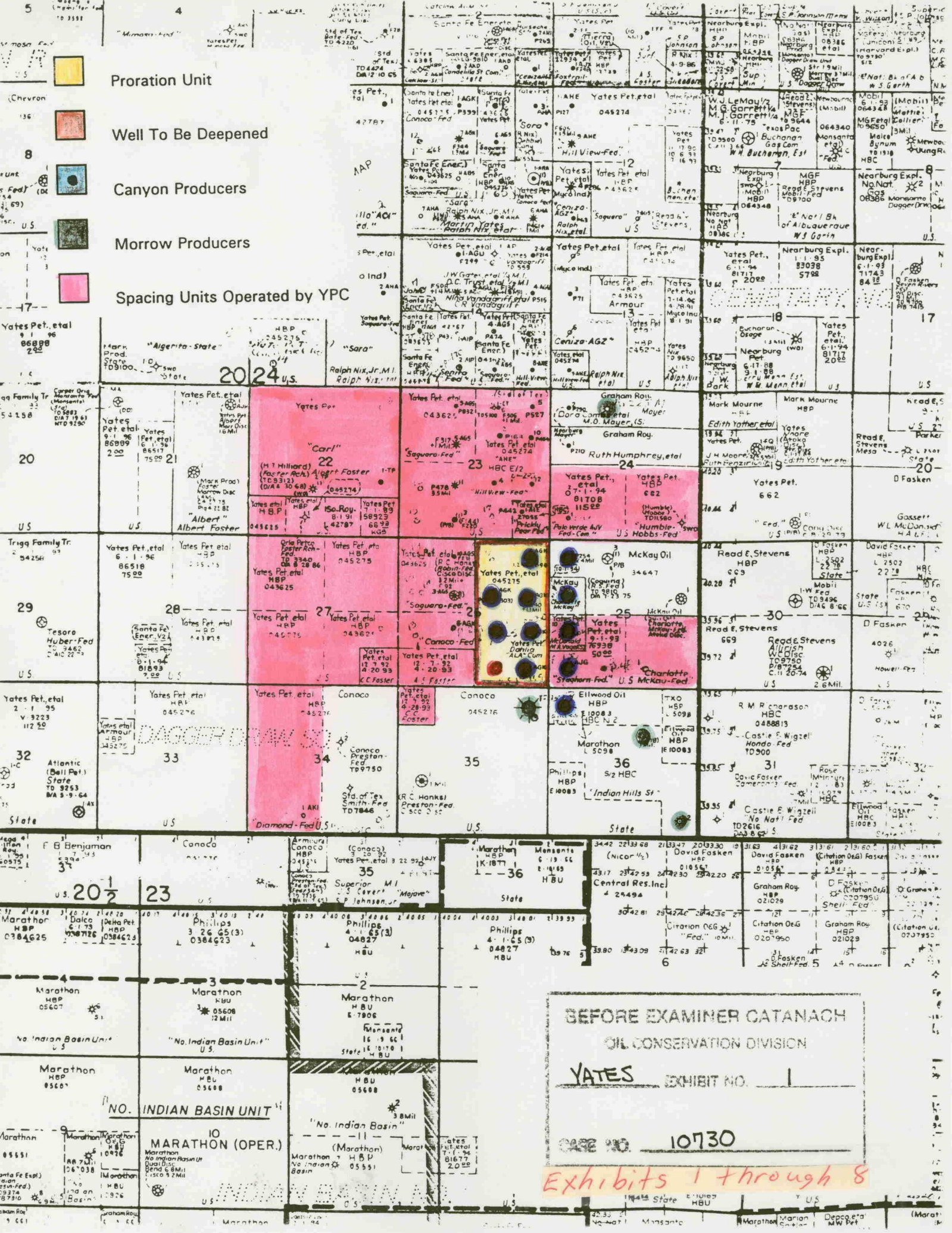




BEFORE EXAMINER CATAACH
OIL CONSERVATION DIVISION
YATES EXHIBIT NO. 1
CASE NO. 10730
Exhibits 1 through 8

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

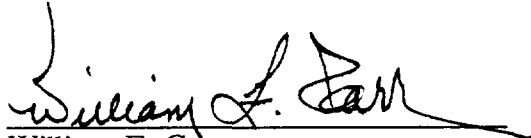
IN THE MATTER OF THE APPLICATION
OF YATES PETROLEUM CORPORATION
FOR COMPULSORY POOLING,
EDDY COUNTY, NEW MEXICO.

CASE NO. 10730

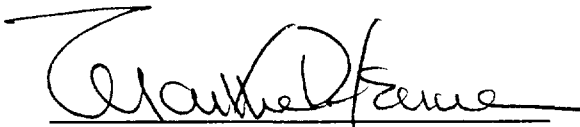
AFFIDAVIT OF MAILING

William F. Carr, being duly sworn, states that he mailed a copy of the Application of Yates Petroleum Corporation, for compulsory pooling, Eddy County, New Mexico with letter(s) setting forth the hearing date, by certified mail, return receipt requested, to the following named individuals listed on Exhibit A attached.

Further Affiant sayeth naught.


William F. Carr

SUBSCRIBED AND SWORN to before me this 19th day of May, 1993.


Notary Public

My Commission Expires:

August 19, 1995

BEFORE THE OIL CONSERVATION DIVISION	
NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES	
YATES	EXHIBIT NO. <u>2</u>
CASE NO. <u>10730</u>	

EXHIBIT A

Conoco, Inc.
10 Desta Drive, Suite 100W
Midland, Texas 77905-4514

Marathon Oil Company
Post Office Box 552
Midland, Texas 79702

CAMPBELL, CARR, BERGE
& SHERIDAN, P.A.
LAWYERS

MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
MARK F. SHERIDAN
WILLIAM P. SLATTERY

PATRICIA A. MATTHEWS
MICHAEL H. FELDEWERT

JACK M. CAMPBELL
OF COUNSEL

JEFFERSON PLACE
SUITE 1 - 110 NORTH GUADALUPE
POST OFFICE BOX 2208
SANTA FE, NEW MEXICO 87504-2208
TELEPHONE: (505) 988-4421
TELECOPIER: (505) 983-6043

April 14, 1993

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Conoco, Inc.
10 Desta Drive, Suite 100W
Midland, TX 77905-4514

Re: Application of Yates Petroleum Corporation for an Unorthodox Well
Location, Eddy County, New Mexico

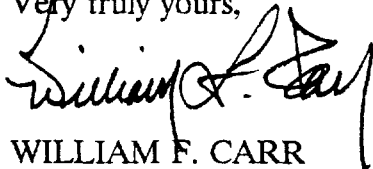
Gentlemen:

This letter is to advise you that Yates Petroleum Corporation has filed the enclosed Application with the New Mexico Oil Conservation Division seeking approval to drill its Conoco AGK Federal Well No. 15 in the Morrow formation, Cemetary Morrow Gas Pool. This well will be drilled to the Canyon formation at a location 660 feet from the South line and 1980 feet from the East line of Section 26, Township 20 South, Range 24 East, N.M.P.M., Eddy County, New Mexico. The E/2 of Section 26 will be dedicated to this well.

This application has been set for hearing before a Division Examiner on May 20, 1993. You are not required to attend this hearing, but as an owner of an interest that may be affected by the unorthodox well location, you may appear and present testimony. Failure to appear at that time and become a party of record will preclude you from challenging the matter at a later date.

Parties appearing in cases have been requested by the Division (Memorandum 2-90) to file a Prehearing Statement substantially in the form prescribed by the Division. Prehearing statements should be filed by 4:00 o'clock p.m. on the Friday before a scheduled hearing.

Very truly yours,



WILLIAM F. CARR
ATTORNEY FOR YATES PETROLEUM CORPORATION
WFC:mlh
Enc.



**Receipt for
Certified Mail**

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Sent to Conoco, Inc.	
Street and No. 10 Desta Drive, Suite 100W	
City, State and ZIP Code Midland, TX 77905-4514	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Shown to Whom & Date Delivered	
Return Receipt Forwarding to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date April 14, 1993	

P 087 492 172

PS Form 3800, June 1991

3. Article Addressed to: Conoco, Inc. 10 Desta Drive, Suite 100W Midland, TX 77905-4514		4. Article Number P 087 492 172	
5. Signature - Address X <i>[Signature]</i>		Type of Service: ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail ☐ Return Receipt for Merchandise	
6. Signature - Agent X <i>[Signature]</i>		Always obtain signature of addressee or agent and DATE DELIVERED.	
7. Date of Delivery APR 21 1993		8. Addressee's Address (ONLY if requested and fee paid)	

PS Form 3811, Mar. 1988 * U.S.G.P.O. 1988-212-865 DOMESTIC RETURN RECEIPT

CAMPBELL, CARR, BERGE
& SHERIDAN, P.A.
LAWYERS

MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
MARK F. SHERIDAN
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POST OFFICE BOX 2208
SANTA FE, NEW MEXICO 87504-2208
TELEPHONE: (505) 988-4421
TELECOPIER: (505) 983-6043

April 14, 1993

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Marathon Oil Company
Post Office Box 552
Midland, TX 79702

Re: Application of Yates Petroleum Corporation for an Unorthodox Well
Location, Eddy County, New Mexico

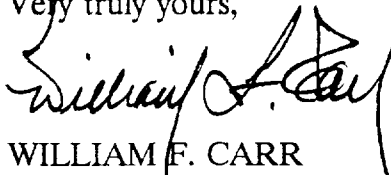
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Parties appearing in cases have been requested by the Division (Memorandum 2-90) to file a Prehearing Statement substantially in the form prescribed by the Division. Prehearing statements should be filed by 4:00 o'clock p.m. on the Friday before a scheduled hearing.

Very truly yours,



WILLIAM F. CARR
ATTORNEY FOR YATES PETROLEUM CORPORATION
WFC:mlh
Enc.

P 087 492 171



Receipt for Certified Mail

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Sent to Marathon Oil Company	
Street and No. Post Office Box 552	
City, State and ZIP Code Midland, TX 79702	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date April 14, 1993	

PS Form 3800, June 1991

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☒ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery (Extra charge)

3. Article Addressed to:
Marathon Oil Company
Post Office Box 552
Midland, TX 79702

4. Article Number
P 087 492 171

5. Signature - Address
X

6. Signature - Agent
X *[Signature]*

7. Date of Delivery
APR 19 1993

8. Addressee's Address (ONLY if requested and fee paid)
[Signature]

Always obtain signature of addressee or agent and **DATE DELIVERED**.

Type of Service:
☐ Registered
☒ Certified
☐ Express Mail
☐ Insured
☐ COD
☐ Return Receipt for Merchandise

PS Form 3811, Mar. 1988 * U.S.G.P.O. 1988-212-885 DOMESTIC RETURN RECEIPT

MARTIN YATES, III
1912 - 1985
FRANK W. YATES
1936 - 1986



105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210
TELEPHONE (505) 748-1471

S. P. YATES
CHAIRMAN OF THE BOARD
JOHN A. YATES
PRESIDENT
PEYTON YATES
EXECUTIVE VICE PRESIDENT
RANDY G. PATTERSON
SECRETARY
DENNIS G. KINSEY
TREASURER

September 16, 1992

Kellahin and Kellahin
P. O. Box 2265
Santa Fe, New Mexico 87504-2265

Attention: W. Thomas Kellahin

RE: Directional Drilling,
Unorthodox Oil Well Location, and
Unorthodox Gas Well Bottom Hole Location
Conoco's Preston Federal #6
N/2 35-T20S-R24E
Eddy County, New Mexico

Gentlemen:

Yates Petroleum Corporation, Yates Drilling Company, Abo Petroleum Corporation, and Myco Industries, Inc. consent to the captioned as outlined in the September 8, 1992 OCD Application, subject to Conoco's agreement to grant Yates the same consent on any well proposed in the S/2 of Sections 25 and 26 of Township 20 South, Range 24 East, Eddy County, New Mexico.

Thank you.

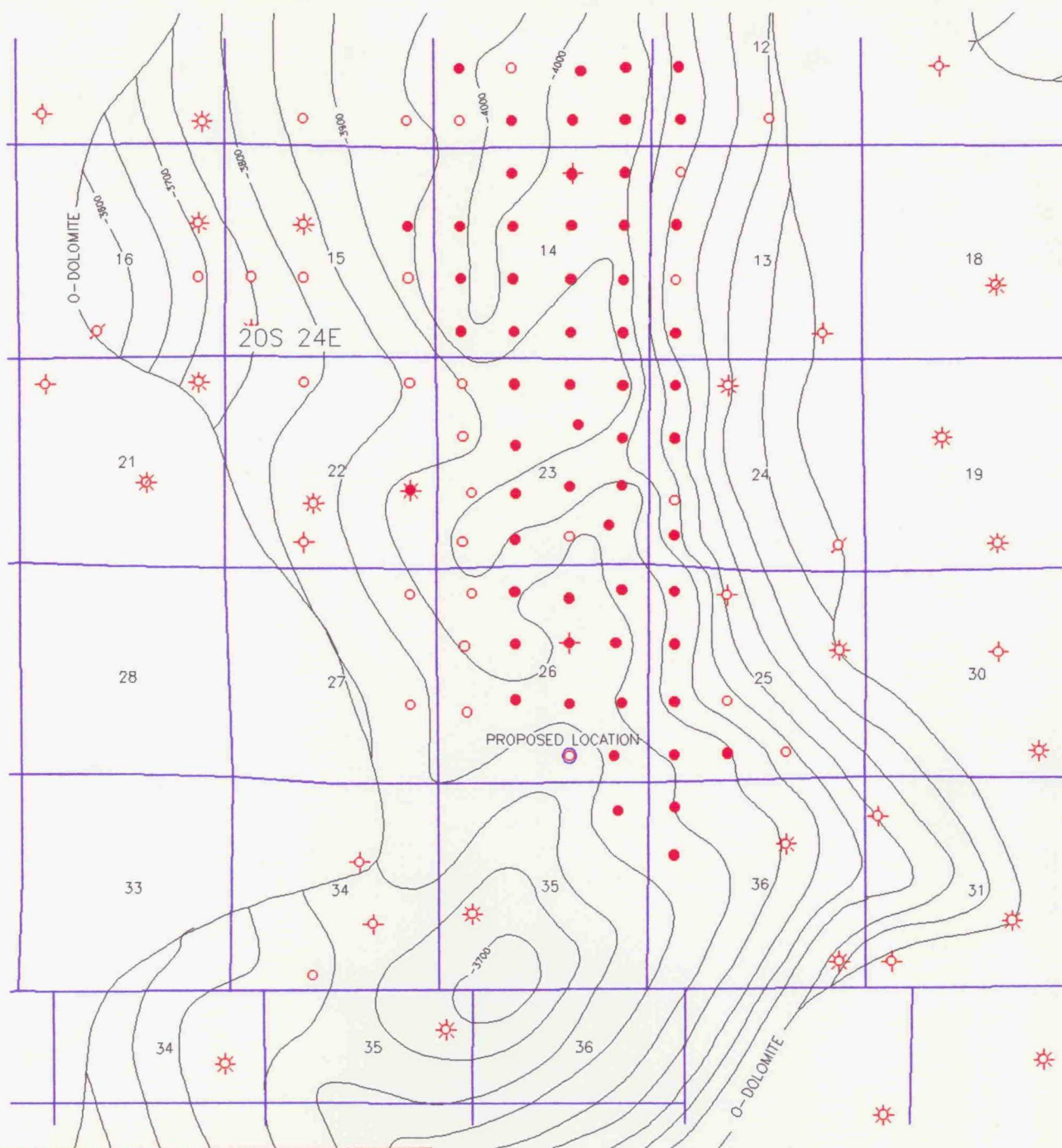
Very truly yours,

YATES PETROLEUM CORPORATION

Kathy H. Porter, CPL
Landman

KHP/pkw

BEFORE ME, CLERK OF DISTRICT COURT	
JULIO L. GARCIA, JR., CLERK	
YATES	3
CASE NO.	10730



BEFORE EXAMINER CATANACH

OIL CONSERVATION DIVISION

YATES EXHIBIT NO. **4**

CASE NO. **10730**

YATES PETROLEUM CORPORATION

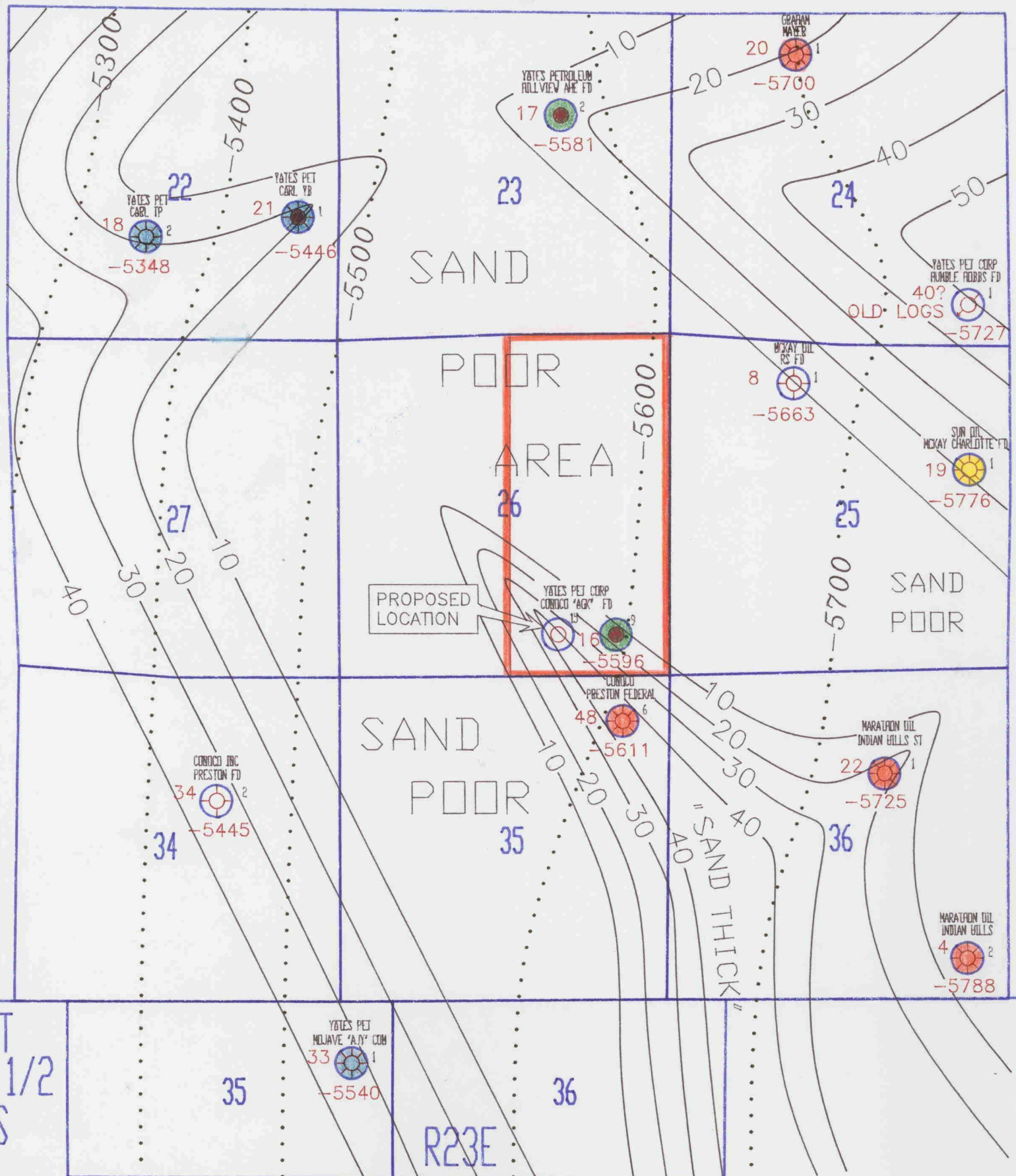
NEW MEXICO
SOUTH DAGGER DRAW
STRUCTURE MAP

DNESE FLY

MAY 11, 1993

1" = 4000'

R24E

T
20
ST
20 1/2
S

LEGEND

- FEET OF MORROW SAND
 MORROW PENETRATIONS
 -5540 SUBSEA DATUM OF MAIN MORROW CLASTICS

- UPPER MORROW GAS PRODUCERS
 ATOKA GAS WELL
 PLUGGED BACK TO CANYON GAS WELLS
 PLUGGED BACK TO CANYON OIL WELLS

BEFORE EXAMINER CATANACH
OIL CONSERVATION DIVISION

YATES EXHIBIT NO. 5

CASE NO. 10730

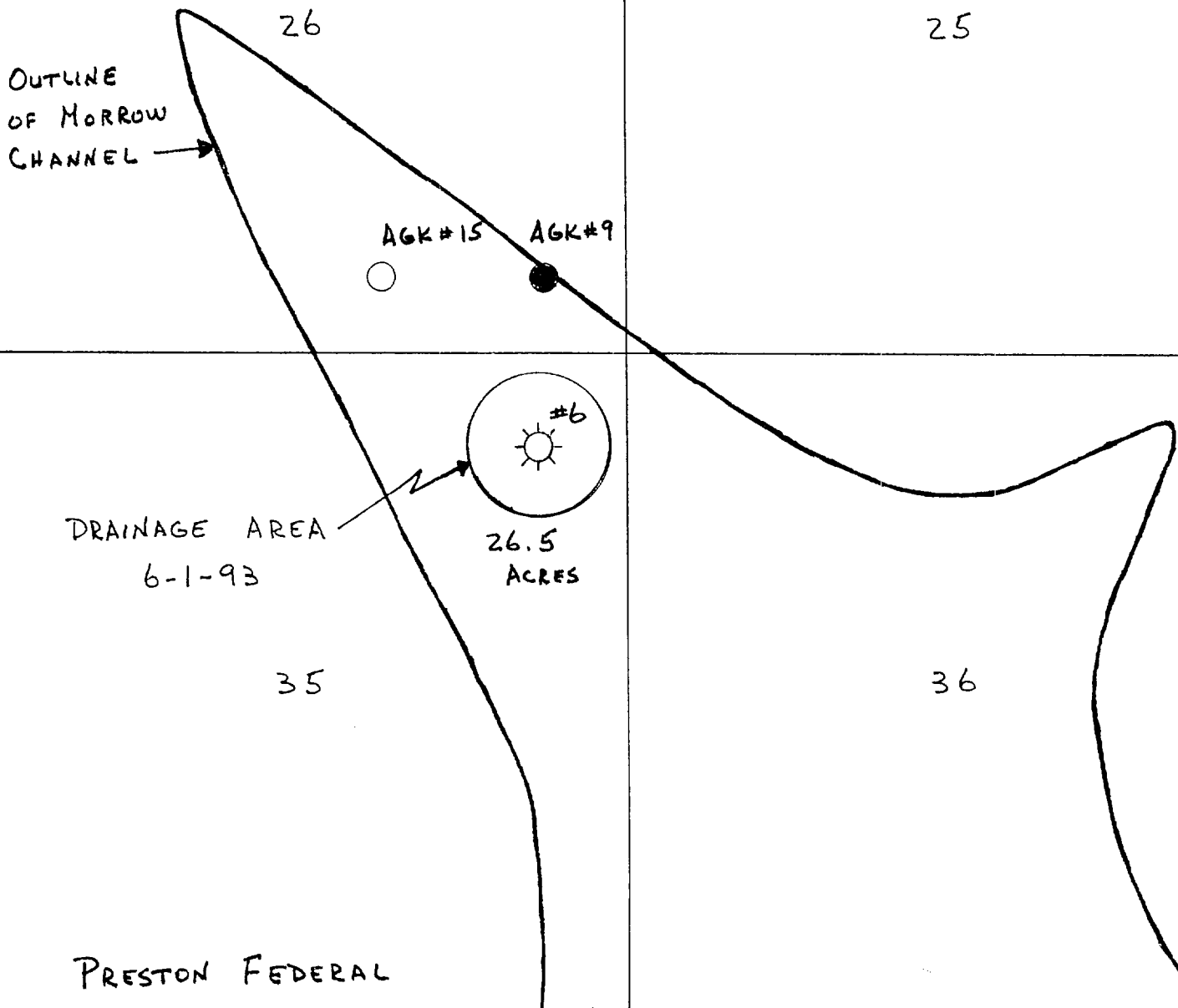
40 ——— SOLID CONTOURS : ISOPACH OF UPPER MORROW SAND; C.I. = 10 FT.

5600 DOTTED CONTOURS : STRUCTURE CONTOURS ON TOP OF MAIN MORROW CLASTICS ; C. I. = 100 FT

SCALE : 1" = 2000'

DRAINAGE AREA - PRESTON FEDERAL # 6

BUREAU OF LAND MANAGEMENT OIL CONSERVATION DIVISION	
YATES	EXHIBIT NO. 7
CASE NO. 10730	



Drainage Area of Preston Federal #6

I. Bottomhole Pressure = 3550 psi

Temperature = 166 F

Gas Gravity = 0.678

Z - Factor

$$\begin{array}{lll} T_c=382 & T_r=626/382=1.64 & \} \\ & & \} Z=0.85 \\ P_c=688 \text{ psi} & P_r=3550/1668=5.31 & \} \end{array}$$

Formation Volume Factor

$$B_g=35.35 \text{ P/ZT}$$

$$B_g=35.35 (3550)/(0.85)(626)=236 \text{ Scf/ft}^3$$

Hydrocarbon Pore Volume = 2.637 feet

II. Production

March 93	190,686 Mcf
April 93	218,900
May 93	<u>200,000</u>
	610,000 Mcf = Cum to 6-1-93

III. Area Drained

$$G_p = R_F (43560) A (\text{PHI}) h S_g B_g$$

where Recovery Factor (R_F) = 0.85

$$G_p = 610 \text{ MMcf}$$

$$(\text{PHI})hS_g = 2.637$$

$$B_g = 236$$

So

$$610(10)^6 = 0.85 (43560) A (2.637) (236)$$

$$610(10)^6 = 23.0(10)^6 A$$

$$\text{Area} = 26.5 \text{ acres}$$

$$\text{Radius of Circle} = 606 \text{ ft on 6-1-93}$$

Drainage Area reaches lease boundary on July 10.

PRESTON FEDERAL #6
HYDROCARBON PORE VOLUME

MORROW
PERF = 9302-9326

Rw = 0.157 at 70 F
Rw = 0.070 at 166 F

DEPTH	POROSITY	Rdeep	Rtrue	Sw	Sg	Sg*PHI
-----	-----	-----	-----	-----	-----	-----
9296	0.060	135	135	0.379	0.621	0.037
9297	0.028	250	250	0.597	0.403	0.011
9298	0.025	300	300	0.610	0.390	0.010
9299	0.040	250	250	0.418	0.582	0.023
9300	0.072	60	90	0.387	0.613	0.044
9301	0.093	40	60	0.367	0.633	0.059
9302	0.110	42	63	0.303	0.697	0.077
9303	0.123	53	80	0.241	0.759	0.093
9304	0.145	48	72	0.215	0.785	0.114
9305	0.153	27	41	0.271	0.729	0.111
9306	0.149	28	42	0.274	0.726	0.108
9307	0.142	29	44	0.282	0.718	0.102
9308	0.149	31	47	0.260	0.740	0.110
9309	0.152	30	45	0.259	0.741	0.113
9310	0.148	29	44	0.271	0.729	0.108
9311	0.144	29	44	0.278	0.722	0.104
9312	0.143	30	45	0.275	0.725	0.104
9313	0.142	29	44	0.282	0.718	0.102
9314	0.141	29	44	0.284	0.716	0.101
9315	0.134	27	41	0.310	0.690	0.092
9316	0.121	30	45	0.325	0.675	0.082
9317	0.123	35	53	0.296	0.704	0.087
9318	0.123	42	63	0.271	0.729	0.090
9319	0.121	41	62	0.278	0.722	0.087
9320	0.123	38	57	0.284	0.716	0.088
9321	0.124	34	51	0.298	0.702	0.087
9322	0.130	33	50	0.289	0.711	0.092
9323	0.140	30	45	0.281	0.719	0.101
9324	0.138	28	42	0.295	0.705	0.097
9325	0.118	32	48	0.323	0.677	0.080
9326	0.098	38	57	0.357	0.643	0.063
9327	0.081	45	68	0.397	0.603	0.049
9328	0.120	58	87	0.236	0.764	0.092
	-----			-----	-----	-----
	3.853			10.492	22.508	2.637
AVERAGE =	0.117			0.318	0.682	

GAS-In-PLACE Near Preston Federal #6

I. Yates - Section 26

Acre-Feet = 2308

OGIP = 43560 Ah (PHI) Sg Bg

where Bg = 236 Scf/Ft³

Average porosity = 0.117

Average saturation = 0.682

Ah=2308 Acre-feet

OGIP = 43560 Ah (PHI) Sg Bg

OGIP = 43560 (2308)(0.117)(0.682)(236)

OGIP = **1.89 Bcf**

II. Conoco - Section 35

Acre-Feet = 4224

OGIP = 43560(4224)(0.117)(0.682)(236)

OGIP = **3.46 Bcf**

SECTION 26, T10N, R10E, S10E	
YATES	
10730	8

CONOCO PRESTON FEDERAL #6
 SURFACE = 990 FN & 460 FE 35-20S-24E
 BOTTOMHOLE = 729 FN & 753 FE 35-20S-24E

PLANIMETER VOLUME of GAS PAY in SECTION 26 to the NORTH
 ISOPACH MAP PREPARED by RAY BECK and D'NESE FLY

AREA	MEASURED AREA	AREA (ACRE)	RATIO of AREAS	INTERVAL (FEET)	EQ	DELTA VOLUME (AC-FT)
A(0)	96	94.1				
A(10)	96	94.1	1.00	10.00	PYR	940.9
A(20)	59	57.8	0.61	10.00	PYR	752.3
A(30)	30	29.4	0.51	10.00	PYR	428.2
A(40)	9	8.8	0.30	10.00	PYR	181.1
A(42)	0	0.0	0.00	2.00	PYR	5.9
						2308.3

PLANIMETER VOLUME of GAS PAY in SECTION 35
 ISOPACH MAP PREPARED by RAY BECK and D'NESE FLY

AREA	MEASURED AREA	AREA (ACRE)	RATIO of AREAS	INTERVAL (FEET)	EQ	DELTA VOLUME (AC-FT)
A(0)	165	161.7				
A(10)	165	161.7	1.00	10.00	PYR	1617.2
A(20)	107	104.9	0.65	10.00	PYR	1322.7
A(30)	59	57.8	0.55	10.00	PYR	801.9
A(40)	27	26.5	0.46	10.00	PYR	411.4
A(48)	0	0.0	0.00	8.00	PYR	70.6
						4223.7