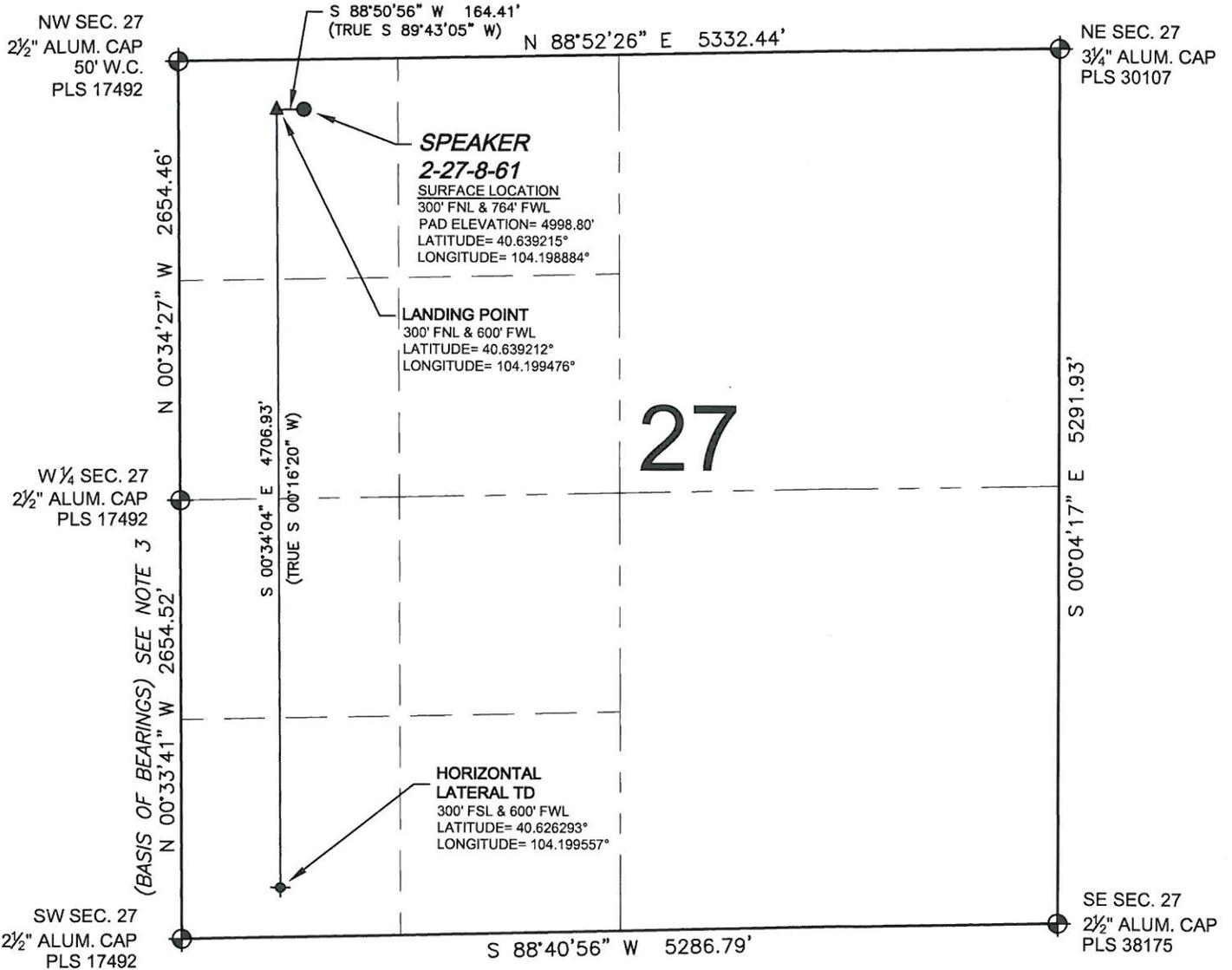
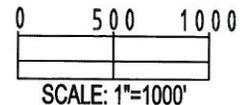


# WELL LOCATION CERTIFICATE



**LEGEND**

- ⊕ = EXISTING MONUMENT      ◆ = EXISTING WELL
- = MONUMENT NOT FOUND    ▲ = LANDING POINT
- = PROPOSED WELL          ⚡ = HORIZONTAL LATERAL TD

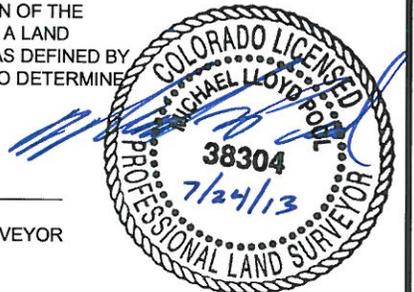


**NOTES:**

1. THIS FIELD SURVEY CONFORMS TO THE MINIMUM STANDARDS SET BY THE C.O.G.C.C., RULE NO. 215
2. HORIZONTAL POSITIONS AND ORTHOMETRIC ELEVATIONS SHOWN AT THE WELL HEAD, ARE BASED ON GPS-RTK POSITIONS DERIVED FROM MINIMUM 2-HOUR STATIC OBSERVATIONS CORRECTED BY THE NATIONAL GEODETIC SURVEY ONLINE POSITIONING USER SERVICE, O.P.U.S. DATUM: HORIZONTAL = NAD83/2011, VERTICAL = NAVD88
3. THE BASIS OF BEARINGS ARE STATE PLANE COORDINATE SYSTEM GRID BEARINGS SHOWN HEREON BETWEEN THE DESCRIBED MONUMENTS SHOWN HEREON.
4. GRID DISTANCES ARE SHOWN, AS MEASURED IN THE FIELD, WITH TIES TO WELLS MEASURED PERPENDICULAR TO SECTION LINES.
5. PDOP = 2.12
6. GPS OPERATOR: BEN HARDENBERGH
7. LAND SURFACE USE: RANGELAND

I, MICHAEL L. POOL, A LICENSED PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO DO HEREBY CERTIFY TO CARRIZO NIOBRARA LLC, 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.

MICHAEL L. POOL, PLS 38304  
 COLORADO LICENSED PROFESSIONAL LAND SURVEYOR  
 FOR AND ON BEHALF OF P.F.S., LLC



PREPARED BY: PFS Petroleum Field Services, LLC 1901 W. 13th Ave. Denver, CO 80204	FIELD DATE: 06-11-13	SURFACE LOCATION: NW 1/4, NW 1/4, SEC. 27, T8N, R61W, 6TH P.M.
	DRAWING DATE: 07-24-13	BY:      CHECKED: CPO      JLF

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.