

WELL LOCATION CERTIFICATE: REI 21-17

SECTION 17, TOWNSHIP 3 NORTH, RANGE 65 WEST, 6TH P.M.

N 89°18'22" E 5326.13'

NW SEC. 17
2½" ALUM. CAP
ILLEGIBLE

NE SEC. 17
2½" ALUM. CAP
LS 23501

SURFACE LOCATION
GROUND ELEVATION= 4898'
NAD83
LATITUDE= 40.229568°
LONGITUDE= 104.683639°

BOTTOM HOLE LOCATION
NAD83
LATITUDE= 40.228586°
LONGITUDE= 104.685761°

PDOP= 2.31
GPS OPERATOR: TRAVIS KRAICH

BH- 1480' FNL
2237' FEL

UPRR 22 PAN
AM S 1

REI 21-17

N 00°29'44" W 5258.37'

S 00°30'08" E 2640.54'

17

NOTES:

THIS IS A DIRECTIONAL WELL
BH LOCATION TO BE 1480' FNL & 2237' FEL
BH LOCATION PROVIDED BY CLIENT.
LAND SURFACE USE-OPEN FIELD
TWINNING EXISTING WELL UPRR 22 PAN
AM S 1 WHICH IS 46' NE
EXISTING WELL UPRR 22 PAN AM S 1 IS
1109' FNL & 1601' FEL
SEE ATTACHED MAP FOR ADDITIONAL
IMPROVEMENTS WITHIN 400'.

E ¼ SEC. 17
2½" ALUM. CAP
LS 20671

(BASIS OF BEARINGS) SEE NOTE 3

SW SEC. 17
¾" ALUM. CAP
LS 11399

S 89°33'13" W 2663.26'

S ¼ SEC. 17
¾" ALUM. CAP
LS 33642

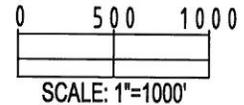
S 89°32'53" W 2663.33'

SE SEC. 17
2½" ALUM. CAP
LS 32829

WELL REI 21-17 TO BE LOCATED 1124' FNL AND 1645' FEL, SECTION 17, T3N, R65W OF THE 6th P.M.

LEGEND

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



NOTES:

1. THIS SURVEY WAS DONE BY GPS METHODS AND CONFORMS TO THE MINIMUM STANDARDS SET BY THE C.O.G.C.C., RULE NO. 215
2. 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
3. THE BEARINGS SHOWN HEREON ARE BASED ON GPS OBSERVATIONS BETWEEN THE MONUMENTS SHOWN HEREON AS FOUND ON THE FIELD DATE BELOW.
4. 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 TI WELL **REI 21-17**. 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: PFS Petroleum Field Services, LLC 1801 W. 13th Ave. Denver, CO 80204	FIELD DATE: 05-17-10	WELL NAME: REI 21-17
	DRAWING DATE: 05-24-10	SURFACE LOCATION: WELD COUNTY, COLORADO
	BY: SMF	NW 1/4 NE 1/4, SEC. 17, T3N, R65W

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.

EXHIBIT: NAD27 CONVERSION

SECTION 17, TOWNSHIP 3 NORTH, RANGE 65 WEST, 6TH P.M.

N 89°18'22" E 5326.13'

NW SEC. 17
2½" ALUM. CAP
ILLEGIBLE

NE SEC. 17
2½" ALUM. CAP
LS 23501

SURFACE LOCATION
GROUND ELEVATION= 4898'
NAD27
LATITUDE= 40.229586°
LONGITUDE= 104.683118°

BOTTOM HOLE LOCATION
NAD27
LATITUDE= 40.228604°
LONGITUDE= 104.685240°

N 00°29'44" W 5258.37'

NAD27 CONVERSION

17

BH- 1480' FNL
2237' FEL

UPRR 22 PAN
AM S 1

REI 21-17

S 00°30'08" E 2640.54'

E ¼ SEC. 17
2½" ALUM. CAP
LS 20671

(BASIS OF BEARINGS) SEE NOTE 3
S 00°29'58" E 2640.60'

SW SEC. 17
¾" ALUM. CAP
LS 11399

S 89°33'13" W 2663.26'

S ¼ SEC. 17
¾" ALUM. CAP
LS 33642

S 89°32'53" W 2663.33'

SE SEC. 17
2½" ALUM. CAP
LS 32829

WELL REI 21-17 TO BE LOCATED 1124' FNL AND 1645' FEL, SECTION 17, T3N, R65W OF THE 6th P.M.

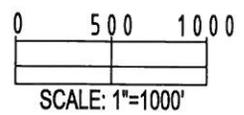
NOTES:

1. THIS SURVEY WAS DONE BY GPS METHODS AND CONFORMS TO THE MINIMUM STANDARDS SET BY THE C.O.G.C.C., RULE NO. 215
2. 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
3. THE BEARINGS SHOWN HEREON ARE BASED ON GPS OBSERVATIONS BETWEEN THE MONUMENTS SHOWN HEREON AS FOUND ON THE FIELD DATE BELOW.
4. DISTANCES SHOWN ARE AT GROUND LEVEL, AS MEASURED IN THE FIELD, WITH TIES TO WELLS MEASURED AT A PERPENDICULAR TO SECTION LINES.

LEGEND

- ⊕ = EXISTING MONUMENT
- ⊙ = PROPOSED WELL
- ⬠ = BOTTOM HOLE
- ⬠ = EXISTING WELL
- BH = BOTTOM HOLE

NOTE: LATITUDE AND LONGITUDE SHOWN WERE CONVERTED FROM NAD83 USING CORPSCON 6.0 (PROGRAM). PFS DOES NOT WARRANT OR GUARANTEE THEIR ACCURACY.



PREPARED BY: 	FIELD DATE: 05-17-10	WELL NAME: REI 21-17
	DRAWING DATE: 05-24-10	SURFACE LOCATION: WELD COUNTY, COLORADO
	BY: SMF	NW 1/4 NE 1/4, SEC. 17, T3N, R65W

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.