CAMPBELL & BLACK, P.A.

LAWYERS

JACK M. CAMPBELL
BRUCE D. BLACK
MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
J. SCOTT HALL
PETER N. IVES
RUTH S. MUSGRAVE
LOURDES A. MARTINEZ

JEFFERSON PLACE
SUITE I - IIO NORTH GUADALUPE
POST OFFICE BOX 2208

SANTA FE, NEW MEXICO 87501

TELECOPIER: (505) 988-4421
TELECOPIER: (505) 983-6043

August 24, 1984

RECEIVED

AUG 24 1984

Mr. Michael Stogner
Hearing Examiner
Oil Conservation Division
New Mexico Department of
Energy and Minerals
Post Office Box 2088
Santa Fe, New Mexico 87501

OIL CONSERVATION DIVISION

Re: Oil Conservation Division Case No. 8315: Application of Getty Oil Company for Downhole Commingling, Eddy County, New Mexico.

Dear Mr. Stogner:

Enclosed herewith is the additional data you requested from Getty at the August 22, 1984 hearing in the above-referenced case. Also enclosed for your consideration is a proposed Order granting Getty's application.

If you need additional information from Getty to proceed with this matter, please advise.

Very truly yours

William F. Carr

WFC/cv enclosures

cc: Mr. Don Steinnerd

# ADDITIONAL DATA REQUESTED FOR CASE # 8315

## 1. EFFECTIVE DATE OF UNITIZATION OF THE SKELLY UNIT: March 1, 1938

## 2. <u>LIST OF INJECTION WELLS:</u>

Fren - 7 Rivers	GRAYBU	RG JACKSON	DUAL	INJECTION
#10	#19	#75	#3	#73
#12	#21	#79	#30	#77
#16	#22	#81	#32	#83
	#24	#91	#40	#85
	#26	#93	#42	#89
	#34	#95	#44	#96
	#38	#98	#46	
	#48	#100	#52	
	#64	#102	#54	
	#66	#105	#56	
	#67	#114	#58	
	#69			

## 3. INITIAL BOTTOMHOLE PRESSURE DATA FOR EACH ZONE:

See attached copies obtained from the Roswell Geological Society - "A Symposium of Oil and Gas Fields of Southeastern New Mexico, 1956". We did not have any more specific data in our files.

Data prepared by: A.D. Fryman

Affiliation: Vilas P. Sheldon, Consultant

Data.

8-15-56

Field Name: Grayburg-Jackson(Grayburg-San Andre

location: T 17 S., R. 29,30,31 E.

County & State: Eddy County, New Mexico

DISCOVERY WEIL: Flynn, Welch & Yates-Jackson #1

COMPLETION DATE:

3\_20

PAY ZONE: San Andres colitic dolomite from 200 feet to 400 feet below top of San Andres.

Grayburg sands of erratic nature occurring through 300 feet interval of dolomite. The basal sand is the most widespread producer in the Grayburg-Jackson Field.

TYPICAL CORE ANALYSIS OF A PAY INTERVAL IN THIS FIELD:

darcys	% Porosity	Liquid Saturation (% c	ot pore space)
Vertical		Water	Oil
		70	

OTHER SHOWS ENCOUNTERED IN THIS FIELD:

Lovington Sand (San Andres)
Granular dolomite (Seven Rivers)

TRAP TYPE: Stratigraphic

NATURE OF OIL: Gravity 36 A.P.I., paraffin base, 1.20% sulphur

NATURE OF GAS:

NATURE OF PRODUCING ZONE WATER:

Resistivity: ohm-meters © °F.

Total Solids Na+K Ca Mg Fe SO4 C1 CO2 HCO3 OH HzS

INITIAL FIELD PRESSURE: 1,300 psi. estimated

TYPE OF DRIVE:

Gas-solution.

NORMAL COMPLETION PRACTICES: Wells drilled with cable tools and acidized or shot with nitroglycerine in open hole. In recent years the few wells drilled have been cased to bottom and completions made by hydraulic fracturing or acidizing through perforations.

PRODUCTION DATA:

No	. of	f wells @ yr. end Production		duction	No	. of	wells	@yr.end	Production			
Year	Type	Prod.	Shut in or Abnd.	Oil in barrels  Gas in MMCF			Type	Prod.	Shut in or	Oil in barrels Gas in MMCF		
>	Ĺ			Annual	Cumulative	1 >	1	۵	Abnd.	Annual	Cumulative	
	oil	164		1,451,579	7,942,125			330		1,750,663	21,571,615	
941	gas					1949	gas					
	oil	193		1,285,021	9,227,146		oil	354		1,689,042	23,260,657	
942	gas		·			1950	gas					
	oil	200		1,633,200	10,860,346		oil	361		1,554,532	24.815.189	
943	gas					1951	gas					
	oil	227		1,717,206	12,577,552			370		1,347,574	26,162,763	
944	gas					1952	gas					
	oil	249		1,674,793	14,252,345			376		1,175,860	27,338,623	
945	gas					1953	gas					
		279		1,760,725	16,013,070			393		1,110,934	28,449,557	
946	gas					1954	gas					
	oil	300		1,938,424	17,951,494			391		1,012,613	29,462,170	
947	gas					1955	gas					
		310		1,869,458	19,820,952		oil	381		323, 153	29,785,323	
948	gas					1956	* gas					

<sup>\* 1956</sup> Figure is production to 5-1-56.

Data prepared by: William J. Johnson Affiliation: Roswell Geological Society

Date: 11-10-56

Field Name: Fren (Seven Rivers)
Location: Tps. 17 S., Rs. 30 & 31 E.
County & State: Eddy County, New Mexico

#### DISCOVERY WELL: Fren Oil Co. #1 Freiss

#### COMPLETION DATE: 8-21-43

PAY ZONE: Dolomite in the upper most Seven Rivers formation. Middle Permian Whitehorse group. The dolomite is tan to cream, sandy, anhydritic, very fine to finely crystalline with fair vuggy and intercrystalline porosity. The pay zone consists of interbedded anhydrite and dolomite with the aggregate thickness of the dolomite being from 15 to 25 feet.

TYPICAL CORE ANALYSIS OF A PAY INTERVAL IN THIS FIELD: Not Available

Perm. in n	nillidarcys	% Porosity	Liquid Saturation (%	of pore space)
Horizontal	Vertical		Water	Oil

OTHER SHOWS ENCOUNTERED IN THIS FIELD: Yates Formation: Trace of staining in samples from some wells In wells drilled below the pay zone, staining in samples is encountered in the Queen formation, and free oil is sometimes bailed from the lower Grayburg and upper San Andres.

TRAP TYPE: Stratigraphic trap associated with a structural nose.

NATURE OF OIL: Gravity 35.5° A.P.I.

NATURE OF GAS: Not Available.

NATU	TRE OF PRODUCING	ZONE V	WATER: N	ot avai	lable	Resistivity: ohm-meters @				°F	
	Total Solids	Na≠K	Ca	Mg	Fe	SO 4	C1	CO <sub>2</sub>	HCO₃	ОН	H <sub>2</sub> S
ppn	1			1							

INITIAL FIELD PRESSURE: Flowing pressure 60-280 psi.

TYPE OF DRIVE: Gas.

NORMAL COMPLETION PRACTICES: Drill with cable tools into Seven Rivers or deeper, and complete from perforations (4 shots/foot) or open hole, after "shooting" with nitroglycerine or fracturing with acid and/or sand.

#### PRODUCTION DATA

No	. of v	wells !	① yr, end	Proc	duction	No	o. of wells @ yr. end Production		duction		
Year	уре	Prod.	Shut in or	l .	barrels n MMCF	ear	Type	rod.	Shut in or	!	n barrels n MMCF
>	1	Ь	Abnd.	Annual	Cumulative	] ≻	<u> </u>	م	Abnd.	Annual	Cumulative
	oil						oil	69	0	224,868	1,434,706
1941	gas					1949	gas	0	0	54.29	1,179.60
	oil						oil	86	0	226,272	1,660,978
1942	gas					1950	gas	0	_ 0	98.55	1,278.15
	oil	3	0	3,889	3,889		oil	99	0	215,879	1,876,857
1943	gas	0	0	-		1951	gas	0	0	138.98	1,417.13
	oil	26	0	130,258	134,147		oil	105	0	223,788	2,076,478
1944	gas	0	0	-	-	1952	gas	0	0	116.98	1,534.12
	oil	38	o	272,439	406,586		oil	116	0	223,987	2,300,465
1945	gas	0	0	-	-	1953	gas	0	0	93.14	1,627.25
	oil	53	0	276,819	683,405		oil o	121	0	205,645	2,506,110
1946	gas	0	0	-	1,025.00	1954	gas	0	0	82.67	1,709.92
	oil	63	0	279,399	963,885		oil	116	5	174,908	2,681,018
1947	gas	0	0	49,57	1,074.57	1955	gas	0	0	72.72	1,782.64
	oil	60	0	245,953	1,209,838		oil	112	9	67,491	2,748,509
1948	gas	0	0	50.74	1,125.31	1956	gas	0	0	27.93	1,810.62

<sup>\*\*</sup> The wells in the Fren Pool were originally included in the Gray-

<sup>1956</sup> Figure is production to 5-1-56. burg Jackson Pool. By order effective Jan. 1, 1945, the Fren Pool was established by the New Mexico Oil Conservation Commission.

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

Case No. 8315
Order No. RAPPLICATION OF GETTY OIL COMPANY

APPLICATION OF GETTY OIL COMPANY FOR DOWNHOLE COMMINGLING, EDDY COUNTY, NEW MEXICO.

#### ORDER OF THE DIVISION

## BY THE DIVISION:

This cause came on for hearing at 8:00 a.m. on August 22, 1984, at Santa Fe, New Mexico, before Examiner Michael Stogner.

NOW, on this \_\_\_\_ day of August, 1984, the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised in the premises,

#### FINDS:

- (1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Getty Oil Company, is the operator of the Skelly Unit consisting of the following described lands in Eddy County, New Mexico:

Township 17 South, Range 31 East, N.M.P.M.

Sections 14 and 15: All

Sections 21 through 23: All

Section 26: NL/2 NW/4

Section 27: NW/4, SW/4 NE/4, N/2 NE/4

Section 28: N/2, N/2 S/2

- (3) That the applicant seeks authority to commingle Grayburg, Jackson, Queen and San Andres production (Grayburg Jackson Pool) and Seven Rivers production (Fren Seven Rivers Pool) within the wellbores of wells currently completed and wells to be drilled on said lease.
- (4) That from each of said zones, the subject wells are or are expected to be capable of marginal production only.
- (5) That the proposed commingling may result in the recovery of additional hydrocarbons from each of the subject pools, thereby preventing waste, and will not violate correlative rights.
- (6) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that no well is shut-in for an extended period.
- (7) That to afford the Division the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Artesia district office of the Division any time any of the subject wells is shut-in for 60 consecutive days.
- (8) That in order to allocate the commingled production to each of the commingled zones in the wells, applicant should consult with the supervisor of the Artesia district office of the Division and determine an allocation formula for each of the production zones.

#### IT IS THEREFORE ORDERED:

(1) That the applicant, Getty Oil Company, is hereby

authorized to commingle Grayburg, Jackson, Queen and San Andres production (Grayburg Jackson Pool) and Seven Rivers production (Fren Seven Rivers Pool) within the wellbore of all existing wells and all wells subsequently to be drilled in the Skelly Unit consisting of the following described lands in Eddy County, New Mexico: Township 17 South, Range 31 East, N.M.P.M. Sections 14 and 15: All Sections 21 through 23: A11 Section 26: NL/2 NW/4Section 27: NW/4, SW/4 NE/4, N/2 NE/4 Section 28: N/2, N/2 S/2That the applicant shall consult with the supervisor of the Artesia district office of the Division and determine an allocation formula for the allocation of production to each zone in each of the subject wells. That the operator of the subject well shall notify the Division's Artesia district office any time any of the subject wells has been shut-in for 60 consecutive days and shall concurrently present to the Division, a plan for remedial action. That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary. DONE at Santa Fe, New Mexico, on the day and year hereinabove designated. STATE OF NEW MEXICO OIL CONSERVATION DIVISION JOE D. RAMEY Director SEAL - 3 -



## STATE OF NEW MEXICO

# ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

TONEY ANAYA GOVERNOR

October 2, 1982

POST OFFICE BOX 2008 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87501 (505) 827-5800

Re: CASE NO. 8315  Mr. William F. Carr ORDER NO. R-7680
Mr. William F. Carr ORDER NO. R-7680  Campbell, Byrd & Black Attorneys at Law Applicant: Post Office Box 2203 Santa Fe, New Mexico Getty Oil Company
Dear Sir:
Enclosed herewith are two copies of the above-referenced Division order recently entered in the subject case.
JOE D. RAMEA Director
JDR/fd
Copy of order also sent to:
Hobbs OCD x Artesia OCD x Aztec OCD Other