

OKLAHOMA CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION  
P.O. BOX 52000  
OKLAHOMA CITY, OK 73152-2000  
(Rule 165:10-3-1)

API NUMBER: 051 24350

Approval Date: 05/10/2018

Expiration Date: 11/10/2018

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 21 Twp: 7N Rge: 8W

County: GRADY

SPOT LOCATION: ☐ NE ☐ NW ☐ SW ☐ SE

FEET FROM QUARTER: FROM SOUTH FROM EAST

SECTION LINES: 1030 2180

Lease Name: NORGE-MARCHAND UNIT

Well No: 21-16-1H

Well will be 1030 feet from nearest unit or lease boundary.

Operator Name: LIME ROCK RESOURCES III-A LP

Telephone: 7132929535

OTC/OCC Number: 23577 0

LIME ROCK RESOURCES III-A LP  
1111 BAGBY ST STE 4600  
HOUSTON, TX 77002-2559

WILLARD H. & LUELLA M. KOEHEN  
332 COUNTY ROAD 1350  
CHICKASHA OK 73018

Formation(s) (Permit Valid for Listed Formations Only):

	Name	Depth	Name	Depth
1	MARCHAND	10444	6	
2			7	
3			8	
4			9	
5			10	

Spacing Orders: 100904

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers:

Special Orders:

Total Depth: 16410

Ground Elevation: 1185

**Surface Casing: 1000**

Depth to base of Treatable Water-Bearing FM: 800

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: No

PIT 1 INFORMATION

Approved Method for disposal of Drilling Fluids:

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: WATER BASED

Chlorides Max: 5000 Average: 3000

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 not located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is NON HSA

Pit Location Formation: DOG CREEK

D. One time land application -- (REQUIRES PERMIT)

PERMIT NO: 18-34405

H. SEE MEMO

This permit does not address the right of entry or settlement of surface damages.

The duration of this permit is SIX MONTHS, except as otherwise provided by Rule 165: 10-3-1.

Rule 165: 10-3-4 (c) (7) (e) - The Operator shall give 24 Hours notice by telephone to the appropriate District Office of the Conservation Division as to when Surface Casing will be run.

PIT 2 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits

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 not located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is NON HSA

Pit Location Formation: DOG CREEK

HORIZONTAL HOLE 1

Sec 16 Twp 7N Rge 8W County GRADY

Spot Location of End Point: NE SW NW SE

Feet From: SOUTH 1/4 Section Line: 1760

Feet From: EAST 1/4 Section Line: 2180

Depth of Deviation: 9870

Radius of Turn: 573

Direction: 360

Total Length: 5639

Measured Total Depth: 16410

True Vertical Depth: 10444

End Point Location from Lease,  
Unit, or Property Line: 1030

Notes:

Category

Description

HYDRAULIC FRACTURING

5/1/2018 - 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](http://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](http://FRACFOCUS.ORG)

MEMO

5/1/2018 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

SPACING - 100904

5/10/2018 - G57 - (UNIT) SE4 16 & E2 21-7N-8W  
EST NORGE MARCHAND UNIT MRCD

This permit does not address the right of entry or settlement of surface damages.

The duration of this permit is SIX MONTHS, except as otherwise provided by Rule 165: 10-3-1.

Rule 165: 10-3-4 (c) (7) (e) - The Operator shall give 24 Hours notice by telephone to the appropriate District Office of the Conservation Division as to when Surface Casing will be run.

051 24350 NORGE-MARCHAND UNIT 21-16-1H

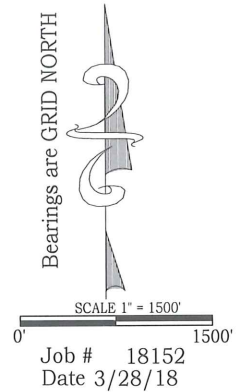
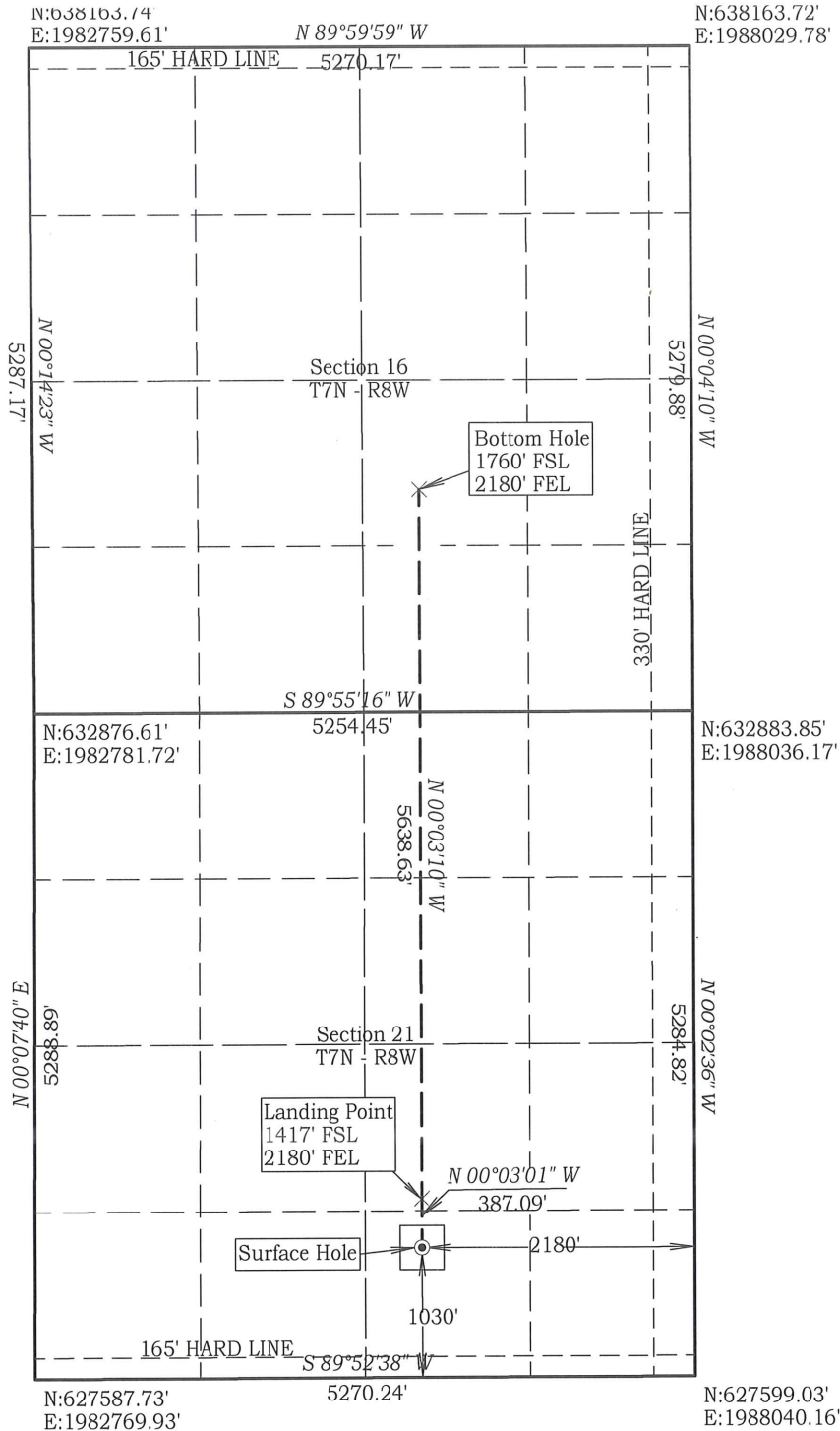
**Permit Plat**  
**M & M Land Surveying, Inc.**  
**520 "E" Street NW. Ardmore, OK. 73401**  
**Office 580-226-0446 Mobile 580-221-4999**

API: 051 24350

Company Name: Lime Rock Resources III-A, LP Lease Name: Norge-Marchand Unit 21-16-1H  
Section 21 Township 7 North Range 8 West County Grady Oklahoma

Surface Location 1030' FSL - 2180' FEL Elevation 1185'

**ALL SECTION CORNER COORDINATES ARE NAD 27**



**NAD 27 OK SOUTH**  
Surface Location  
Latitude: 35.060704°  
Longitude: 98.047249°  
Y= 628,624'  
X = 1,985,860'  
Landing Point  
Y= 629,011'  
X = 1,985,859'  
Bottom Hole  
Y= 634,650'  
X = 1,985,854'

**NAD 83 OK SOUTH**  
Surface Location  
Latitude: 35.060768°  
Longitude: 98.047573°  
Y= 628,666'  
X = 1,954,263'  
Landing Point  
Y= 629,053'  
X = 1,954,263'  
Bottom Hole  
Y= 634,691'  
X = 1,954,257'

*D. Harry McClintick* 4/5/18  
D. Harry McClintick, R.P.L.S. # 1367, CA # 3093  
This location has been staked according to the best official survey records available to us, but its accuracy is not guaranteed. Please review this plat and notify us immediately of any discrepancy.

