

DATE 10/11/02	DATE 10/31/02	ENGINEER	LOGGED IN <i>KV</i>	TYPE <i>NSL</i>	APP NO. 229027324
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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]**

OCT 11 AM 4:09

- [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 \_\_\_\_\_
- [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

10-11-02  
 Date

wcarr@hollandhart.com  
 e-mail Address

HOLLAND & HART LLP  
ATTORNEYS AT LAW

DENVER • ASPEN  
BOULDER • COLORADO SPRINGS  
DENVER TECH CENTER  
BILLINGS • BOISE  
CHEYENNE • JACKSON HOLE  
SALT LAKE CITY • SANTA FE  
WASHINGTON, D.C.

P.O. BOX 2208  
SANTA FE, NEW MEXICO 87504-2208  
110 NORTH GUADALUPE, SUITE 1  
SANTA FE, NEW MEXICO 87501-6525

TELEPHONE (505) 988-4421  
FACSIMILE (505) 983-6043

William F. Carr  
wcarr@hollandhart.com

180' Too Far North  
150' Too Far West

October 11, 2002

**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

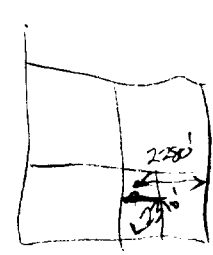
MUST be WITHIN  
150' of Center of Q. Q.  
2120' FSL, FEL  
1830' FSL, FEL

Re: Application of EOG Resources, Inc. administrative approval of an unorthodox gas well location for its Green Drake "9" Well No. 1, to be drilled at an unorthodox location 2310 feet from the South line and 2280 feet from the East line Section 9, Township 16 South, Range 37 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 Green Drake "9" Well No. 1 to be drilled at an unorthodox location 2310 feet from the South line and 2280 feet from the East line of Section 9, Township 16 South, Range 37 East, N.M.P.M., Lea County, New Mexico. This well will be drilled to a depth sufficient to test the Upper Pennsylvanian formation, Northeast Lovington-Upper Pennsylvanian Pool. A standard 80-acre spacing and proration unit comprised of the W/2 SE/4 of Section 9 will be dedicated to the well.

UNDEC.



40760

This location in the Upper Pennsylvanian formation is unorthodox because it is governed by Rule 4 of the Special Rules and Regulations for the Northeast Lovington-Pennsylvanian Pool, adopted by Order No. R-3816, issued by the Oil Conservation Commission in Case 4172 on August 14, 1969, which provides for wells on 80-spacing units to be located within 150 feet of the center of a governmental quarter-quarter section or lot. The proposed unorthodox well location is closer to the north and West boundaries of the dedicated spacing unit than authorized by these Special Rules and Regulations.

An unorthodox location for this well is required by geologic conditions. The proposed location is based on 3D seismic as integrated with well control. This

HOLLAND & HART<sup>LLP</sup>  
ATTORNEYS AT LAW

October 11, 2002

Page 2

location is a combination of a seismic thick and higher potential for porous algal mound development across a seismic high. EOG's geologic model for this area is that there is greater potential for Strawn algal mound development in thicker intervals rather than thins. Seismic data strongly infers the presence of algal mound development by seismic isochron thickening and infers porosity development by seismic character. The unorthodox location is further required by structural position with the identified seismic thick.

Exhibits 1 and 2 each show the proposed unorthodox well location, the 80-acre spacing unit for the well, the standard well location window authorized by statewide rules, the standard well location window authorized by the Special Pool Rules and Regulations for the Northeast Lovington-Pennsylvanian Pool, and pipelines in the area.

Exhibit 1 is an isochron map of the Strawn carbonate. The red-orange areas on this map are seismic thicks. The heavy green lines mark the interpreted edges of the seismic thicks and hence the edges of the porous algal mound. EOG's proposed location is in the interpreted seismic thick.

Exhibit 2 is the seismic depth structure map on the top of the Strawn formation. The dashed lines on this map show algal mound porosity and the red areas on this map are structurally high to the green/blue/purple areas. Also the porous algal mound edges are shown on this structure map. EOG's proposed location is on the high where the algal mound trends through the NW/4 SE/4 of Section 9. Based on our interpretation, the proposed location keeps the proposed well location in the axis of the algal mound complex and near the seismic structure high, mitigating being close to the edge of the interpreted algal mound. This location is critical because EOG can stay away from the mound edge and is in a position to maximize EOG's ability to effectively recover hydrocarbons from this 80-acre spacing unit.

Exhibits 1 and 2 show that the proposed unorthodox location is in an area of algal mound porosity which is substantially greater than the porosity which could be encountered at a standard location.

Exhibit 3 is a production map which shows the cumulative production from offsetting wells and, when compared to Exhibits 1 and 2, confirms EOG's interpretation of the area and the need to locate wells in the areas of higher porosity values.

Attached hereto as Exhibit 4 is a plat which shows the subject area, the 80-acre spacing unit comprised of all of the W/2 SE/4 of Section 9 and the proposed unorthodox well location. Since this well encroaches on tracts to the North,

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ATTORNEYS AT LAW

October 11, 2002

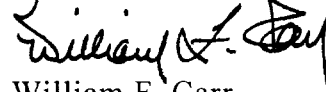
Page 3

northwest and West, a copy of this application, including a copy of the plat described above has been sent to the operators of these offsetting spacing units by certified mail-return receipt requested in accordance with Rule 1207 (A)(5). These operators are identified on the Notification List attached to this application and have been advised that if they have an objection to this application it must be filed in writing with the Division's Santa Fe office within twenty days from the date this notice was sent.

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

Your attention to this application is appreciated.

Very truly yours,

A handwritten signature in black ink, appearing to read "William F. Carr", written over a horizontal line.

William F. Carr

Attorney for EOG Resources, Inc.

Enclosures

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

HOLLAND & HART<sup>LLP</sup>  
ATTORNEYS AT LAW

October 11, 2002

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**NOTIFICATION LIST**

Application of EOG Resources, Inc.  
for administrative approval of an unorthodox gas well location  
Green Drake "9" Well No. 1  
80 acres (W/2 SE/4)  
Section 9, Township 16 South, Range 37 East, NMPM  
Lea County, New Mexico.

**Offset Operators**

Apache Corporation  
2000 Post Oak Blvd., Suite 100  
Houston, Texas 77056

Chalfant Properties, Inc.  
Post Office Box 3123  
Midland, Texas 79702-3123

Chesapeake Exploration Limited Partnership  
Chesapeake Investments  
Post Office Box 18496  
Oklahoma City, Oklahoma 73154

Rebel Oil Company, L.L.C.  
Post Office Box 786  
Hobbs, New Mexico 88241  
Attention: Shane Spear, Manager

TLW Investments Inc.  
Post Office Box 54525  
Oklahoma City, Oklahoma 73154

October \_\_, 2002

EOG Resources, Inc.  
c/o Holland & Hart, LLP  
Post Office Box 2208  
Santa Fe, New Mexico 87504-2208  
Attention: William F. Carr

Telefax No. (505) 983-6043

*Administrative Order NSL-\_\_\_\_\_*

Dear Mr. Carr:

Reference is made to the following: (i) your application on behalf of the operator, EOG Resources, Inc. ("EOG") dated October 9, 2002 (*application reference No. \_\_\_\_\_ - \_\_\_\_\_*); and (ii) the records of the New Mexico Oil Conservation Division ("Division") in Santa Fe: all concerning EOG's request for a unorthodox gas well location in the Upper Pennsylvanian formation, for its Green Drake "9" Well No. 1 to be drilled at a location 2310 feet from the South line and 2280 feet from the East line (Unit J) of Section 9, Township 16 South, Range 37 East, NMPM. Lea County, New Mexico.

The W/2 SE/4 of Section 9, Township 16 South, Range 37 East, NMPM, Lea County, New Mexico being a standard gas spacing and proration unit in the Northeast Lovington-Upper Pennsylvanian Pool (**40760**) is to be dedicated to this well.

This application has been duly filed under the provisions of Division Rule 104.F, revised by Division Order No.R-11231, issued by the New Mexico Oil Conservation Commission in Case No. 12119 on August 12, 1999.

It is our understanding that EOG is seeking this location exception based on 3-D seismic survey of the immediate area, which indicates that a well drilled at the proposed unorthodox gas well location will be at a more favorable geologic position within the Upper Pennsylvanian formation than a well drilled at a location considered to be standard within the W/2 SE/4 of Section 9.

By the authority granted me under the provisions of Division Rule 104.F (2), the above-described unorthodox gas well location in the Upper Pennsylvanian formation within this 80-acre unit comprising the W/2 SE/4 of Section 9 is hereby approved.

Sincerely,

Lori Wrotenbery  
Director

cc: New Mexico Oil Conservation Division – Hobbs  
U. S. Bureau of Land Management - Carlsbad

DEAN

Tamara Maxie(S)

9.28.2003

3-1-2009  
102054  
16020  
U.S. MI

W.A. & Anders  
TGD Ltd

Exxon  
H.B.P.  
A-1320

TMBR/Sharp  
Tenneco  
4-1-98  
VA-875  
6341

Petrus  
HBP  
A-4096  
F. Luffy, Jr  
1337 50

Arrington O.G.  
7-28-2000  
8-17-99

Apac  
8-21  
9-26

State

State  
Exxon  
St. Louis  
Tomara Maxie(S)

Kimberly Morris, et al by M.I.  
W.A. & Ruby Anderson, et al. M.I.  
Tomara Maxie

Kim  
TGD Ltd

Condor  
12-1-2003  
Apuric  
2001 8-25-2001  
H-4-2001  
Pet et al  
2-2009

Votes Pet  
LG-7355 HBP  
State M.I.  
Minnie Taylor(S)

Apuric  
V-339  
F-562

Chesapeake Op  
V-5270  
Medlin Arrington  
10-11-2001

Collins & Ware  
3-1-2009  
102054  
16020

Apac  
8-18-2001  
9-15-2001  
9-22-2001  
10-9-2001

Faron Oil  
10-11-2000

Votes Pet  
LG-7355 IADM  
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P25 State

BHP Pet.  
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Apac  
8-18-2001  
9-15-2001  
9-22-2001  
10-9-2001

Apac  
8-4-2001  
11-6-2001

Smith E. Morris  
Borthel Ind, 1/2  
"E. Lovington"  
Mills Dev.

Amrudo (Apache)  
Andre  
8-1-2004  
Chesapeake  
3-8-2005 7-28-2005  
8-20-2004

Arrington O.G.  
HBP  
8-22-77  
Arrington  
8-1-2004

Arrington O.G.  
HBP  
1-3-12-2001  
4-30-2001  
5-18-2001

Apache  
(Penny)  
F207

Apac  
9-22-2001  
F-11  
F-5  
10-9-2001  
F. Co  
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E.P. Coudill,  
et al(S)  
SWR Surf etc

Hawkins Medlin  
B.R. Votes  
Medlin, Lovington  
1/2(S)

"Buddy"  
Lowe Rice Ltd  
Hawkins Medlin  
B.R. Medlin h(S)

Arrington O.G.  
HBP  
8-22-77  
Arrington  
8-1-2004

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Manda E Medlin, et al  
B.R. Medlin 1/2(S)

"Homestead Roy"  
M. Co. M.I.  
Leo Co  
Investch Auctions

Apac  
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F-11  
F-5  
10-9-2001  
F. Co  
BOS D

Orburg  
Hunt Oil  
X, et al (Foron)

Orburg  
Hunt Oil  
X, et al (Foron)

Orburg  
Hunt Oil  
X, et al (Foron)

Chesapeake  
6-1-2003  
V-5322  
11252

Chesapeake  
8-2004  
3-20-2003 MEA  
9-20-2002  
12-28-2004 MEA

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X, et al (Foron)

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9-20-2002  
12-28-2004 MEA

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9-20-2002  
12-28-2004 MEA

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12-28

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X, et al (Foron)

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11252

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3-20-2003 MEA  
9-20-2002  
12-28-2004 MEA

Ches  
2-20  
12-28

EXHIBIT  
4

LARGE FORMAT  
EXHIBIT HAS  
BEEN REMOVED  
AND IS LOCATED  
IN THE NEXT FILE



LARGE FORMAT  
EXHIBIT HAS  
BEEN REMOVED  
AND IS LOCATED  
IN THE NEXT FILE

LARGE FORMAT  
EXHIBIT HAS  
BEEN REMOVED  
AND IS LOCATED  
IN THE NEXT FILE



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**

Governor  
Betty Rivera  
Cabinet Secretary

10/21/02

**Lori Wrotenbery**  
Director

**Oil Conservation Division**

Oil Conservation Division  
1220 S. Francis Drive  
Santa Fe, NM 87505

RE: Proposed:

MC	_____
DHC	_____
NSL	<u>  X  </u>
NSP	_____
SWD	_____
WFX	_____
PMX	_____

Gentlemen:

I have examined the application for the:

EOG Resources Inc Green Drake 9 #1-J, 9-16s-32e  
Operator                      Lease & Well No.    Unit                      S-T-R                      30-025-36050

and my recommendations are as follows:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yours very truly,

Chris Williams  
Chris Williams  
Supervisor, District 1