

DATE IN	3/3/03	ENGINEER	U V S	LOGGED IN	RW	TYPE	NSL	APPRO	PKRVO306330475
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
 - Engineering Bureau -
 1220 South St. Francis Drive, Santa Fe, NM 87505



ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

- [NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

- [1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]
- [A] Location - Spacing Unit - Simultaneous Dedication
 NSL NSP SD
- Check One Only for [B] or [C]
- [B] Commingling - Storage - Measurement
 DHC CTB PLC PC OLS OLM
- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
 WFX PMX SWD IPI EOR PPR
- [D] Other: Specify _____

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Oil Conservation Division

- [2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or Does Not Apply
- [A] Working, Royalty or Overriding Royalty Interest Owners
- [B] Offset Operators, Leaseholders or Surface Owner
- [C] Application is One Which Requires Published Legal Notice
- [D] Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate and complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

WILLIAM F. CARR
 Print or Type Name

William F. Carr
 Signature

ATTORNEY
 Title

3/3/03
 Date

wcarr@hollandhart.com
 e-mail Address

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William F. Carr

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March 3, 2003

HAND-DELIVERED

Lori Wrotenbery, Director
Oil Conservation Division
New Mexico Department of Energy,
Minerals and Natural Resources
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

Re: Application of EOG Resources, Inc. for administrative approval of an unorthodox well location for its Dave's Hopper "31" Well No. 1, to be directionally drilled from a surface location 991 feet from the North line and 2312 feet from the East line to an unorthodox bottomhole location 788 feet from the North line and 2385 feet from the West line of Section 31, Township 15 South, Range 35 East, N.M.P.M., Lea County, New Mexico.

Dear Ms. Wrotenbery:

EOG Resources, Inc. hereby seeks administrative approval pursuant to the provisions of Division Rule 104 F (2)-(4) adopted on August 12, 1999, of an unorthodox well location for its Dave's Hopper "31" Well No. 1 (previously named the Vawter Well No. 1) to be re-entered and directionally drilled from a surface location 991 feet from the North line and 2312 feet from the East line to an unorthodox bottom hole location 788 feet from the North line and 2385 feet from the West line of Section 31, Township 15 South, Range 35 East, N.M.P.M., Lea County, New Mexico. The proposed surface location results from the re-entry of this existing well. This well will be drilled to a depth sufficient to test the Morrow and the Mississippian Chester formations, Undesignated Big Dog-Morrow Gas Pool. A standard 320-acre spacing and proration unit comprised of the N/2 of Section 31 will be dedicated to the well.

This bottom hole location in the Morrow and Mississippian Chester formations is unorthodox because it is governed by the Division's statewide rules which provide for wells on 320-spacing units to be located no closer than 660 feet to the outer boundary of the quarter section on which the well is located and no closer than 10 feet to any quarter-

quarter section line or subdivision inner boundary. The proposed unorthodox well location is 255 feet from an outer boundary of a quarter section line.

An unorthodox bottomhole location for this well is required by geologic conditions. The proposed location is based on 3D seismic data as integrated with well control which shows a Mississippian low where there is a thickening of the Morrow formation. EOG's geologic model for this area is that there is greater potential for Morrow sands in thicker intervals rather than thins. Seismic data does not "see" Morrow sands but shows a thickening of the Morrow interval that suggests the potential for Morrow sands at the proposed bottom hole location.

Exhibit A is a Mississippian Upper Time Structure Map. This figure shows the proposed surface and bottomhole locations for the Dave's Hopper "31" Well No. 1. Also shown is the lay down 320-acre proration unit (N/2 of Section 31), the centerline of the spacing unit with a dashed line and west side 660 foot setback box. The color contours of the map show a Mississippian low plunging to the north through the middle of the spacing unit. The blue/purple colors show lows and the yellow/red colors indicate highs.

Exhibit B is Seismic Line A-A' through the surface and bottomhole locations for the Dave's Hopper "31" Well No. 1. The seismic line shows the interpretation of the Morrow and Mississippian reflections. Also shown is where the seismic line intersects the edges of the proration unit and the nearby edge of the 660 foot setback box on the west side of the spacing unit. The seismic line shows that the proposed bottomhole location at the Morrow interval thickens and develops an additional reflection in this interval. This thickening corresponds to the Mississippian low on Exhibit A as shown in dark blue. It can be seen on this seismic line that an orthodox bottom hole location to the west of our proposed location would be moving out of the thickest portion of the low and therefore would increase the risk of encountering productive Morrow sand.

Exhibit C is a Morrow Mesa Sand – Net Sand Isopach Map. The Mesa Sand in the Morrow interval is producing from the EOG John's Hopper "30" Well No. 2 to the northwest in Section 30. The sand isopach interpretation is guided by the 3D seismic which causes EOG to request this unorthodox bottomhole location.

Exhibit D is a production map showing other Morrow wells and production in this area.

Exhibit E is a plat that shows the subject area, the 320-acre spacing unit comprised of all of the N/2 of Section 31 and the proposed surface and unorthodox bottom hole location

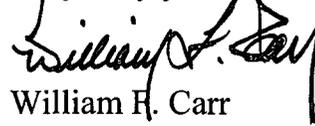
Administrative application for unorthodox well location
Dave's Hopper "31" Well No. 1
March 3, 2003
Page 3

for this well. Since this well is only unorthodox toward the center of this spacing unit, the ownership is identical in the quarter section on which this location encroaches. Accordingly, there are no affected parties to whom notice of this application is required by Division Rule 1207 (A)(2).

Enclosed in hard copy and disc is a proposed administrative order of the Division.

Your attention to this application is appreciated.

Very truly yours,



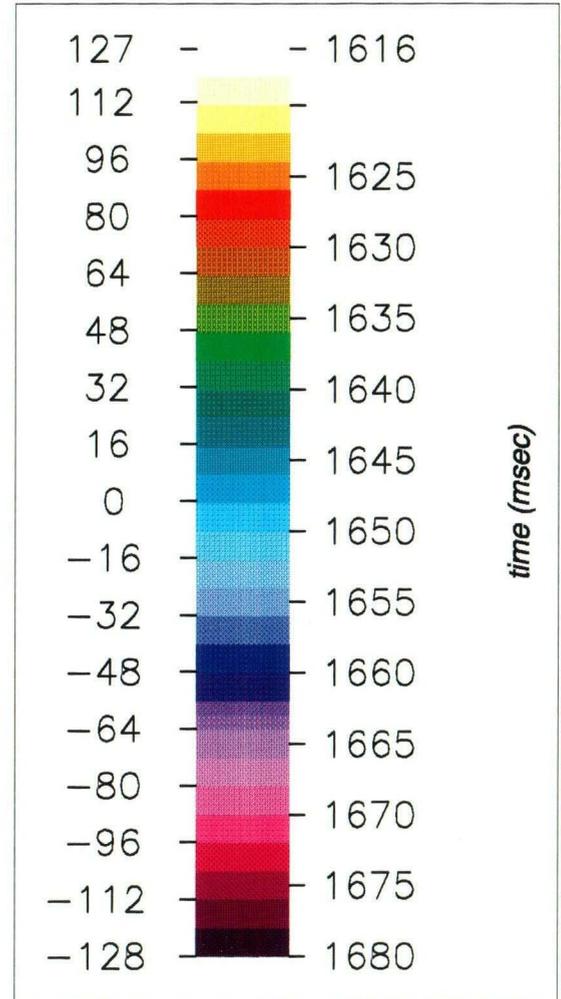
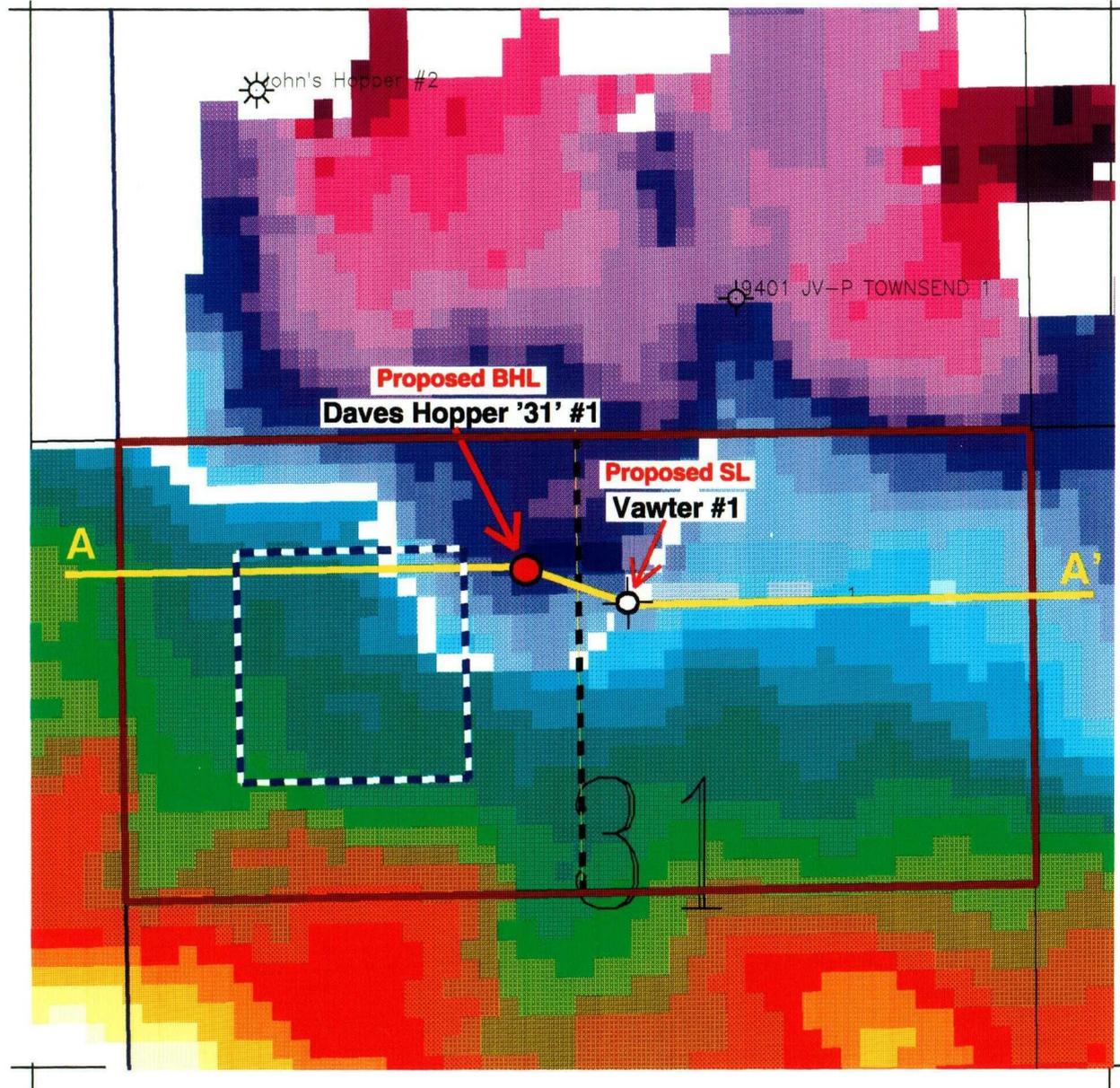
William H. Carr
Attorney for EOG Resources, Inc.

Enclosures

cc: Patrick J. Tower, Project Landman
EOG Resources, Inc.
Post Office Box 2267
Midland, Texas 79702

EXHIBIT A

SEC 31-T15S-R35E
Daves Hopper '31' #1
Time Structure Map
DJS



Mississippian Upper Time Structure Map

**Daves Hopper
'31' #1**

SEC 31-T15S-R35E
Daves Hopper #1
Seismic Line A-A'
DJS

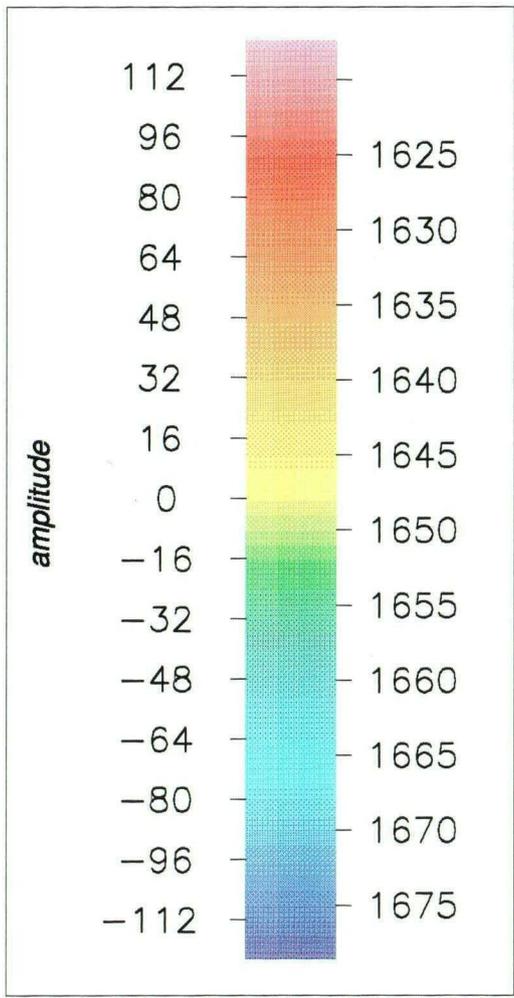
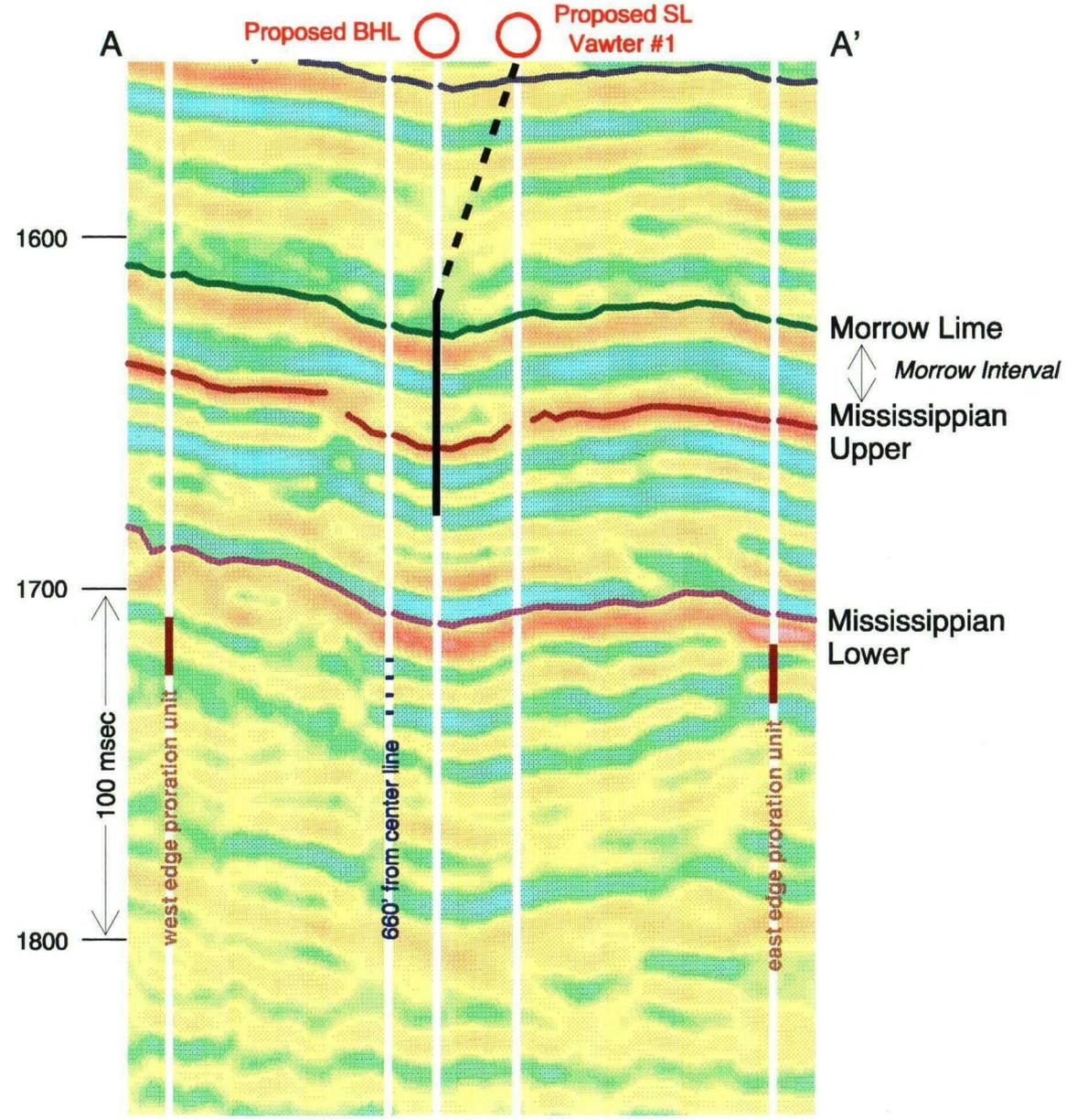


EXHIBIT B



(P) DAG TEX-MEX (p) LOVINGTON

Morrow Mesa Sand

Net Sand Isopach

0 1,000



FEET

POSTED WELL DATA

Operator
Well Name
Well Number

● MORROW - MRROWMESA(DAG)

PEF - O, MRROW - ALL(DSP) (MEC)
PEF - O, MRROW - ALL(SBY) (MEC)
PEF - W, MRROW - ALL(DSP) (MEW)

ATTRIBUTE MAP

● MORROW PRODUCERS

SYMBOL HIGHLIGHT

- (BHL) BOTTOM-HOLE LOCATION
- (SL) SURFACE LOCATION

WELL SYMBOLS

- Location Only
- ⊗ Gas Well
- ⊖ Dry Hole
- ⊗ Abandoned GAS Well

REMARKS
T15S-R35E

All Wells Posted

C.I. = 5'

T:\PetraUsers\KPEREZ\I DAG TEX-MEX\
PROSPECTS\LOVINGTON\
PAF_DHOPPER #1_PRODUCTION.MAP

By: K. Perez - Geology by D. Godsey

February 28, 2003

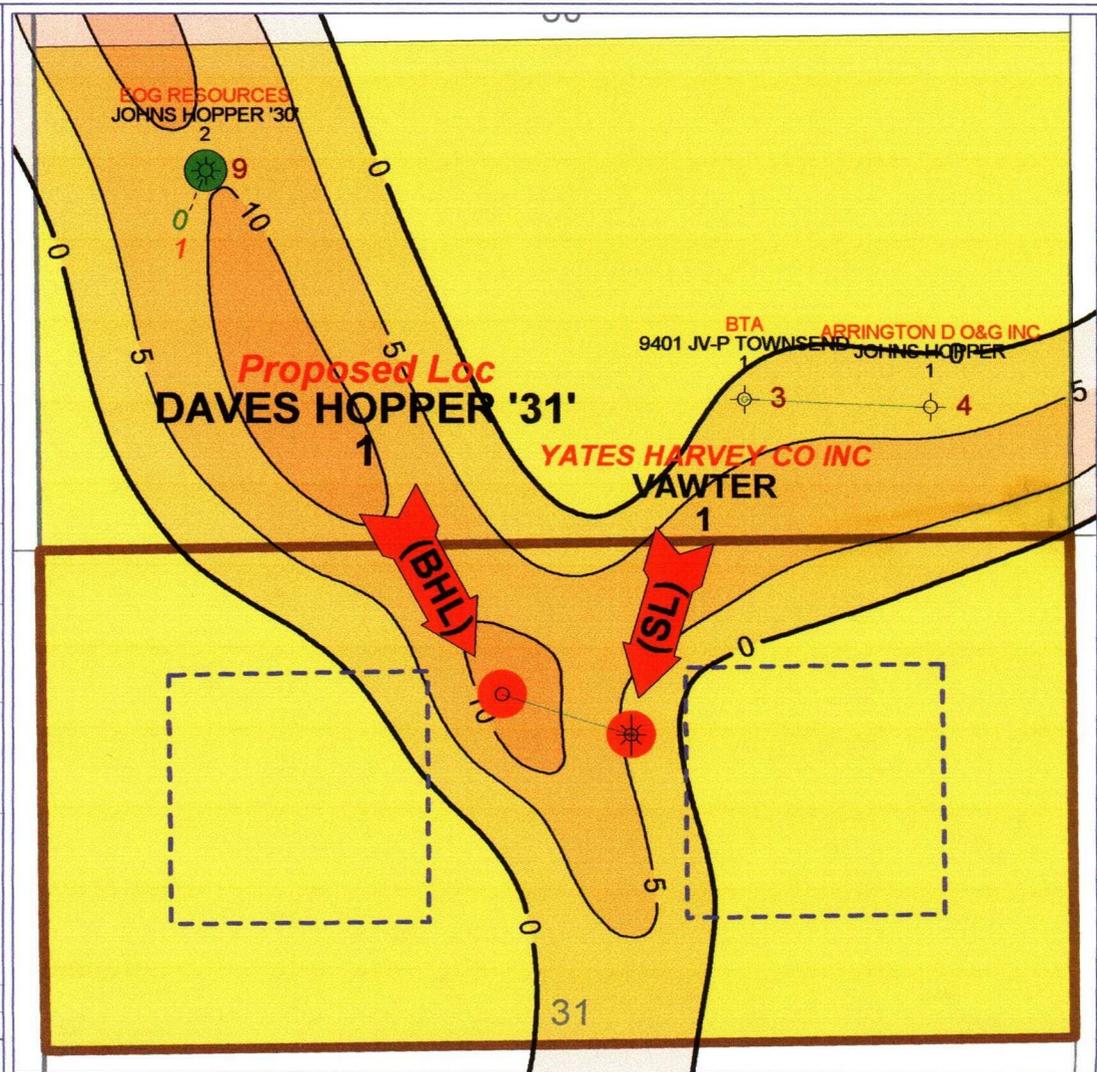


EXHIBIT C

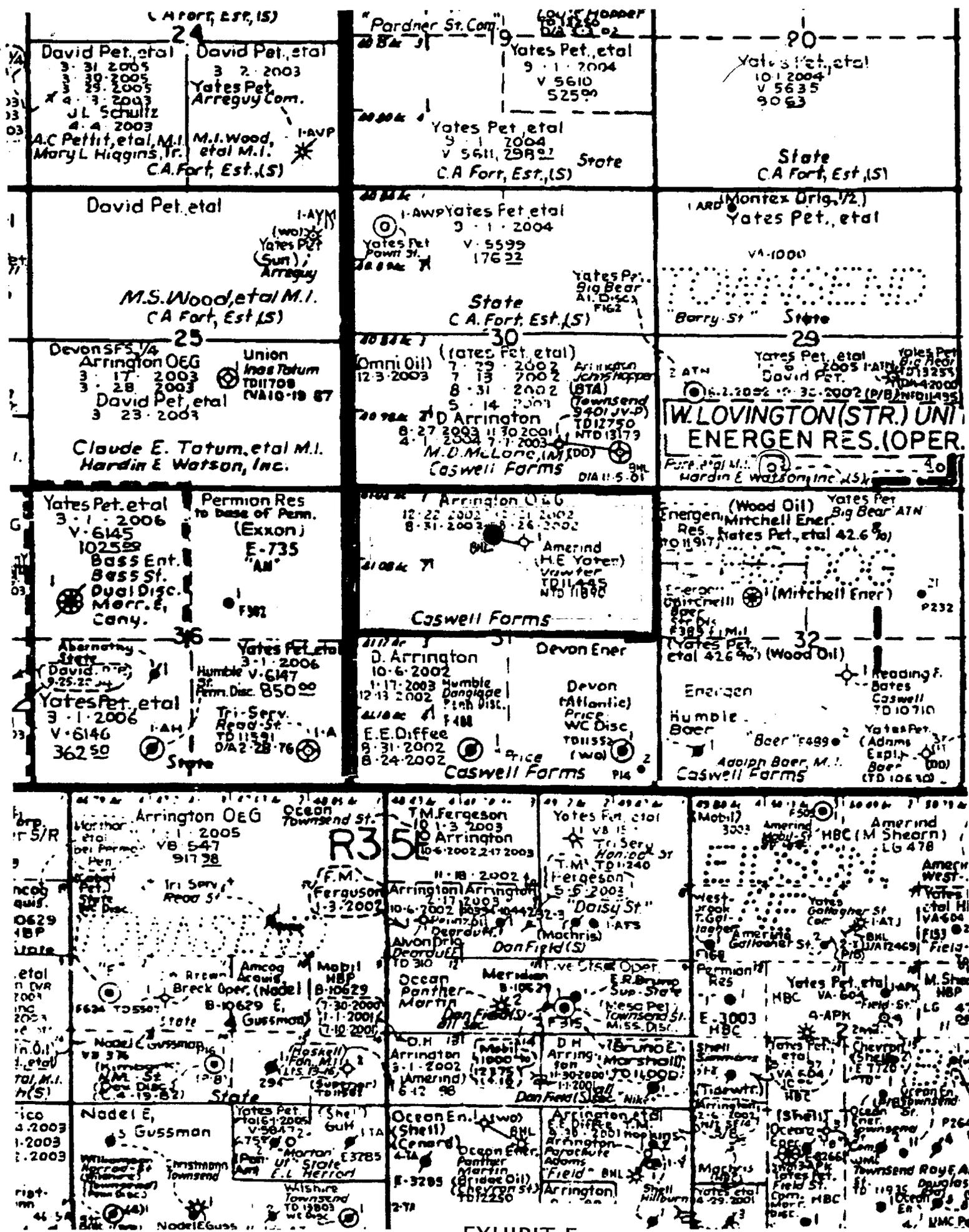


EXHIBIT E