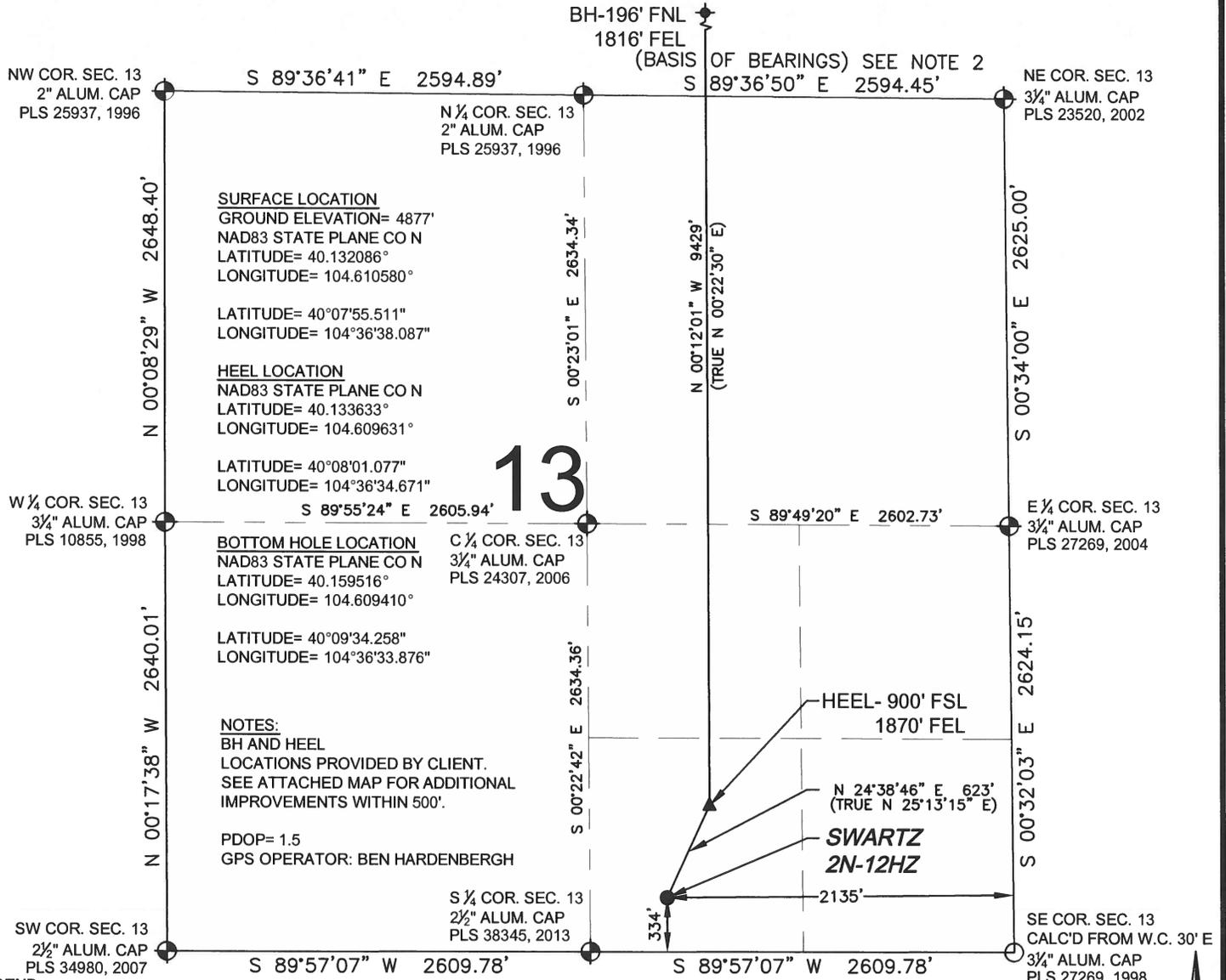


# WELL LOCATION CERTIFICATE: SWARTZ 2N-12HZ

SECTION 13, TOWNSHIP 2 NORTH, RANGE 65 WEST, 6TH P.M.



**SURFACE LOCATION**  
 GROUND ELEVATION= 4877'  
 NAD83 STATE PLANE CO N  
 LATITUDE= 40.132086°  
 LONGITUDE= 104.610580°

LATITUDE= 40°07'55.511"  
 LONGITUDE= 104°36'38.087"

**HEEL LOCATION**  
 NAD83 STATE PLANE CO N  
 LATITUDE= 40.133633°  
 LONGITUDE= 104.609631°

LATITUDE= 40°08'01.077"  
 LONGITUDE= 104°36'34.671"

**BOTTOM HOLE LOCATION**  
 NAD83 STATE PLANE CO N  
 LATITUDE= 40.159516°  
 LONGITUDE= 104.609410°

LATITUDE= 40°09'34.258"  
 LONGITUDE= 104°36'33.876"

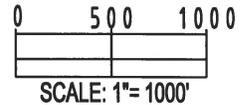
**NOTES:**  
 BH AND HEEL  
 LOCATIONS PROVIDED BY CLIENT.  
 SEE ATTACHED MAP FOR ADDITIONAL  
 IMPROVEMENTS WITHIN 500'.

PDOP= 1.5  
 GPS OPERATOR: BEN HARDENBERGH

**LEGEND**

- ⊕ = EXISTING MONUMENT
- ⊙ = PROPOSED WELL
- BH = BOTTOM HOLE
- ⬤ = BOTTOM HOLE
- ▲ = HEEL LOCATION
- = CALCULATED POSITION

**WELL SWARTZ 2N-12HZ TO BE LOCATED**  
 334' FSL AND 2135' FEL



- NOTES:**
- THIS FIELD SURVEY CONFORMS TO THE MINIMUM STANDARDS SET BY THE C.O.G.C.C., RULE NO. 215
  - BEARINGS ARE BASED ON THE ASSUMPTION THAT THE NORTH LINE OF THE NORTHEAST QUARTER OF SECTION 13, BEARS S89°36'50"E BETWEEN THE MONUMENTS DESCRIBED HEREON.
  - GRID DISTANCES ARE SHOWN, AS MEASURED IN THE FIELD, WITH TIES TO WELLS MEASURED PERPENDICULAR TO SECTION LINES. TO GET GROUND DISTANCES MULTIPLY THE SHOWN DISTANCE BY 1.000272228.
  - ALL LINES SHOWN THAT ARE WITHOUT DIMENSION SHOULD BE CONSIDERED SCALED AND ONLY REPRESENT A GRAPHICAL DEPICTION OF THE APPROXIMATE LOCATION OF SAID LINE.
  - ORIGINAL WELL STAKING COMPLETED ON JANUARY 5, 2015. SECTION MONUMENTS VERIFIED 5/2013.

I, JACOB S. FRISCH, 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.



JACOB S. FRISCH, PLS 38149  
 DATE: 08-04-15  
 JOB NO: B14.APC.0568  
 FOR AND ON BEHALF OF KERR-MCGEE OIL & GAS ONSHORE LP, S. LLC

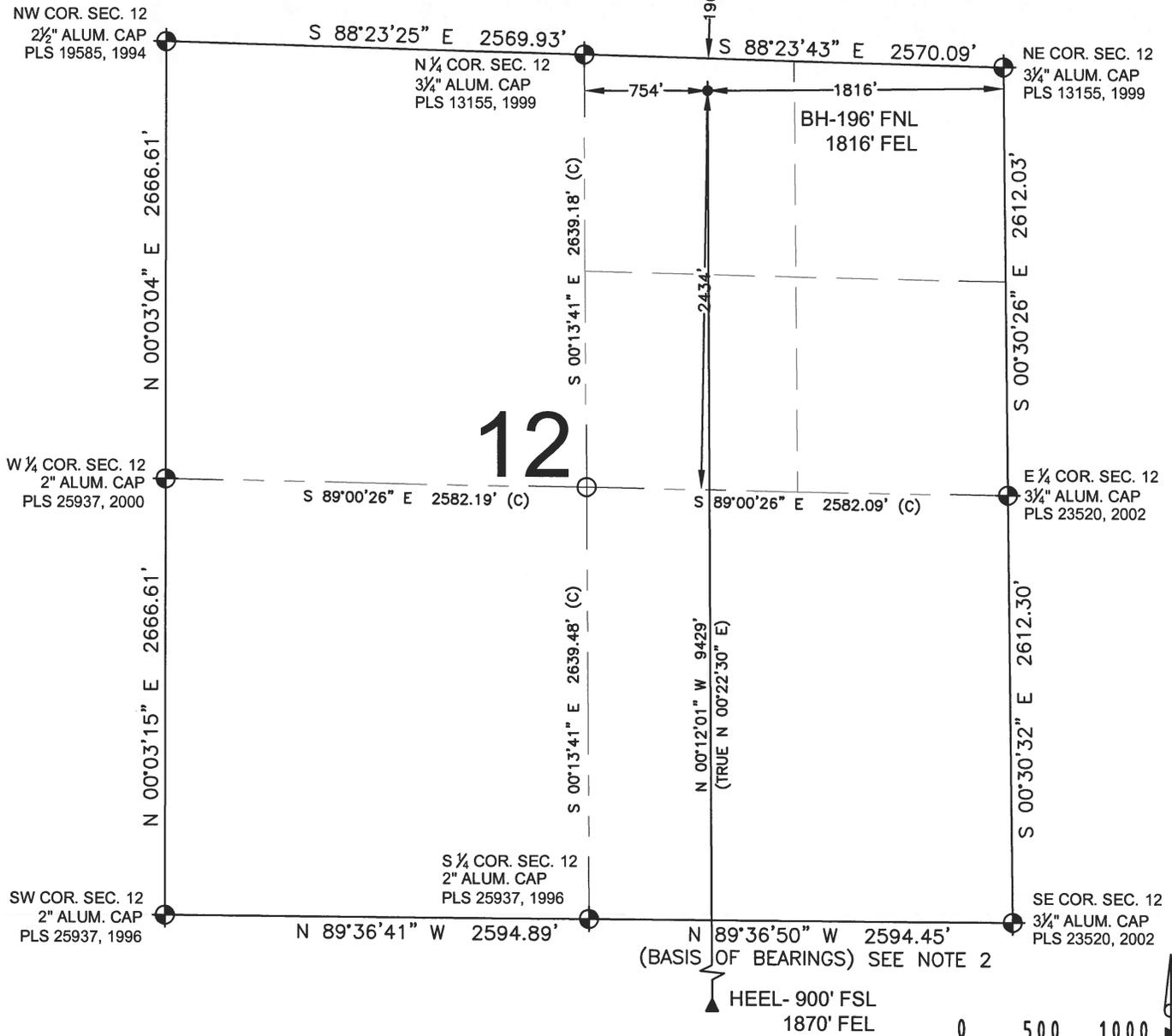
SHEET 1 OF 2

PREPARED BY: <b>PFS</b> Petroleum Field Services, LLC 7536 Hilltop Circle Denver, CO 80221	FIELD DATE: 01-05-15 DRAWING DATE: 08-03-15 BY: TJN CHECKED: KAD	SURFACE LOCATION: SW 1/4 SE 1/4, SEC. 13, T2N, R65W, 6TH P.M. WELD COUNTY, COLORADO
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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.

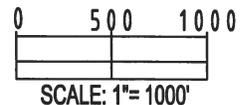
# WELL LOCATION CERTIFICATE: SWARTZ 2N-12HZ

SECTION 12, TOWNSHIP 2 NORTH, RANGE 65 WEST, 6TH P.M.



12

(BASIS OF BEARINGS) SEE NOTE 2



**NOTES:**

1. THIS FIELD SURVEY CONFORMS TO THE MINIMUM STANDARDS SET BY THE C.O.G.C.C., RULE NO. 215
2. BEARINGS ARE BASED ON THE ASSUMPTION THAT THE NORTH LINE OF THE NORTHEAST QUARTER OF SECTION 13, BEARS S89°36'50"E BETWEEN THE MONUMENTS DESCRIBED HEREON.
3. GRID DISTANCES ARE SHOWN, AS MEASURED IN THE FIELD, WITH TIES TO WELLS MEASURED PERPENDICULAR TO SECTION LINES. TO GET GROUND DISTANCES MULTIPLY THE SHOWN DISTANCE BY 1.000272228.
4. ALL LINES SHOWN THAT ARE WITHOUT DIMENSION SHOULD BE CONSIDERED SCALED AND ONLY REPRESENT A GRAPHICAL DEPICTION OF THE APPROXIMATE LOCATION OF SAID LINE.
5. ORIGINAL WELL STAKING COMPLETED ON JANUARY 5, 2015. SECTION MONUMENTS VERIFIED 5/2013.

**LEGEND**

- ⊕ = EXISTING MONUMENT
- = PROPOSED WELL
- BH = BOTTOM HOLE
- ◆ = BOTTOM HOLE
- ▲ = HEEL LOCATION
- = CALCULATED POSITION



SHEET 2 OF 2

PREPARED BY:  Petroleum Field Services, LLC 7535 Hilltop Circle Denver, CO 80221	FIELD DATE: 01-05-15 DRAWING DATE: 08-03-15 BY: TJN CHECKED: KAD	SURFACE LOCATION: SW 1/4 SE 1/4, SEC. 13, T2N, R65W, 6TH P.M. WELD COUNTY, COLORADO
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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.