

API NUMBER: 087 22356

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

Approval Date: 05/05/2022
Expiration Date: 11/05/2023

Multi Unit Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Section: 33 Township: 7N Range: 2W County: MCCLAIN

SPOT LOCATION: ☐ SE ☐ NE ☐ NW ☐ NE FEET FROM QUARTER: FROM NORTH FROM EAST
SECTION LINES: 333 1488

Lease Name: KENT MU16 28-21 Well No: 4HX Well will be 333 feet from nearest unit or lease boundary.
Operator Name: LRR IV OPERATING INC Telephone: 7132929535 OTC/OCC Number: 24554 0

LRR IV OPERATING INC
1111 BAGBY STREET STE 4600
HOUSTON, TX 77002

BILL & LINDA HOGUE
3118 S. 9TH
PURCELL OK 73080

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

Name	Code	Depth
1 WOODFORD	319WDFD	7600

Spacing Orders: 686256
724689

Location Exception Orders: 724691

Increased Density Orders: 725091
725092

Pending CD Numbers: No Pending

Working interest owners' notified: ***

Special Orders: No Special

Total Depth: 18502 Ground Elevation: 1101

Surface Casing: 300

Depth to base of Treatable Water-Bearing FM: 250

Under Federal Jurisdiction: No
Fresh Water Supply Well Drilled: No
Surface Water used to Drill: Yes

Approved Method for disposal of Drilling Fluids:

F. Haul to Commercial soil farming facility	Sec. 1 Twn. 7S Rng. 3E Cnty. 85 Order No: 549455
H. (Other)	SEE MEMO

PIT 1 INFORMATION

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 located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is: BED AQUIFER

Pit Location Formation: PURCELL

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 located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is: BED AQUIFER

Pit Location Formation: PURCELL

This permit does not address the right of entry or settlement of surface damages. The duration of this permit is 18 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.

MULTI UNIT HOLE 1

Section: 21	Township: 7N	Range: 2W	Meridian: IM	Total Length: 10241
County: MCCLAIN				Measured Total Depth: 18502
Spot Location of End Point: N2	N2	NE	NE	True Vertical Depth: 7600
Feet From: NORTH	1/4 Section Line: 65		End Point Location from	
Feet From: EAST	1/4 Section Line: 660		Lease, Unit, or Property Line: 65	

NOTES:

Category	Description
HYDRAULIC FRACTURING	<p>[4/26/2022 - GC2] - OCC 165:10-3-10 REQUIRES:</p> <p>1) NOTICE SHALL BE GIVEN AT LEAST 5 BUSINESS DAYS PRIOR TO COMMENCEMENT OF HYDRAULIC FRACTURING OPERATIONS ON A HORIZONTAL WELL TO OPERATORS PRODUCING WELLS WITHIN 1 MILE OF THE COMPLETION INTERVAL OF THE SUBJECT WELL. THE NOTICE TO SUCH OPERATORS SHALL CONTAIN THE INFORMATION IN FORM 6000NOO. IF THE HYDRAULIC FRACTURING OPERATIONS SCHEDULE CHANGES AFTER NOTICE HAS BEEN PROVIDED, RESULTING IN A DELAY OF OPERATIONS OF MORE THAN 5 DAYS FROM THE INITIAL NOTICE, NEW NOTICE IS REQUIRED TO BE GIVEN;</p> <p>2) NOTICE WILL BE GIVEN TO THE OCC CENTRAL OFFICE AND LOCAL DISTRICT OFFICES AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF HYDRAULIC FRACTURING OPERATIONS. FORM 6000NHF SHALL BE USED AND IS FOUND AT THIS LINK: OCCEWEB.COM/OG/OGFORMS.HTML; AND,</p> <p>3) THE CHEMICAL DISCLOSURE OF HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS IS TO BE REPORTED TO FRACFOCUS WITHIN 60 DAYS AFTER THE CONCLUSION OF HYDRAULIC FRACTURING OPERATIONS, FOUND AT FRACFOCUS.ORG</p>
INCREASED DENSITY - 725091	<p>[5/4/2022 - G56] - (I.O.) 21-7N-2W X686256 WDFD 1 WELL LRR IV OP INC 4/26/2022</p>
INCREASED DENSITY - 725092	<p>[5/4/2022 - G56] - (I.O.) 28-7N-2W X686256 WDFD 1 WELL LRR IV OP INC 4/26/2022</p>
LOCATION EXCEPTION - 724691	<p>[5/4/2022 - G56] - (I.O.) 21 & 28-7N-2W X686256 WDFD COMPL INT (21-7N-7W) NCT 0' FSL, NCT 165' FNL, NCT 330' FEL COMPL INT (28-7N-2W) NCT 165' FSL, NCT 0' FNL, NCT 330' FEL LRR IV OP INC 4/5/2022</p>
MEMO	<p>[4/26/2022 - GC2] - CLOSED SYSTEM=STEEL PITS (REQUIRED - WALNUT CREEK), OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT</p>
SPACING - 686256	<p>[5/4/2022 - G56] - (640)(HOR) 21 & 28-7N-2W EST WDFD, OTHERS POE TO BHL NCT 165' FNL/FSL, NCT 330' FEL/FWL</p>
SPACING - 724689	<p>[5/4/2022 - G56] - (I.O.) 21 & 28-7N-2W EST MULTIUNIT HORIZONTAL WELL X686256 WDFD 50% 21-7N-7W 50% 28-7N-2W LRR IV OP INC 4/5/2022</p>

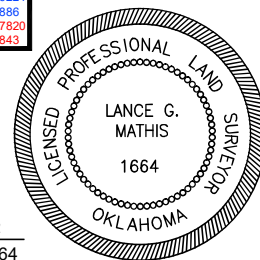


Operator: LIME ROCK RESOURCES
Lease Name and No.: KENT MU16 28-21 4HX
Surface Hole Location: '333' FNL - 1488' FEL Gr. Elevation: 1101'
SE/4-NE/4-NW/4-NE/4 Section: 33 Township: 7N Range: 2W I.M.
Bottom Hole Location: 65' FNL - 660' FEL
NW/4-NE/4-NE/4-NE/4 Section: 21 Township: 7N Range: 2W I.M.
County: McClain State of Oklahoma
Terrain at Loc.: Location fell in on existing pad site.



Bottom Hole Loc.:
Lat: 35°04'23.09"N
Lon: 97°24'29.89"W
Lat: 35.07308151
Lon: -97.40830239
X: 2177055
Y: 633645

 05/03/2022
LANCE G. MATHIS OK LPLS 1664





Well Location Plat

S.H.L. Sec. 33-7N-2W I.M.
B.H.L. Sec. 21-7N-2W I.M.

Operator: LIME ROCK RESOURCES

Lease Name and No.: KENT MU16-28-21 4HX

Surface Hole Location: 333' FNL - 1488' FEL Gr. Elevation: 1101'

SE/4-NE/4-NW/4-NE/4 Section: 33 Township: 7N Range: 2W I.M.

Bottom Hole Location: 65' FNL - 660' FEL

NW/4-NE/4-NE/4-NE/4 Section: 21 Township: 7N Range: 2W I.M.

County: McClain State of Oklahoma

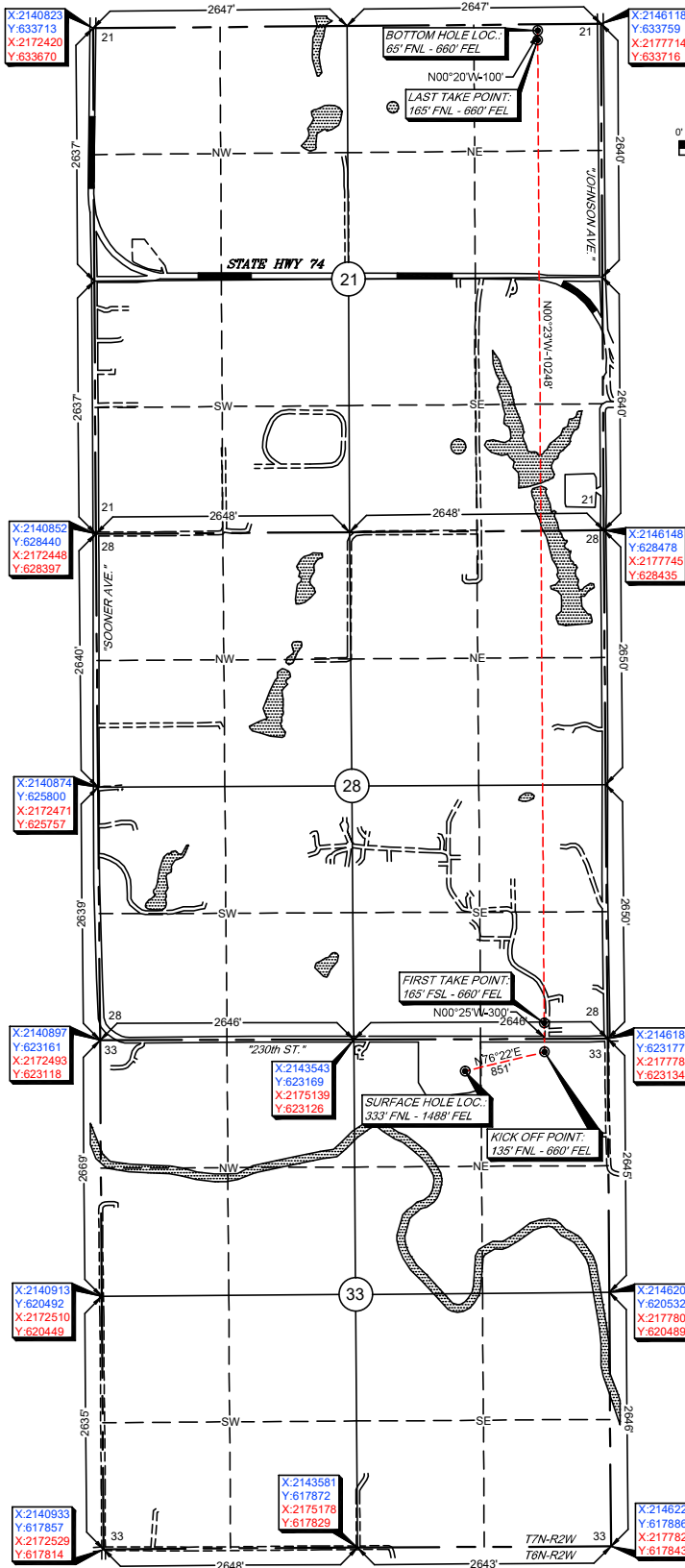
Terrain at Loc.: Location fell in on existing pad site.



All bearings shown
are grid bearings.

0' 660' 1320' 1980'
1" = 1500'

GPS DATUM
NAD 83
NAD 27
OK SOUTH ZONE



-Please note that this location was staked on the ground under the supervision of a Licensed Professional Land Surveyor, but the accuracy of this survey is not guaranteed. Please contact the Surveying and Mapping firm for more information.
-NOTE: X and Y data shown hereon for Section Corners may NOT have been surveyed on-the-ground, and further, does NOT represent a true Boundary Survey. Quarter Section distances may be assumed from a Government Survey Plat or other reliable data. Distances from opposing section corners, or occupation thereon, may be used to establish the location of the corner, and further, does not represent a true boundary survey.

Surface Hole Loc.: Lat: 35°02'36.09"N Lon: 97°24'40.84"W Lat: 35.04335822 Lon: -97.41134574 X: 2144703 Y: 622839
Surface Hole Loc.: Lat: 35°02'35.84"N Lon: 97°24'39.74"W Lat: 35.04328753 Lon: -97.41103814 X: 2176299 Y: 622796
Kick Off Point: Lat: 35°02'38.02"N Lon: 97°24'30.89"W Lat: 35.04389583 Lon: -97.40858004 X: 2145530 Y: 623040
Kick Off Point: Lat: 35°02'37.77"N Lon: 97°24'29.78"W Lat: 35.04382510 Lon: -97.40827249 X: 2177126 Y: 622997
First Take Point: Lat: 35°02'40.99"N Lon: 97°24'30.89"W Lat: 35.04472008 Lon: -97.40858133 X: 2145528 Y: 623340
First Take Point: Lat: 35°02'40.74"N Lon: 97°24'29.79"W Lat: 35.04464937 Lon: -97.40827377 X: 2177124 Y: 623297
Last Take Point: Lat: 35°04'22.36"N Lon: 97°24'31.00"W Lat: 35.07287691 Lon: -97.40861039 X: 2145459 Y: 633588
Last Take Point: Lat: 35°04'22.10"N Lon: 97°24'29.89"W Lat: 35.07280676 Lon: -97.40830241 X: 2177055 Y: 633545
Bottom Hole Loc.: Lat: 35°04'23.35"N Lon: 97°24'31.00"W Lat: 35.07315166 Lon: -97.40861037 X: 2145458 Y: 633688
Bottom Hole Loc.: Lat: 35°04'23.09"N Lon: 97°24'29.89"W Lat: 35.07308151 Lon: -97.40830239 X: 2177055 Y: 633645

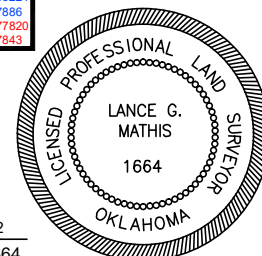
Survey and plat by:

Arkoma Surveying and Mapping, PLLC
P.O. Box 238 Wilburton, OK 74578
Ph. 918-465-5711 Fax 918-465-5030
Certificate of Authorization No. 5348
Expires June 30, 2022

Certification:

This is to certify that this Well Location Plat represents the results of a survey made on the ground performed under the supervision of the undersigned.

Lance G. Mathis
LANCE G. MATHIS
05/03/2022
OK LPLS 1664



Invoice #8990-A

Date Staked: 04/22/2022 By: G.G.

Date Drawn: 11/15/2021 By: J.L.

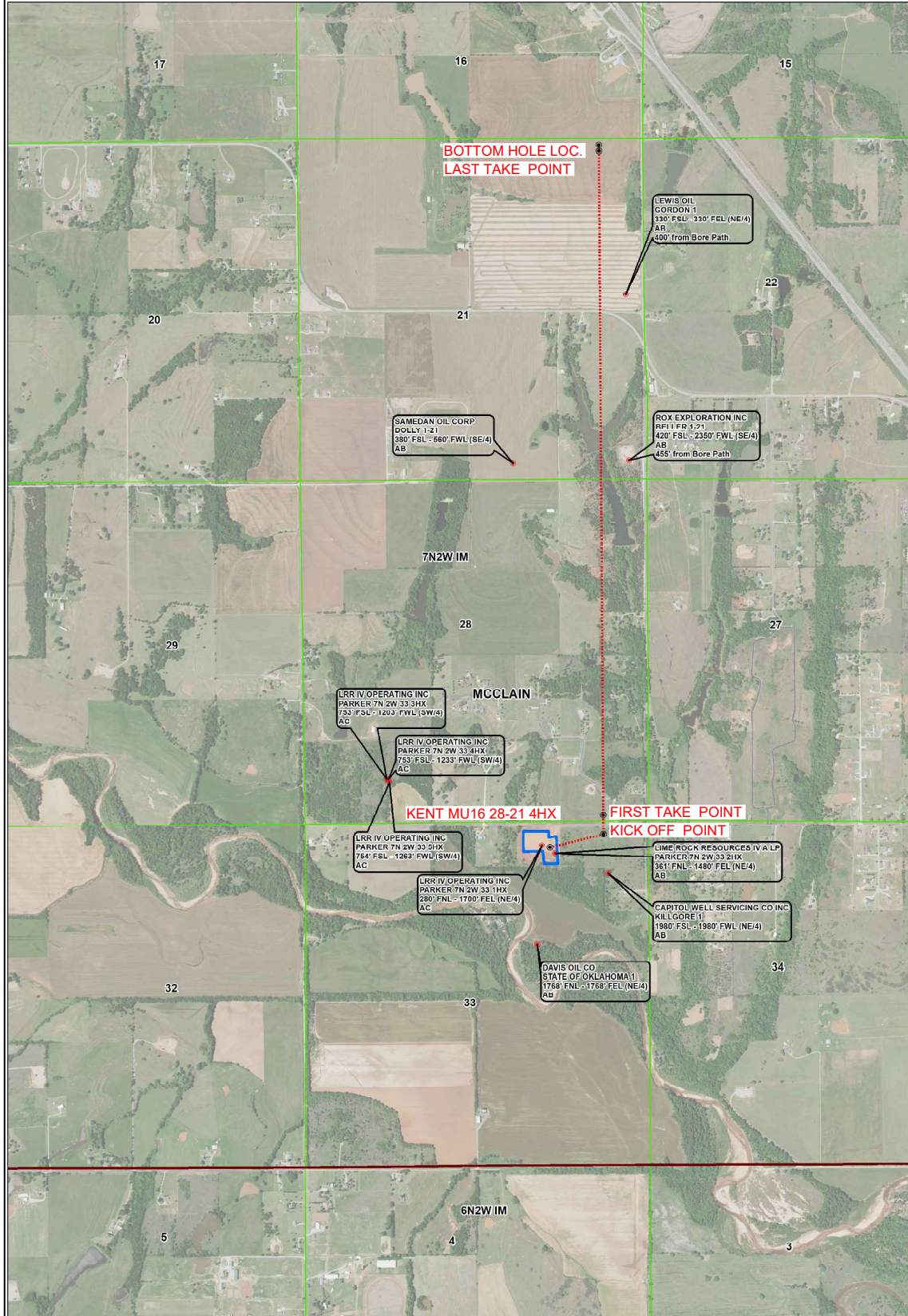
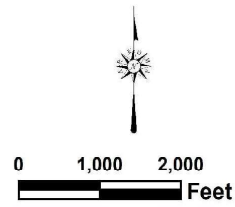
Add Elev.: 04/25/2022 By: R.M.



Anti-Collision

Operator: LIME ROCK RESOURCES
Lease Name and No.: KENT MU16 28-21 4HX
Surface Hole Location: 333' FNL - 1488' FEL
Kick Off Point: 135' FNL - 660' FEL
Sec. 33 Twp. 7N Rng. 2W I.M.
First Take Point: 165' FSL - 660' FEL
Sec. 28 Twp. 7N Rng. 2W I.M.
Last Take Point: 165' FNL - 660' FEL
Bottom Hole Location: 65' FNL - 660' FEL
Sec. 21 Twp. 7N Rng. 2W I.M.
County: McClain State of Oklahoma

Sec.(s) 21, 28, & 33-7N-2W I.M.



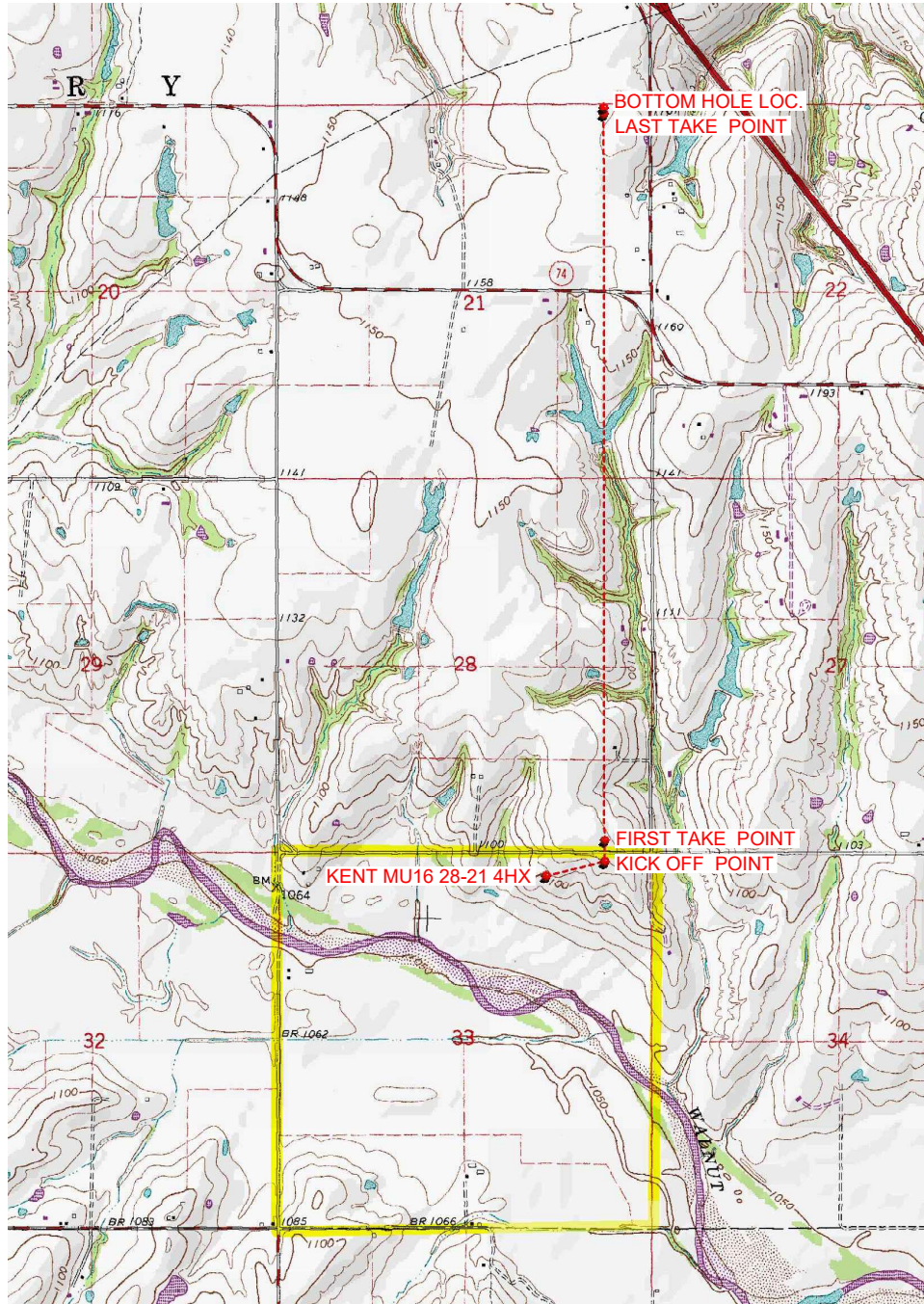


Topographic Vicinity Map

Operator: LIME ROCK RESOURCES
Lease Name and No.: KENT MU16 28-21 4HX
Surface Hole Location: 333' FNL - 1488' FEL
Kick Off Point: 135' FNL - 660' FEL
Sec. 33 Twp. 7N Rng. 2W I.M.
First Take Point: 165' FSL - 660' FEL
Sec. 28 Twp. 7N Rng. 2W I.M.
Last Take Point: 165' FNL - 660' FEL
Bottom Hole Location: 65' FNL - 660' FEL
Sec. 21 Twp. 7N Rng. 2W I.M.
County: McClain State of Oklahoma
Ground Elevation at Surface Hole Location: 110'



Scale 1" = 2000'
Contour Interval: 10'



Provided by:
Arkoma Surveying and Mapping, PLLC
P.O. Box 238 Wilburton, OK 74578
Ph. 918-465-5711 Fax 918-465-5030

Certificate of Authorization No. 5348
Expires June 30, 2022

Date Staked: 04/22/2022

The purpose of this map is to verify the location and elevation as staked on the ground and to show the surrounding Topographic features. The footage shown hereon is only as SCALED onto a U.S.G.S. Topographic Map.

Please note that this location was staked carefully on the ground under the supervision of a Licensed Professional Land Surveyor, but the accuracy of this survey is not guaranteed.

Please contact Arkoma Surveying and Mapping promptly if any inconsistency is determined.

County Highway Vicinity Map



LIME ROCK
RESOURCES

Job #:8990-A

Operator: LIME ROCK RESOURCES

Lease Name and No.: KENT MU16 28-21 4HX

Accessibility: From the Southeast.

Directions: From the junction of Highway 74 & "Sand Creek Rd." 1 mile North and East of Purcell, OK, go 1.4 miles West on "Sand Creek Rd." to the NE/4 of Section 33-7N-2W with the Proposed Site being on the South side of "Sand Creek Rd."

provided by:
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1 inch = 0.5 mile

