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

API NUMBER: 093 25075 A

Approval Date: 06/23/2017
Expiration Date: 12/23/2017

Horizontal Hole Oil & Gas

Amend reason: CHANGE BOTTOM-HOLE LOCATION; ADD ORDER

AMEND PERMIT TO DRILL

WELL LOCATION: Sec: 31 Twp: 20N Rge: 15W County: MAJOR

SPOT LOCATION: NE NW NW NW FEET FROM QUARTER: FROM **NORTH** FROM **WEST**
SECTION LINES: **200** **380**

Lease Name: PENELOPE 2015 **Well No: 1-19H30H** **Well will be 200 feet from nearest unit or lease boundary.**

Operator Name: **SANDRIDGE EXPLORATION & PRODUCTION LLC** Telephone: 4054295610 OTC/OCC Number: 22281 0

SANDRIDGE EXPLORATION & PRODUCTION LLC
123 ROBERT S KERR AVE STE 1702
OKLAHOMA CITY, OK 73102-6406

RICK & WANDA MONGOLD
238786 EAST CR. 54
CHESTER OK 73838

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

	Name	Depth		Name	Depth
1	MISSISSIPPIAN(MERAMEC-OSAGE)	9220	6		
2	MERAMEC	9345	7		
3	OSAGE	9465	8		
4			9		
5			10		

Spacing Orders: 131401
220952

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201703773
201703774
201703775
201704163

Special Orders:

Total Depth: 19622 Ground Elevation: 1669 **Surface Casing: 1500** Depth to base of Treatable Water-Bearing FM: 410

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

PIT 1 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits
Type of Mud System: WATER BASED
Chlorides Max: 10000 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 ALLUVIAL
Pit Location Formation: ALLUVIUM

Approved Method for disposal of Drilling Fluids:

E. Haul to Commercial pit facility: Sec. 33 Twn. 26N Rng. 15W Cnty. 151 Order No: 627651
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** located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is ALLUVIAL

Pit Location Formation: ALLUVIUM

HORIZONTAL HOLE 1

Sec 19 Twp 20N Rge 15W County MAJOR

Spot Location of End Point: NE NW NW NW

Feet From: NORTH 1/4 Section Line: 150

Feet From: WEST 1/4 Section Line: 430

Depth of Deviation: 8715

Radius of Turn: 477

Direction: 1

Total Length: 10158

Measured Total Depth: 19622

True Vertical Depth: 9465

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

Notes:

Category	Description
DEEP SURFACE CASING	6/15/2017 - 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	6/15/2017 - G71 - OCC 165:10-3-10 REQUIRES: 1) THE CHEMICAL DISCLOSURE OF HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS BE REPORTED TO FRACFOCUS USING THE FOLLOWING LINK HTTP://FRACFOCUS.ORG/ WITH NOTICE GIVEN 48 HOURS IN ADVANCE OF FRACTURING TO THE LOCAL OCC DISTRICT OFFICE; AND, 2) PRIOR TO COMMENCEMENT OF FRACTURING OPERATIONS FOR HORIZONTAL WELLS, NOTICE ALSO GIVEN FIVE BUSINESS DAYS IN ADVANCE TO OFFSET OPERATORS WITH WELLS COMPLETED IN THE SAME COMMON SOURCE OF SUPPLY WITHIN 1/2 MILE
INTERMEDIATE CASING	6/15/2017 - 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	6/15/2017 - G71 - PIT 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST; PIT 2 - OBM TO VENDOR, OBM CUTTINGS PER DISTRICT
PENDING CD - 201703773	6/21/2017 - G75 - (E.O.) 30 & 19-20N-15W EST MULTIUNIT HORIZONTAL WELL X131401 MRMC, OSGE 30-20N-15W X220952 MNMCO 19-20N-15W (OSGE ASSOCIATED COMMON SOURCE OF SUPPLY TO MRMC) 50% 30-20N-15W 50% 19-20N-15W SANDRIDGE EXPLOR. & PROD., L.L.C. REC 6-20-2017 (M. PORTER)

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.

Category	Description
PENDING CD - 201703774	6/21/2017 - G75 - (E.O.) 30 & 19-20N-15W X131401 MRMC, OSGE 30-20N-15W X220952 MNMCO 19-20N-15W COMPL. INT. (30-20N-15W) NCT 150' FSL, NCT 0' FNL, NCT 330' FWL COMPL. INT. (19-20N-15W) NCT 0' FSL, NCT 150' FNL, NCT 330' FWL SANDRIDGE EXPLOR. & PROD., L.L.C. REC 6-20-2017 (M. PORTER)
PENDING CD - 201703775	6/21/2017 - G75 - (E.O.) 19-20N-15W X220952 MNMCO 1 WELL SANDRIDGE EXPLOR. & PROD., L.L.C. REC 6-20-2017 (M. PORTER)
PENDING CD - 201704163	8/2/2017 - G75 - (E.O.) 19-20N-15W X165:10-3-28(C)(2)(B) MNMCO (PENELOPE 2015 1-19H30H) WITHIN 600' MCQUOWN 2-19 SANDRIDGE EXPLOR. & PROD., L.L.C. REC 7-25-2017 (NORRIS)
SPACING - 131401	6/21/2017 - G75 - (640) 30-20N-15W EXT 131390 MRMC, OSGE, OTHERS
SPACING - 220952	6/21/2017 - G75 - (640) 19-20N-15W EXT 76570/201500 MNMCO

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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.

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

6709 NORTH CLASSEN BLVD., OKLA. CITY, OKLA. 73116 * LOCAL (405) 843-4847 * OUT OF STATE (800) 654-3219

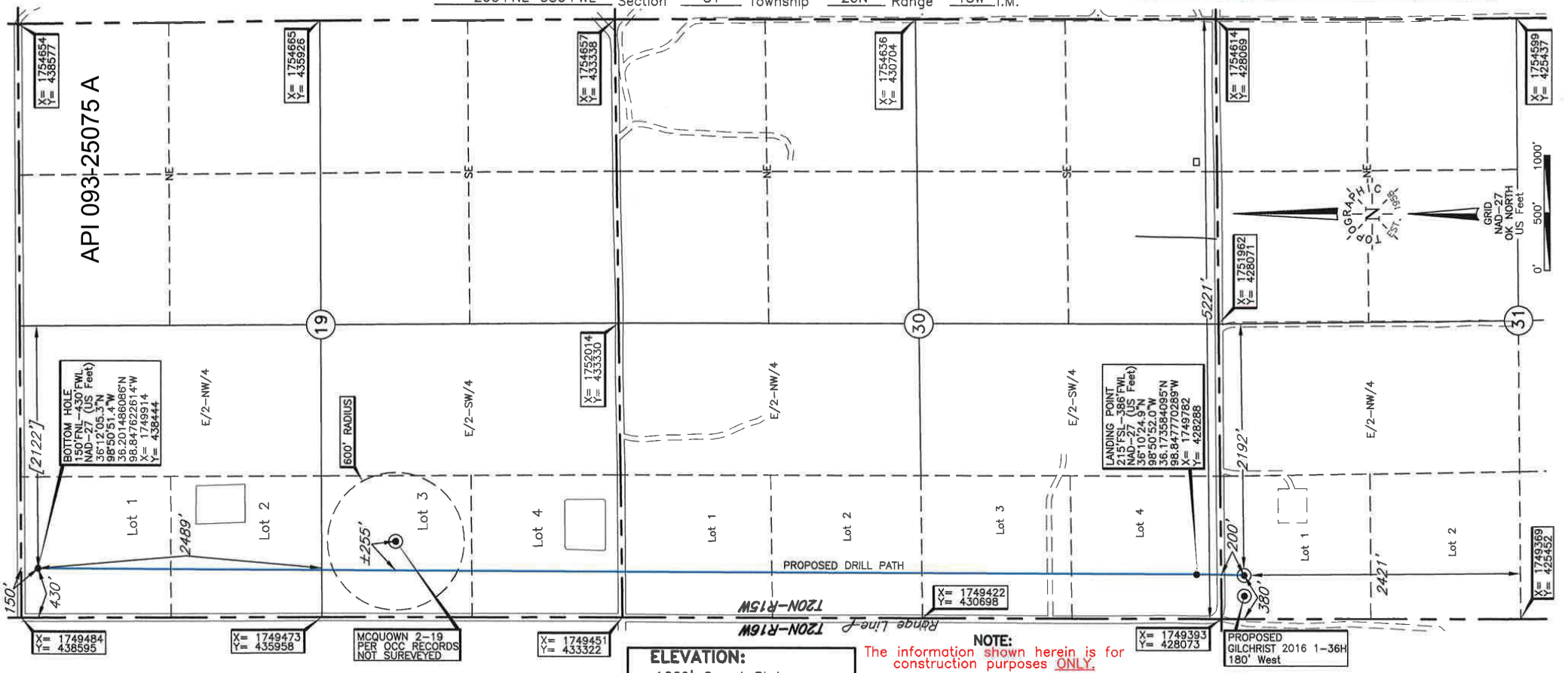
Certificate of Authorization No. 1293 LS

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

Distances shown in (parenthesis) are calculated based upon the Quarter Section being 2640 feet, those shown in [brackets] are based on GLO (General Land Office) distances and have NOT been measured on the ground.

MAJOR County, Oklahoma

200'FNL-380'FWL Section 31 Township 20N Range 15W I.M.



ELEVATION:
1669' Gr. at Stake

NOTE:
The information shown herein is for construction purposes ONLY.

Operator: SANDRIDGE EXPLORATION & PRODUCTION, LLC

Lease Name: PENELOPE 2015 Well No.: 1-19H30H

Topography & Vegetation Loc. fell in sloped pasture.

Good Drill Site? Yes

Reference Stakes or Alternate Location
Stakes Set None

Best Accessibility to Location From North off county road

Distance & Direction
from Hwy Jct or Town From Seiling, OK, go North on US Hwy. 281 ±3miles, then East on paved road ±4 miles, then South ±1 mile to the NW Cor. of Sec. 31-T20N-R15W.

DATUM: NAD-27
LAT: 36°10'20.8"N
LONG: 98°50'52.1"W
LAT: 36.172443816°N
LONG: 98.847792607°W
STATE PLANE COORDINATES: (US Feet)
ZONE: OK NORTH
X: 1749771
Y: 427873

(This information was gathered with a GPS receiver with ±1 foot Horiz./Vert. accuracy)

Date of Drawing: July 28, 2017

Invoice # 279666 Date Staked: Feb. 22, 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

LICENSED PROFESSIONAL LAND SURVEYOR
THOMAS L. HOWELL
1433
7-28-17
OKLAHOMA