API NUMBER: 063 24889

Straight Hole Stratigraphic Test

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

Approval Date: 03/08/2019
Expiration Date: 09/08/2020

PERMIT TO DRILL

WELL LOCATION: Sec: 12 Twp: 8N Rge: 11E County: HUGHES

SPOT LOCATION: NW NE NE SW FEET FROM QUARTER: FROM **SOUTH** FROM **WEST**
SECTION LINES: **2447** **2030**

Lease Name: HOMSEY **Well No: 3-12/13/24H** **Well will be 2030 feet from nearest unit or lease boundary.**

Operator Name: **BRAVO ARKOMA LLC** Telephone: 9188944440; 9188944 OTC/OCC Number: 23562 0

BRAVO ARKOMA LLC
1323 E 71ST ST STE 400
TULSA, OK 74136-5067

MICHAEL T. BOSE AND CHERYL A. BOSE
7056 HACKBERRY COURT
TULSA OK 74132

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

	Name	Depth		Name	Depth
1	WOODFORD	4400	6		
2			7		
3			8		
4			9		
5			10		

Spacing Orders: No Spacing
Location Exception Orders:
Increased Density Orders:

Pending CD Numbers:
Special Orders:

Total Depth: 4500 Ground Elevation: 961 **Surface Casing: 1300** Depth to base of Treatable Water-Bearing FM: 220

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

PIT 1 INFORMATION

Type of Pit System: ON SITE
Type of Mud System: AIR

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: 4
Liner not required for Category: 4
Pit Location is BED AQUIFER
Pit Location Formation: CALVIN

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

F. Haul to Commercial soil farming facility: Sec. 14 Twn. 7N Rng. 9E Cnty. 63 Order No: 551649

H. SEE MEMO

Mud System Change to Water-Based or Oil-Based Mud Requires an Amended Intent (Form 1000).

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: 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: CALVIN

PIT 3 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: CALVIN

Notes:

Category	Description
DEEP SURFACE CASING	3/1/2019 - 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
INTENT TO DRILL	3/8/2019 - GB1 - THIS WELL HAS BEEN APPROVED AS A STRATIGRAPHIC TEST WITH THE INTENT TO SET SURFACE CASING ONLY. OPERATOR WILL FILE AN AMENDED FORM 1000 CHANGING THE TYPE OF DRILLING OPERATION AT A LATER DATE.
MEMO	3/1/2019 - G71 - PIT 2 & 3 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, WBM & OBM CUTTINGS CAPTURED IN CONCRETE-LINED PIT, SOLIDFIED AND HELD UNTIL DISPOSAL APPROVED BY OCC; PIT 3 - OBM TO VENDOR
SPACING	3/8/2019 - GB1 - N/A STRATIGRAPHIC TEST

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.

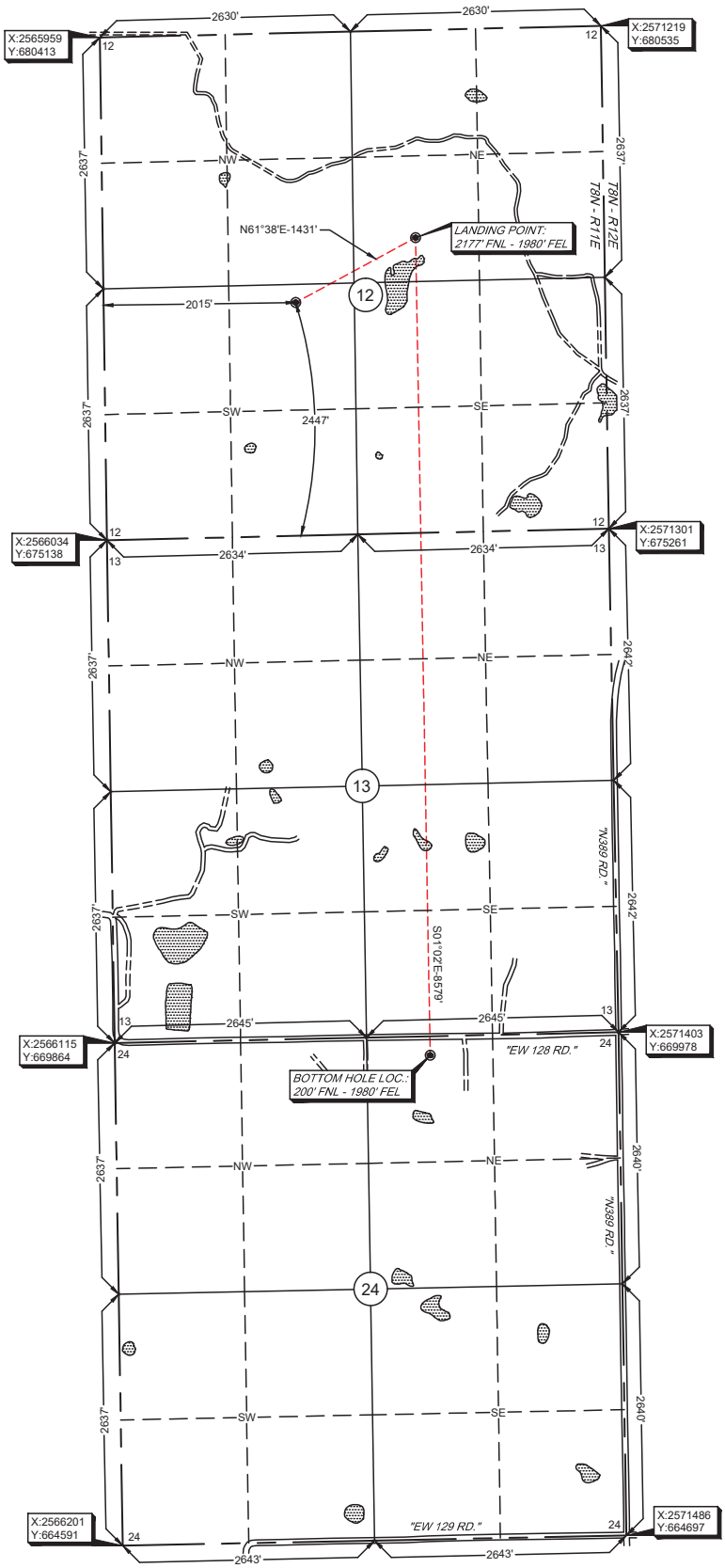
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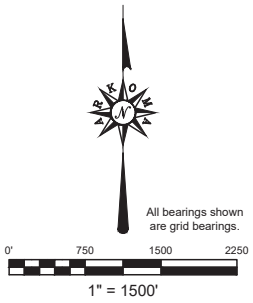
Well Location Plat

Bravo Natural Resources, LLC

S.H.L. Sec. 12-8N-11E I.M.
B.H.L. Sec. 24-8N-11E I.M.

Operator: BRAVO NATURAL RESOURCES, LLC
Lease Name and No.: HOMSEY 3-12/13/24H
Footage: 2447' FSL - 2015' FWL Gr. Elevation: 961'
Section: 12 Township: 8N Range: 11E I.M.
County: Hughes State of Oklahoma
Terrain at Loc.: Location fell in timber, sloping down on the Northwest side.





GPS DATUM
NAD 27
OK SOUTH ZONE

Surface Hole Loc.:
Lat: 35°10'50.40"N
Lon: 96°05'57.09"W
Lat: 35.18066773
Lon: -96.09919271
X: 2568014
Y: 677632

Landing Point:
Lat: 35°10'56.89"N
Lon: 96°05'41.77"W
Lat: 35.18247079
Lon: -96.09493683
X: 2569273
Y: 678312

Bottom Hole Loc.:
Lat: 35°09'32.05"N
Lon: 96°05'41.87"W
Lat: 35.15890176
Lon: -96.09496419
X: 2569427
Y: 669735

-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. -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. -Quarter Section distances may be assumed from a Government Survey Plat or assumed at a proportionate distance from opposing section corners, or occupation thereof, and may not have been measured on-the-ground, and further, does not represent a true boundary survey.

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, 2020

Invoice #8451-A-E
Date Staked: 02/15/19 By: H.S.
Date Drawn: 02/18/19 By: J.H.
Add LP & BHL. Revise Lease Name: 03/06/19 By: C.K.
Rev. SHL & LP: 04/10/19 By: M.K.

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.

04/12/19

LANCE G. MATHIS OK LPLS 1664

