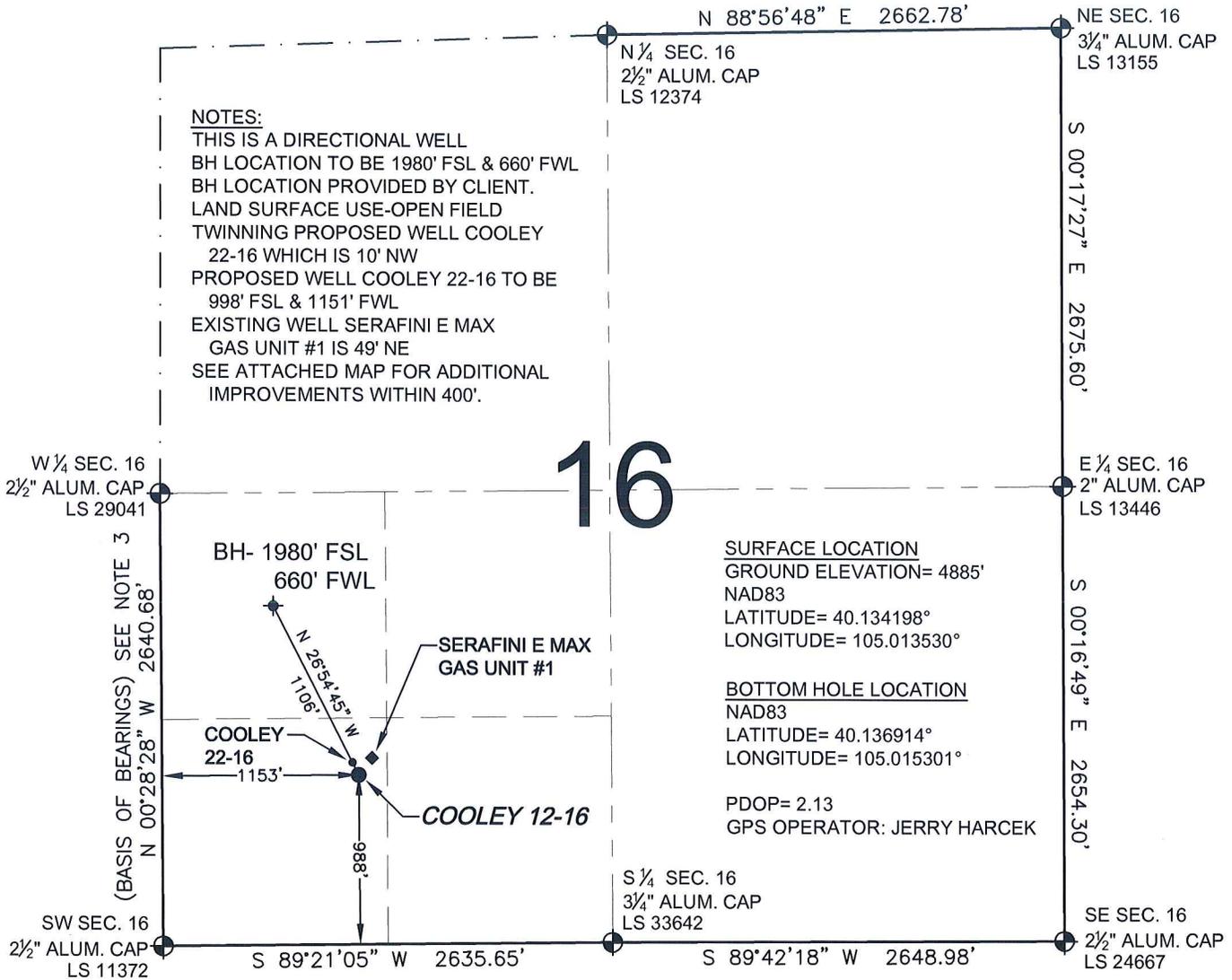


# WELL LOCATION CERTIFICATE: COOLEY 12-16

SECTION 16, TOWNSHIP 2 NORTH, RANGE 68 WEST, 6TH P.M.



**NOTES:**

THIS IS A DIRECTIONAL WELL  
 BH LOCATION TO BE 1980' FSL & 660' FWL  
 BH LOCATION PROVIDED BY CLIENT.  
 LAND SURFACE USE-OPEN FIELD  
 TWINNING PROPOSED WELL COOLEY  
 22-16 WHICH IS 10' NW  
 PROPOSED WELL COOLEY 22-16 TO BE  
 998' FSL & 1151' FWL  
 EXISTING WELL SERAFINI E MAX  
 GAS UNIT #1 IS 49' NE  
 SEE ATTACHED MAP FOR ADDITIONAL  
 IMPROVEMENTS WITHIN 400'.

**SURFACE LOCATION**

GROUND ELEVATION= 4885'  
 NAD83  
 LATITUDE= 40.134198°  
 LONGITUDE= 105.013530°

**BOTTOM HOLE LOCATION**

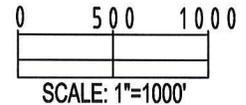
NAD83  
 LATITUDE= 40.136914°  
 LONGITUDE= 105.015301°

PDOP = 2.13  
 GPS OPERATOR: JERRY HARCEK

WELL **COOLEY 12-16** TO BE LOCATED 988' FSL AND 1153' FWL, SECTION 16, T2N, R68W OF THE 6th P.M.

**LEGEND**

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



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 THE WELL **COOLEY 12-16**. 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



**NOTES:**

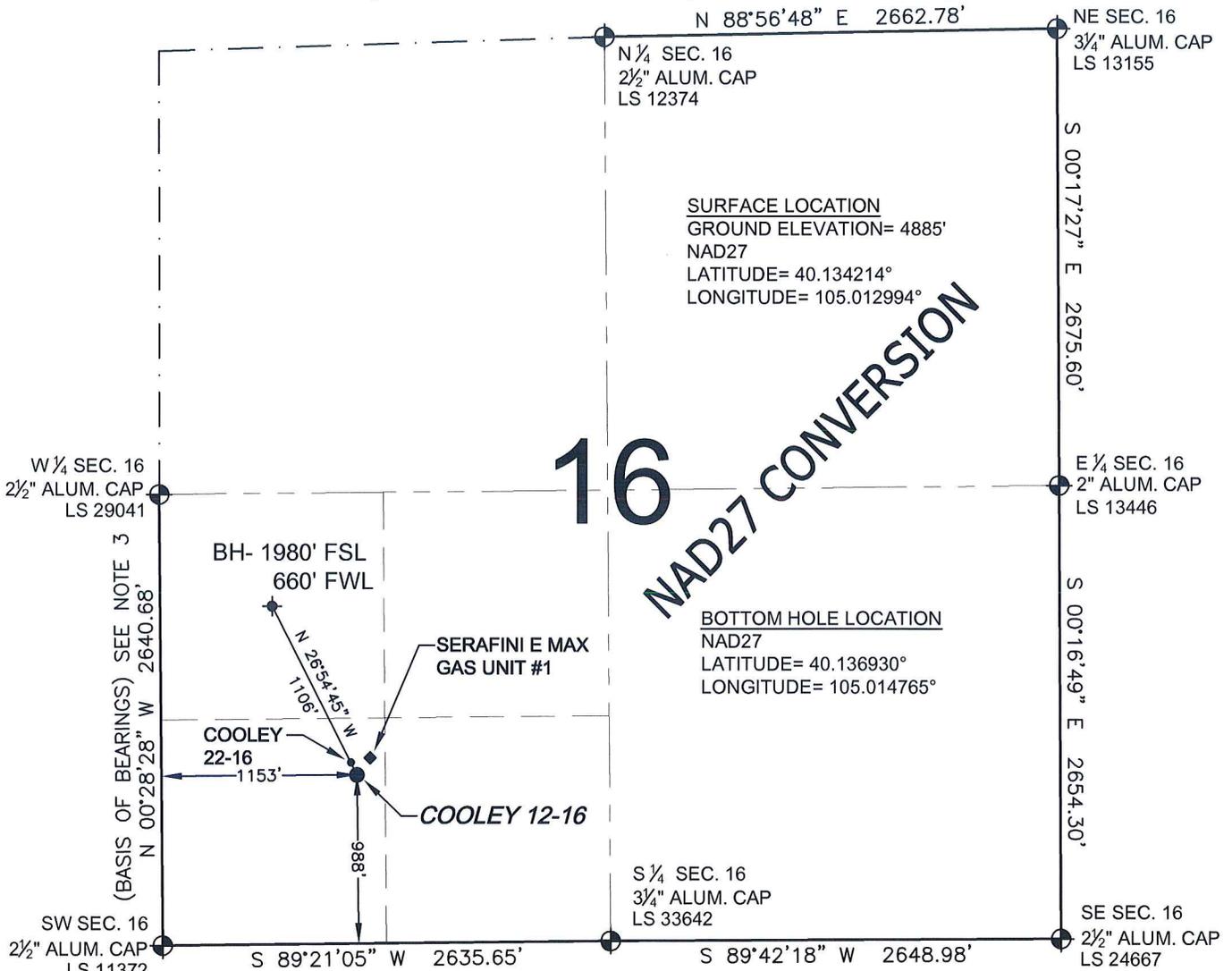
1. THIS SURVEY WAS DONE BY GPS METHODS AND CONFORMS TO THE MINIMUM STANDARDS SET BY THE C.O.G.C.C., RULE NO. 215
2. ELEVATIONS SHOWN AT THE WELL HEAD, AS WELL AS HORIZONTAL CONTROL, ARE BASED ON GPS-RTK VALUES DERIVED FROM DOING 2-HOUR STATIC GPS SESSIONS AND REDUCTIONS USING O.P.U.S. SOLUTIONS.  
 VERTICAL = 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.

PREPARED BY: <b>PFS</b> Petroleum Field Services, LLC 1601 W. 13th Ave. Denver, CO 80204	FIELD DATE: 04-20-10	WELL NAME: COOLEY 12-16
	DRAWING DATE: 04-21-10	SURFACE LOCATION: WELD COUNTY, COLORADO
	BY: SMF	SW 1/4 SW 1/4, SEC. 16, T2N, R68W

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 16, TOWNSHIP 2 NORTH, RANGE 68 WEST, 6TH P.M.



WELL **COOLEY 12-16** TO BE LOCATED 988' FSL AND 1153' FWL, SECTION 16, T2N, R68W OF THE 6th P.M.

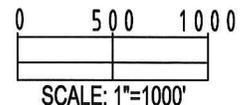
**NOTES:**

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    ◆ = BOTTOM HOLE    BH = BOTTOM HOLE
- = PROPOSED WELL        ♦ = EXISTING WELL

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



PREPARED BY:  Petroleum Field Services, LLC 1801 W. 13th Ave. Denver, CO 80204	FIELD DATE:	WELL NAME:
	04-20-10	COOLEY 12-16
	DRAWING DATE:	SURFACE LOCATION:
	04-21-10	WELD COUNTY, COLORADO
BY:	SW 1/4 SW 1/4, SEC. 16, T2N, R68W	
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.