

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

API NUMBER: 043 23591

Approval Date: 01/29/2018

Expiration Date: 07/29/2018

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 04 Twp: 17N Rge: 17W

County: DEWEY

SPOT LOCATION:

FEET FROM QUARTER: FROM SOUTH FROM EAST

SECTION LINES: 260 750

Lease Name: IRWIN

Well No: 1-4H

Well will be 260 feet from nearest unit or lease boundary.

Operator Name: UNIT PETROLEUM COMPANY

Telephone: 9184937700; 9184937

OTC/OCC Number: 16711 0

UNIT PETROLEUM COMPANY  
PO BOX 702500  
TULSA, OK 74170-2500

BRENDA L. & H. GRANT IRWIN  
3101 CASTLE ROCK ROAD #19  
OKLAHOMA CITY OK 73120

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

Name	Depth	Name	Depth
1 MISSISSIPPIAN	12650	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 547504

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201708301

Special Orders:

Total Depth: 17500

Ground Elevation: 1779

**Surface Casing: 1500**

Depth to base of Treatable Water-Bearing FM: 120

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: 8000 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 located in a Hydrologically Sensitive Area.

**Category of Pit: C**

**Liner not required for Category: C**

Pit Location is BED AQUIFER

Pit Location Formation: RUSH SPRINGS

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

PERMIT NO: 18-33819

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 04 Twp 17N Rge 17W County DEWEY

Spot Location of End Point: NE NW NE NE

Feet From: NORTH 1/4 Section Line: 165

Feet From: EAST 1/4 Section Line: 860

Depth of Deviation: 11804

Radius of Turn: 477

Direction: 358

Total Length: 4947

Measured Total Depth: 17500

True Vertical Depth: 12775

End Point Location from Lease,

Unit, or Property Line: 165

## Notes:

### Category

### Description

DEEP SURFACE CASING

1/26/2018 - 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

1/26/2018 - 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)

INTERMEDIATE CASING

1/26/2018 - 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

PENDING CD - 201708301

1/29/2018 - G75 - (I.O.) 4-17N-17W  
X547504 MSSP  
COMPL. INT. NCT 165' FSL, NCT 165' FNL, NCT 660' FEL  
NO OP. NAMED  
REC 1-16-2018 (DUNN)

SPACING - 547504

1/29/2018 - G75 - (640) 4-17N-17W  
EXT OTHERS  
EST MSSP

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

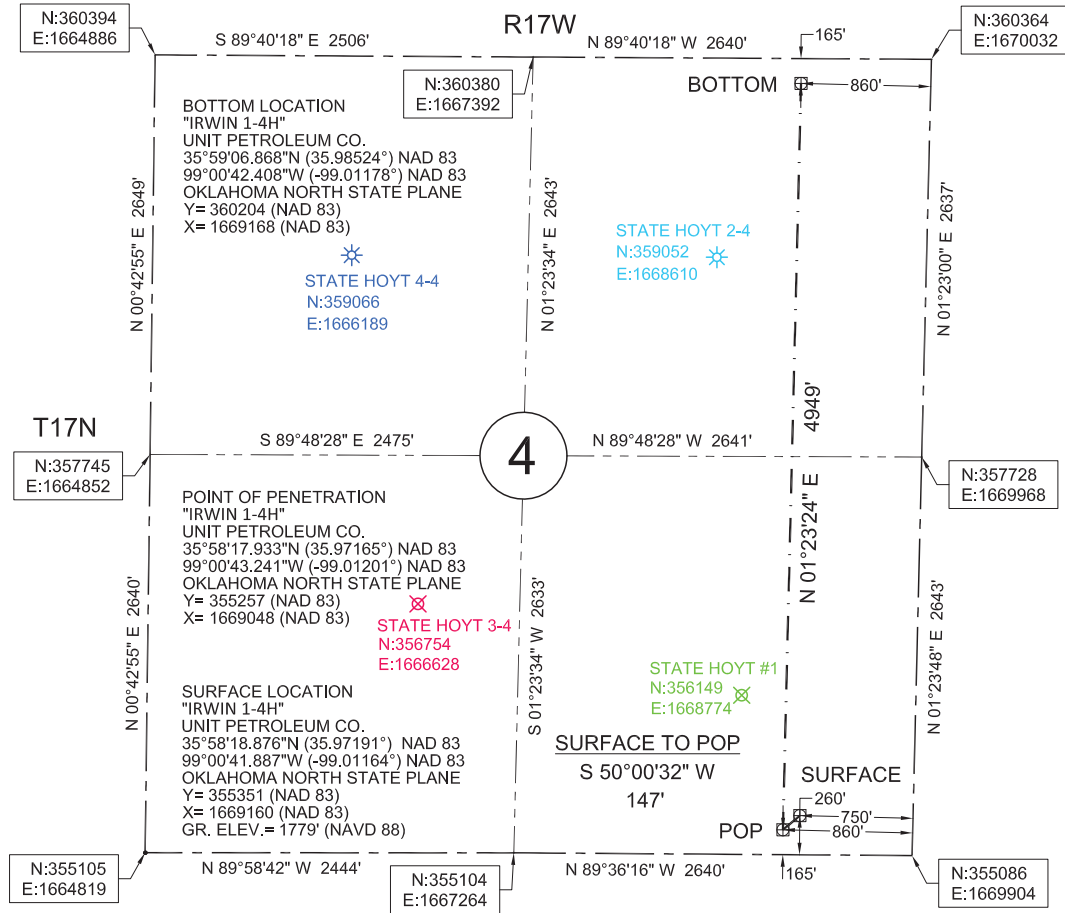
The duration of this permit is SIX MONTHS, except as otherwise provided by Rule 165: 10-3-1.

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.

043 23591 IRWIN 1-4H



# Section 4, T 17 N, R 17 W.I.M., Dewey County, Oklahoma.



## Surface Hole Location

"Irwin 1-4H" situated 260 feet from the south section line and 750 feet from the east section line of Section 4, T 17 N, R 17 W.I.M., Dewey County, Oklahoma.

## Point of Penetration

"Irwin 1-4H" situated 165 feet from the south section line and 860 feet from the east section line of Section 4, T 17 N, R 17 W.I.M., Dewey County, Oklahoma.

## Bottom Location

"Irwin 1-4H" situated 165 feet from the north section line and 860 feet from the east section line of Section 4, T 17 N, R 17 W.I.M., Dewey County, Oklahoma.

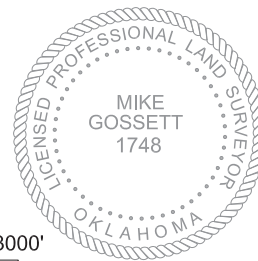


Datum: NAD 83  
Units: US Survey Feet  
North: Grid  
Coordinates: State Plane  
Zone: 3501  
State: Oklahoma  
Region: North



LEGEND	
	PLUGGED WELL
	EXISTING WELL
	SECTION LINE
	1/4 SECTION LINE
	PROPOSED LATERAL
	EXISTING LATERAL

0' 1000' 2000' 3000'



- SURVEY NOTES**
1. EXISTING WELL COORDINATES ARE FROM THE OCC WEB SITE AND WERE NOT FIELD LOCATED.
  2. UTILITIES SHOWN HEREON ARE FROM OBSERVED EVIDENCE IN THE FIELD.
  3. THIS SURVEY IS FOR A WELL LOCATION EXHIBIT ONLY. NOT TO BE USED AS A BOUNDARY SURVEY.
  4. DATE OF LAST SITE VISIT: 12-21-2017

REVISIONS:	DRAWN BY:	JOB:	DATE OF PLAT:	SCALE:	SHEET:
	C.M.G.	205-17	12-26-2017	1"=1000'	1 OF 4

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