

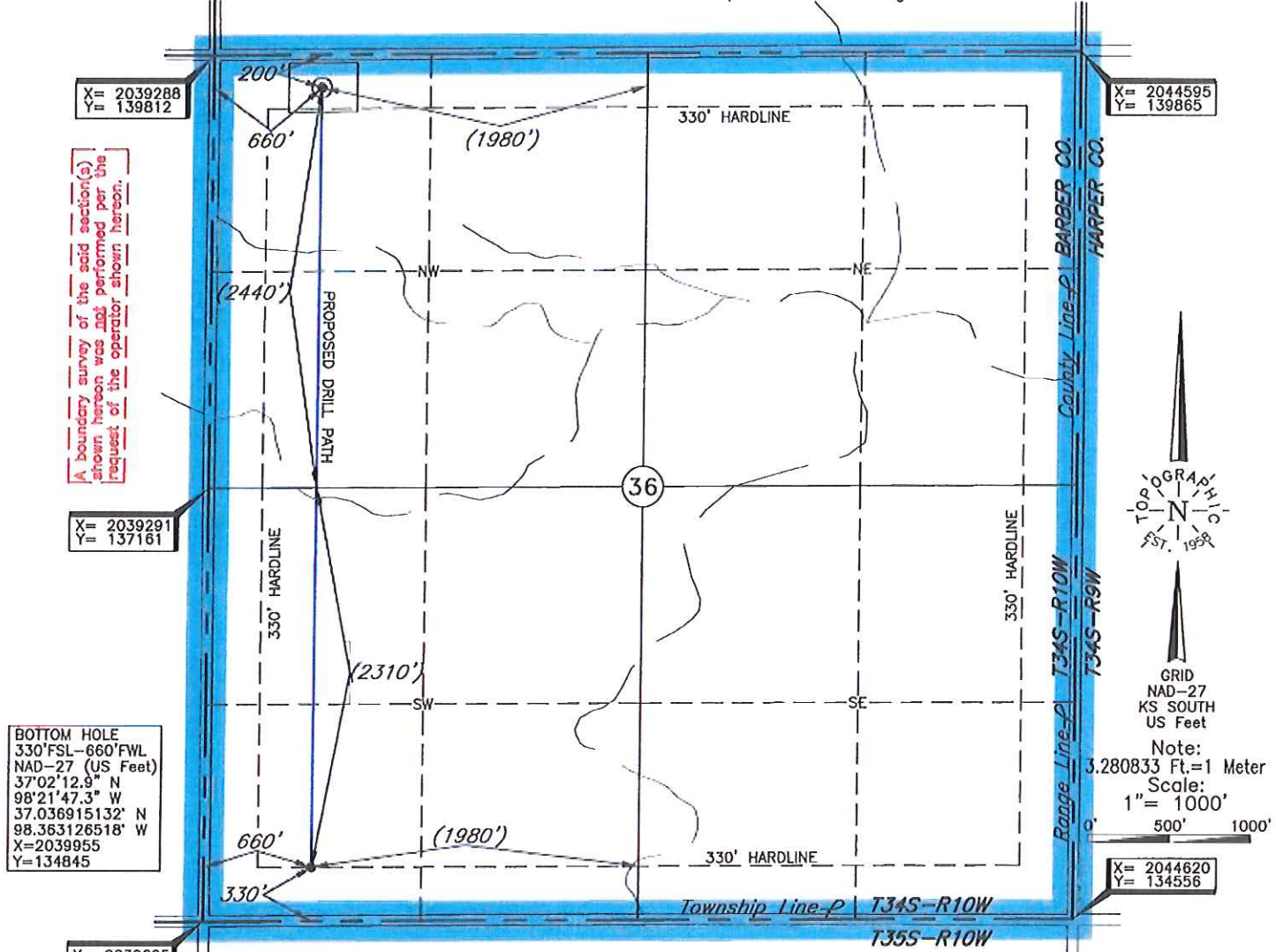
TOPOGRAPHIC LAND SURVEYORS

6709 NORTH CLASSEN BLVD., OKLA. CITY, OKLA. 73116 * LOCAL (405) 843-4847 * OUT OF STATE (800) 654-3219
 Certificate of Authorization No. LS-99, Exp. Dec. 31, 2015

BARBER

County, Kansas

200'FNL - 660'FWL Section 36 Township 34S Range 10W P.M.



X= 2039288
Y= 139812

X= 2044595
Y= 139865

A boundary survey of the said section(s) shown hereon was not performed per the request of the operator shown hereon.

X= 2039291
Y= 137161

BOTTOM HOLE
 330'FSL-660'FWL
 NAD-27 (US Feet)
 37°02'12.9" N
 98°21'47.3" W
 37.036915132' N
 98.363126518' W
 X=2039955
 Y=134845



GRID
 NAD-27
 KS SOUTH
 US Feet
 Note:
 3.280833 Ft.=1 Meter
 Scale:
 1"= 1000'
 0' 500' 1000'

X= 2044620
Y= 134556

X= 2039295
Y= 134509

BOTTOM HOLE 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.

Operator: TAPSTONE ENERGY

Lease Name: MANGEN 36-34-10

Well No.: 1H

ELEVATION:
1301' Gr. at Stake

Topography & Vegetation Loc. fell in gently sloping wheat field

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 Kiowa, KS, go ±3.5 mi. East on paved road, then ±1.3 mi. North, then ±3.0 mi. East, then ±1.0 mi. North to the NW Cor. of Sec. 36-T34S-R10W

This information was gathered with a GPS receiver with ±1 foot Horiz./Vert. accuracy.
 DATUM: NAD-27
 LAT: 37°03'00.1"N
 LONG: 98°21'47.2"W
 LAT: 37.050026017' N
 LONG: 98.363123264' W
 STATE PLANE
 COORDINATES: (US Feet)
 ZONE: KS SOUTH
 X: 2039949
 Y: 139619

Revision C Date of Drawing: Oct. 24, 2014
 Invoice # 232758A Date Staked: Oct. 22, 2014 AC

CERTIFICATE:

I, Lee K. Goss a Kansas Licensed Land Surveyor and an authorized agent of Topographic Land Surveyors, do hereby certify to the information shown herein

