

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

API NUMBER: 073 25871

Approval Date: 12/21/2017

Expiration Date: 06/21/2018

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 22 Twp: 15N Rge: 9W

County: KINGFISHER

SPOT LOCATION: ☐ NW ☐ NW ☐ NE ☐ NE

FEET FROM QUARTER: FROM NORTH FROM EAST

SECTION LINES: 275 1225

Lease Name: MISS MARY

Well No: 3H-2227X

Well will be 275 feet from nearest unit or lease boundary.

Operator
Name: CIMAREX ENERGY CO

Telephone: 9185851100

OTC/OCC Number: 21194 0

CIMAREX ENERGY CO
202 S CHEYENNE AVE STE 1000
TULSA, OK 74103-3001

PATRICIA KAY SANTO
4927 E. 870 ROAD
OKARCHE OK 73762

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN (EX CHESTER)	9638	6	
2	MISSISSIPPI SOLID	9950	7	
3	WOODFORD	10245	8	
4			9	
5			10	

Spacing Orders: 652230
272944
580801

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201704335
201704332
201704331
201707944

Special Orders:

Total Depth: 19966

Ground Elevation: 1211

Surface Casing: 1500

Depth to base of Treatable Water-Bearing FM: 370

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: CHICKASHA

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

PERMIT NO: 17-33139

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: CHICKASHA

HORIZONTAL HOLE 1

Sec 27 Twp 15N Rge 9W County KINGFISHER

Spot Location of End Point: S2 SW SW SE

Feet From: SOUTH 1/4 Section Line: 150

Feet From: EAST 1/4 Section Line: 2310

Depth of Deviation: 9303

Radius of Turn: 477

Direction: 190

Total Length: 9914

Measured Total Depth: 19966

True Vertical Depth: 10340

End Point Location from Lease,
Unit, or Property Line: 150

Notes:

Category

Description

DEEP SURFACE CASING

12/21/2017 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON CONDUCTOR OR SURFACE CASING

HYDRAULIC FRACTURING

12/21/2017 - 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

INTERMEDIATE CASING

12/21/2017 - G71 - DUE TO THE KNOWN POTENTIAL RISK OF ENCOUNTERING AN OVER-PRESSURED ZONE IN THE MORROW SERIES IN THIS AREA, THE TECHNICAL MANAGER RECOMMENDS SETTING AN INTERMEDIATE STRING OF CASING IMMEDIATELY ABOVE THE MORROW SERIES

MEMO

12/21/2017 - G75 - PIT 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST; PIT 2 - OBM TO VENDOR, OBM CUTTINGS PER DISTRICT

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.

073 25871 MISS MARY 3H-2227X

Category	Description
PENDING CD - 201704331	12/21/2017 - G75 - 27-15N-9W X272944 MSSSD X580801 WDFD 2 WELLS NO OP. NAMED. REC 8-7-2017 (DUNN)
PENDING CD - 201704332	12/21/2017 - G75 - (I.O.) 27 & 22-15N-9W EST MULTIUNIT HORIZONTAL WELL X272944 MSSSD 27-15N-9W X580801 WDFD 27-15N-9W X652230 MSNLC, WDFD 22-15N-9W (WDFD ASSOCIATED COMMON SOURCE OF SUPPLY TO MSNLC, MSSSD) 50% 27-15N-9W 50% 22-15N-9W CIMAREX ENERGY CO. REC 8-7-2017 (DUNN)
PENDING CD - 201704335	12/21/2017 - G75 - (I.O.) 27 & 22-15N-9W X272944 MSSSD 27-15N-9W X580801 WDFD 27-15N-9W X652230 MSNLC, WDFD 22-15N-9W COMPL. INT. (27-15N-9W) NCT 150' FSL, NCT 0' FNL, NCT 1320' FEL ** COMPL. INT. (22-15N-9W) NCT 0' FSL, NCT 150' FNL, NCT 1320' FEL ** NO OP. NAMED REC 8-7-2017 (DUNN)
	** ITD HAS LATERAL DRILLED IN OPPOSITE DIRECTION; TO BE CORRECTED AT HEARING FOR FINAL ORDER LOCATION EXCEPTION PER ATTORNEY FOR OPERATOR
PENDING CD - 201707944	12/21/2017 - G75 - 22-15N-9W X652230 MSNLC 1 WELL NO OP. NAMED REC 12-19-2017 (JACKSON)
SPACING - 272944	12/21/2017 - G75 - (640) 27-15N-9W EXT 166936 MSSSD, OTHERS EXT OTHERS
SPACING - 580801	12/21/2017 - G75 - (640) 27-15N-9W EXT 472385 WDFD
SPACING - 652230	12/21/2017 - G75 - (640)(HOR) 22-15N-9W EST 642657 MSNLC, WDFD, OTHER COMPL. INT. (MSNLC) NLT 660' FB COMPL. INT. (WDFD) NLT 165' FNL & FSL, NLT 330' FEL & FWL

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.

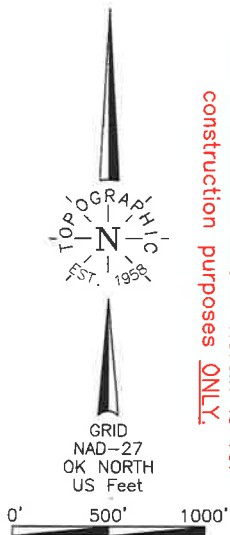
Rule 165: 10-3-4 (c) (7) (e) - The Operator shall give 24 Hours notice by telephone to the appropriate District Office of the Conservation Division as to when Surface Casing will be run.

KINGFISHER

County, Oklahoma

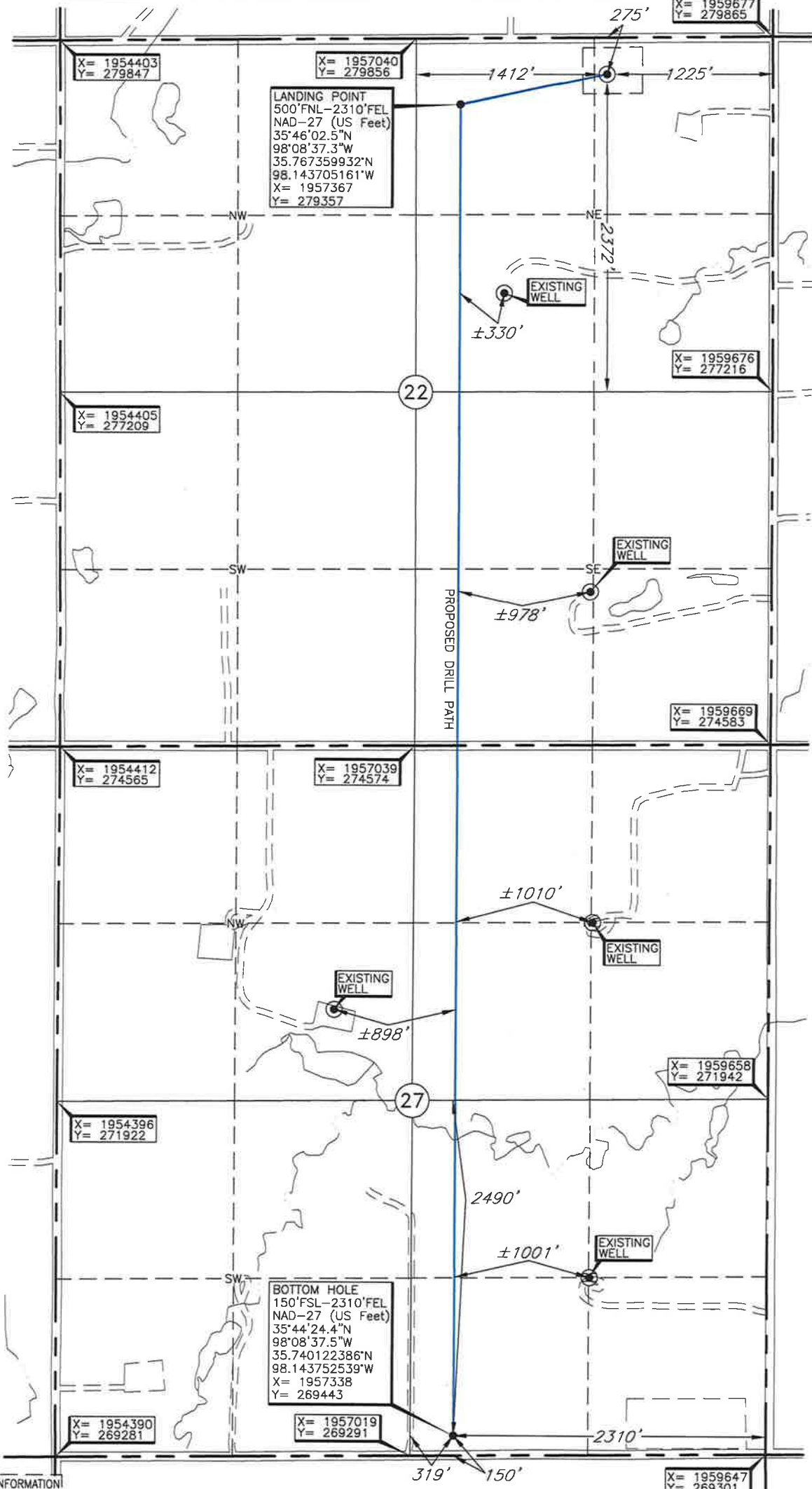
API 073-25871

275'FNL-1225'FEL Section 22 Township 15N Range 9W I.M.



The information shown herein is for construction purposes ONLY.

NOTE:



Operator: CIMAREX ENERGY CO.
Lease Name: MISS MARY
Topography & Vegetation: Loc. fell in terraced wheat field

Good Drill Site? Yes
Reference Stakes or Alternate Location
Stakes Set None

Best Accessibility to Location: From North off county road.

Distance & Direction: From the junction of US Hwy. 81 and St. Hwy. 33 in Kingfisher, OK, go West ± 10.5 miles on St. Hwy 33, then South ± 6.0 miles, then West ± 1.0 miles to the NE corner of Section 22, T15N-R9W.

Well No.: 3H-2227X

ELEVATION:
1211' Gr. at Stake NGVD29

LANDING POINT, BOTTOM HOLE, AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED.

Date of Drawing: Dec. 13, 2017

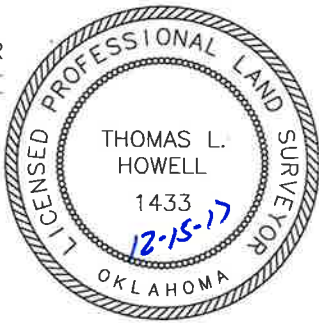
Invoice # 285320 Date Staked: Dec. 13, 2017

TR

CERTIFICATE:

I, Thomas L. Howell, an Oklahoma Licensed Land Surveyor and an authorized agent of Topographic Land Surveyors of Oklahoma, do hereby certify to the information shown herein

Thomas L. Howell
Oklahoma Lic. No. 1433



DATUM: NAD-27
LAT: 35°46'04.8"N
LONG: 98°08'24.2"W
LAT: 35.767992683°N
LONG: 98.140048579°W
STATE PLANE
COORDINATES: (US Feet)
ZONE: OK NORTH
X: 1958452
Y: 279586