

# WELL LOCATION CERTIFICATE

NW SEC. 13  
3/4" ALUM. CAP  
LS 22098

N 88°58'23" E 2675.55'

N 88°29'59" E 2675.29'

NE SEC. 13  
2" ALUM. CAP  
LS 23500

N 1/4 SEC. 13  
2 1/2" ALUM. CAP  
LS 28656

SURFACE LOCATION  
GROUND ELEVATION= 4872'  
NAD83  
LATITUDE= 40.220528°  
LONGITUDE= 104.943203°

LATITUDE= 40°13'13.902"  
LONGITUDE= 104°56'35.531"

BOTTOM HOLE LOCATION  
NAD83  
LATITUDE= 40.223051°  
LONGITUDE= 104.959212°

LATITUDE= 40°13'22.983"  
LONGITUDE= 104°57'33.163"

NOTES:  
BH LOCATION PROVIDED BY CLIENT.  
LAND SURFACE USE-DRYLAND PASTURE  
EXISTING WELL PSC 16-13A IS 88' SW AT  
462' FSL & 465' FWL  
SEE ATTACHED MAP FOR ADDITIONAL  
IMPROVEMENTS WITHIN 400'.

PDOP= 2.17  
GPS OPERATOR: OWEN MCKEE

N 00°30'24" W 2654.07'

S 00°17'05" E 2662.47'

W 1/4 SEC. 13  
2 1/2" ALUM. CAP  
LS 28656

E 1/4 SEC. 13  
2" ALUM. CAP  
LS 23500

(BASIS OF BEARINGS) SEE NOTE 3  
N 00°30'26" W 2654.12'

S 00°17'17" E 2662.64'

BH- 1500' FSL  
460' FWL

N 78°44'21" W 4564'  
TRUE AZIMUTH 281.67°

PSC 12N-13HZ

PSC 16-13A

SW SEC. 13  
3/4" ALUM. CAP  
LS 13155

S 88°54'05" W 2665.71'

S 88°55'43" W 2664.39'

SE SEC. 13  
2 1/2" ALUM. CAP  
LS 16847

WELL PSC 12N-13HZ TO BE LOCATED 524' FSL AND 404' FEL

## LEGEND

⊕ = EXISTING MONUMENT    ♦ = BOTTOM HOLE    BH = BOTTOM HOLE  
● = PROPOSED WELL    ◆ = EXISTING WELL

0 500 1000

SCALE: 1"=1000'

## NOTES:

- THIS SURVEY WAS DONE BY GPS METHODS AND CONFORMS TO THE MINIMUM STANDARDS SET BY THE C.O.G.C.C., RULE NO. 215
- ELEVATIONS SHOWN AT THE WELL HEAD, AS WELL AS HORIZONTAL CONTROL, ARE BASED ON GPS-RTK VALUES DERIVED FROM DOING 2-HOUR STATIC GPS SESSIONS AND REDUCTIONS USING O.P.U.S. SOLUTIONS.  
VERTICAL = NAVD88; HORIZONTAL = NAD83/92
- THE BEARINGS SHOWN HEREON ARE BASED ON GPS OBSERVATIONS BETWEEN THE MONUMENTS SHOWN HEREON AS FOUND ON THE FIELD DATE BELOW.
- DISTANCES SHOWN ARE AT GROUND LEVEL, AS MEASURED IN THE FIELD, WITH TIES TO WELLS MEASURED AT A PERPENDICULAR TO SECTION LINES.

I, JERRY F. HARCEK JR., A LICENSED PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO DO HEREBY CERTIFY TO **KERR-MCGEE OIL & GAS ONSHORE LP**, THAT THE SURVEY AND WELL LOCATION CERTIFICATE SHOWN HEREON WERE DONE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT THE DRAWING SHOWN HEREON ACCURATELY DEPICTS THE PROPOSED LOCATION OF THE WELL. THIS CERTIFICATE DOES NOT REPRESENT A LAND SURVEY PLAT OR IMPROVEMENT SURVEY PLAT AS DEFINED BY C.R.S. 38-51-102 AND CANNOT BE RELIED UPON TO DETERMINE OWNERSHIP.

JERRY F. HARCEK JR., PLS 34997  
COLORADO LICENSED PROFESSIONAL LAND SURVEYOR  
FOR AND ON BEHALF OF P.F.S., LLC



PREPARED BY:	FIELD DATE:	WELL NAME:
PFS Petroleum Field Services, LLC 1801 W. 13th Ave. Denver, CO 80204	02-10-11	PSC 12N-13HZ
	DRAWING DATE:	SURFACE LOCATION:
	02-14-11	WELD COUNTY, COLORADO
	BY:	SE 1/4 SE 1/4, SEC. 13, T3N, R68W
	SMF	

NOTICE: ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THIS SAID DATE OF THIS CERTIFICATION SHOWN HEREON.