ENRON
Oil & Gas Company

P. O. Box 2267 Midland, Texas 79702 (915) 686-3600

RECEIVED
5 1996
CONSERVATION DIV

May 14, 1996

Case 11424

Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505-6429

Attn.: David R. Catanach

Re: Recommended Allocation Formula
for Downhole Commingling;
James Ranch Unit Nos. 16 and 17
Eddy, NM

Dear Mr. Catanach,

Enclosed please find Form C-107A and attachments for the James Ranch Unit Nos. 16 and 17 as in accordance with Rule 303 and Order No. R10558.

Should you have any questions please contact me at telephone number (915) 686-3698.

Sincerely,

ENRON OIL & GAS COMPANY

Randall S. Cate
Project Reservoir Engineer

RSC/kp
Enclosures
cc: Tim Gum - Artesia

m:\cate\kp068rc6.doc

EXHIBIT "B" - CASE NO. 11353, ORDER NO. R-10470-A

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
XX YES __ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Enron Oil & Gas Company, P. O. Box 2267, Midland, Texas 79702
Operator — Address

James Ranch Unit #17 — Well No. — UL, E, Sec 6, T23S, R31E — Unit Ltr. - Sec - Twp - Rge — Lea — County

OGRID NO. 7377 Property Code _____ API NO. 30 015 27784 Spacing Unit Lease Types: (check 1 or more) Federal X, State ___, (and/or) Fee ___

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Los Medanos Delaware (40297)	Los Medanos Bone Spring (40295)	Los Medanos South Wolfcamp (96336)
2. Top and Bottom of Pay Section (Perforations)	7547-7557	10998-11022	11171-11185
3. Type of production (Oil or Gas)	Oil	Oil	Oil
4. Method of Production (Flowing or Artificial Lift)	Pumping	Pumping	Pumping
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	a. (Current) 500 - 800	a. 2000 - 2500	a. 2000 - 2500
	b. (Original) -	b.	b.
6. Oil Gravity (°API) or Gas BTU Content	41.0	48.4	48.4
7. Producing or Shut-In?	Producing	Producing	Producing
Production Marginal? (yes or no)	N	N	Y
* 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: See ATTACH.	Date: Rates: See ATTACH.	Date: Rates: See ATTACH.
* If Producing, give date and oil/gas/ water rates of recent test (within 60 days)	Date: ( ) Rates:	Date: ( ) Rates:	Date: ( ) Rates:
8. Fixed Percentage Allocation Formula -% for each zone	Oil: 42 % Gas: 40 %	Oil: 38 % Gas: 47 %	Oil: 20 % Gas: 13 %

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? X Yes __ No
If not, have all working, overriding, and royalty interests been notified by certified mail? X Yes __ No
Have all offset operators been given written notice of the proposed downhole commingling? X Yes __ No

11. Will cross-flow occur? __ Yes X 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? X Yes __ No

13. Will the value of production be decreased by commingling? __ Yes X 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. X Yes __ No

15. NMOCD Reference Cases for Rule 303(C) Exceptions: ORDER NO(S). R-10558

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 _____ TITLE Reservoir Engineer DATE 5/14/96

TYPE OR PRINT NAME RANDALL CATE TELEPHONE NO. (915) 686 3698

EXHIBIT "B" - CASE NO. 11353, ORDER NO. R-10470-A

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
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2040 S. Pacheco
Santa Fe, New Mexico 87505-6429

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

APPROVAL PROCESS:
__ Administrative __ Hearing

EXISTING WELLBORE
XX YES __ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Enron Oil & Gas Company, P. O. Box 2267, Midland, Texas 79702
Operator — Address

James Ranch Unit — 16 (Well No.) — UL H, Sec 36-22S-30E (Unit Ltr. - Sec - Twp - Rge) — Eddy (County)

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 7377 Property Code 4060 API NO. 30 015 28623 Federal ___, State ___, (and/or) Fee X

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zones	Lower Zone
1. Pool Name and Pool Code	Undes Quahada Ridge Delaware, S.E. (50443)	Los Medanos Bone Spring (40295)	Los Medanos South Wolfcamp (96336)
2. Top and Bottom of Pay Section (Perforations)	7500-7515	10908-10928	11115-11131
3. Type of production (Oil or Gas)	Oil	Oil	Oil
4. Method of Production (Flowing or Artificial Lift)	Pumping	Pumping	Pumping
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	a. (Current) 500-800	a. 2000-2500	a. 2000-2500
	b. (Original)	b.	b.
6. Oil Gravity (°API) or Gas BTU Content	41.0	47.8	47.8
7. Producing or Shut-In?	Producing	Producing	Producing
Production Marginal? (yes or no)	N	N	Y
* 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 andoil/gas/ water rates of recent test (within 60 days)	Date: Rates: See ATTACH.	Date: Rates: See ATTACH	Date: Rates: See ATTACH.
8. Fixed Percentage Allocation Formula -% for each zone	Oil: 42 % Gas: 37 %	Oil: 39 % Gas: 49 %	Oil: 19 % Gas: 14 %

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? X Yes __ No
If not, have all working, overriding, and royalty interests been notified by certified mail? X Yes __ No
Have all offset operators been given written notice of the proposed downhole commingling? X Yes __ No

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* 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 [signature] TITLE Reservoir Engineer DATE 5/14/96

TYPE OR PRINT NAME RANDALL CATE TELEPHONE NO. (915) 686-3678

Commingling Allocation
James Ranch Project Area

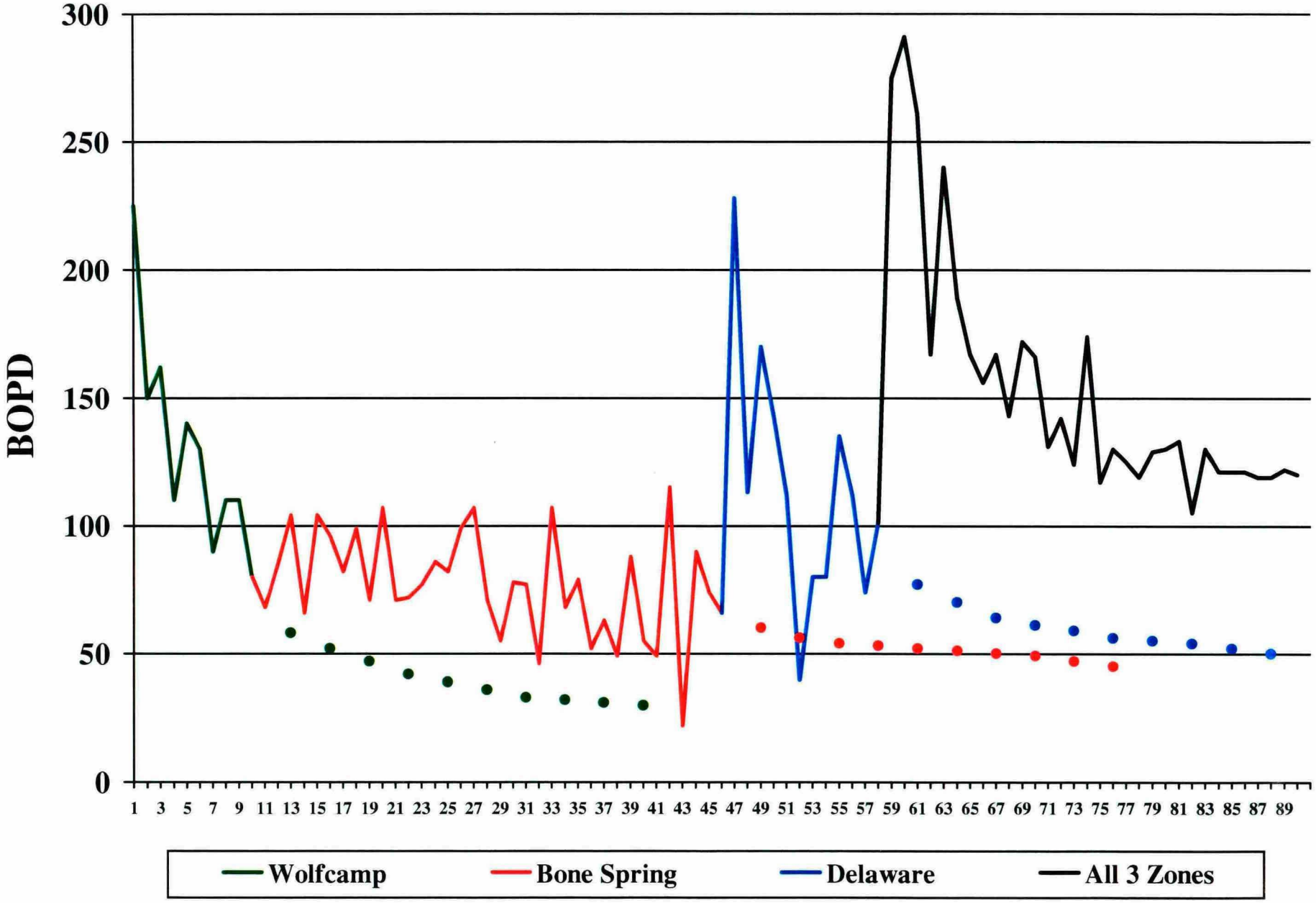
James Ranch Unit No. 16

	Wolfcamp			Bone Spring			Delaware			Total		
	BOPD	BWPD	MCFD	BOPD	BWPD	MCFD	BOPD	BWPD	MCFD	BOPD	BWPD	MCFD
Actual commingled	--	--	--	--	--	--	--	--	--	115	55	210
Anticipated from decline analysis and offset	30	0	30	50	20	100	50	80	75	130	100	205
Production log and water analysis	25	0	--	50	32	--	55	32	--	130	64	--
Allocation %	19	0	14	39	50	49	42	50	37	100	100	100
Oil gravity comparison of commingled WC/BS to Delaware	47.7 API			47.7 API			41.0 API			45.1 API Del. = 39%		

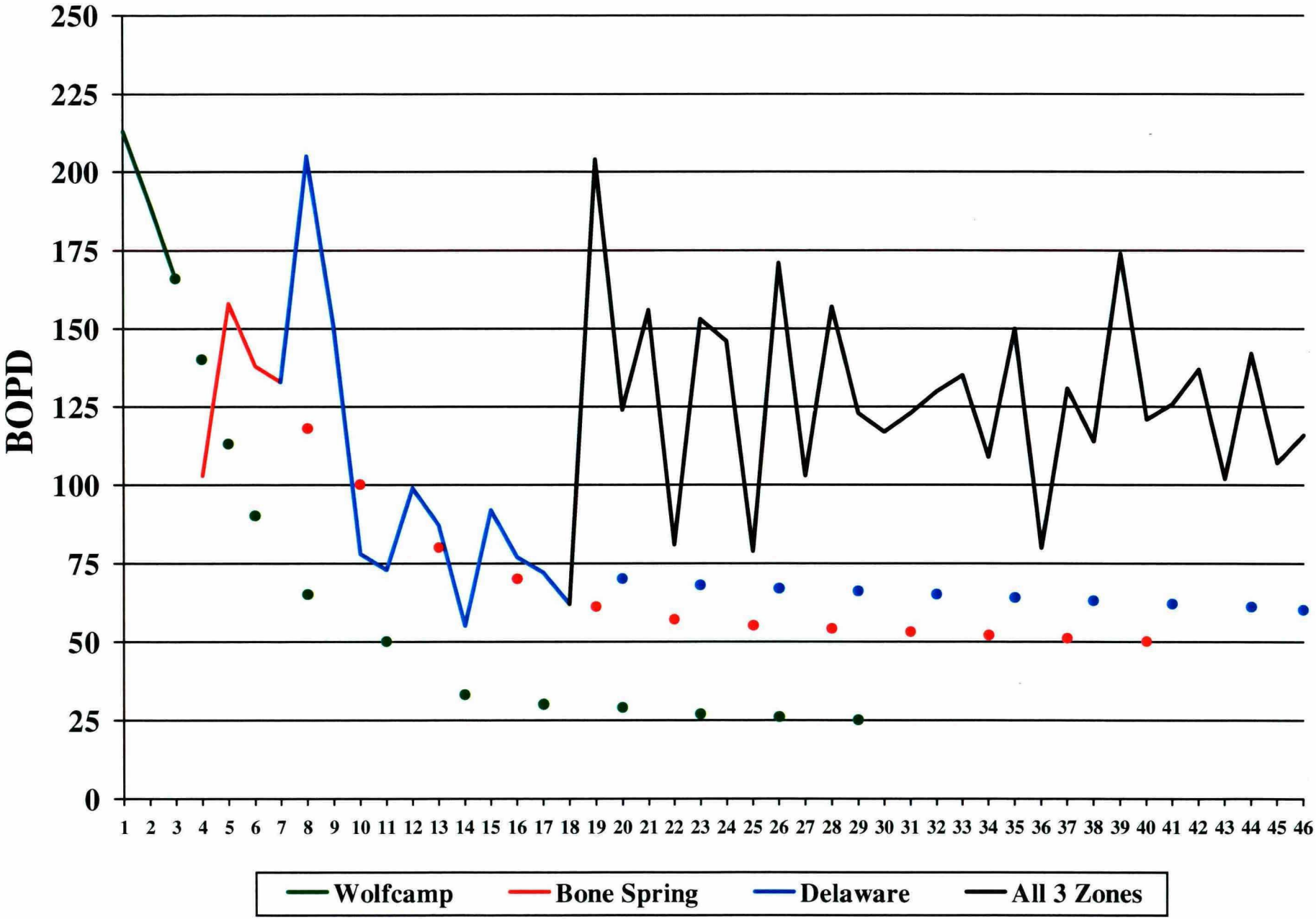
James Ranch Unit No. 17

Actual commingled	--	--	--	--	--	--	--	--	--	120	50	190
Anticipated from decline analysis and offset	25	0	25	45	0	90	50	50	75	120	50	190
Allocation %	20	0	13	38	0	47	42	100	40	100	100	100
Oil gravity comparison of commingled WC/BS to Delaware	48.4 API			48.4 API			41.0 API			45.1 API Del. = 45%		

James Ranch Unit No. 17



James Ranch Unit No. 16



EOTT ENERGY Operating Limited Partnership

P.O. Box 4666 Houston, TX 77210-4666 (713)993-5900

CRUDE OIL PURCHASE STATEMENT

Lease: 5066088
Lease Name: JAMES RANCH UT 71 & 16
County, State: EDDY, NM
Field: LOS MEDANOS WOLFCAMP

Statement Month: 03/96
Date of Report: 04/04/96

135268 ENRON OIL & GAS
ATTN: TONY WHITLEY
P O BOX 2267
MIDLAND, TX 79702

Operator: 188234
ENRON OIL & GAS
ATTN: MIDLAND TEAM
RUDY MIKULEC EB 2187
P O BOX 4362
HOUSTON, TX 77210-4362

Date	Ticket Number	P P	Grav	Tank Number	Barrels	Allocated Barrels	Price	Gross Value	Tax	Net Value
02/04	X011290499		47.7	68922	-183.42	-183.42	18.025	-3,306.32	.00	-3,306.32
02/04	X011290499		47.7	68922	183.42	183.42	17.947	3,292.02	.00	3,292.02
02/04	X011290500		47.7	68922	-188.38	-188.38	18.026	-3,395.74	.00	-3,395.74
02/04	X011290500		47.7	68922	188.38	188.38	17.948	3,381.05	.00	3,381.05
02/12	X011274508		47.8	68921	-192.68	-192.68	18.026	-3,473.25	.00	-3,473.25
02/12	X011274508		47.8	68921	192.68	192.68	17.947	3,458.22	.00	3,458.22
02/12	X011274509		47.8	68921	-182.09	-182.09	18.026	-3,282.36	.00	-3,282.36
02/12	X011274509		47.8	68921	182.09	182.09	17.947	3,268.15	.00	3,268.15
02/13	X011290532		43.1	73665	-177.37	-177.37	18.025	-3,197.27	.00	-3,197.27
02/13	X011290532		43.1	73665	177.37	177.37	17.948	3,183.44	.00	3,183.44
02/13	X011265513		43.1	73665	-175.36	-175.36	18.026	-3,161.04	.00	-3,161.04
02/13	X011265513		43.1	73665	175.36	175.36	17.947	3,147.36	.00	3,147.36
02/13	X011360529		41.0	73665	-175.59	-175.59	18.025	-3,165.18	.00	-3,165.18
02/13	X011360529		41.0	73665	175.59	175.59	17.948	3,151.49	.00	3,151.49
02/13	X011360530		41.0	73665	-179.38	-179.38	18.026	-3,233.51	.00	-3,233.51
02/13	X011360530		41.0	73665	179.38	179.38	17.948	3,219.52	.00	3,219.52
02/14	X011191606		43.2	73665	-178.84	-178.84	18.026	-3,223.77	.00	-3,223.77
02/14	X011191606		43.2	73665	178.84	178.84	17.947	3,209.82	.00	3,209.82
02/14	X011265514		43.2	73665	-175.03	-175.03	18.025	-3,155.09	.00	-3,155.09
02/14	X011265514		43.2	73665	175.03	175.03	17.948	3,141.44	.00	3,141.44
02/17	X011337540		41.2	73665	-182.45	-182.45	18.026	-3,288.85	.00	-3,288.85
02/17	X011337540		41.2	73665	182.45	182.45	17.948	3,274.62	.00	3,274.62
02/17	X011360546		41.2	73665	-178.26	-178.26	18.025	-3,213.31	.00	-3,213.31
02/17	X011360546		41.2	73665	178.26	178.26	17.947	3,199.41	.00	3,199.41
02/21	X011320532		41.0	73665	-181.41	-181.41	18.026	-3,270.10	.00	-3,270.10
02/21	X011320532		41.0	73665	181.41	181.41	17.948	3,255.95	.00	3,255.95
02/21	X011156464		47.1	68922	-180.69	-180.69	18.026	-3,257.12	.00	-3,257.12
02/21	X011156464		47.1	68922	180.69	180.69	17.948	3,243.03	.00	3,243.03
02/21	X011156465		47.1	68922	-180.80	-180.80	18.025	-3,259.10	.00	-3,259.10
02/21	X011156465		47.1	68922	180.80	180.80	17.948	3,245.00	.00	3,245.00
02/27	X011360583		39.7	73665	-173.92	-173.92	18.025	-3,135.08	.00	-3,135.08

EOTT ENERGY Operating Limited Partnership

P.O. Box 4666 Houston, TX 77210-4666 (713)993-5900

CRUDE OIL PURCHASE STATEMENT

Lease: 5066088
Lease Name: JAMES RANCH UT 71 # 16
County, State: EDDY, NM
Field: LOS MEDANOS WOLFCAMP

Statement Month: 03/96
Date of Report: 04/04/96

135268 ENRON OIL & GAS
ATTN: TONY WHITLEY
P O BOX 2267
MIDLAND, TX 79702

Operator: 188234
ENRON OIL & GAS
ATTN: MIDLAND TEAM
RUDY MIKULEC EB 2187
P O BOX 4362
HOUSTON, TX 77210-4362

ALL 3 ZONES

45.1

Date	Ticket Number	P P	Grav	Tank Number	Barrels	Allocated Barrels	Price	Gross Value	Tax	Net Value
03/27	X011320662		40.8	68921	100.41	100.41	20.339	2,042.24	.00	2,042.24
03/28	X011320673		45.3	68921	180.13	180.13	20.339	3,663.67	.00	3,663.67
03/28	X011320674		45.3	68921	184.65	184.65	20.339	3,755.60	.00	3,755.60
03/29	X011265672		46.9	68922	170.17	170.17	20.339	3,461.09	.00	3,461.09
03/31	X011337693		46.2	68922	177.36	177.36	20.339	3,607.33	.00	3,607.33
03/31	X011337694		46.0	68921	186.29	186.29	20.338	3,788.95	.00	3,788.95
03/96			CURRENT PROD MONTH		11,771.41	11,771.41		239,418.69	.00	239,418.69
03/96			**MONTH TOTAL**		**11,771.41**	**11,771.41**		**239,418.69**	**.00**	**239,418.69**
			GRAND TOTAL		**11,771.41**	**11,771.41**		**239,151.75**	**.00**	**239,151.75**

**********CUMULATIVE RUNS **********

02/96	3,422.73	3,422.73
03/96	11,771.41	11,771.41

EOTT ENERGY Operating Limited Partnership

P.O. Box 4666 Houston, TX 77210-4666 (713) 993-5900

CRUDE OIL PURCHASE STATEMENT

Lease: 5063754
Lease Name: JAMES RANCH UNIT
County, State: EDDY, NM
Field: LOS MEDANOS BONE SPRING #17

Statement Month: 01/96
Date of Report: 02/07/96

135268 ENRON OIL & GAS
ATTN: TONY WHITLEY
P O BOX 2267
MIDLAND, TX 79702

Operator: 188234
ENRON OIL & GAS
ATTN: MIDLAND TEAM
RUDY MIKULEC EB 2187
P O BOX 4362
HOUSTON, TX 77210-4362

BS/WC

Date	Ticket Number	P P	Grav	Tank Number	Barrels	Allocated Barrels	Price	Gross Value	Tax	Net Value
01/01	X011298356		49.2	68701	183.65	183.65	18.073	3,319.11	.00	3,319.11
01/01	X011311372		49.2	68701	183.26	183.26	18.073	3,312.05	.00	3,312.05
01/08	1320388		48.6	68702	176.80	176.80	18.073	3,195.31	.00	3,195.31
01/08	1320389		48.6	68702	178.64	178.64	18.073	3,228.56	.00	3,228.56
01/13	X011290422		47.0	68701	185.25	185.25	18.073	3,348.03	.00	3,348.03
01/13	X011290423		47.0	68701	182.04	182.04	18.073	3,290.01	.00	3,290.01
01/19	X011191508		48.0	68702	184.53	184.53	18.073	3,335.01	.00	3,335.01
01/19	X011191509		48.0	68702	184.13	184.13	18.073	3,327.78	.00	3,327.78
01/25	X011271457		49.2	68701	193.76	193.76	18.073	3,501.82	.00	3,501.82
01/25	X011271458		49.2	68701	181.95	181.95	18.073	3,288.38	.00	3,288.38
01/29	X011360485		48.2	68702	178.15	178.15	18.073	3,219.70	.00	3,219.70
01/29	X011360486		48.2	68702	181.12	181.12	18.073	3,273.38	.00	3,273.38
01/96			CURRENT PROD MONTH		2,193.28	2,193.28		39,639.14	.00	39,639.14
01/96			**MONTH TOTAL**		**2,193.28**	**2,193.28**		**39,639.14**	**.00**	**39,639.14**
			GRAND TOTAL		**2,193.28**	**2,193.28**		**39,639.14**	**.00**	**39,639.14**

********** CUMULATIVE RUNS **********

01/96					2,193.28	2,193.28				

P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

TO: Mr. Randy Cate
P O Box 2267, Midland, TX 79702

LABORATORY NO. 49619
SAMPLE RECEIVED 4-2-96
RESULTS REPORTED 4-4-96

COMPANY Enron Oil & Gas Company LEASE James Ranch
FIELD OR POOL Los Medanos
SECTION ____ BLOCK ____ SURVEY ____ COUNTY Eddy STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Produced Fluid - taken from James Ranch #16.
NO. 2 Produced Fluid - taken from James Ranch #71. WRONG. Taken From Sep AFTER #16
NO. 3 Prod Fluid JRU 71 ; 12-30-94 ;
NO. 4 Prod Fluid JRU 17 ; 4-12-96 ; Essentially 100% Delaware
REMARKS: 1. Delaware, Wolfcamp, & Bone Springs 3. Bone Springs & Wolfcamp Sand

CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4	
Specific Gravity at 60° F.	1.1499	1.1461	1.1116	1.1810	50%
pH When Sampled					
pH When Received	5.65	5.61	7.20	5.14	
Bicarbonate as HCO_3	29	68	183	29	
Supersaturation as $CaCO_3$					
Undersaturation as $CaCO_3$					
Total Hardness as $CaCO_3$	49,500	48,000	25,500	71,000	48 %
Calcium as Ca	16,600	15,600	8,800	23,600	50 %
Magnesium as Mg	1,944	2,187	850	2916	50 %
Sodium and/or Potassium	67,667	64,693	52,059	82,716	50 %
Sulfate as SO_4	297	311	320	433	
Chloride as Cl	139,197	133,516	98,006	177,548	50 %
Iron as Fe	49.7	60.4	54.2	81.9	15 %
Barium as Ba	0	0			
Turbidity, Electric					
Color as Pt					
Total Solids, Calculated	225,734	216,375	160,219	287,241	50 %
Temperature °F.					
Carbon Dioxide, Calculated					
Dissolved Oxygen,					
Hydrogen Sulfide	0.0	0.0	0.0	0.0	
Resistivity, ohms/m at 77° F.	0.053	0.054	0.066	0.047	
Suspended Oil					
Filtrable Solids as mg/l					
Volume Filtered, ml					
Oil Gravity, °API	43.5	46.1			

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The above results reveal characteristics that show these two waters to be essentially identical. In hypothetically combining waters, we find they both appear to be approximately 50 percent Delaware and 50 percent Bone Springs/Wolfcamp.

Form No. 3

By
Waylan C. Martin, M.A.

FAX: C. B. Lackey, Midland

ENRON
Oil & Gas Company

P. O. Box 2267 Midland, Texas 79702 (915) 686-3600

June 26, 1997

JUL - 1 1997

NMOCD
2040 S. Pacheco
Santa Fe, NM 87505-6429

Attn.: Mr. David Catanach

Re: Enron Oil & Gas Company
James Ranch Unit No. 76
Downhole Commingling
Allocation of Production

Dear Mr. Catanach,

Pursuant to Order No. R-10558, Enron Oil & Gas requests that the Division approve the submitted allocation formula effective April 1, 1997. The following summarizes the well chronology:

10/26/96	Completed as flowing Wolfcamp producer.
12/18/96	Completed Bone Spring; required pumping.
2/23/97	Completed Delaware pay; required pumping.
4/16/97	Commingled all three pays on pump.
5/31/97	Pumping 58 BOPD, 116 MCFD, 94 BWPD.

Also attached is a recent NABLA Dynamometer and fluid level evaluation that determined a pump intake pressure of 994 psig at 10,989'. The well is essentially "pumped off".

If you have any questions or additional data requirements please call the undersigned at telephone number (915) 686-3698.

Sincerely,

ENRON OIL & GAS COMPANY

Randall S. Cate
Project Reservoir Engineer

RSC/krp

Attachments

cc: Mr. Tim Gum
NMOCD - Artesia, NM

m:\cate\kp131rsc.doc

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

August 13, 1997

Enron Oil & Gas Company
P.O. Box 2267
Midland, Texas 79702

Attention: Mr. Randall S. Cate

Re: Production Allocation
James Ranch Unit Well No. 76
Division Order No. R-10558

Dear Mr. Cate:

Pursuant to the production data submitted July 1, 1997 on the James Ranch Unit Well No. 76, the allocation of production from the well is hereby established as follows:

Pool	Oil %	Gas %
SE Quahada Ridge-Delaware Pool	45%	31%
Los Medanos-Bone Spring Pool	20%	33%
South Los Medanos-Wolfcamp Pool	35%	36%

Such production allocation is effective April 1, 1997. If you should have any questions, please contact Mr. David Catanach at (505) 827-8184.

Sincerely,

William J. LeMay
Director

WJL/DRC

xc: OCD-Artesia
Case File-11424

DISTRICT I
P. O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
811 South First St., Artesia, NM 88210-2835

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410-1693

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-6429

APPLICATION FOR DOWNHOLE COMMINGLING

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

APPROVAL PROCESS:
X Administrative ___ Hearing

EXISTING WELLBORE
X YES ___ NO

Enron Oil & Gas Company	P. O. Box 2267, Midland, TX 79702		
Operator	Address		
James Ranch Unit	No. 76	E-6-23S-31E	Eddy
Lease	Well No.	Unit Ltr. - Sec - Twp - Rge	County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 07377 Property Code 004060 API NO. 30-015-28709-1 Federal X , State ___ , (and/or) Fee ___

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	S.E. Quahada Ridge Delaware (50,443)	Los Medanos Bone Spring (40,295)	South Los Medanos Wolfcamp (96,336)
2. Top and Bottom of Pay Section (Perforations)	7,494 - 7,660	9,805 - 9,815	11,122 - 11,137
3. Type of production (Oil or Gas)	Oil	Oil	Oil
4. Method of Production (Flowing or Artificial Lift)	Pump	Pump	Pump
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	(Current) a. 663 psig (Original) b.	a. 879 psig b.	a. 1,048 psig b.
6. Oil Gravity (°API) or Gas BTU Content	41.0	46.0	47.8
7. Producing or Shut-In?	Producing	Producing	Producing
Production Marginal? (yes or no)	Yes	Yes	Yes
* If Shut-In, give data 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: 4/5/97 Rates: 25 BO, 41 MCF, 68 BW	Date: 1/31/96 Rates: 11 BO, 44 MCF, 8 BW	Date: 11/17/96 Rates: 20 BO, 47 MCF, 6 BW
8. Fixed Percentage Allocation Formula - % for each zone	Oil: 45% Gas: 31%	Oil: 20% Gas: 33%	Oil: 35% Gas: 36%

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? X 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? X Yes ___ No

11. Will cross-flow occur? ___ Yes X 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? X Yes ___ No

13. Will the value of production be decreased by commingling? ___ Yes X 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. X Yes ___ No

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). R-10558 (covers this well)

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 _____ TITLE Project Reservoir Engineer DATE 6/26/97

TYPE OR PRINT NAME Randall S. Cate TELEPHONE NO. (915) 686-3698

Nabla Corporation

2064 Market Street Midland, TX 79703
(915) 697-2228 voice (915) 697 - 0192 fax

Determination of Pump Intake Pressure from Fluid Level and Modified Gilbert S - Curve

Well Name : ENRON; JAMES RANCH NO. 76 Date : 06-03-1997
Analysis Number : 5V7-6-3-3

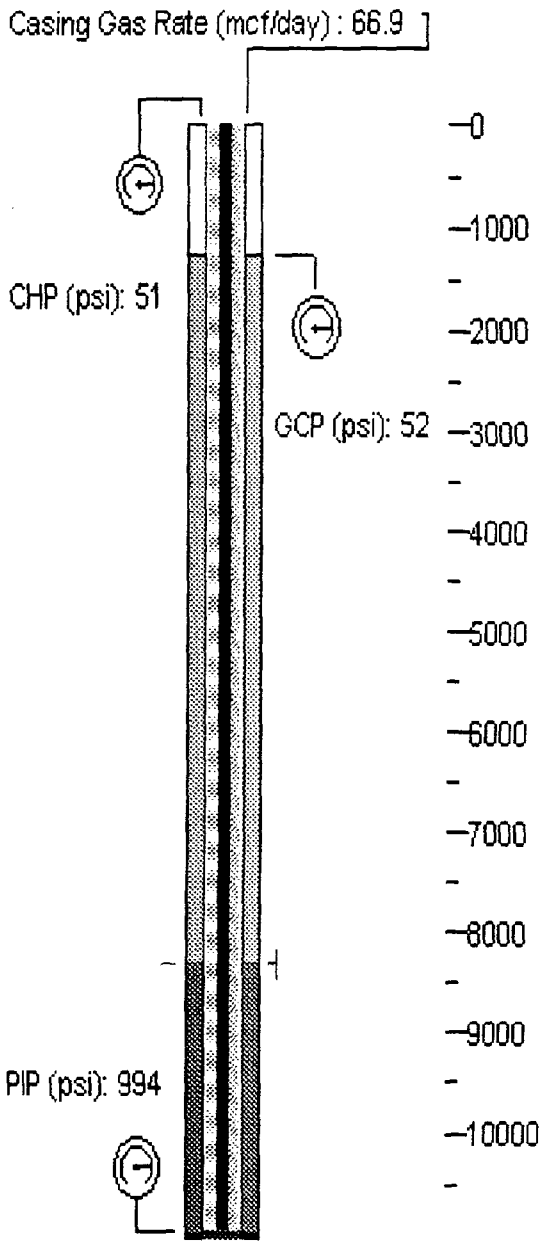
Pump Intake Pressure (psi) : 994 Fluid Level from Surface (ft) : 1255
Pump Submergence (ft) : 9734 Dead Fluid Pump Submrg. (ft) : 2672

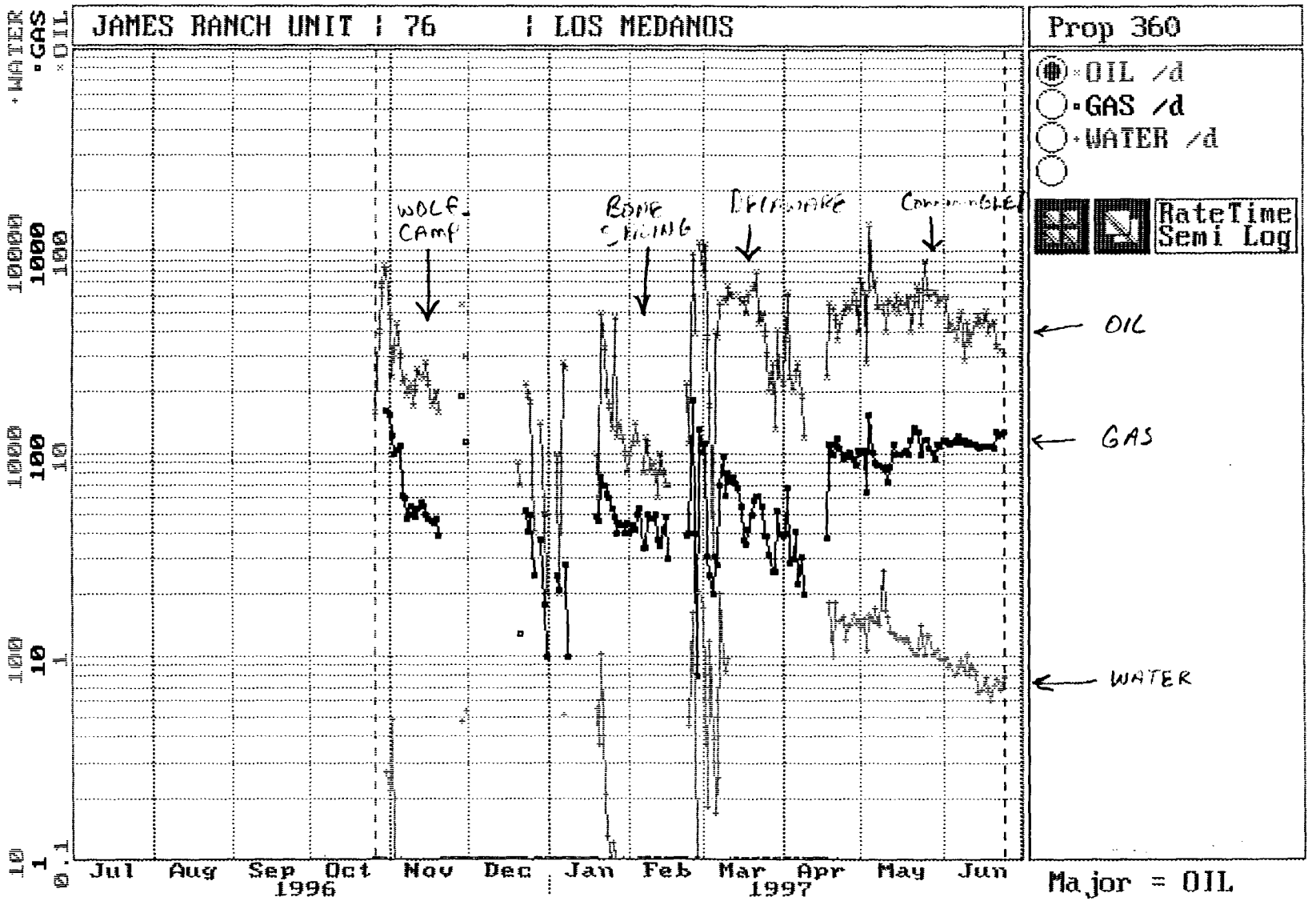
<<<<< Casing Rates and Gradients >>>>>

Dead Liquid Gradient (psi/ft) : .353 Liquid/Gas Gradient (psi/ft) : .097
Dead Fluid Level (ft) : 8317
Estimated Casing Gas Rate (mcf/day) : 66.9

<<<<< Other Documentary Data >>>>>

Pump Depth (ft) : 10989
Casinghead Pressure (psi) : 51 Gas Column Pressure (psi) : 52
Casing Prss. Buildup (psi) : 1.802 Pressure Buildup Time (min) : 2.




JAMES RANCH UNIT | 76 | LOS MEDANOS
Prop 360
OIL /d
GAS /d
WATER /d
RateTime
Semi Log
WOLF CAMP
BONE SPRING
DELAWARE
OIL
GAS
WATER
+WATER ▪GAS ×OIL
100000 1000 100
10000 100 10
1000 10 1
100 1 0.1
Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun
1996 1997
Major = OIL

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

August 13, 1997

Enron Oil & Gas Company
P.O. Box 2267
Midland, Texas 79702

Attention: Mr. Randall S. Cate

Re: Production Allocation
James Ranch Unit Well No. 73
Division Order No. R-10558

Dear Mr. Cate:

Pursuant to the production data submitted July 1, 1997 on the James Ranch Unit Well No. 73, the allocation of production from the well is hereby established as follows:

Pool	Oil %	Gas %
SE Quahada Ridge-Delaware Pool	47%	46%
Los Medanos-Bone Spring Pool	23%	21%
South Los Medanos-Wolfcamp Pool	30%	33%

Such production allocation is effective March 1, 1997. If you should have any questions, please contact Mr. David Catanach at (505) 827-8184.

Sincerely,

William J. LeMay
Director

WJL/DRC

xc: OCD-Artesia
Case File-11424

ENRON
Oil & Gas Company

P. O. Box 2267 Midland, Texas 79702 (915) 686-3600

June 26, 1997

JUL - 1 1997

NMOCD
2040 S. Pacheco
Santa Fe, NM 87505-6429

Attn.: Mr. David Catanach

Re: Enron Oil & Gas Company
James Ranch Unit No. 73
Downhole Commingling
Allocation of Production

Dear Mr. Catanach,

Pursuant to Order No. R-10558, Enron Oil & Gas requests that the Division approve the submitted allocation formula effective March 1, 1997. The following summarizes the well chronology:

8/1/96	Completed as flowing Wolfcamp producer.
8/21/96	Ran FBHP survey indicating 2,029 psig (attached).
9/18/96	Shut off Wolfcamp; complete as Bone Spring pumping.
10/6/96	Shot fluid level at 7,347' indicating well essentially "pumped off" (attached).
12/7/96	Completed Delaware pumping.
3/1/96	Commingled Delaware, Bone Spring, and Wolfcamp on pump.
5/29/97	Pumping 71 BOPD, 141 MCFD, 75 BWPD
6/3/96	Ran NABLA Dynamometer and fluid level survey indicating pump intake pressure of 561 psig with a fluid level of 5,440'. The well is essentially "pumped off".

If you have any questions or additional data requirements please call the undersigned at telephone number (915) 686-3698.

Sincerely,

ENRON OIL & GAS COMPANY

Randall S. Cate
Project Reservoir Engineer

RSC/krp

Attachments

cc: Mr. Tim Gum
NMOCD - Artesia, NM

m:\cate\kp130rsc.doc

DISTRICT 1
P. O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
811 South First St., Artesia, NM 88210-2835

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410-1693

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-6429

APPLICATION FOR DOWNHOLE COMMINGLING

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

APPROVAL PROCESS:
X Administrative ___ Hearing

EXISTING WELLBORE
X YES ___ NO

Enron Oil & Gas Company	P. O. Box 2267, Midland, TX 79702		
Operator	Address		
Jame Ranch Unit	No. 73	C-6-23S-31E	Eddy
Lease	Well No.	Unit Ltr. - Sec - Twp - Rge	County

OGRID NO. 07377 Property Code 004060 API NO. 30-015-28312-1 Spacing Unit Lease Types: (check 1 or more) Federal X , State ___ , (and/or) Fee ___

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	S.E. Quahada Ridge Delaware (50,443)	Los Medanos Bone Spring (40,295)	South Los Medanos Wolfcamp (96,336)
2. Top and Bottom of Pay Section (Perforations)	7,530 - 7,598	10,556 - 11,022	11,166 - 11,174
3. Type of production (Oil or Gas)	Oil	Oil	Oil
4. Method of Production (Flowing or Artificial Lift)	Pump	Pump	Pump
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	(Current) a. 247 psig	a. 540 psig	a. 627 psig
	(Original) b.	b.	b.
6. Oil Gravity (°API) or Gas BTU Content	41.0	47.8	47.8
7. Producing or Shut-In?	Producing	Producing	Producing
Production Marginal? (yes or no)	Yes	Yes	Yes
* If Shut-In, give data 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: 2/19/97 Rates: 54 BO, 138 MCF, 94 BW	Date: 11/19/97 Rates: 27 BO, 65 MCF, 0 BW	Date: 9/14/97 Rates: 35 BO, 100 MCF, 0 BW
8. Fixed Percentage Allocation Formula - % for each zone	Oil: 47% Gas: 46%	Oil: 23% Gas: 21%	Oil: 30% Gas: 33%

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? X 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? X Yes ___ No

11. Will cross-flow occur? ___ Yes X 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? X Yes ___ No

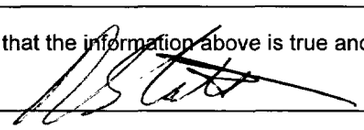
13. Will the value of production be decreased by commingling? ___ Yes X No (If Yes, attach explanation)

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. X Yes ___ No

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). R-10558 (covers this well)

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  TITLE Project Reservoir Engineer DATE 6/26/97

TYPE OR PRINT NAME Randall S. Cate TELEPHONE NO. (915) 686-3698

Nabla Corporation

2064 Market Street Midland, TX 79703
(915) 697-2228 voice (915) 697 - 0192 fax

Determination of Pump Intake Pressure from Fluid Level and Modified Gilbert S - Curve

Well Name : ENRON; JAMES RANCH NO. 73 Date : 06-03-1997
Analysis Number : 5V7-6-3-1

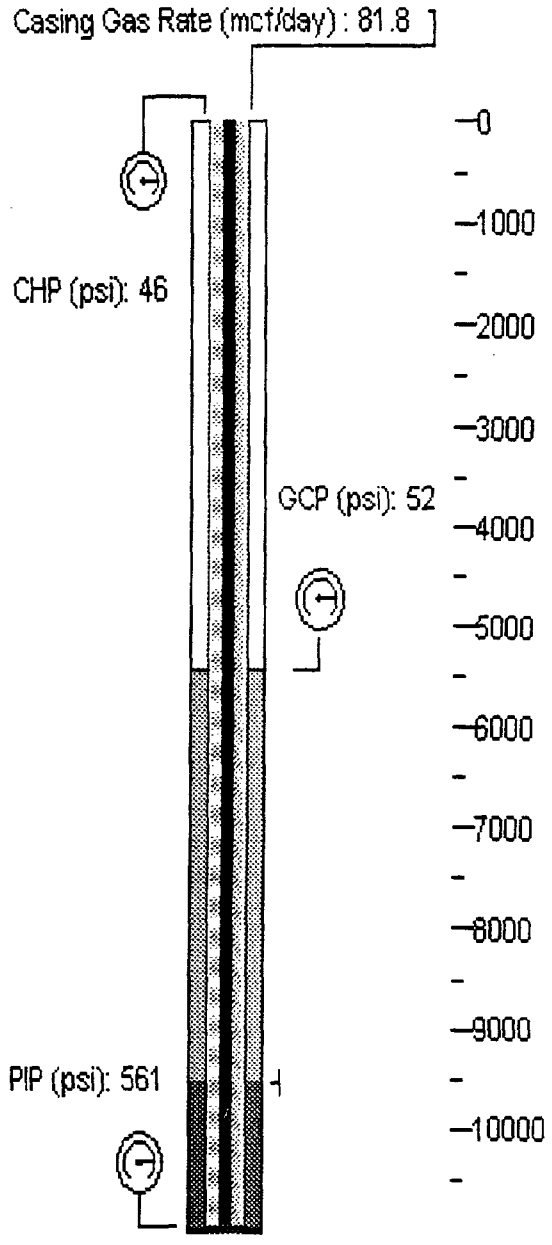
Pump Intake Pressure (psi) : 561 Fluid Level from Surface (ft) : 5440
Pump Submergence (ft) : 5543 Dead Fluid Pump Submrg. (ft) : 1443

<<<<< Casing Rates and Gradients >>>>>

Dead Liquid Gradient (psi/ft) : .353 Liquid/Gas Gradient (psi/ft) : .092
Dead Fluid Level (ft) : 9540
Estimated Casing Gas Rate (mcf/day) : 81.8

<<<<< Other Documentary Data >>>>>

Pump Depth (ft) : 10983
Casinghead Pressure (psi) : 46 Gas Column Pressure (psi) : 52
Casing Prss. Buildup (psi) : 1.919 Pressure Buildup Time (min) : 2.



FLUID LEVELS

ACCOUSTICAL WELL SOUNDINGS

COMPANY Enron Oil & Gas LEASE James Ranch WELL NO. 73

COMPANY REP. Dick FIELD _____ COUNTY Eddy STATE N. Mexico

TEST DATE 10-6-96 TIME _____ WELL STATUS pumping SHUT IN @ _____

MILEAGE	WORK TIME	WELL DATA
LEAVE _____	OPER. _____	CAS. DEPTH _____ SIZE _____
ARRIVE _____	LEAVE _____	CAS. PERFS TOP _____ BTM _____
ONE WAY _____	RETURN _____	TUB. ANCHOR DEPTH _____
	TOTAL _____	TUB. LENGTH _____ SIZE _____
	CAL. BY _____	AMOUNT OF TUB. JOINTS _____

1ST SHOT TIME 10:00 Am CSG PSI 95# JOINT TALLEY 237 F.L. 7347

2ND SHOT TIME 11:00 Am CSG PSI 95# JOINT TALLEY 239 F.L. 7391

3RD SHOT TIME _____ CSG PSI _____ JOINT TALLEY _____ F.L. _____

4TH SHOT TIME _____ CSG PSI _____ JOINT TALLEY _____ F.L. _____

DIRECTIONS & MAP

SPECIAL INSTRUCTIONS/COMMENTS

Randy,
On 10 6 96 Pro well Testing shot fluid level AT The James Ranch #73. Well was pumping when Tester Arrived. He shut unit Down + closed TBG & Csg values And let well settle for Approx 30 min. Shot 1st fluid Level AT 7347! Wait for Approx 1 hr + shot 2nd fluid Level AT 7391! Rig Down equip & put Well Back to pumping. Thanx

JARREL SERVICES, INC.
Box 1230
Hobbs, New Mexico 88240

<<Flowing Gradient Survey>>

Date: 08/21/96 @ 6:01 pm

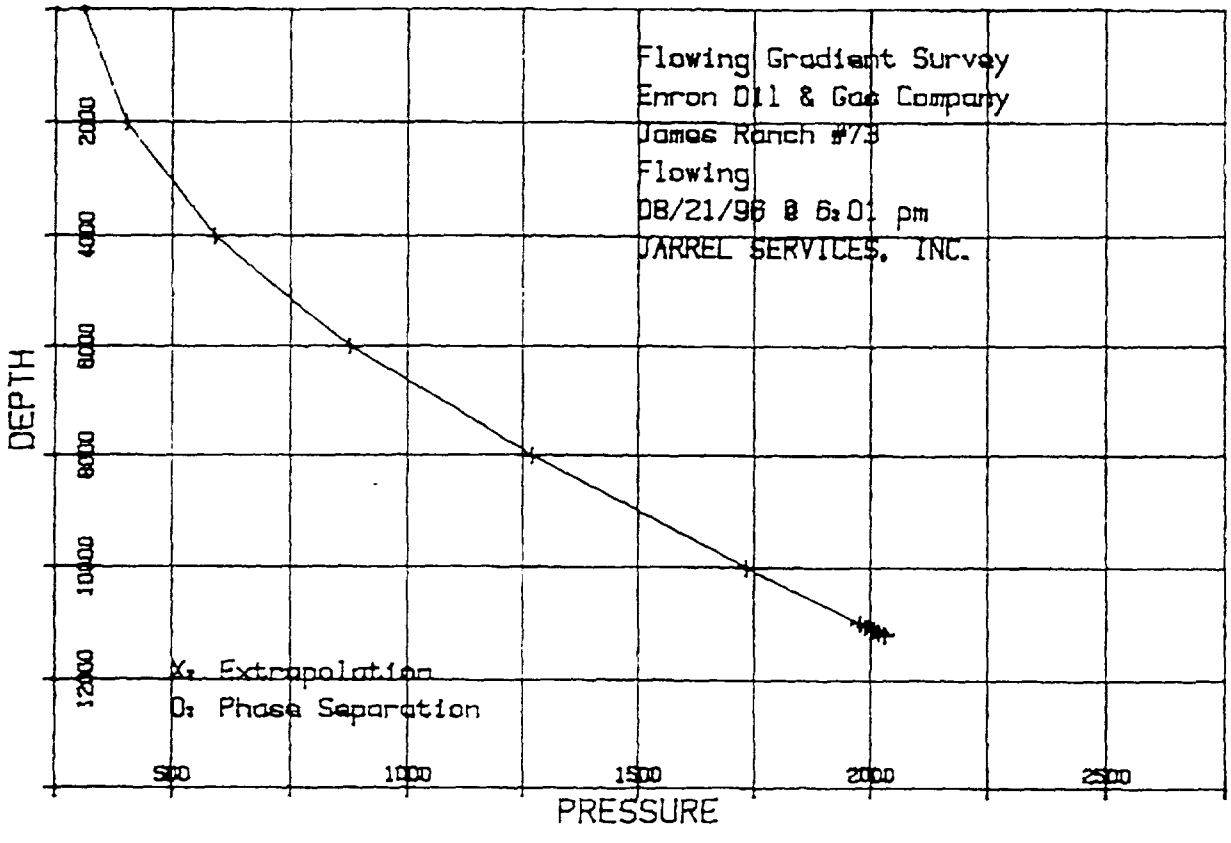
COMPANY: Enron Oil & Gas Company
LEASE: James Ranch
FIELD: Los Medanos
COUNTY: Eddy
STATUS: Flowing
PERFORATIONS FROM: 11166 ft
DEPTH: 11170 ft

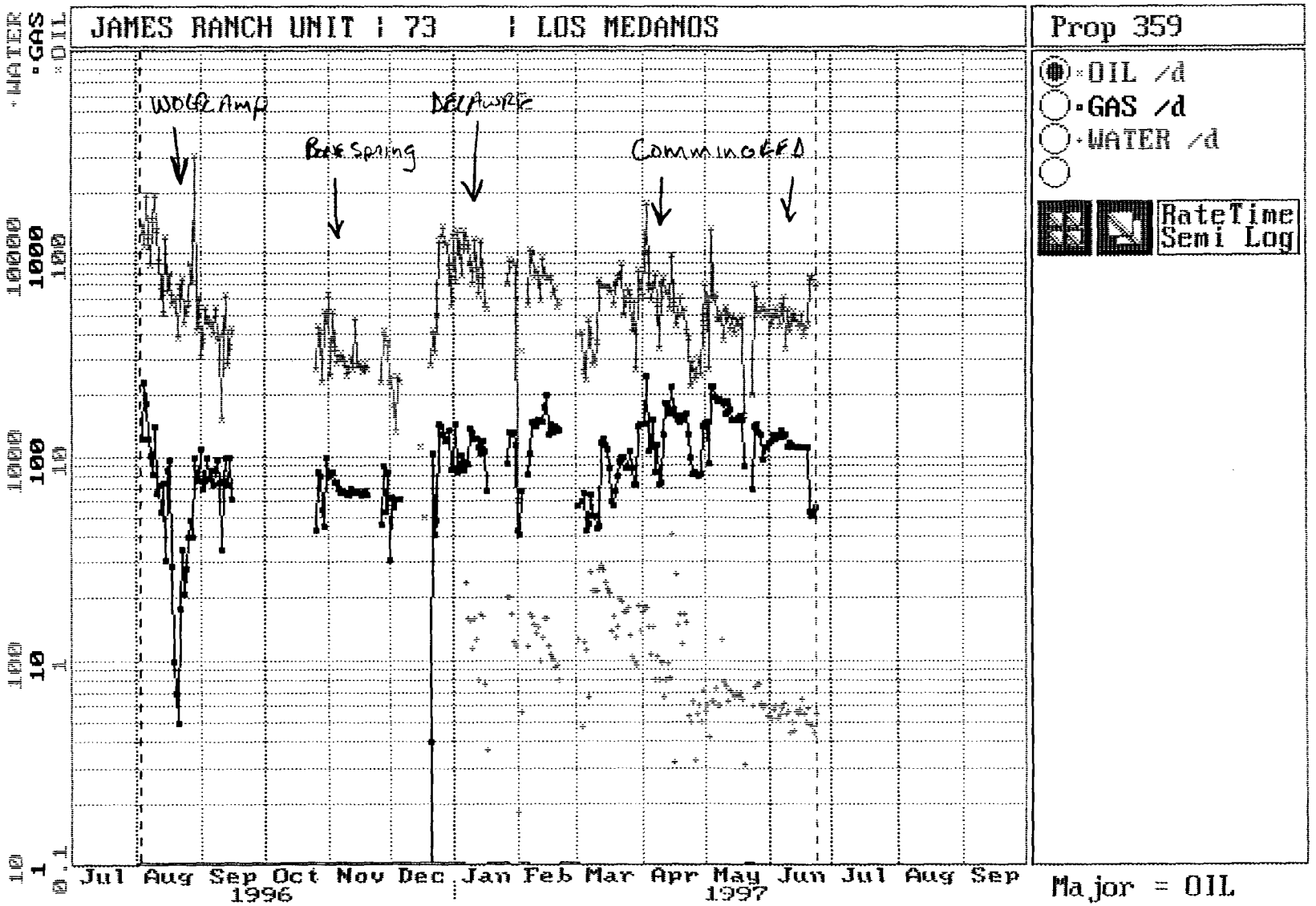
CONTACT: Bill Howard
WELL: #73
ZONE: Wolfcamp
STATE: New Mexico
OPERATOR: Standefer
TO: 11174 ft
TEMPERATURE: 167'F

TABULAR DATA

DEPTH (ft)	PRESSURE (psi)	GRADIENT (psi/ft)	EXPLANATIONS
0	309		
2000	400	0.046	
4000	588	0.094	
6000	875	0.144	
8000	1269	0.197	
10000	1732	0.232	
10970	1976	0.252	
11020	1989	0.260	
11070	2006	0.340	
11120	2017	0.220	
11170	2029	0.240	

NOTE: Explanations are included to clarify calculated data points.




JAMES RANCH UNIT | 73 | LOS MEDANOS
Prop 359
OIL /d
GAS /d
WATER /d
RateTime
Semi Log
WOLFCAMP
BONE SPRING
DELAWARE
COMMINGLED
WATER
GAS
OIL
10000
1000
100
10
1
0.1
Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep
1996
1997
Major = OIL

STATE OF NEW MEXICO
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

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

CASE NO. 11424
Order No. R-10558

APPLICATION OF ENRON OIL & GAS
COMPANY FOR DOWNHOLE COMMINGLING
AND A SPECIAL ALLOWABLE, EDDY
COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on November 16, 1995, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 11th day of March, 1996, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Enron Oil & Gas Company (Enron), seeks authorization, on an area-wide basis, to downhole commingle the Delaware, Bone Spring and Wolfcamp formations within existing or future drilled wells located anywhere within the following described area, hereinafter referred to as the "development area", in Eddy County, New Mexico.

TOWNSHIP 22 SOUTH, RANGE 30 EAST, NMPM
Section 36: All

TOWNSHIP 22 SOUTH, RANGE 31 EAST, NMPM
Section 31: S/2

TOWNSHIP 23 SOUTH, RANGE 30 EAST, NMPM
Section 1: All

TOWNSHIP 23 SOUTH, RANGE 31 EAST, NMPM
Section 6: All

(3) The Southeast Quahada Ridge-Delaware, Los Medanos-Bone Spring, and South Los Medanos-Wolfcamp Pools currently comprise the following

described lands within the development area:

Southeast Quahada Ridge-Delaware Pool

TOWNSHIP 22 SOUTH, RANGE 30 EAST, NMPM
Section 36: S/2

TOWNSHIP 23 SOUTH, RANGE 30 EAST, NMPM
Section 1: N/2

Los Medanos-Bone Spring Pool

TOWNSHIP 23 SOUTH, RANGE 31 EAST, NMPM
Section 6: E/2, NW/4

South Los Medanos-Wolfcamp Pool

TOWNSHIP 22 SOUTH, RANGE 30 EAST, NMPM
Section 36: NE/4 NE/4

(4) With the exception of the SW/4 and S/2 NW/4 of Section 1, the entire development area is located within the James Ranch Unit, a Federal exploratory unit which is currently operated by Bass Enterprises Production Company.

(5) The applicant and Bass Enterprises Production Company (Bass) are the majority working interest owners within the James Ranch Unit. According to applicant's testimony, some of the proposed downhole commingled wells will be operated by Bass and some will be operated by Enron.

(6) Appearances in this case were entered by Bass Enterprises Production Company, Santa Fe Energy Resources, Inc., and Westinghouse Corporation.

(7) According to applicant's evidence and testimony, the following described four existing wells within the development area are candidates for immediate downhole commingling:

WELL NAME	WELL LOCATION	CURRENT COMPLETION
James Ranch Unit No. 71	Unit A, Section 36	Wolfcamp & Bone Spring (Commingled)
James Ranch Unit No. 17	Unit F, Section 6	Bone Spring
James Ranch Unit No. 7	Unit G, Section 6	Bone Spring
James Ranch Unit No. 30	Unit J, Section 6	Bone Spring

(8) In addition, applicant's plan of development within the subject area includes the following:

a) possibly recomplete the James Ranch Unit Well Nos. 1, 3, 4, 10, 11, 13 and 18, which are currently completed in either the Atoka, Morrow or Strawn formations, as downhole commingled wells in the Delaware, Bone Spring and Wolfcamp formations at such time as they become depleted;

b) drill up to a dozen new wells as downhole commingled wells in the Delaware, Bone Spring and Wolfcamp formations.

(9) Within the development area, there are also several existing Delaware producing wells, which, according to applicant's testimony, will not be deepened and commingled with the Bone Spring and Wolfcamp formations.

(10) Applicant presented geologic evidence and testimony in this case which indicates that:

a) the Delaware formation is currently being produced from and is potentially productive throughout the development area in the "B" "C" and "D" sand intervals of the Brushy Canyon member. This producing interval is found at a depth of approximately 6,700'-7,650';

b) the Bone Spring formation is currently being produced from and is potentially productive throughout the development area in the 3rd Bone Spring sand interval. This producing interval is found at a depth of approximately 10,850'-10,975';

c) the Wolfcamp formation is currently being produced from and is potentially productive throughout the development area in the Upper Wolfcamp sand interval. This producing interval is found at a depth of approximately 10,975'-11,140'.

(11) The applicant presented engineering evidence and testimony to demonstrate the producing characteristics of the Delaware, Bone Spring and Wolfcamp formations within the development area. The producing characteristics are summarized as follows:

FORMATION	PRODUCING RATES (AVERAGE) INITIAL RATE	3 MONTH RATE	INITIAL BHP
Delaware	100 BOPD 100 BWPD	50 BOPD 80 BWPD	3,300 PSI
Bone Spring	120 BOPD 20 BWPD	47 BOPD 15 BWPD	6,240 PSI
Wolfcamp	66 BOPD 0 BWPD	27 BOPD 0 BWPD	7,069 PSI

(12) The applicant's evidence and testimony indicates that the oil and gas reserves and/or producing rates within the Wolfcamp and Bone Spring formations in the development area are insufficient to justify the drilling of stand alone wells to recover such reserves.

(13) In addition, the applicant seeks to avoid dually completing the wells within the development area due to the numerous mechanical difficulties associated with this type of completion at these depths.

(14) The engineering evidence presented indicates that the Delaware, Bone Spring and Wolfcamp formations within the development area exhibit producing characteristics, including high decline rates, such that downhole commingling is necessary in order to economically drill for and recover oil and gas reserves in the deeper Bone Spring and Wolfcamp formations.

(15) Applicant testified that the interest ownership between the commingled zones in any given wellbore within the development area is common.

(16) Applicant notified all working, royalty and overriding royalty interest owners within the development area of its intent to downhole commingle the subject wells, and, no interest owner and/or offset operator appeared at the hearing in opposition to the application.

(17) Applicant proposes that the subject downhole commingled wells be assigned an oil allowable equal to the top unit allowable of the shallowest commingled horizon. For wells downhole commingled in the Delaware formation, the allowable would equal 187 BOPD (being the top unit allowable for the Southeast Quahada Ridge-Delaware Pool) and for wells commingled in the Bone Spring and Wolfcamp formations only, the allowable would equal 320 BOPD, (being the top unit allowable for the Los Medanos-Bone Spring Pool.

(18) The proposed allowables are in conformance with amendments to Division General Rule No. 303 (Downhole Commingling) which will shortly be adopted by the Oil Conservation Commission.

(19) Water production from the subject wells should be limited to no more than twice the oil allowable, as described above.

(20) The applicant's evidence further shows that:

a) no commingled zone exposes the others to damage by produced liquids;

b) the fluids from each zone are compatible with the other;

c) the value of the commingled production is not less than the sum of the values of the individual production;

d) the subject wells will be maintained at pumped off conditions at all times.

(21) Due to the extreme vertical separation between the Delaware and Bone Spring/Wolfcamp intervals, there is a possibility that the applicant's proposed method of production will not result in the efficient recovery of oil and gas reserves from all commingled horizons.

(22) In order to provide the Division the opportunity to assess the efficiency of applicant's proposed operations, the applicant should be required to obtain, prior to downhole commingling, producing bottomhole pressure data for each commingled zone in two of the wells proposed to be initially completed as downhole commingled producers. Subsequent to the completion of these wells as downhole commingled producers, the applicant should be required to obtain additional data deemed necessary by the supervisor of the Division's Artesia district office in order to assess the efficiency of the operations.

(23) If it is determined by the Division that applicant's method of production is not resulting in the efficient recovery of oil and gas reserves from all commingled horizons, the Division may, at that time, suspend authority to complete additional wells within the development area as downhole commingled producers.

(24) The downhole commingling of the subject wells within the development area will benefit the interest owners, should result in the recovery of oil and gas reserves which may otherwise not be recovered, thereby preventing waste, and will not violate correlative rights.

(25) Applicant testified that data to support allocation formulas will be obtained by producing each newly completed zone in each of the subject wells for a period of approximately 2-3 months. The applicant then proposes to utilize existing production data from previously completed zones and production data from newly completed zones to arrive at an accurate allocation formula for each well.

(26) Applicant's proposed method of allocation is fair and reasonable and should be adopted.

(27) The applicant should consult with the supervisor of the Division's Artesia district office subsequent to the completion of testing operations on each of the subject wells in order to arrive at fixed allocation percentages for each well.

(28) The applicant should notify the supervisor of the Division's Artesia district office of the date and time of conductance of any tests on the proposed commingled wells in order that these operations may be witnessed.

(29) The operator should immediately notify the supervisor of the Artesia district office of the Division any time any of the subject wells have been shut-in for seven consecutive days and shall concurrently present, to the Division, a plan for remedial action.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Enron Oil & Gas Company, is hereby authorized to downhole commingle the Delaware, Bone Spring and Wolfcamp formations within existing or future drilled wells located anywhere within the following described area, hereinafter referred to as the "development area", Southeast Quahada Ridge-Delaware, Los Medanos-Bone Spring, and South Los Medanos-Wolfcamp Pools, Eddy County, New Mexico.

TOWNSHIP 22 SOUTH, RANGE 30 EAST, NMPM
Section 36: All

TOWNSHIP 22 SOUTH, RANGE 31 EAST, NMPM
Section 31: S/2

TOWNSHIP 23 SOUTH, RANGE 30 EAST, NMPM
Section 1: All

TOWNSHIP 23 SOUTH, RANGE 31 EAST, NMPM
Section 6: All

(2) The subject downhole commingled wells are hereby assigned an oil allowable to be determined as follows:

a) all wells downhole commingled in the Delaware formation shall be assigned an oil allowable of 187 barrels of oil per day. In addition, such wells shall be limited to a water producing rate of 374 barrels of water per day; and,

b) all wells downhole commingled in the Bone Spring and Wolfcamp formations only shall be assigned an oil allowable of 320 barrels of oil

per day. In addition, such wells shall be limited to a water producing rate of 640 barrels of water per day.

(3) The applicant shall produce each newly completed zone in each of the subject wells for a period of approximately 2-3 months or until a stabilized rate of production is obtained. The applicant shall utilize existing production data from previously completed zones and production data from newly completed zones to arrive at an accurate allocation formula for each well.

(4) The applicant shall consult with the supervisor of the Division's Artesia district office subsequent to the completion of testing operations on the subject wells in order to arrive at fixed allocation percentages for each well.

(5) All allocation formulas and/or fixed percentages shall be submitted to the Santa Fe and Artesia offices of the Division.

(6) In order to provide the Division the opportunity to assess the efficiency of applicant's proposed operations, the applicant shall obtain, prior to downhole commingling, producing bottomhole pressure data for each commingled zone in two of the wells proposed to be initially completed as downhole commingled producers. Subsequent to the completion of these wells as downhole commingled producers, the applicant shall obtain additional data deemed necessary by the supervisor of the Division's Artesia district office in order to assess the efficiency of the operations.

(7) If it is determined by the Division that applicant's method of production is not resulting in the efficient recovery of oil and gas reserves from all commingled horizons, the Division may, at that time, suspend authority to complete additional wells within the development area as downhole commingled producers.

(8) The operator shall immediately notify the supervisor of the Artesia district office of the Division any time any of the subject wells have been shut-in for seven consecutive days and shall concurrently present, to the Division, a plan for remedial action.

(9) Jurisdiction is hereby 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

WILLIAM J. LEMAY
Director

S E A L

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

August 13, 1997

Enron Oil & Gas Company
P.O. Box 2267
Midland, Texas 79702

Attention: Mr. Randall S. Cate

Re: Production Allocation
James Ranch Unit Well No. 71
Division Order Nos. R-10304, R-10558

Dear Mr. Cate:

Pursuant to the production data submitted June 26, 1997 on the James Ranch Unit Well No. 71, the allocation of production from the well is hereby established as follows:

Pool	Oil %	Gas %
SE Quahada Ridge-Delaware Pool	90%	84%
Los Medanos-Bone Spring Pool	6%	13%
South Los Medanos-Wolfcamp Pool	4%	3%

Such production allocation is effective March 1, 1997. If you should have any questions, please contact Mr. David Catanach at (505) 827-8184.

Sincerely,

William J. LeMay
Director

WJL/DRC

xc: OCD-Artesia
Case Files-11181, 11424

ENRON
Oil & Gas Company

P. O. Box 2267 Midland, Texas 79702 (915) 686-3600

June 24, 1997

NMOCD
2040 S. Pacheco
Santa Fe, NM 87505-6429

Attn.: Mr. David Catanach

Re: Enron Oil & Gas Company
James Ranch Unit No. 71
Downhole Commingling
Allocation of Production

Dear Mr. Catanach,

Pursuant to Order No. R-10558, Enron Oil & Gas requests that the Division approve the submitted allocation formula effective March 1, 1997. The following summarizes the well chronology:

11/94	Completed as commingled Bone Spring/Wolfcamp producer (attached Order No. R-10304)
11/96	Completed Delaware pay; required pumping
3/97	Commingled all three pays on pump
6/21/97	Pumping 93 BOPD, 251 MCFD, 39 BWPD

Also attached is the results of a measured FBHP taken 11/12/96 on the Bone Spring/Wolfcamp. FBHP was 2,599 psig. The well was not yet on pump. A recent NABLA Dynamometer and fluid level evaluation determined a pump intake pressure of 739 psig at 10,891'. The well is essentially "pumped off".

If you have any questions or additional data requirements please call the undersigned at telephone number (915) 686-3698.

Sincerely,

ENRON OIL & GAS COMPANY

Randall S. Cate
Project Reservoir Engineer

RSC/krp

Attachments

cc: Mr. Tim Gum
NMOCD - Artesia, NM

m:\cate\kp129rsc.doc

DISTRICT I
P. O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
811 South First St., Artesia, NM 88210-2835

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410-1693

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-6429

APPLICATION FOR DOWNHOLE COMMINGLING

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

APPROVAL PROCESS:
X Administrative ___ Hearing

EXISTING WELLBORE
X YES ___ NO

Enron Oil & Gas Company	P. O. Box 2267, Midland, TX 79702		
Operator	Address		
James Ranch Unit	No. 71	A-36-22-30	Eddy
Lease	Well No.	Unit Ltr. - Sec - Twp - Rge	County

OGRID NO. 07377 Property Code 004060 API NO. 30-015-25807-1 Spacing Unit Lease Types: (check 1 or more) Federal ___ , State X , (and/or) Fee ___

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	S.E. Quahada Ridge Delaware (50443)	Los Medanos (Bone Spring)(40295)	South Los Medanos Wolfcamp (96336)
2. Top and Bottom of Pay Section (Perforations)	7,566-7,574	10,880-10,938	11,091-11,124
3. Type of production (Oil or Gas)	Oil	Oil	Oil
4. Method of Production (Flowing or Artificial Lift)	Pump	Pump	Pump
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	(Current) a. 480 psig	a. 713 psig	a. 785 psig
	(Original) b.	b.	b.
6. Oil Gravity (°API) or Gas BTU Content	41.0	47.8	47.8
7. Producing or Shut-In?	Producing	Producing	Producing
Production Marginal? (yes or no)	No	Yes	Yes
* If Shut-In, give data 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: 2/19/97 Rates: 86 BO, 175 MCF, 26 BW	Date: 11/7/96 (Commingled) Rates: 6 BO, 27 MCF, 1 BW	Date: 11/7/96 (Commingled) Rates: 4 BO, 7 MCF, 0 BW
8. Fixed Percentage Allocation Formula - % for each zone	Oil: 90% Gas: 84%	Oil: 6% Gas: 13%	Oil: 4% Gas: 3%

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? X 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? X Yes ___ No

11. Will cross-flow occur? ___ Yes X 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? X Yes ___ No

13. Will the value of production be decreased by commingling? ___ Yes X 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. X Yes ___ No

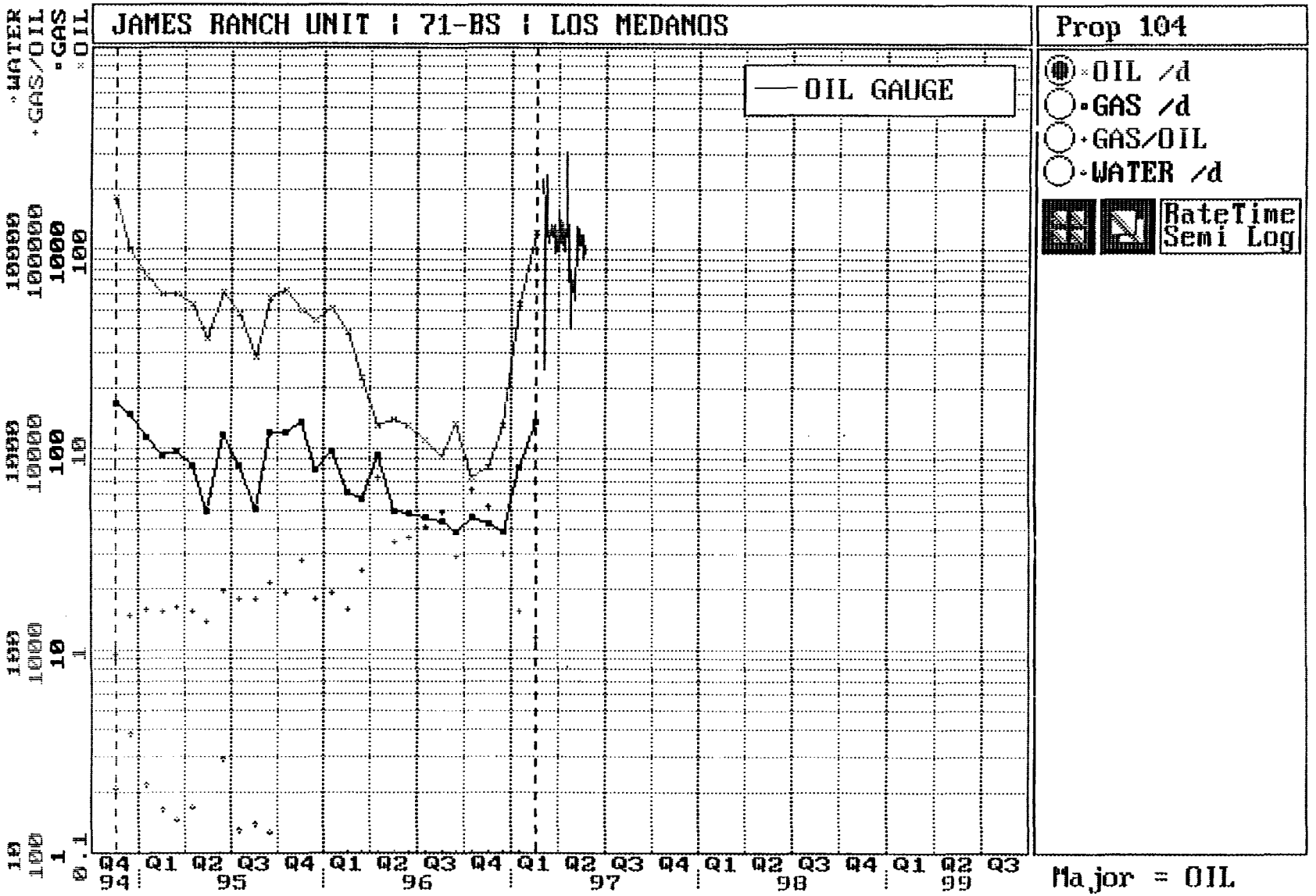
15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). R-10558 (covers this well)

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 _____ TITLE Project Reservoir Engineer DATE 6/24/97

TYPE OR PRINT NAME Randall S. Cate TELEPHONE NO. (915) 686-3698


JAMES RANCH UNIT | 71-BS | LOS MEDANOS
OIL GAUGE
Prop 104
OIL /d
GAS /d
GAS/OIL
WATER /d
RateTime
Semi Log
WATER
GAS/OIL
GAS
OIL
100000
10000
1000
100
10
1
0.1
Q4 94
Q1 Q2 Q3 Q4 95
Q1 Q2 Q3 Q4 96
Q1 Q2 Q3 Q4 97
Q1 Q2 Q3 Q4 98
Q1 Q2 Q3 99
Major = OIL

Nabla Corporation

2064 Market Street Midland, TX 79703
(915) 697-2228 voice (915) 697 - 0192 fax

Determination of Pump Intake Pressure from Fluid Level and Modified Gilbert S - Curve

Well Name : ENRON; JAMES RANCH NO. 71 Date : 06-03-1997
Analysis Number : 5V7-6-3-2

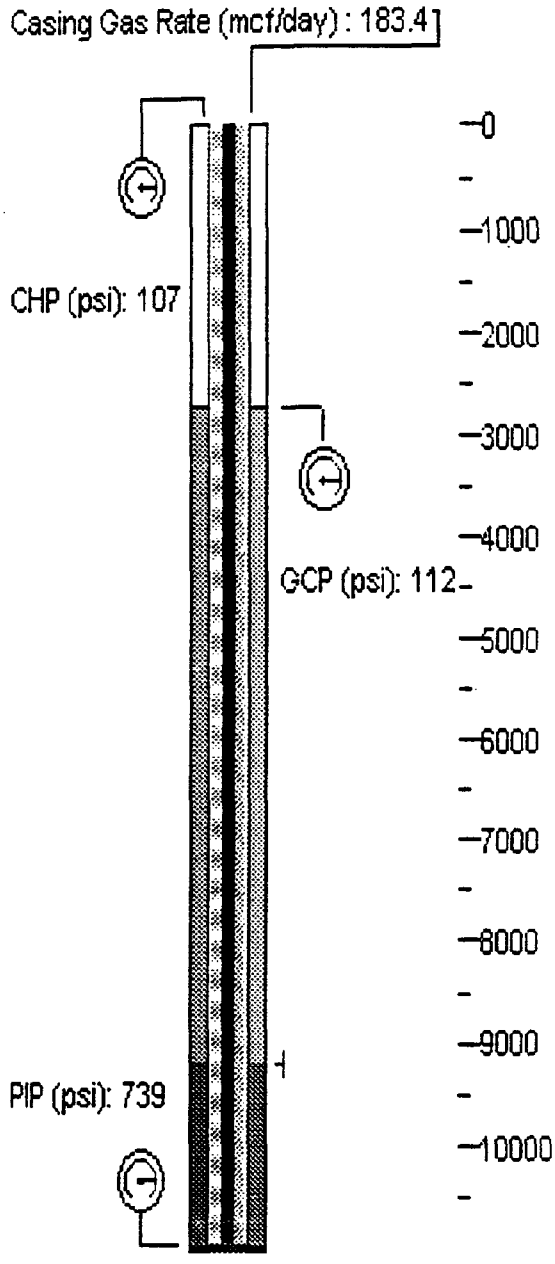
Pump Intake Pressure (psi) : 739 Fluid Level from Surface (ft) : 2718
Pump Submergence (ft) : 8263 Dead Fluid Pump Submrg. (ft) : 1777

<<<<< Casing Rates and Gradients >>>>>

Dead Liquid Gradient (psi/ft) : .353 Liquid/Gas Gradient (psi/ft) : .076
Dead Fluid Level (ft) : 9204
Estimated Casing Gas Rate (mcf/day) : 183.4

<<<<< Other Documentary Data >>>>>

Pump Depth (ft) : 10981
Casinghead Pressure (psi) : 107 Gas Column Pressure (psi) : 112
Casing Prss. Buildup (psi) : 2.231 Pressure Buildup Time (min) : 1.



JARREL SERVICES, INC.
Box 1230
Hobbs, New Mexico 88240

<<Flowing Gradient Survey>>

Date: 11/12/96 @ 3:25 pm

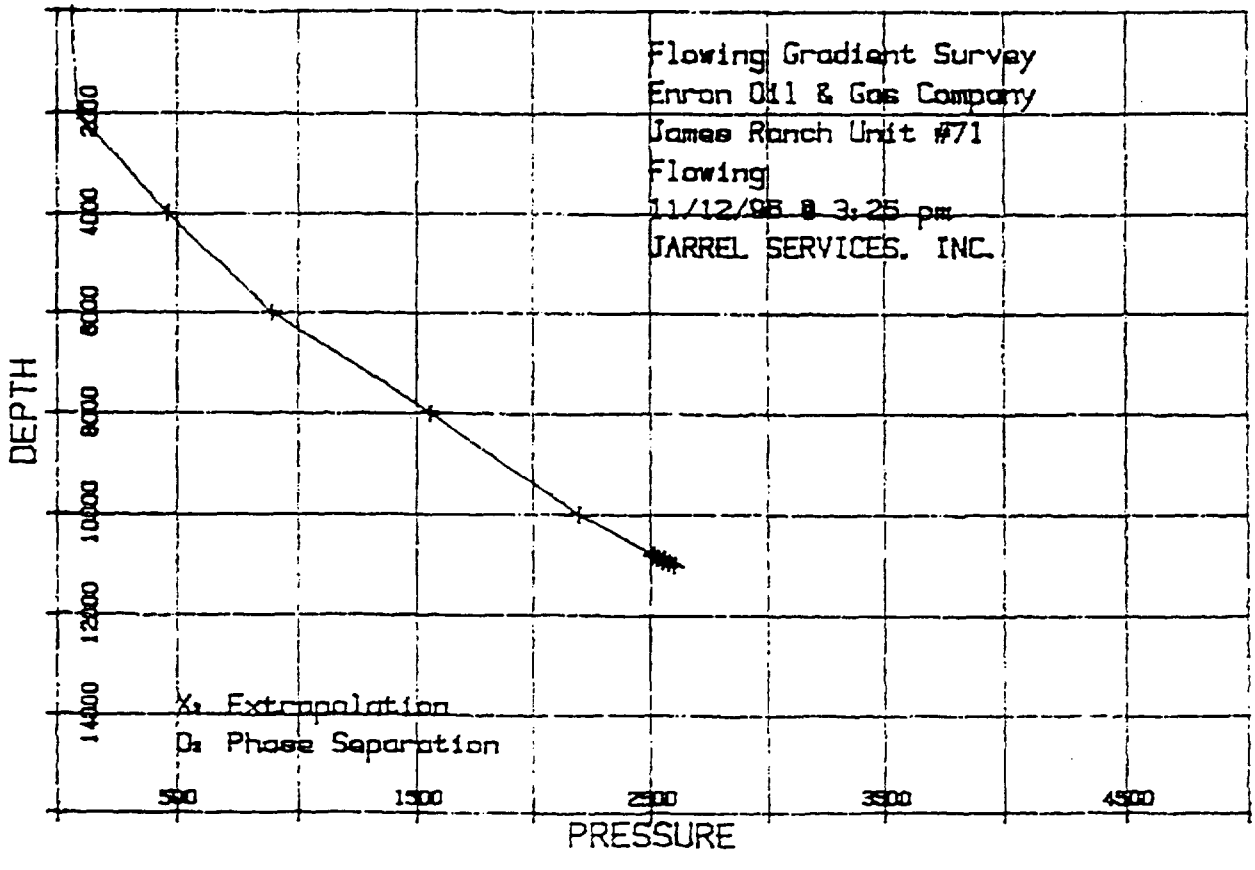
COMPANY: Enron Oil & Gas Company
LEASE: James Ranch Unit
FIELD: Los Medanis
COUNTY: Eddy
STATUS: Flowing
PERFORATIONS FROM: 10880 ft
DEPTH: 11002 ft

CONTACT: Bill Howard
WELL: #71
ZONE: Wolfcamp
STATE: New Mexico
OPERATOR: Harrah
TO: 11124 ft
TEMPERATURE: 167°F

TABULAR DATA

DEPTH (ft)	PRESSURE (psi)	GRADIENT (psi/ft)	EXPLANATIONS
0	59		
2000	86	0.014	
4000	459	0.186	
6000	889	0.216	
8000	1554	0.333	
10000	2192	0.319	
10802	2506	0.392	
10852	2529	0.460	
10902	2553	0.480	
10952	2576	0.460	
11002	2599	0.460	

NOTE: Explanations are included to clarify calculated data points.



ADMINISTRATIVE AMENDMENT OF DIVISION ORDER NO. R-10304

Enron Oil & Gas Company
P.O. Box 2267
Midland, Texas 79702-2267

Attention: Ms. Kathy Nobs

James Ranch Unit Well No. 71
Unit A, Section 36, Township 22 South, Range 30 East, NMPM,
Eddy County, New Mexico.
South Los Medanos-Wolfcamp and Los Medanos-Bone Spring Pools

Dear Ms. Nobs:

Reference is made to your recent request to amend Division Order No. R-10304, which authorized downhole commingling of the referenced well, by modifying the allocation of production from the subject pools.

It appearing that reservoir damage or waste will not result from amending the allocation of production, and correlative rights will not be violated thereby, you are hereby authorized to allocate production from the commingled pools as described below.

In accordance with the provisions of Rule 303-C-4., total commingled oil production from the subject well shall not exceed 80 barrels per day, and total water production shall not exceed 160 barrels per day. The maximum amount of gas which may be produced daily from the well shall be determined by Division Rules and Regulations or by the gas allowable for each respective prorated pool as printed in the Division's Southeast Gas Proration Schedule.

Assignment of allowable to the well and allocation of production from the well shall be on the following basis:

South Los Medanos-Wolfcamp Pool	Oil 36%	Gas 20%
Los Medanos-Bone Spring Pool	Oil 64%	Gas 80%

FURTHER: This amendment is hereby made a part of Division Order No. R-10304 and all other provisions of such shall remain in full force and effect.

Pursuant to Rule 303-C-5, the commingling authority granted by the order may be rescinded by the Division Director if, in his opinion, conservation is not being best served by such commingling.

Approved at Santa Fe, New Mexico on this 18th day of August, 1995.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY
Director

S E A L

WJL/BES

cc: Oil Conservation Division - Artesia
Case File No.11181