| PI NUMBER: 017 25316 | OIL & GAS | ORPORATION COMMISSIO CONSERVATION DIVISION P.O. BOX 52000 | | Approval Date: 11/16/2018 | | | |
|---|----------------------------|---|---------------------------------|------------------------------|--|--|--|
| rizontal Hole Oil & Gas | | MA CITY, OK 73152-2000 Rule 165:10-3-1) | 000 Expiration Date: 05/16/2020 | | | | |
| | | | | | | | |
| | P | ERMIT TO DRILL | | | | | |
| WELL LOCATION: Sec: 16 Twp: 10N Rge: | 5W County: CANAD | IAN | | | | | |
| SPOT LOCATION: SE SW SW SE | 7 | | | | | | |
| | SECTION LINES: 20 | 60 2135 | | | | | |
| Lease Name: NOWLIN 16-9-10-5 | Well No: 2 | WXH | Well will be 260 feet from nea | rest unit or lease boundary. | | | |
| | | | | | | | |
| Operator ROAN RESOURCES LLC Name: | | Telephone: 4058968453 | OTC/OCC Number: | 24127 0 | | | |
| ROAN RESOURCES LLC | | | <i>и</i> (5) | | | | |
| 14701 HERTZ QUAIL SPRINGS PKW | Υ | BRAD NOV | | | | | |
| OKLAHOMA CITY, OK | 73134-2641 | 13401 S MU | 13401 S MUSTANG ROAD | | | | |
| | | MUSTANG | OK | 73064 | | | |
| Formation(s) (Permit Valid for Listed For Name 1 WOODFORD 2 3 4 5 | Depth 8980 | Name 6 7 8 9 10 | De | pth | | | |
| Spacing Orders: 651795 | Location Exception Or | ders: | Increased Density Orders | : | | | |
| Pending CD Numbers: 201808406 201808407 201808402 201808403 | | | Special Orders: | | | | |
| Total Depth: 19540 Ground Elevation: | ¹¹⁹⁵ Surface Ca | asing: 1500 | Depth to base of Treatable Wa | ter-Bearing FM: 160 | | | |
| Under Federal Jurisdiction: No | Fresh Water S | upply Well Drilled: No | Surface Wate | r used to Drill: No | | | |
| PIT 1 INFORMATION | | Approved Method for dis | posal of Drilling Fluids: | | | | |
| Type of Pit System: ON SITE | | A. Evaporation/dewater | and backfilling of reserve pit. | | | | |
| Type of Mud System: WATER BASED | | | - · · | | | | |
| Chlorides Max: 5000 Average: 3000 | | D. One time land application (REQUIRES PERMIT) PERMIT NO: 18-35654 H. SEE MEMO | | | | | |
| Is depth to top of ground water greater than 10ft below | base of pit? Y | | | | | | |
| Within 1 mile of municipal water well? N | | | | | | | |
| Wellhead Protection Area? N | | | | | | | |
| | | | | | | | |
| Pit is located in a Hydrologically Sensitive Area. | | | | | | | |
| Category of Pit: 1A | | | | | | | |
| Category of Pit: 1A Liner required for Category: 1A | | | | | | | |
| Category of Pit: 1A | | | | | | | |

PIT 2 INFORMATION Type of Pit System: ON SITE Type of Mud System: OIL BASED Chlorides Max: 300000 Average: 200000 Is depth to top of ground water greater than 10ft below base of pit? Y Within 1 mile of municipal water well? N Wellhead Protection Area? N Pit is located in a Hydrologically Sensitive Area. Category of Pit: 3 Liner required for Category: 3

Pit Location is ALLUVIAL Pit Location Formation: ALLUVIUM

HORIZONTAL HOLE 1

| Sec | 09 | Twp | 10N | Rge | 5W | С | ounty | CA | NADIAN |
|--------|----------|---------|---------|--------|---------|------|-------|-----|--------|
| Spot I | Locatior | n of En | d Poin | it: N | W N | Е | NW | NE | |
| Feet I | From: | NOF | RTH | 1/4 Se | ction L | ine: | 65 | 5 | |
| Feet I | From: | EAS | бт | 1/4 Se | ction L | ine: | 18 | 300 | |
| Depth | of Dev | iation: | 8306 | | | | | | |
| Radiu | is of Tu | rn: 57 | '5 | | | | | | |
| Direct | tion: 2 | | | | | | | | |
| Total | Length: | 1033 | 0 | | | | | | |
| Meas | ured To | tal Dep | oth: 1 | 9540 | | | | | |
| True | Vertical | Depth | : 898 | 0 | | | | | |
| End F | Point Lo | cation | from L | ease, | | | | | |
| ι | Unit, or | Proper | ty Line | e: 65 | | | | | |
| | | | | | | | | | |
| Note | s: | | | | | | | | |

| Category | Description |
|------------------------|---|
| DEEP SURFACE CASING | 11/2/2018 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY OF ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON ANY CONDUCTOR OR SURFACE CASING |
| HYDRAULIC FRACTURING | 11/2/2018 - G71 - OCC 165:10-3-10 REQUIRES: |
| | 1) PRIOR TO COMMENCEMENT OF HYDRAULIC FRACTURING OPERATIONS FOR HORIZONTAL WELLS, NOTICE GIVEN FIVE BUSINESS DAYS IN ADVANCE TO OFFSET OPERATORS WITH WELLS COMPLETED IN THE SAME COMMON SOURCE OF SUPPLY WITHIN 1/2 MILE; |
| | 2) WITH NOTICE ALSO GIVEN 48 HOURS IN ADVANCE OF HYDRAULIC FRACTURING ALL WELLS TO BOTH THE OCC CENTRAL OFFICE AND LOCAL DISTRICT OFFICES, USING THE "FRAC NOTICE FORM" FOUND AT THE FOLLOWING LINK: OCCEWEB.COM/OG/OGFORMS.HTML; AND, |
| | 3) THE CHEMICAL DISCLOSURE OF HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS TO BE REPORTED TO FRACFOCUS WITHIN 60 DAYS AFTER THE CONCLUSION THE HYDRAULIC FRACTURING OPERATIONS, USING THE FOLLOWING LINK: FRACFOCUS.ORG |
| МЕМО | 11/2/2018 - G71 - PITS 1 & 2 - CONCRETE LINED PIT PER OPERATOR REQUEST, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT |
| PENDING CD - 201808402 | 11/15/2018 - G56 - 16-10N-5W X651795 WDFD, OTHER 5 WELLS; 1 WELL MSSP, 4 WELLS WDFD NO OP NAMED REC 11/6/2018 (P. PORTER) |

017 25316 NOWLIN 16-9-10-5 2WXH

| Category | Description |
|------------------------|--|
| PENDING CD - 201808403 | 11/15/2018 - G56 - 9-10N-5W X651795 WDFD, OTHER 5 WELLS; 1 WELL MSSP, 4 WELLS WDFD NO OP NAMED REC 11/6/2018 (P. PORTER) |
| PENDING CD - 201808406 | 11/15/2018 - G56 - (I.O.) 16 & 9-10N-5W ESTABLISH MULTIUNIT HORIZONTAL WELL X651795 WDFD, OTHER 16 & 9-10N-5W 50% 16-10N-5W 50% 9-10N-5W ROAN RESOURCES LLC REC 11/6/2018 (P. PORTER) |
| PENDING CD - 201808407 | 11/15/2018 - G56 - (I.O.) 16 & 9-10N-5W X651795 WDFD, OTHER X165:10-3-28(C)(2)(B) MAY BE CLOSER THAN 600' TO EXISTING AND/OR PROPOSED WELLS COMPL INT (16-10N-5W) NCT 150' FSL, NCT 0' FNL, NCT 1800' FEL COMPL INT (9-10N-5W) NCT 0' FSL, NCT 150' FNL, NCT 1800' FEL NO OP NAMED REC 11/6/2018 (P. PORTER) |
| SPACING - 651795 | 11/15/2018 - G56 - (640)(HOR) 9 & 16-10N-5W VAC OTHERS EST WDFD, OTHER POE TO BHL NCT 165' FNL/FSL, NCT 330' FEL/FWL |

