

Submit 1 Copy To Appropriate District Office  
District I - (575) 393-6161  
1625 N. French Dr., Hobbs, NM 88240  
District II - (575) 748-1283  
811 S. First St., Artesia, NM 88210  
District III - (505) 334-6178  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV - (505) 476-3460  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-103  
Revised July 18, 2013

|   |  |   |
|---|--|---|
| <b>SUNDRY NOTICES AND REPORTS ON WELLS</b><br>(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)           |  | WELL API NO.<br>30-015-40983  |
| 1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>  |  | 5. Indicate Type of Lease<br>STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>           |
| 2. Name of Operator<br>VANGUARD OPERATING, LLC  |  | 6. State Oil & Gas Lease No.  |
| 3. Address of Operator<br>5847 SAN FELIPE, STE. 3000, HOUSTON, TEXAS, 77057   |  | 7. Lease Name or Unit Agreement Name<br>Staley State  |
| 4. Well Location<br>Unit Letter <u>O</u> : <u>330</u> feet from the <u>SOUTH</u> line and <u>1,650</u> feet from the <u>EAST</u> line<br>Section <u>30</u> Township <u>17S</u> Range <u>28E</u> NMPM County <u>EDDY</u> |  | 8. Well Number <u>20</u>  |
| 11. Elevation (Show whether DR, RKB, RT, GR, etc.)<br>3,648' GL   |  | 9. OGRID Number<br>258350   |
|   |  | 10. Pool name or Wildcat<br>Red Lake; Glorieta-Yeso NE (96836)<br>Red Lake; Queen-Grayburg-San Andres (51300) |

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

| NOTICE OF INTENTION TO:                                    |   | SUBSEQUENT REPORT OF:                            |  |
|--|---|--|--|
| PERFORM REMEDIAL WORK <input type="checkbox"/>             | PLUG AND ABANDON <input type="checkbox"/> | REMEDIAL WORK <input type="checkbox"/>           | ALTERING CASING <input type="checkbox"/> |
| TEMPORARILY ABANDON <input type="checkbox"/>               | CHANGE PLANS <input type="checkbox"/>     | COMMENCE DRILLING OPNS. <input type="checkbox"/> | P AND A <input type="checkbox"/>         |
| PULL OR ALTER CASING <input type="checkbox"/>              | MULTIPLE COMPL. <input type="checkbox"/>  | CASING/CEMENT JOB <input type="checkbox"/>       |  |
| DOWNHOLE COMMINGLE <input checked="" type="checkbox"/>     |   |  |  |
| CLOSED-LOOP SYSTEM <input type="checkbox"/>                |   |  |  |
| OTHER: DHC for pre-approved pools <input type="checkbox"/> |   | OTHER: <input type="checkbox"/>                  |  |

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Vanguard Operating, LLC plans to downhole commingle (DHC) this San Andres oil well as follows:

1. MIRUSU.
2. RIH w/ 4-3/4" bit on 2-7/8" tbg and DO CBP @ 3,250'. CO to original PBTD (4,861').
3. Run production tbg and land @ ~4,750' and run pump and rods.
4. Produce well as a DHC well.

This work was previously submitted under the prior operator (LRE Operating) on an approved sundry dated 04/02/2015 and the well has an approved DHC order in place—DHC ART-4609-W, and these pools are pre-approved State pools. The San Andres perforations are 1,768-3,136' and the Yeso perms are 3,290-4,660'. The pool allocations will be determined using a former test of the Yeso, the current test of the San Andres and a test of the new commingled production, and will be submitted on a subsequent sundry. Downhole commingling increases total remaining reserves through production efficiency and the ownership in these two pools is identical.

Spud Date: 03/03/2013 Rig Release Date:  NM OIL CONSERVATION  
ARTESIA DISTRICT  
DEC 06 2018

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

RECEIVED

SIGNATURE Kyle Zimmermann TITLE Operations Engineer DATE 12/06/2018

Type or print name Kyle Zimmermann E-mail address: kzimmerman@vnrenergy.com PHONE: 432-202-0145  
For State Use Only

APPROVED BY: Rusty Klen TITLE Business Director DATE 12-11-2018  
Conditions of Approval (if any):

**District I**

1625 N. French Dr., Hobbs, NM 88240

**District II**

1301 W. Grand Avenue, Artesia, NM 88210

**District III**

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**District IV**

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.  
Santa Fe, NM 87505**RECEIVED**

FEB 26 2013

NMOCD ARTESIA

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☒ AMENDED REPORT**WELL LOCATION AND ACREAGE DEDICATION PLAT**

|   |  |   |  |  |                                    |
|---|--|---|--|--|------------------------------------|
| <sup>1</sup> API Number<br>30-015-40983 |  | <sup>2</sup> Pool Code<br>96836                   |  | <sup>3</sup> Pool Name<br>Red Lake, Glorieta-Yeso NE |                                    |
| <sup>4</sup> Property Code<br>309874    |  | <sup>5</sup> Property Name<br>STALEY STATE        |  |  | <sup>6</sup> Well Number<br>20     |
| <sup>7</sup> OGRID No.<br>281994        |  | <sup>8</sup> Operator Name<br>LRE OPERATING, LLC. |  |  | <sup>9</sup> Elevation<br>3648' GL |

**<sup>10</sup> Surface Location**

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| Q             | 30      | 17-S     | 28-E  |         | 330           | SOUTH            | 1650          | EAST           | EDDY   |

**<sup>11</sup> Bottom Hole Location If Different From Surface**

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
|               |         |          |       |         |               |                  |               |                |        |

|                                     |                               |                                  |                         |
|-------------------------------------|-------------------------------|----------------------------------|-------------------------|
| <sup>12</sup> Dedicated Acres<br>40 | <sup>13</sup> Joint or Infill | <sup>14</sup> Consolidation Code | <sup>15</sup> Order No. |
|-------------------------------------|-------------------------------|----------------------------------|-------------------------|

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

|   |  |  |  |   |
|---|--|--|--|---|
| <div style="text-align: center; font-size: 2em;">30</div> |  |  |  | <b><sup>17</sup> OPERATOR CERTIFICATION</b><br><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i><br><div style="text-align: right;"> <sup>17</sup> Mike Pippin      2/25/13<br/> Signature      Date<br/> Mike Pippin<br/> Printed Name </div> |
|   |  |  |  |   |
|   |  |  |  |   |
|   |  |  |  |   |
| <div style="text-align: center; font-size: 2em;">30</div> |  |  |  | <b><sup>18</sup> SURVEYOR CERTIFICATION</b><br><i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i><br>12/27/12<br>Date of Survey<br>Signature and Seal of Professional Surveyor:<br>Filmon F. Jaramillo<br>12797<br>Certificate Number   |
|   |  |  |  |   |
|   |  |  |  |   |
|   |  |  |  |   |

SURFACE

1650'

330'

District I  
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**NM OIL CONSERVATION** State of New Mexico  
ARTESIA DISTRICT  
Energy, Minerals & Natural Resources Department  
APR 03 2015 OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

RECEIVED

Form C-102

Revised October 12, 2005

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Fee Lease - 3 Copies

RECEIVED

DEC 06 2018  
DISTRICT II-ARTESIA O.C.D.

☒ AMENDED REPORT

### WELL LOCATION AND ACREAGE DEDICATION PLAT

|   |   |   |
|---|---|---|
| <sup>1</sup> API Number<br>30-015-40983 | <sup>2</sup> Pool Code<br>51300                   | <sup>3</sup> Pool Name<br>Red Lake, Queen-Grayburg-San Andres |
| <sup>4</sup> Property Code<br>309874    | <sup>5</sup> Property Name<br>STALEY STATE        | <sup>6</sup> Well Number<br>20                                |
| <sup>7</sup> OGRID No.<br>281994        | <sup>8</sup> Operator Name<br>LRE OPERATING, LLC. | <sup>9</sup> Elevation<br>3648' GL                            |

#### <sup>10</sup> Surface Location

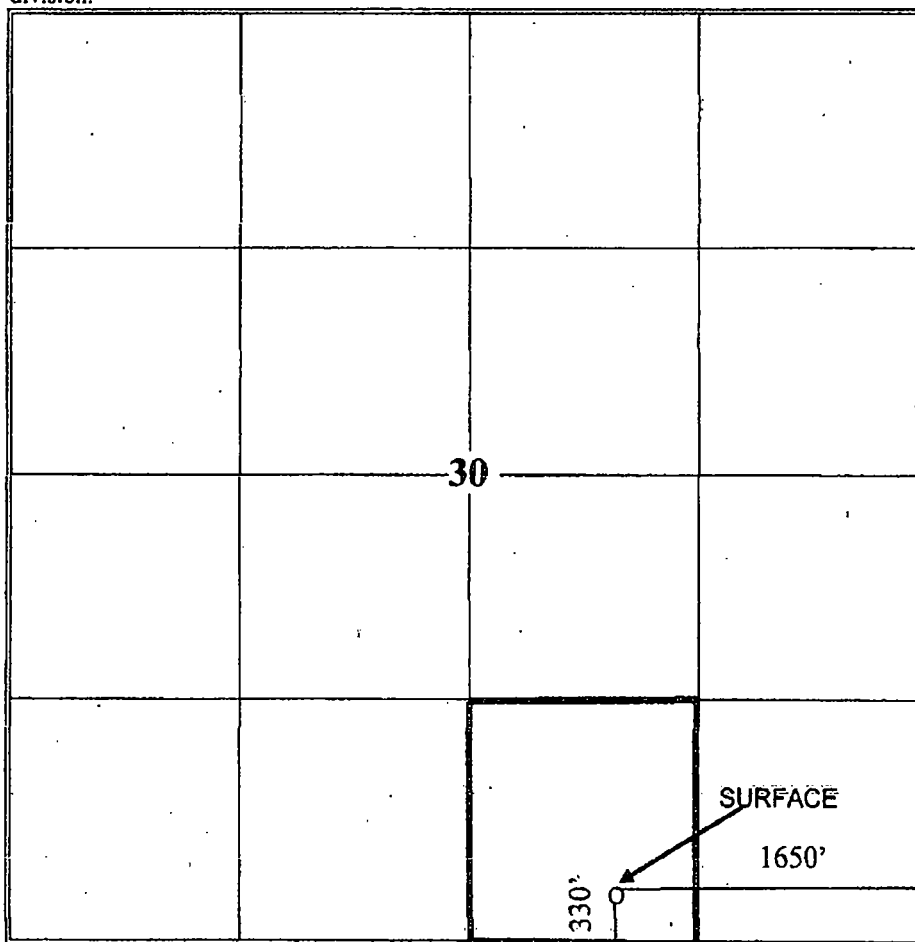
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|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| O             | 30      | 17-S     | 28-E  |         | 330           | SOUTH            | 1650          | EAST           | EDDY   |

#### <sup>11</sup> Bottom Hole Location If Different From Surface

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
|               |         |          |       |         |               |                  |               |                |        |

|                                     |                               |                                  |                         |
|-------------------------------------|-------------------------------|----------------------------------|-------------------------|
| <sup>12</sup> Dedicated Acres<br>40 | <sup>13</sup> Joint or Infill | <sup>14</sup> Consolidation Code | <sup>15</sup> Order No. |
|-------------------------------------|-------------------------------|----------------------------------|-------------------------|

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

|   |  |
|---|--|
|  | <b><sup>17</sup> OPERATOR CERTIFICATION</b><br>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or released mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.<br><br>Signature: <u>Mike Pippin</u> Date: <u>4/2/15</u><br><br>Mike Pippin<br>Printed Name |
|   | <b><sup>18</sup> SURVEYOR CERTIFICATION</b><br>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.<br>12/27/12<br>Date of Survey<br>Signature and Seal of Professional Surveyor:<br>Filmon F. Jaramillo<br>12797<br>Certificate Number   |
|   |  |
|   |  |

LEASE/WELL: STALEY STATE 020

LOCATION 330' FSL & 1,650' FEL  
O-30-17S-28E

CO/ST: EDDY COUNTY, NEW MEXICO

FIELD: RED LAKE, GLORIETA-YESO NE  
RED LAKE, QUEEN-GRAYBURG-SAN ANDRES

API NO. 30-015-40983

GR 3648

SPUDDED 3/3/2013

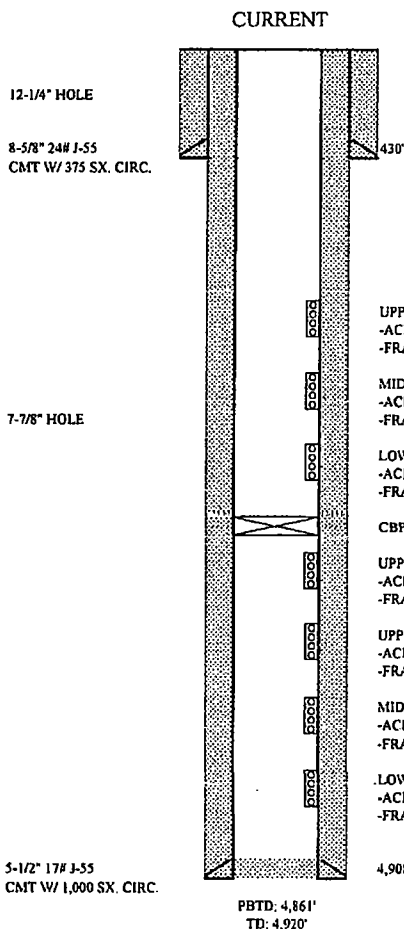
COMPLETED 3/19/2013 ORIGINAL YESO COMPLETION  
5/15/2015 SAN ANDRES RECOMPLETION

LAT 32.7987099  
LONG -104.2118073

FORMATION TOPS PER C-105  
7 RIVERS 539  
QUEEN 1091  
GRAYBURG 1305  
SAN ANDRES 1818  
GLORIETA 3225  
YESO 3345  
TUBB 4710

# DEVIATION SURVEY DATA

| MD (ft) | Inclination (deg) |
|---------|-------------------|
| 229     | 0.9               |
| 398     | 0.6               |
| 753     | 0.6               |
| 1006    | 0.9               |
| 1514    | 1.5               |
| 2021    | 0.4               |
| 2528    | 1.3               |
| 3003    | 1                 |
| 3510    | 0.4               |
| 4017    | 1.2               |
| 4493    | 1.1               |
| 4920    | 0.6               |



CAN BE DHC PER ART-4609-W

YESO IP: 97 BOPD, 147 MCFPD, 457 BWPD  
SAN ANDRES IP: 100 BOPD, 30 MCFPD, 440 BWPD

UPPER SAN ANDRES PERFS: 1,768-1,952' (37 HOLES)  
-ACIDIZE W/ 2,018 GALS 15% HCL  
-FRAC W/ 29,574# 100 MESH & 124,681# 40/70 ARIZONA SAND IN SW

MIDDLE SAN ANDRES PERFS: 2,256-2,646' (40 HOLES)  
-ACIDIZE W/ 1,681 GALS 15% HCL  
-FRAC W/ 26,155# 100 MESH & 323,410# 40/70 ARIZONA SAND IN SW

LOWER SAN ANDRES PERFS: 2,782-3,136' (38 HOLES)  
-ACIDIZE W/ 1,680 GALS 15% HCL  
-FRAC W/ 36,596# 100 MESH & 285,198# 40/70 ARIZONA SAND IN SW

CBP @ 3,250'

UPPER YESO PERFS: 3,290-3,590' (39 HOLES)  
-ACIDIZE W/ 3,000 GALS 15% HCL  
-FRAC W/ 85,744# 16/30 BRADY & 28,664# 16/30 SIBERPROP SAND IN XL GEL

UPPER YESO PERFS: 3,650-3,900' (51 HOLES)  
-ACIDIZE W/ 3,000 GALS 15% HCL  
-FRAC W/ 56,614# 16/30 BRADY & 19,465# 16/30 SIBERPROP SAND IN XL GEL

MIDDLE YESO PERFS: 3,980-4,280' (43 HOLES)  
-ACIDIZE W/ 3,000 GALS 15% HCL  
-FRAC W/ 61,213# 16/30 BRADY & 24,082# 16/30 SIBERPROP SAND IN XL GEL

LOWER YESO PERFS: 4,330-4,660' (67 HOLES)  
-ACIDIZE W/ 3,300 GALS 15%  
-FRAC W/ 63,247# 16/30 BRADY & 23,277# 16/30 SIBERPROP SAND IN XL GEL

KDZ 12-06-2018

LEASE/WELL: STALEY STATE 020

LOCATION 330° FSL & 1,650° FEL  
O-30-17S-28E

CO/ST: EDDY COUNTY, NEW MEXICO

FIELD: RED LAKE, GLORIETA-YESO NE  
RED LAKE, QUEEN-GRAYBURG-SAN ANDRES

API NO. 30-015-40983

GR 3648

SPUDDED 3/3/2013

COMPLETED 3/19/2013 ORIGINAL YESO COMPLETION  
5/15/2015 SAN ANDRES RECOMPLETION

LAT 32.7987099  
LONG -104.2118073

FORMATION TOPS PER C-105  
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GRAYBURG 1505  
SAN ANDRES 1818  
GLORIETA 3225  
YESO 3345  
TUBB 4710

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| 2528    | 1.3               |
| 3003    | 1                 |
| 3510    | 0.4               |
| 4017    | 1.2               |
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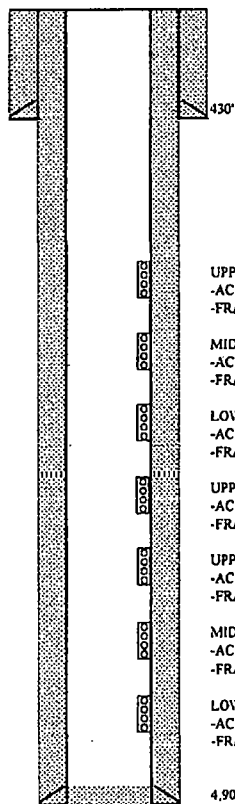
#### PROPOSED DHC

12-1/4" HOLE

8-5/8" 24# J-55  
CMT W/ 375 SX. CIRC.

7-7/8" HOLE

5-1/2" 17# J-55  
CMT W/ 1,000 SX. CIRC.



CAN BE DHC PER ART-4609-W

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SAN ANDRES IP: 100 BOPD, 30 MCFPD, 440 BWPD

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-FRAC W/ 63,247# 16/30 BRADY & 23,277# 16/30 SIBERPROP SAND IN XL GEL

PBTD: 4,861'  
TD: 4,920'

KDZ 12-06-2018