| | 7 South | | 7 East | | |
|---------------|-----------------|-------------|-----------------|----------------|-------------------|
| 6 | | 4 | 3 | 2 | 1 |
| | | | | | |
| | | | | | |
| - 7 | | 9 | 10 | | -12 |
| | | | | | |
| | | | | | |
| - 18 | | | 15 | 14 | 13 |
| | | | | | |
| | | | | | |
| -19 | 20 | | 22 | 23 | 24 |
| | | | | | |
| -30 | 29 | 28 | 27 | 26 | 25 |
| | | | | | |
| | | | | | |
| - 31 | 32 | 33 | | 35 | |
| | | | | | |
| +: 5/2 Sec. 3 | 4. 5/2 Sec. 350 | R-11170,4-7 | -99) Ext, Suy 4 | Sec, 25, 4/25a | .36 (R-11359, 4-1 |



POOL Red Lake Queen - Grayburg - San Andres COUNTY Eddy TOWNSHIP 17 South RANGE 27 East NMPM 2. 5 3 8 9 10 -11. -18-17. -16 --15 -14-20 19 21. 22 30 29 28 27 31-35 36 Description: "14 \$ 3/4 Sec. 25: 5/4 Sec. 34; All Sec. 35 \$ 36 Ext: 5 SW/4 Sec. 26 (R-157) - W2 SW/4 Sec. 33 (R-1857, 2-1-61) - 3 Sty Sec. 26 (R-2427, 3-1-63) - Extend Vertical limits to include Queen formation and redesignate Red Late Queen-Grayburg-San Andres (R-3280) Ext: 4 4, 4 4 7 4 Sec. 23; 4 7 4 Sec. 24 (l-4437, 12-1-72) Ext: 5/2 NW Sec 24 (R-4937, 2-1-75) Ext: ^{SE}/4 ^{SE}/4 Sec 13, ^{NE}/ Sec 24 (R-5309, 11-1-76) Ext: ³/2 ^{NE}/4 Sec 22, ³/2 ^{SE}/4 \$ ^{SW}/4 ^{NW}/4 Sec 23 (R-5417, 4-1-77) Ext: W/2 SE/4 & NE/4 SE/4 Sec 13 (R-5781, 9-1-78) Ext: 1/2 Sec. 13(R-7555, 6-14-84) Ext: 55/4 Sec. 12 (R-8257, 7-8-86) Ext: 54 and \$1254 Sec. 33, NW/4 Sec. 34 (R-10812, 6-16-97) Ext: NE/4 Sec. 33, NE/ Sec. 34 (R-10844,7-16-97) Ext: All Sec. 27 (R-10951, 2-4-98) Exx: 34 5ec. 32 (R-11005, 7-24-98) Ext: 5/250/ Sec. 24, DU/ Sec. 25, NEHand N/259 Sec. 26 (R-11963, 5-13-03)

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. 11966 ORDER NO. R-11162

APPLICATION OF DEVON ENERGY CORPORATION (NEVADA) FOR 23 UNORTHODOX OIL WELL LOCATIONS, EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on April 16, 1998 at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this <u>13</u> H day of April, 1999, the Division Director, having considered the testimony, the record and the recommendations of the Examiner,

FINDS THAT:

(1) Due public notice has been given and the Division has jurisdiction of this case and its subject matter.

(2) The applicant, Devon Energy Corporation (Nevada) ["Devon"], seeks authority to drill and produce the following wells at unorthodox oil well locations in Township 17 South, Range 27 East, NMPM, Eddy County, New Mexico:

| Well Name and Number | <u>API Number</u> | Secti | on Footage Location | Unit |
|-----------------------------|-------------------|-------|-----------------------|------|
| Eagle "27-H" Federal No. 15 | 30-015-29942 | 27 | 1450' FNL & 990' FEL | н |
| Evarts "31" Federal No. 3 | 30-015-30171 | 31 | 1330' FSL & 1630' FEL | J |
| Eagle "33-G" Federal No. 6 | 30-015-29595 | 33 | 2460' FNL & 1350' FEL | G |
| Eagle "33-H" Federal No. 8 | 30-015-29596 | 33 | 2435' FNL & 531' FEL | Н |
| Eagle "33-N" Federal No. 10 | 30-015-29598 | 33 | 230' FSL & 2140' FWL | N |
| Eagle "34-E" Federal No. 10 | 30-015-29632 | 34 | 2310' FNL & 1240' FWL | Е |
| Eagle "34-F" Federal No. 12 | 30-015-29635 | 34 | 2310' FNL & 2420' FWL | F |
| Eagle "34-G" Federal No. 14 | 30-015-29636 | 34 | 2310' FNL & 1600' FEL | G |
| Eagle "34-I" Federal No. 18 | 30-015-29655 | 34 | 1740' FSL & 280' FEL | I |
| Eagle "34-L" Federal No. 24 | 30-015-29643 | 34 | 1740' FSL & 1065' FWL | L |

In addition, Devon seeks authority to drill and produce the following wells at unorthodox oil well locations in Township 18 South, Range 27 East, NMPM, Eddy County, New Mexico:

| Well Name and Number | <u>API Number</u> | Section | on Footage Location | <u>Unit</u> |
|----------------------------------|-------------------|---------|-----------------------|-------------|
| Falcon "3-N" Federal No. 18 | 30-015-29575 | 3 | 680' FSL & 1350' FWL | Ν |
| Carter Collier "5" Federal No. 9 | 30-015-29995 | 5 | 330' FNL & 2360' FEL | В |
| Evarts "6" Federal No. 4 | 30-015-30109 | 6 | 330' FNL & 1190' FEL | A |
| Fred "6" Federal. No. 5 | 30-015-30155 | 6 | 1260' FNL & 990' FWL | D |
| Patton "6" Federal No. 6 | 30-015-30085 | б. | 2460' FNL & 2310' FWL | F |
| Patton "6" Federal No. 4 | 30-015-30079 | 6 | 1593' FSL & 1469' FWL | K |
| Patton "6" Federal No. 3 | 30-015-29980 | .6 | 930' FSL & 1450' FWL | Ν |
| Hawk "9-B" Federal No. 4 | 30-015-29480 | 9. | 990' FNL & 1360' FEL | В |
| Hawk "9-J" Federal No. 16 | 30-015-29483 | .9 | 1630' FSL & 1650' FEL | J |
| Hawk "9-0" Federal No. 17 | 30-015-29484 | 9 | 1170' FSL & 2310' FEL | 0 |
| Hawk "17-C" Federal No. 1 | 30-015-29515 | 17 | 380' FNL & 1450' FWL | С |
| Hawk "17-C" Federal No. 2 | 30-015-29726 | 17 | 890' FNL & 2585' FWL | С |
| Kaiser No. 1 | NA | 18 | 330' FNL & 1110' FEL | Α |

(3) Prior to the hearing the Division issued the following Administrative Orders for four of the above-described wells:

- (a) NSL-3969 (SD), dated March 11, 1998, granted Devon approval to drill its Hawk "17-C" Federal Wells No. 1 and 2 at the above-described unorthodox oil well locations;
- (b) NSL-3982, dated March 23, 1998, granted Devon approval to drill its Carter Collier "5" Federal Well No. 9 at the above-described unorthodox oil well location; and
- (c) NSL-3983, dated March 23, 1998, granted Devon approval to drill its Evarts "6" Federal Well No. 4 at the above-described unorthodox oil well location.

Since it is unnecessary at this time to include these four wells in this application, they should be <u>dismissed</u>.

(4) The Red Lake (Queen-Grayburg-San Andres) Pool, as currently designated, includes the following lands in Eddy County, New Mexico:

| | <u>16 SOUTH, RANGE 28 EAST,</u> | | 17 SOUTH, RANGE 28 EAST. |
|--|---|---|---|
| <u>NMPM</u> | SE/A | <u>NMPM</u> | 49 |
| Section 24: | SE/4 | | tinued) |
| Section 25: | All | Section 15: | All |
| Section 26: | S/2 S/2 | Section 16: | NE/4 and S/2 |
| Section 27: | SE/4 SE/4 | Section 18: | W/2 |
| Section 34: | All | Section 19: | S/2 |
| Section 35: | All | Section 20: | All |
| Section 36: | All | Section 22: | All |
| | | Section 23: | S/2 NW/4 and S/2 |
| | 17 SOUTH, RANGE 27 EAST, | Section 25: | N/2 |
| <u>NMPM</u> | · · | Section 26: | N/2 |
| Section 12: | SE/4 | Section 27: | N/2 N/2 and SW/4 |
| Section 13: | N/2 and SE/4 | Section 28: | All |
| Section 22: | S/2 NE/4 | Section 29: | N/2, SW/4, and N/2 SE/4 |
| Section 23: | S/2 NW/4, NE/4 SW/4, and SE/4 | Section 30: | All |
| Section 24: | NE/4, S/2 NW/4, N/2 SW/4, and | Section 31: | NE/4 NE/4, W/2 E/2, and W/2 |
| SE/4 | | | • 2 · · · · · · · · · · · · · · · · · · |
| Section 25: | NE/4 and S/2 | TOWNSHIP | 18 SOUTH, RANGE 26 EAST. |
| Section 26: | S/2 S/2 | <u>NMPM</u> | |
| Section 27: | All | Section 1: | E/2 |
| Section 32: | SE/4 | | |
| Section 33: | NE/4 and S/2 | TOWNSHIP | 18 SOUTH, RANGE 27 EAST, |
| Section 35. | | | 10 SOUTH, MAUGE 2/ EAST |
| Section 33: | All | NMPM | 10 SOUTH, RAINE 27 EAST, |
| | All All | | S/2 |
| Section 34: | | NMPM | |
| Section 34: Section 35: | All | NMPM Section 1: | S/2 |
| Section 34: Section 35: Section 36: | All | NMPM Section 1: Section 2: | S/2 S/2 |
| Section 34: Section 35: Section 36: | All All | <u>NMPM</u> Section 1: Section 2: Section 3: | S/2 S/2 All |
| Section 34: Section 35: Section 36: TOWNSHIP | All All | <u>NMPM</u> Section 1: Section 2: Section 3: Section 4: | S/2 S/2 All All |
| Section 34: Section 35: Section 36: TOWNSHIP NMPM | All All <u>17 South, Range 28 East.</u> | NMPM Section 1: Section 2: Section 3: Section 4: Section 5 | S/2 S/2 All All All |
| Section 34: Section 35: Section 36: TOWNSHIP <u>NMPM</u> Section 7: | All All <u>17 SOUTH, RANGE 28 EAST,</u> All SW/4 | <u>NMPM</u> Section 1: Section 2: Section 3: Section 4: Section 5 Section 6: Section 7 | S/2 S/2 All All All All |
| Section 34: Section 35: Section 36: TOWNSHIP NMPM Section 7: Section 8: | All All <u>17 South, Range 28 East,</u> All | NMPM Section 1: Section 2: Section 3: Section 4: Section 5 Section 6: | S/2 S/2 All All All All All |
| Section 34: Section 35: Section 36: TOWNSHIP NMPM Section 7: Section 8: Section 9: | All All <u>17 SOUTH, RANGE 28 EAST,</u> All SW/4 NE/4 NE/4, S/2 NE/4, and SE/4 | NMPM Section 1: Section 2: Section 3: Section 4: Section 5 Section 5 Section 6: Section 7 Section 8: Section 9: | S/2 S/2 All All All All All All All |
| Section 34: Section 35: Section 36: TOWNSHIP NMPM Section 7: Section 8: Section 9: Section 10: | All All <u>17 SOUTH, RANGE 28 EAST,</u> All SW/4 NE/4 NE/4, S/2 NE/4, and SE/4 SW/4 | NMPM Section 1: Section 2: Section 3: Section 4: Section 5 Section 6: Section 7 Section 8: | S/2 S/2 All All All All All All |

(5) Currently the Red Lake (Queen-Grayburg-San Andres) Pool is governed by the Division's statewide rules, which require development on standard 40-acre spacing and proration units, each having a top unit depth bracket allowable of 80 barrels of oil per day and a limiting gas/oil ratio of 2,000 cubic feet of gas per barrel of oil, and allow infill drilling on each 40-acre unit.

(6) Within a 1236.85-acre area, more or less, comprising the following described

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acreage in Eddy County, New Mexico, Devon is the operator of the West Red Lake Unit Area (approved by Division Order No. R-3453 dated July 12, 1968) in which waterflood operations are being conducted with injection into the Red Lake (Queen-Grayburg-San Andres) Pool (approved by Division Order No. R-3469, issued in Case No. 3824, dated August 13, 1968, and designated the West Red Lake Waterflood Project).

(7) The remaining 19 wells listed in Paragraph No. (2) above are either completed in or proposed to be completed in the Red Lake (Queen-Grayburg-San Andres) Pool, and each well will have a standard 40-acre, more or less, unit dedicated thereto. Eleven wells will be infill wells within existing 40-acre oil proration units while the remaining eight wells will be considered new designations.

- (8) The applicant presented evidence that indicates the following:
 - (a) All of the wells are located on federal land, except the Kaiser No. 1, which is located on fee land.
 - (b) The subject pool is continuous across the area, trending in a northeastsouthwest direction.
 - (c) The original locations for all of the subject wells were orthodox, but were moved due to topographic and engineering reasons.
 - (d) The subject area is near the Pecos River, with numerous draws and elevation changes of 100-200 feet. The Bureau of Land Management requested that numerous well locations be moved to prevent extreme cut and fill of slopes and prevent erosion of the highly erodible soil in this area. In addition, there are numerous gas transmission and gathering pipelines, roads, existing wells, and a gas plant. All of these factors limit well locations.
 - (e) Average reserves in wells completed in the subject pool are about 50,000 barrels of oil, which equate to approximately 24 acres of drainage. The drainage radius of such a well is much less than a well that is capable of draining 40 acres. The applicant has drilled wells within 400-450 feet of older, above-average wells in the pool, and has seen no evidence of drainage from those older wells.
 - (f) Directional drilling is not feasible because the small reserves in these wells do not justify the additional drilling and operating costs.

> (g) Applicant is drilling two wells per 40-acre unit to: (i) adequately drain each unit, and (ii) prepare for a possible future waterflood project. Injection in the West Red Lake Unit has shown a favorable production response. Drilling two wells per 40-acre unit could allow the Unit's waterflood project to be expanded in the future.

(9) Each of the above-described unorthodox oil well locations should be approved for one or more of the following reasons:

- (a) The location is a move toward the interior of a lease;
- (b) The location encroaches on a lease not owned or operated by the applicant, but notice was given to the offset and the Division received no objection;
- (c) The location will not drain the offset well unit due to the limited drainage areas in the subject pool;
- (d) A well will be drilled offsetting the proposed unorthodox well, or the offsetting well unit has existing wells producing from the same pool; and/or
- (e) There are no overriding royalty interest owners in the tract offsetting the subject well, or the applicant is the only overriding royalty interest owner in the offsetting tract.

(10) Approval of the proposed unorthodox oil well locations will afford the applicant the opportunity to produce its just and equitable share of oil and gas from the subject pool and will prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Devon Energy Corporation (Nevada), is hereby authorized to drill the wells described below at unorthodox oil well locations in the Red Lake (Queen-Grayburg-San Andres) Pool in Township 17 South, Range 27 East, NMPM, Eddy County, New Mexico:

| Well Name and Number | <u>API Number</u> | Section | Footage Location | <u>Unit</u> |
|-----------------------------|-------------------|---------|-----------------------|-------------|
| Eagle "27-H" Federal No. 15 | 30-015-29942 | - | 1450' FNL & 990' FEL | H |
| Evarts "31" Federal No. 3 | 30-015-30171 | | 1330' FSL & 1630' FEL | J |

Eagle "33-G" Federal No. 6 30-015-29595 2460' FNL & 1350' FEL G 33 Eagle "33-H" Federal No. 8 30-015-29596 2435' FNL & 531' FEL Н 33 Eagle "33-N" Federal No. 10 30-015-29598 33 230' FSL & 2140' FWL Ν Eagle "34-E" Federal No. 10 30-015-29632 34 2310' FNL & 1240' FWL Ε Eagle "34-F" Federal No. 12 30-015-29635 34 2310' FNL & 2420' FWL F Eagle "34-G" Federal No. 14 30-015-29636 34 2310' FNL & 1600' FEL G Eagle "34-I" Federal No. 18 30-015-29655 34 1740' FSL & 280' FEL I 30-015-29643 34 1740' FSL & 1065' FWL Eagle "34-L" Federal No. 24 L And in Township 18 South, Range 27 East, NMPM, Eddy County, New Mexico:

| Well Name and Number | <u>API Number</u> | Sectio | n Footage Location | <u>Unit</u> |
|-----------------------------|-------------------|--------|-----------------------|-------------|
| Falcon "3-N" Federal No. 18 | 30-015-29575 | 3 | 680' FSL & 1350' FWL | N |
| Fred "6" Federal. No. 5 | 30-015-30155 | 6 | 1260' FNL & 990' FWL | D |
| Patton "6" Federal No. 6 | 30-015-30085 | 6 | 2460' FNL & 2310' FWL | F |
| Patton "6" Federal No. 4 | 30-015-30079 | 6 | 1593' FSL & 1469' FWL | K |
| Patton "6" Federal No. 3 | 30-015-29980 | 6 | 930' FSL & 1450' FWL | Ν |
| Hawk "9-B" Federal No. 4 | 30-015-29480 | 9 | 990' FNL & 1360' FEL | В |
| Hawk "9-J" Federal No. 16 | 30-015-29483 | 9 | 1630' FSL & 1650' FEL | J |
| Hawk "9-O" Federal No. 17 | 30-015-29484 | 9 | 1170' FSL & 2310' FEL | 0 |
| Kaiser No. 1 | NA. | 18 | 330' FNL & 1110' FEL | A |

(2) Each well shall have a standard 40-acre oil spacing and proration unit dedicated thereto.

(3) Jurisdiction of this case is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

nber

LORI WROTENBERY Director

SEAL

STATE OF NEW MEXICO



ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION 2040 S. PACHECO SANTA FE, NEW MEXICO 87505 (505) 827-7131

October 24, 1996

Devon Energy Corporation (Nevada) 20 North Broadway, Suite 1500 Oklahoma City, Oklahoma 73102-8260 Attention: E. L. Buttross, Jr.

Administrative Order NSL-3729

Dear Mr. Buttross:

Reference is made to your (Eagle "33" Federal) applications dated August 15, September 11, and September 12, 1996 for four unorthodox oil well locations in the Undesignated Red Lake Queen-Grayburg-San Andres Pool.

These four wells are to be located in Section 33, Township 17 South, Range 27 East, NMPM, Eddy County, New Mexico.

| Well Name & No. (API Number) | Footage Location | Unit | Dedicated 40-Acre Tract |
|---|-----------------------|------|-------------------------|
| Eagle "33B" Federal No. 3 (30-015-29211) | 1030' FNL - 2310' FEL | В | NW/4 NE/4 |
| Eagle "33H" Federal No. 7 (30-015-29094) | 1450' FNL - 890' FEL | Н | SE/4 NE/4 |
| Eagle "330" Federal No. 11 (30-015-29081) | 990' FSL - 2410' FEL | 0 | SW/4 SE/4 |
| Eagle "33P" Federal No. 13 (30-015-29082) | 1140' FSL - 1090' FEL | Р | SE/4 SE/4 |

By the authority granted me under the provisions of Division General Rule 104.F(2), the four above-described unorthodox oil well locations are hereby approved.

Sincerel William J. I Director WJL/MES/kv cc:

Oil Conservation Division - Artesia
U. S. Bureau of Land Management - Carlsbad

Township No. 17 South of Range No. 27 East 33 Sec Standard 640 aire Sertion Proposed Eugle 33-P Fed. #16 1090 'FSL - 330'FEL Eagle 33- P. Fed =18 30-015-29082 1140'FSL-1090 FE Red Lake - ant 64/5A Completion USL approved by or NSL-3729 01 10-24-1896 Faste 33-PFed. Proposed Eagle "33-P"Fed. 415 # 14 30-015-33829 330'F32-890 FEL 30-015-29599 430 FS6 - 830 FEL Permitted as a Red Lako Qn-66-5A Redhote - Glorieta Yeso Completion Oil Proderes