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

HARPER _______ County, Kansas County, Kansas 230'FNL - 1630'FEL Section 16 Township 34S _ Range _______P.M. X 2118775 Y 155886 X 2124053 Y 155938 230 X 2121414 Y 155918 1630' 330' HARDLINE 1010' 2402 HARDUNE QGR40 16 2118824 153263 1958 X 2124100 Y 153308 HARDLINE GRID NAD-27 KS SOUTH US Feet Note: 3.280833 Ft.=1 Meter BOTTOM HOLE 330'FSL-1980'FEL 37'04'50.2"N 98'04'52.6"W 37.080605897'N Scale: 1"= 1000' 659 1000 500' 98.081271449'W X= 2122160 = 150998 330' HARDLINE X 2121507 Y 150665 330 X 2118882 Y 150641 X 2124146 Y 150677 A boundary survey of the said section(s) shown hereon was not performed per the request of the operator shown hereon. BOTTOM HOLE AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED. Operator: <u>TAPSTONE</u> ENERGY **ELEVATION:** Lease Name: <u>CARTMILL</u> 16-34-7 Well No.: 1H 1348' Gr. At Stake Topography & Vegetation Location fell in sloped, terraced pasture, ±160' South of drain. Reference Stakes or Alternate Location Stakes Set None Good Drill Site? _ From lease road North of well location. Best Accessibility to Location _ Distance & Direction From Anthony, KS, go ±2.0 mi. West on St. Hwy. 14, then ±4.0 mi. South, then 0.5 miles from Hwy Jct or Town West to the Northeast Corner of Section 16, T34S-R7W. Date of Drawing: April 27, 2015 Revision X B Invoice # 242719 Date Staked: April 2, 2015 JGW LONG: 98'04'49.0"W **CERTIFICATE:**

DATUM: NAD-27
LAT: 37'05'36.6"N
LONG: 98'04'49.0"W
LAT: 37.093504283' N
LONG: 98.080284631' W
STATE PLANE
COORDINATES: (US Feet)
TOOK SOUTH
COORDINATES: (US Feet)
TOOK SOUTH
TO

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

