	3894	378.5	
#2	375.0	3896	365.3	
#3	360.3	4021	362.2	
Remaining	344.6	0	344.6	· · · · · · · · · · · · · · · · · · ·
				21.2 25
Jack McClellan			•	
Elyse	269.4	0	269.4	2.673
Lois State	230.1	0	230.1	2.283
Lisa B. Federal	573.8		576.4	5.7 19
#6	276.3	4007	276.8	
#7	118.0	4070	120.1	
Remaining	179.5	0	179.5	

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	ACRE	CORRECTION	CORRECTED	:
Jack McClellan (Cont'd)	FBEI	ACRES	ACRE FEET	PERCENTAGE
Sun State	195.7	0	195 7	1 0/0
Sue Federal	295.9	0	295.9	2 026
Barbara	96.1	0	96.1	2.930 05/ ·
Marion	2.5	Ō	2.5	025
Mary Jane Federal	302.9	-	299.5	2025 2072
#1	134.5	3952	132.9	4 6 7 7 4
#2	168.4	· 3956	166.6	· · ·
Section 13	4.9	0	4.9	.049
Nolfson		• .	4	19.553
Section 31	10 5	· · · · · · · · · · · · · · · · · · ·	•• • ·	:
Section 6	10.5	0	10.5	.104
Amerada	36.5	0	6.5	.065
	50.5	U	36.5	<u>.362</u> ~
Roark & Hooker				.531
. Sun State	83.9	0	83.9	.833
Creation				•
State	1() 0	^		•
State	162.8	0	162.8	1.616
	•	•	10,077.3	100.000
				:
_/		• .		
		·		

SECOND BALLOT

Mailed June 27, 1973

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DOUBLE L QUEEN FIELD TECHNICAL SUB-COMMITTEE MEETING HELD MAY 9, 1973 and MAY 18, 1973 FOR RE-DETERMINATION OF ACRE-FEET BY GRID METHOD

Approval of Results as Presented	X
Disapproval of Results as Presented	
Company MEClellan Oil Covi	Doration
By Jack J. McClella	President
Date J. J. 9 1973	:

Please return one executed copy to: Jon H. Bear

Jon H. Bear Burk Royalty Co. 800 Oil & Gas Bldg., Wichita Falls, Texas 76301

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