

Form 3160-4
(August 2007)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED
OMB No 1004-0137
Expires July 31 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5 Lease Serial No
NMLC046250B1a Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Otherb Type of Completion ☐ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☒ Diff. Resv.
Other _____

6 If Indian, Allottee or Tribe Name

7 Unit or CA Agreement Name and No

2 Name of Operator VANGUARD OPERATING, LLC Contact MIKE PIPPIN
E-Mail mike@pippinllc.com8 Lease Name and Well No
WILLIAMS B FEDERAL 103 Address C/O MIKE PIPPIN 3104 N SULLIVAN
FARMINGTON, NM 874013a Phone No (include area code)
Ph 505-327-4573

9 API Well No

30-015-41778 - 52

4 Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface SENW 1650FNL 2285FWL

At top prod interval reported below SENW 1650FNL 2285FWL

At total depth SENW 1650FNL 2285FWL

10 Field and Pool, or Exploratory
RED LAKE, SAN ANDRES 9725311 Sec, T, R, M, or Block and Survey
or Area Sec 29 T17S R28E Mer12 County or Parish EDDY COUNTY
13 State NM14 Date Spudded
12/20/201315 Date T D Reached
12/24/201316 Date Completed
☐ D & A ☐ Ready to Prod.
12/19/201717 Elevations (DF, KB, RT, GL)*
3624 GL18 Total Depth MD
TVD 361519 Plug Back T D MD
TVD 356220 Depth Bridge Plug Set MD
TVD 330021 Type Electric & Other Mechanical Logs Run (Submit copy of each)
CASED HOLE NEUTRON LOG22 Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☐ No ☒ Yes (Submit analysis)

23 Casing and Lmer Record (Report all strings set in well)

| Hole Size | Size/Grade | Wt (#/ft) | Top (MD) | Bottom (MD) | Stage Cementer Depth | No of Sks & Type of Cement | Slurry Vol (BBL) | Cement Top* | Amount Pulled |
|-----------|------------|-----------|----------|-------------|----------------------|----------------------------|------------------|-------------|---------------|
| 12 250 | 8 625 J-55 | 24 0 | 0 | 426 | | 300 | 72 | 0 | 0 |
| 7 875 | 5 500 J-55 | 17 0 | 0 | 3610 | | 630 | 194 | 0 | 0 |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

24 Tubing Record

| Size | Depth Set (MD) | Packer Depth (MD) | Size | Depth Set (MD) | Packer Depth (MD) | Size | Depth Set (MD) | Packer Depth (MD) |
|-------|----------------|-------------------|------|----------------|-------------------|------|----------------|-------------------|
| 2 875 | 3115 | | | | | | | |

25 Producing Intervals

26 Perforation Record

| Formation | Top | Bottom | Perforated Interval | Size | No Holes | Perf Status |
|----------------------------|------|--------|---------------------|-------|----------|----------------------|
| RED LAKE, SAN ANDRES 97253 | 1862 | 3231 | 2024 TO 2281 | | 33 | OPEN |
| B) | | | 2390 TO 2661 | | 32 | OPEN |
| C) | | | 2740 TO 3101 | | 36 | OPEN |
| D) | | | 3350 TO 3510 | 0 340 | 33 | SI BELOW CBP @ 3300' |

27 Acid, Fracture, Treatment, Cement Squeeze, Etc

| Depth Interval | Amount and Type of Material |
|----------------|---|
| 2024 TO 2281 | 2000 GAL 15% HCL & FRACED W/29 485# 100 MESH & 178 369# 40/70 SAND IN SLICK WATER |
| 2390 TO 2661 | 1500 GAL 15% HCL & FRACED W/30 642# 100 MESH & 266 746# 40/70 SAND IN SLICK WATER |
| 2740 TO 3101 | 1000 GAL 15% HCL & FRACED W/30 233# 100 MESH & 313 825# 40/70 SAND IN SLICK WATER |
| 3350 TO 3510 | 2500 GAL 15% HCL & FRACED W/61 252# 16/30 & 22 780# 16/30 RESIN SAND |

28 Production - Interval A

| Date First Produced | Test Date | Hours Tested | Test Production | Oil BBL | Gas MCF | Water BBL | Oil Gravity Corr API | Gas Gravity | Production Method |
|---------------------|-------------------|--------------|-----------------|---------|---------|-----------|----------------------|-------------|-----------------------|
| 12/20/2017 | 01/09/2018 | 24 | → | 68 0 | 158 0 | 247 0 | | | ELECTRIC PUMPING UNIT |
| Choke Size | Tbg Press Flwg SI | Csg Press | 24 Hr Rate | Oil BBL | Gas MCF | Water BBL | Gas Oil Ratio | Well Status | |
| | SI | | → | 68 | 158 | 247 | 2324 | POW | |

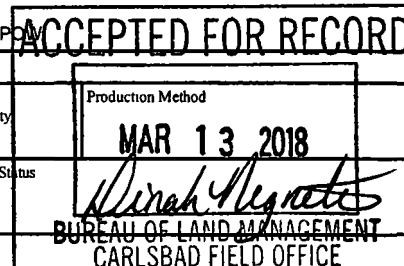
28a Production - Interval B

| Date First Produced | Test Date | Hours Tested | Test Production | Oil BBL | Gas MCF | Water BBL | Oil Gravity Corr API | Gas Gravity | Production Method |
|---------------------|-------------------|--------------|-----------------|---------|---------|-----------|----------------------|-------------|-------------------|
| | | | → | | | | | | |
| Choke Size | Tbg Press Flwg SI | Csg Press | 24 Hr Rate | Oil BBL | Gas MCF | Water BBL | Gas Oil Ratio | Well Status | |
| | SI | | → | | | | | | |

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #403290 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **



28b Production - Interval C

| Date First Produced | Test Date | Hours Tested | Test Production | Oil BBL | Gas MCF | Water BBL | Oil Gravity Corr API | Gas Gravity | Production Method |
|---------------------|-------------------|--------------|-----------------|---------|---------|-----------|----------------------|-------------|-------------------|
| | | | → | | | | | | |
| Choke Size | Tbg Press Flwg SI | Csg Press | 24 Hr Rate | Oil BBL | Gas MCF | Water BBL | Gas Oil Ratio | Well Status | |
| | | | → | | | | | | |

28c Production - Interval D

| Date First Produced | Test Date | Hours Tested | Test Production | Oil BBL | Gas MCF | Water BBL | Oil Gravity Corr API | Gas Gravity | Production Method |
|---------------------|-------------------|--------------|-----------------|---------|---------|-----------|----------------------|-------------|-------------------|
| | | | → | | | | | | |
| Choke Size | Tbg Press Flwg SI | Csg Press | 24 Hr Rate | Oil BBL | Gas MCF | Water BBL | Gas Oil Ratio | Well Status | |
| | | | → | | | | | | |

29 Disposition of Gas(Sold used for fuel vented etc)
SOLD

30 Summary of Porous Zones (Include Aquifers)

Show all important zones of porosity and contents thereof Cored intervals and all drill stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries

31 Formation (Log) Markers

| Formation | Top | Bottom | Descriptions, Contents, etc | Name | Top |
|-----------|------|--------|-----------------------------|------------|------------|
| | | | | | Meas Depth |
| GLORIETA | 1862 | 3231 | OIL & GAS | QUEEN | 1121 |
| GLORIETA | 3231 | 3348 | OIL & GAS | GRAYBURG | 1536 |
| YESO | 3348 | | OIL & GAS | SAN ANDRES | 1862 |
| | | | | GLORIETA | 3231 |
| | | | | YESO | 3348 |
| | | | | 7 RIVERS | 556 |

32 Additional remarks (include plugging procedure)

THIS IS FOR A RECOMPLETION FROM YESO TO SAN ANDRES

Following a few months production from the San Andres, it will be DHC with the Yeso as per the approved BLM DHC application and State order DHC-4745

33 Circle enclosed attachments

- | | | | |
|--|-------------------|--------------|----------------------|
| 1 Electrical/Mechanical Logs (1 full set req d) | 2 Geologic Report | 3 DST Report | 4 Directional Survey |
| 5 Sundry Notice for plugging and cement verification | 6 Core Analysis | 7 Other | |

34 I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)

Electronic Submission #403290 Verified by the BLM Well Information System
For VANGUARD OPERATING, LLC, sent to the Carlsbad

Name (please print) MIKE PIPPIN

Title PETROLEUM ENGINEER

Signature _____ (Electronic Submission)

Date 02/05/2018

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****