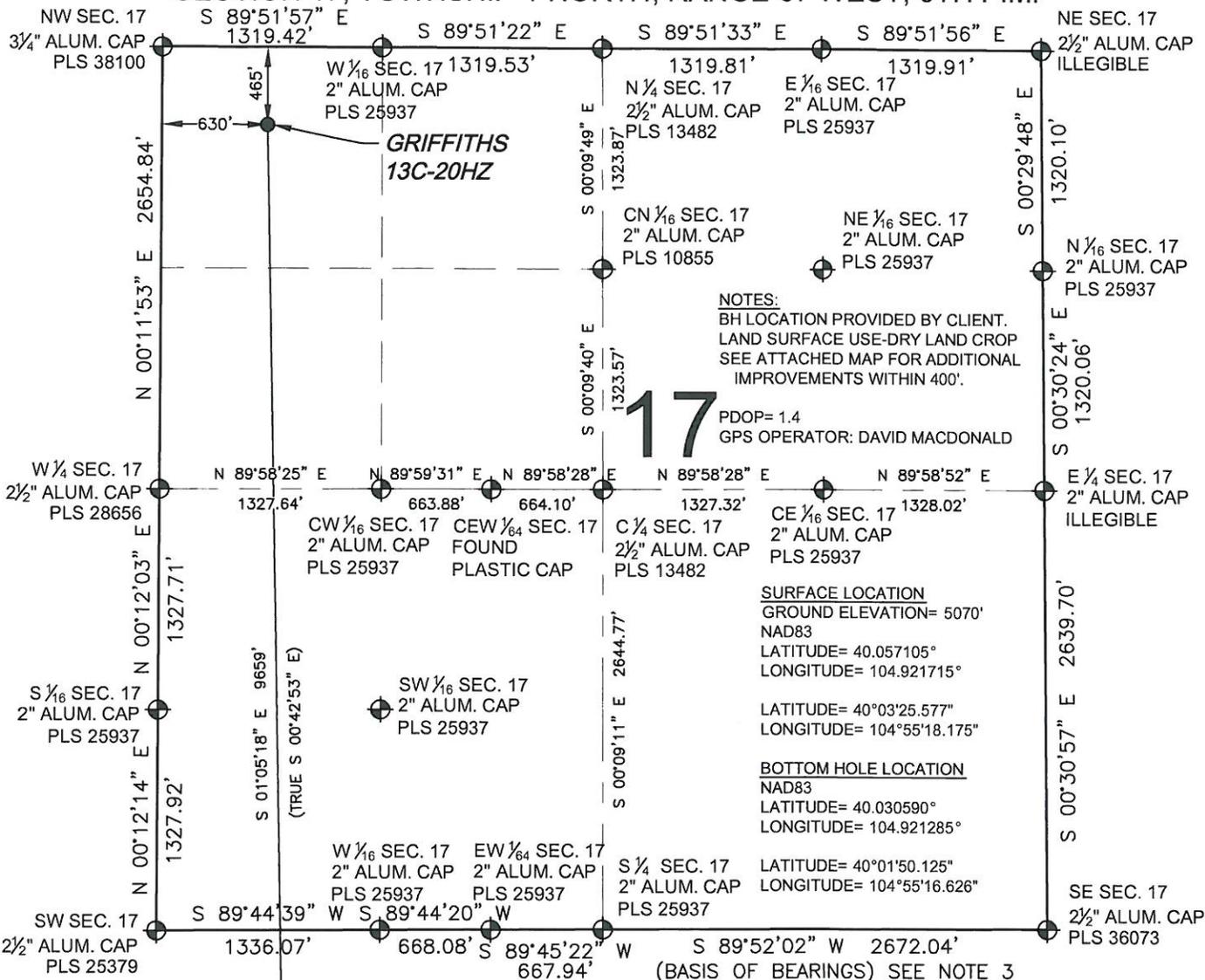


WELL LOCATION CERTIFICATE: GRIFFITHS 13C-20HZ

SECTION 17, TOWNSHIP 1 NORTH, RANGE 67 WEST, 6TH P.M.



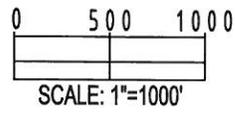
NOTES:
 BH LOCATION PROVIDED BY CLIENT.
 LAND SURFACE USE- DRY LAND CROP
 SEE ATTACHED MAP FOR ADDITIONAL
 IMPROVEMENTS WITHIN 400'.
 PDOP= 1.4
 GPS OPERATOR: DAVID MACDONALD

SURFACE LOCATION
 GROUND ELEVATION= 5070'
 NAD83
 LATITUDE= 40.057105°
 LONGITUDE= 104.921715°
 LATITUDE= 40°03'25.577"
 LONGITUDE= 104°55'18.175"

BOTTOM HOLE LOCATION
 NAD83
 LATITUDE= 40.030590°
 LONGITUDE= 104.921285°
 LATITUDE= 40°01'50.125"
 LONGITUDE= 104°55'16.626"

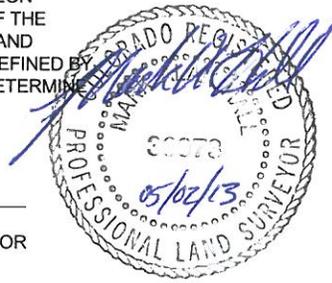
- LEGEND**
- ⊙ = EXISTING MONUMENT
 - = PROPOSED WELL
 - BH = BOTTOM HOLE
 - ◆ = BOTTOM HOLE
 - ◆ = EXISTING WELL

WELL GRIFFITHS 13C-20HZ TO BE LOCATED
 465' FNL AND 630' FWL



- NOTES:**
- THIS FIELD SURVEY CONFORMS TO THE MINIMUM STANDARDS SET BY THE C.O.G.C.C., RULE NO. 215
 - 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 = NAD83/2007, VERTICAL = NAVD88
 - THE BASIS OF BEARINGS ARE STATE PLANE COORDINATE SYSTEM GRID BEARINGS SHOWN HEREON BETWEEN THE DESCRIBED MONUMENTS SHOWN HEREON.
 - GRID DISTANCES ARE SHOWN, AS MEASURED IN THE FIELD, WITH TIES TO WELLS MEASURED PERPENDICULAR TO SECTION LINES.

I, MARK A. HALL, 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.



MARK A. HALL, PLS 36073
 COLORADO LICENSED PROFESSIONAL LAND SURVEYOR
 FOR AND ON BEHALF OF P.F.S., LLC

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.

SHEET 1 OF 2

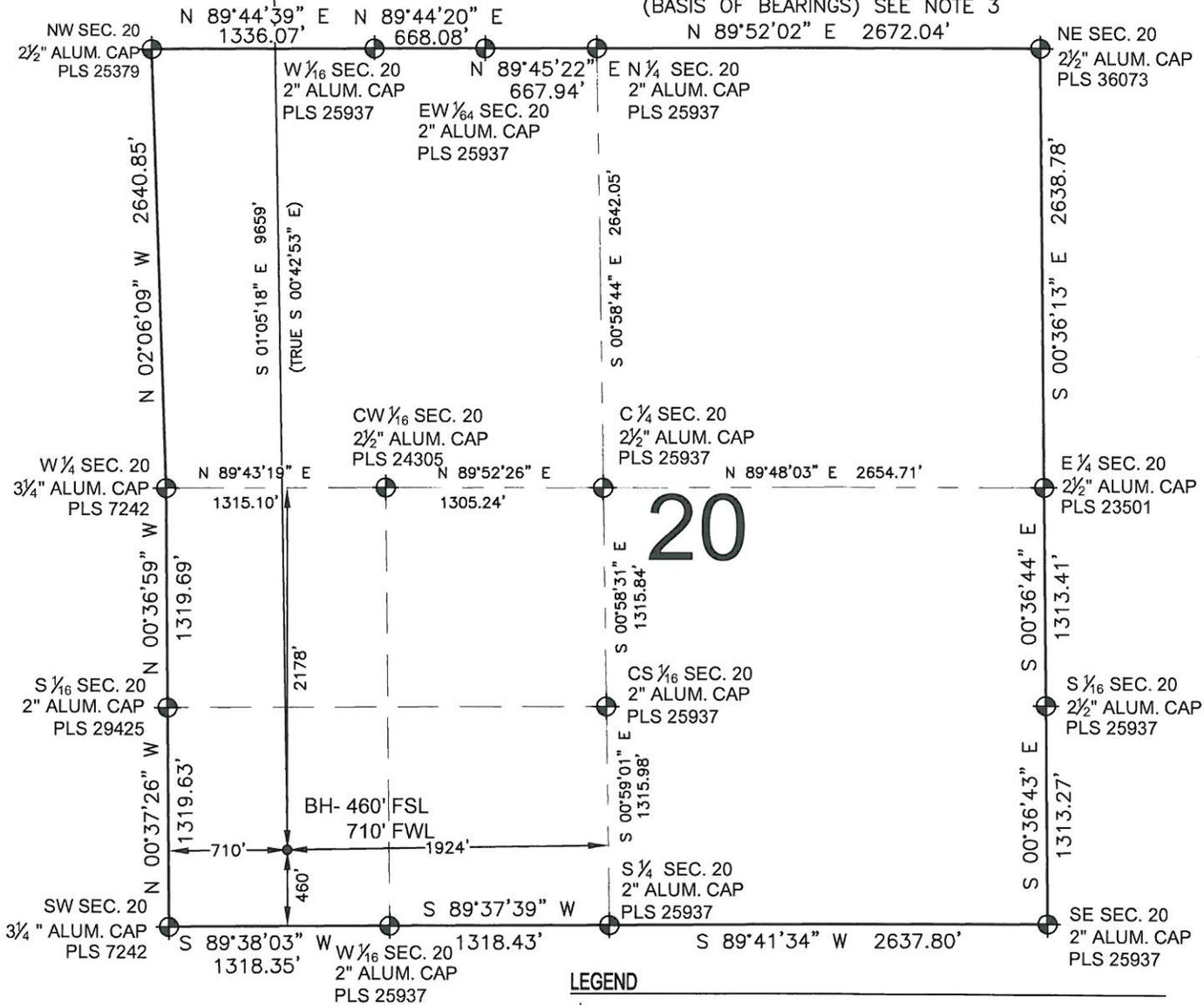
PREPARED BY: 1801 W. 13th Ave. Denver, CO 80204	FIELD DATE: 02-14-13	SURFACE LOCATION: NW 1/4 NW 1/4, SEC. 17, T1N, R67W, 6TH P.M. WELD COUNTY, COLORADO
	DRAWING DATE: 05-01-13	BY: SMF CHECKED: TJN

WELL LOCATION CERTIFICATE: GRIFFITHS 13C-20HZ

SECTION 20, TOWNSHIP 1 NORTH, RANGE 67 WEST, 6TH P.M.

GRIFFITHS
13C-20HZ

(BASIS OF BEARINGS) SEE NOTE 3



LEGEND

- ⊕ = EXISTING MONUMENT
- ◆ = BOTTOM HOLE
- BH = BOTTOM HOLE
- = PROPOSED WELL
- ◇ = EXISTING WELL

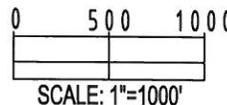
NOTES:

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- GRID DISTANCES ARE SHOWN, AS MEASURED IN THE FIELD, WITH TIES TO WELLS MEASURED PERPENDICULAR TO SECTION LINES.

SHEET 2 OF 2



MARK A. HALL, PLS 36073
COLORADO LICENSED PROFESSIONAL LAND SURVEYOR
FOR AND ON BEHALF OF P.F.S., LLC



PREPARED BY: 1801 W. 13th Ave. Denver, CO 80204	FIELD DATE: 02-14-13	SURFACE LOCATION: NW 1/4 NW 1/4, SEC. 17, T1N, R67W, 6TH P.M. WELD COUNTY, COLORADO
	DRAWING DATE: 05-01-13	BY: 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.