

WELL LOCATION CERTIFICATE: DETERDING 21-11

SECTION 21, TOWNSHIP 1 SOUTH, RANGE 44 WEST, 6TH P.M.

NW SEC. 21
3/4" ALUM. CAP
LS 26602

NE SEC. 21
2" ALUM. CAP
LS 1791

NOTES:
THIS IS A VERTICAL WELL
LAND SURFACE USE-CRP
SEE ATTACHED MAP FOR ADDITIONAL
IMPROVEMENTS WITHIN 400'.

W 1/4 SEC. 21
3/4" ALUM. CAP
LS 26602

N 03°14'36" W 2651.47'
N 03°13'58" W 2651.16'
(BASIS OF BEARINGS) SEE NOTE 3

DETERDING 21-11

SURFACE LOCATION
GROUND ELEVATION= 3906'
NAD83
LATITUDE= 39.954481°
LONGITUDE= 102.310891°

PDOP: 1.76
GPS OPERATOR: CHRIS PEARSON

SW SEC. 21
3/4" ALUM. CAP
ILLEGIBLE

S 87°13'02" W 5301.57'

SE SEC. 21
1 1/2" ALUM. CAP
ILLEGIBLE

WELL DETERDING 21-11 TO BE LOCATED 2319' FSL AND 1756' FWL, SECTION 21, T1S, R44W OF THE 6th P.M.

LEGEND

⊕ = EXISTING MONUMENT ⊕ = BOTTOM HOLE BH = BOTTOM HOLE
● = PROPOSED WELL * = EXISTING WELL

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 **ROSETTA RESOURCES OPERATING 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 DETERDING 21-11. 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

0 500 1000
SCALE: 1"=1000'



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| PREPARED BY: | FIELD DATE: 03-17-10 | WELL NAME: DETERDING 21-11 |
| PFS Petroleum Field Services, LLC 1801 W. 13th Ave. Denver, CO 80204 | DRAWING DATE: 03-18-10 | SURFACE LOCATION: YUMA COUNTY, COLORADO |
| | BY: SMF | SW 1/4 NW 1/4, SEC. 21, T1S, R44W |

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.

