

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

API NUMBER: 017 24719

Approval Date: 11/14/2014  
Expiration Date: 05/14/2015

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 09 Twp: 13N Rge: 9W County: CANADIAN  
SPOT LOCATION:  SE  SE  SW  SW FEET FROM QUARTER: FROM SOUTH FROM WEST  
SECTION LINES: 235 1105

Lease Name: HALEY 9-13-9 Well No: 3H Well will be 235 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

CHRISTINA KNOEPFEL  
PO BOX 31  
THOMPSON OK 77481

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

Name	Depth	Name	Depth
1 WOODFORD	11700	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 455168 Location Exception Orders: 628816 Increased Density Orders: 629331

Pending CD Numbers: 201408178 Special Orders:

Total Depth: 16662 Ground Elevation: 1403 **Surface Casing: 1500** Depth to base of Treatable Water-Bearing FM: 140

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

PIT 1 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: WATER BASED

Chlorides Max: 100000 Average: 5000

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

Approved Method for disposal of Drilling Fluids:

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 14-28691  
H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

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.

HORIZONTAL HOLE 1

Sec 09 Twp 13N Rge 9W County CANADIAN

Spot Location of End Point: NW NW NE NW

Feet From: NORTH 1/4 Section Line: 150

Feet From: WEST 1/4 Section Line: 1400

Depth of Deviation: 11534

Radius of Turn: 478

Direction: 1

Total Length: 4377

Measured Total Depth: 16662

True Vertical Depth: 12905

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

Notes:

Category	Description
DEEP SURFACE CASING	11/14/2014 - G71 - APPROVED CONTINGENT ON NOTIFYING OCC FIELD STAFF IMMEDIATELY OF ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON ANY CONDUCTOR OR SURFACE CASING
INCREASED DENSITY - 629331	11/14/2014 - G91 - 9-13N-9W X 455168 WDFD 4 WELLS CIMAREX ENERGY, CO. 8-18-2014
LOCATION EXCEPTION - 628816	11/14/2014 - G91 - (I.O.) 9-13N-9W X 455168 WDFD, OTHERS SHL NCT 170 FSL, NCT 1555 FWL ** COMPL. INT. NCT 150 FSL, NCT 150 FNL, NCT 1475 FWL ** CIMAREX ENERGY, CO. 8-5-2014  ** SHL AND COMPLETION INTERVAL WILL BE CORRECTED IN FINAL ORDER PER OPERATOR**
PENDING CD - 201408178	11/14/2014 - G91 - (E.O.) 9-13N-9W X165:10-3-28(C) WDFD (HALEY 0-13-9 3H) MAY BE LESS THAN 600' FROM EXISTING AND/OR PROPOSED CIMAREX ENERGY CO. REC. 11-14-2014 (MCKEOWN)
SPACING - 455168	11/14/2014 - G91 - (640) 9-13N-9W EXT 437237 WDFD, OTHERS EXT OTHERS

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# Well Location Plat

Sec. 9-13N-9W I.M.

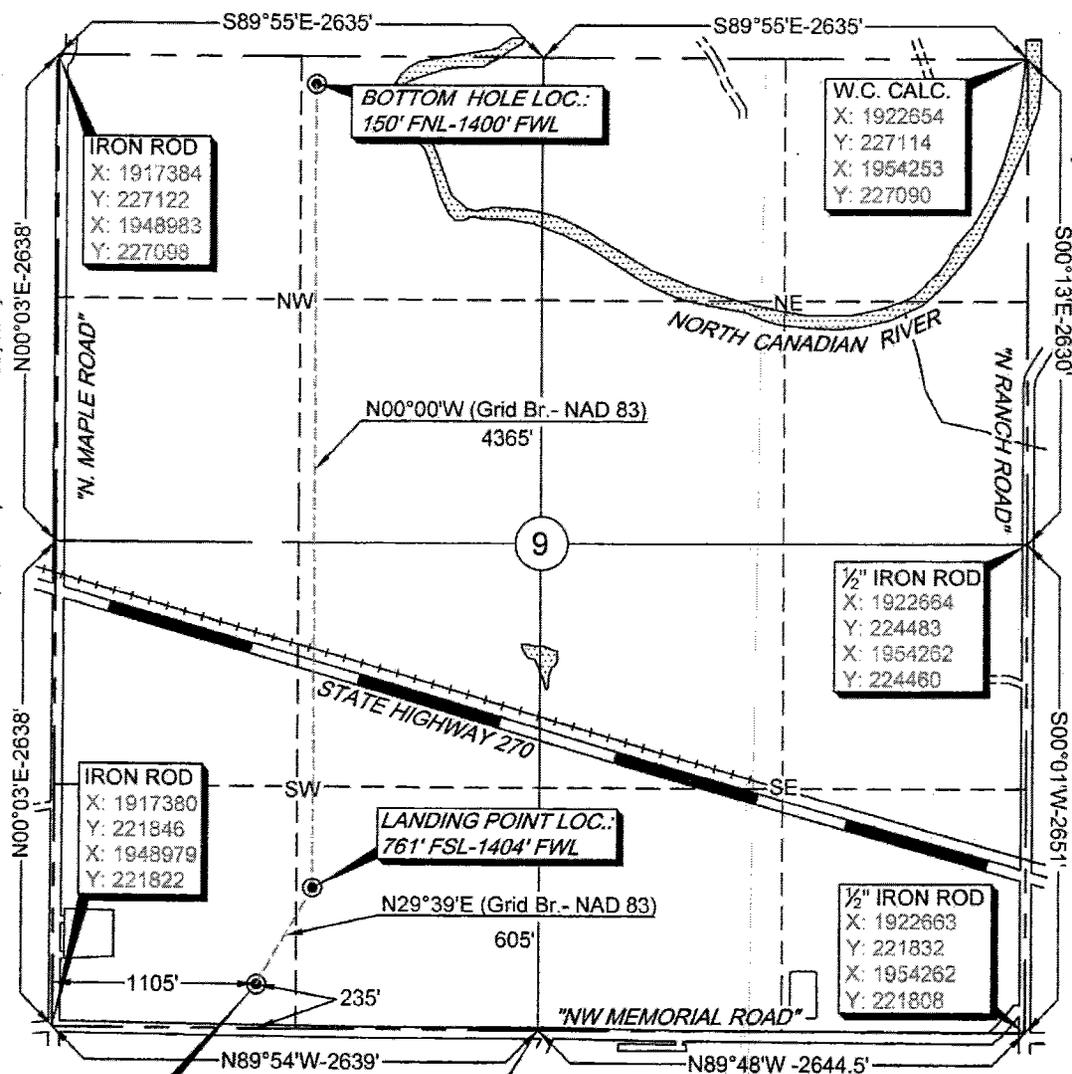
Operator: CIMAREX ENERGY COMPANY  
 Lease Name and No. : HALEY 9-13N-9W 3H  
 Footage : 235' FSL - 1105' FWL GR. ELEVATION : 1403' Good Site? YES  
 Section: 9 Township: 13N Range: 9W I.M.  
 County : Canadian State of Oklahoma  
 Terrain at Loc. : Location fell in pasture.  
 Accessibility : From the South.  
 Directions : From Calumet, OK, go +/- 3.0 miles Northwest on State Highway 270, go 900' South on "N. Ranch Road", then go 1.0 mile West on "NW Memorial Road" to the Southwest Corner of Section 9-13N-9W.

017-24719



1"=1000'  
 GPS DATUM  
 NAD 83  
 OK NORTH ZONE  
 NAD 27  
 OK NORTH ZONE  
 BASIS OF BEARING:  
 GRID NORTH - NAD 83  
 STATE PLANE - OK NORTH ZONE

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.



- Surface Hole Loc.:  
 Lat: 35.60995688  
 Lon: -98.16825251  
 X: 1918486  
 Y: 222079
- Surface Hole Loc.:  
 Lat: 35.60990676  
 Lon: -98.16791769  
 X: 1960984  
 Y: 222055
- Landing Point Loc.:  
 Lat: 35.61140218  
 Lon: -98.16724892  
 X: 1918785  
 Y: 222605
- Landing Point Loc.:  
 Lat: 35.61135402  
 Lon: -98.16891491  
 X: 1956353  
 Y: 222581
- Bottom Hole Loc.:  
 Lat: 35.62333359  
 Lon: -98.16727809  
 X: 1918784  
 Y: 226970
- Bottom Hole Loc.:  
 Lat: 35.62334603  
 Lon: -98.16893969  
 X: 1956383  
 Y: 226946

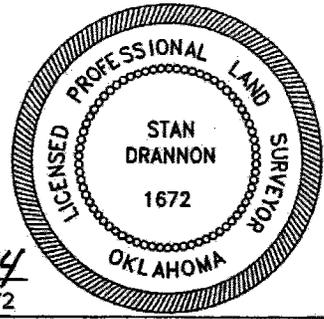
BASIS OF ELEVATION:  
 Topo Elev.=1376' @  
 E/4 Cor. Section 9, T13N-R9W  
 Tied with  
 Topo Elev.=1452' @  
 SW Cor. Section 7, T13N-R9W

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 Arkoma Surveying and Mapping promptly if any inconsistency is determined. GPS data is observed from RTK - GPS.

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, 2016  
 Invoice #4716-B  
 Date Staked : 06/25/14 By : J.W.  
 Date Drawn : 07/03/14 By : R.M.  
 Add L.P. : 07/14/14 By : E.D.  
 Rev. Name: 07/29/14 Bv : J.H.

**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.

*Stan Drannon* 7/30/14  
 STAN DRANNON OK LPLS 1672



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 SPOT LOCATION: **SE SE SW SW** FEET FROM QUARTER: **SOUTH** FROM: **WEST**  
 SECTION LINES: **235** **105**

# Application for Intent to Drill

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*closed system = steel pits per operator request*

*Pit 1  
 Water Based, 100000-5000ppm Chlorides  
 Deep Surface Casing approved contingent on  
 notifying OCC field staff immediately of any  
 loss of circulation or failure to circulate  
 cement to surface on any conductor or  
 surface casing.*

**TEMPORARY AUTHORIZATION  
 TO DRILL**  
 Expiration Date: 11/14/2014  
 Signature: *Cemir K. Mustem*  
 165:10-3-1-1

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000 00000 HALEY 9-13-9 3H

Page 2 of 2