API NUMBER: 073 26260

Oil & Gas

Horizontal Hole

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

Approval Date: 09/21/2018
Expiration Date: 03/21/2020

PERMIT TO DRILL

WELL LOCATION:	Sec:	19	Twp:	17N	Rge:	8W	County:	KING	GFISHER	
0007100471041	0144	[$\overline{}$	0144	\neg	EEET EDOM OUADTED:		COLUTIA	

SPOT LOCATION: SW SE SE SW FEET FROM QUARTER: FROM SOUTH FROM WEST SECTION LINES: 250 1990

Lease Name: HELEN Well No: 1708 2H-30X Well will be 250 feet from nearest unit or lease boundary.

Operator NEWFIELD EXPLORATION MID-CON INC Telephone: 2816742521; 9188781 OTC/OCC Number: 20944 0

NEWFIELD EXPLORATION MID-CON INC 24 WATERWAY AVE STE 900

THE WOODLANDS. TX 77380-2764

DON GRUNTMEIR 13621 E. 860 RD

KINGFISHER OK 73762

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

Name Depth Name Depth MISSISSIPPIAN 1 8421 6 2 WOODFORD 8979 7 3 8 4 9 5 10 646834

Spacing Orders: 646834 Location Exception Orders: Increased Density Orders:

Pending CD Numbers: 201805407 201805408 201805419

> 201805409 201805410

Total Depth: 19072 Ground Elevation: 1138 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 270

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 located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C
Pit Location is BED AQUIFER
Pit Location Formation: CEDAR HILLS

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-35347
E. Haul to Commercial pit facility: Sec. 31 Twn. 12N Rng. 8W Cnty. 17 Order No: 587498

Special Orders:

H. SEE MEMO

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: CEDAR HILLS

HORIZONTAL HOLE 1

Sec 31 Twp 17N Rge 8W County KINGFISHER

Spot Location of End Point: S2 S2 S2 SW
Feet From: SOUTH 1/4 Section Line: 85
Feet From: WEST 1/4 Section Line: 1320

Depth of Deviation: 8180 Radius of Turn: 382 Direction: 185

Total Length: 10291

Measured Total Depth: 19072
True Vertical Depth: 8979
End Point Location from Lease,
Unit, or Property Line: 85

Notes:

Category Description

DEEP SURFACE CASING 9/12/2018 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY OF ANY LOSS OF

CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON ANY CONDUCTOR OR

SURFACE CASING

HYDRAULIC FRACTURING 9/12/2018 - 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; 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 9/19/2018 - G57 - 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 9/12/2018 - G71 - PIT 1 & 2 - CLOSED SYSTEM = STEEL PITS PER OPERATOR REQUEST,

 ${\tt WBM/CUTTINGS~\&~OBM~CUTTINGS~CAPTURED~IN~STEEL~HALF~PITS,~WBM~CUTTINGS~WILL~BE}$

SOIL FARMED, WBM & OBM CUTTINGS TRANSFERRED TO R360 587498 (31-12N-8W),

CANADIAN CO, PIT 2 - OBM TO VENDOR

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 26260 HELEN 1708 2H-30X

Category Description

PENDING CD - 201805407 9/19/2018 - G57 - 30-17N-8W

X646834 MSSP 5 WELLS NO OP. NAMED

REC 8-7-2018 (P. PORTER)

PENDING CD - 201805408 9/19/2018 - G57 - 31-17N-8W

X646834 MSSP 5 WELLS NO OP. NAMED

REC 8-7-2018 (P. PORTER)

PENDING CD - 201805409 9/19/2018 - G57 - (I.O.) 30 & 31-17N-8W

EST MULTIUNIT HORIZONTAL WELL

X646834 MSSP, WDFD

(WDFD IS AN ADJACENT COMMON SOURCE OF SUPPLY TO THE MSSP)

50% 30-17N-8W 50% 31-17N-8W

NEWFIELD EXPLORATION MID-CONTINENT INC.

REC 8-7-2018 (P. PORTER)

PENDING CD - 201805410 9/19/2018 - G57 - (I.O.) 30 & 31-17N-8W

X646834 MSSP, WDFD SHL SW4 31-17N-8W**

COMPL. INT. (31-17N-8W) NCT 165' FSL, NCT 0' FNL, NCT 990' FWL COMPL. INT. (30-17N-8W) NCT 0' FSL, NCT 165' FNL, NCT 990' FWL

NO OP. NAMÈD

REC 8-7-2018 (P. PORTER)

**S/B SHL 250' FSL, 1990' FWL 19-17N-8W & DIRECTION OF LATERAL FROM N-S; WILL BE

CORRECTED AT THE HEARING FOR THE FINAL ORDER PER OPERATOR

PENDING CD - 201805419 9/19/2018 - G57 - (I.O.) 30 & 31-17N-8W

X165:10-3-28(C)(2)(B) MSSP, WDFD (HELEN 1708 2H-30X) MAY BE CLOSER THAN 600' TO THE

HELEN 1H-30X & PROPOSED HORIZONTAL WELL NEWFIELD EXPLORATION MID-CONTINENT INC.

REC 8-7-2018 (P. PORTER)

SPACING - 646834 9/19/2018 - G57 - (640)(HOR) 30 & 31-17N-8W

EXT 639736 MSSP EXT 644685 WDFD

POE TO BHL (MSSP) NLT 660' FB

POE TO BHL (WDFD) NLT 165' FNL & FSL, NLT 330' FEL & FWL

(COEXIST W/SP. ORDER 143434/168065 MNNG, ORDER 143505/168065 MSSLM 30-17N-8W) (COEXIST W/SP. ORDER 143434 MNNG S2 & NW4, ORDER 143434/213918 MNNG NE4, ORDER 143505 S2 & NW4 MSSLM, ORDER 143505/213918 NE4, 209749 CRLMN NW4, ORDER 212530

CRLMN SW4, ORDER 213918 CRLM NE4, ORDER 504686 CRLM SE4 31-17N-8W)

PERMIT PLAT

M & M Land Surveying, Inc. Phone (580) 226-0446 520 E Street N.W. Ardmore, OK 73401

Company Name: NEWFIELD EXPLORATION MID-CONTINENT INC.

Lease Name: HELEN 1708 2H-30X

Section 19 Township 17 N Range 8 W , I.B.M,
County of Kingfisher, State of Oklahoma

Good Location? YES

BASIS OF BEARINGS ARE GRID NORTH COORDINATES ARE NAD27

SCALE 1" = 1500'

1500

Original Location: 250'FSL - 1990'FWL Elevation 1138' GROUND Distance & Direction From Nearest Town: 10.3 miles Northwest of Kingfisher

SURFACE LOCATION DATUM: NAD27

LAT: 35° 55' 41.32"N

LONG: 98° 05' 46.31"W LAT: 35.928145°N LONG: 98.096196°W

STATE PLANE COORDINATES: (US SURVEY FEET)

ZONE: NORTH ZONE Y (N): 337865.69 X (E): 1971518.88

DATUM: NAD83

LAT: 35° 55' 41.47"N LONG: 98° 05' 47.53"W LAT: 35.928186°N

LONG: 98.096535°W STATE PLANE COORDINATES: (US SURVEY FEET)

ZONE: NORTH ZONE Y (N): 337889.39 X (E): 1939919.3

DATA DERIVED FROM G.P.S. WITH O.P.U.S. DATA.

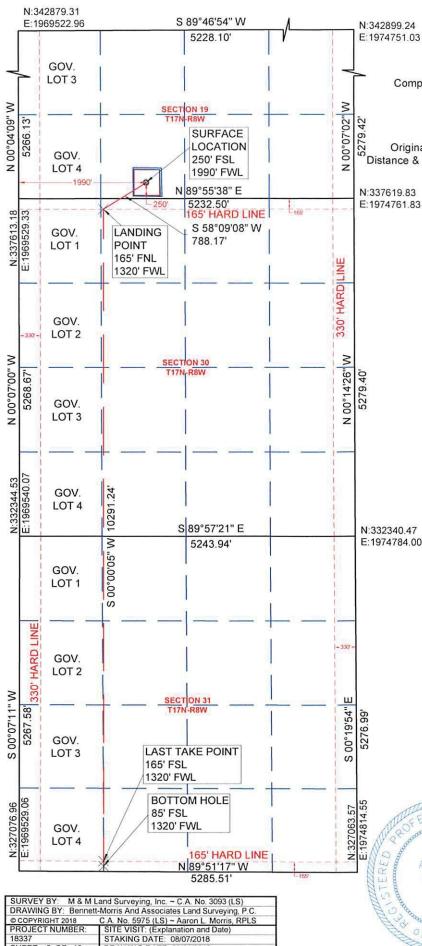
This location has been staked according to the best official survey records available to us. The metrical data shown hereon is for permitting the well location and the section location may or may not be field verified. Please review this plat and notify us immediately of any discrepancy.

CERTIFICATE:

I Aaron Morris a Registered Land Surveyor in the State Of Oklahoma, do hereby certify that the above described Well Location was surveyed and staked on the ground as shown and that said plat meets or exceeds the Oklahoma Minimum Technical Standards for the practice of land surveying as adopted by the Oklahoma State Board of Licensure for Professional Engineers and Land Surveyors.

Aaron L. Morris R.P.L.S. No.1477 Bennett-Morris & Associates Land Surveying P.C. ~ C.A. No. 5795 (LS) Phone (580) 226-5108

Fax (888) 662-7778 1010 Northwest Boulevard Ardmore, OK 73401



SHEET: 6 OF 10

DRAWING DATE: 08/21/2018

