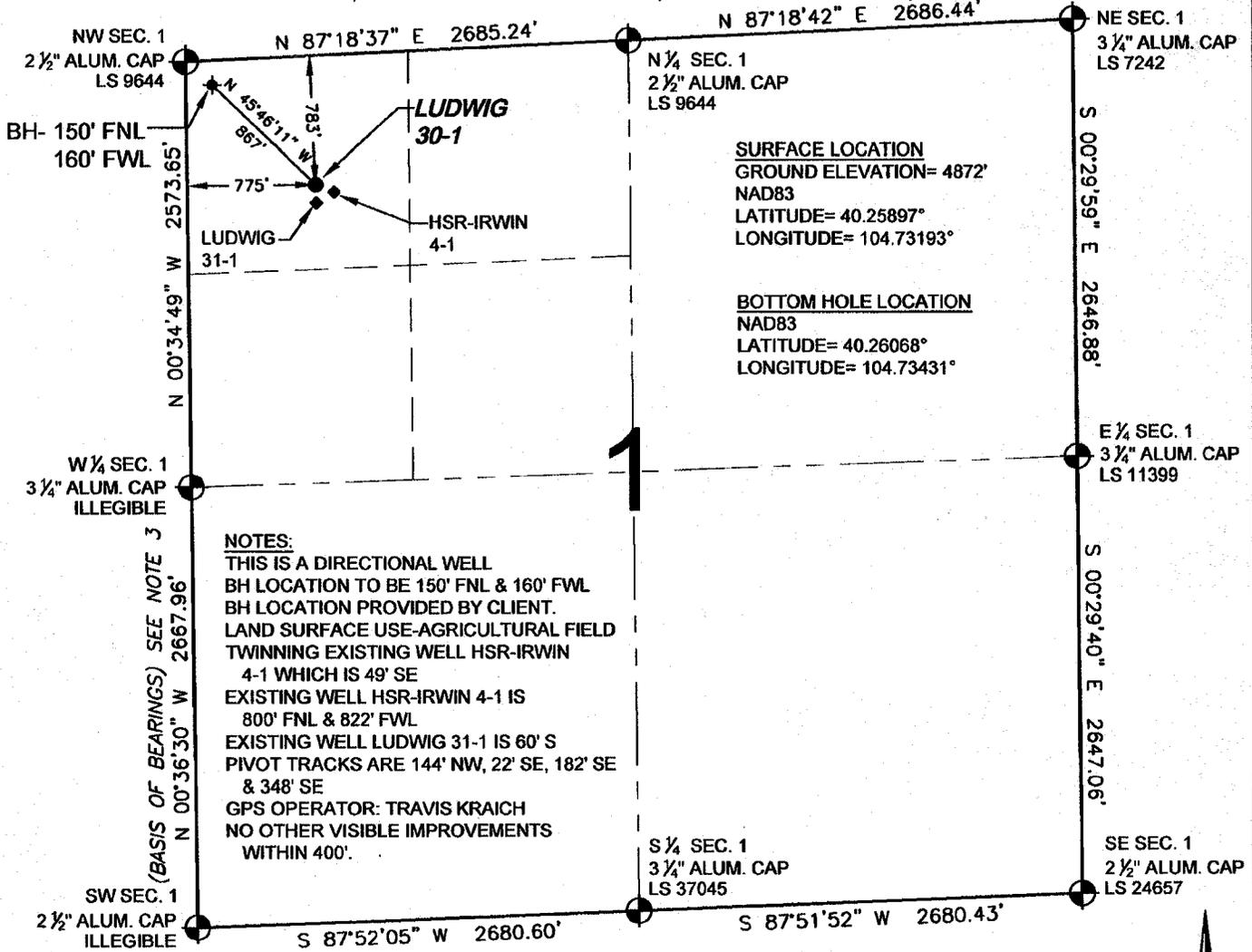


# WELL LOCATION CERTIFICATE: LUDWIG 30-1

SECTION 1, TOWNSHIP 3 NORTH, RANGE 66 WEST, 6TH P.M.



**SURFACE LOCATION**  
 GROUND ELEVATION= 4872'  
 NAD83  
 LATITUDE= 40.25897°  
 LONGITUDE= 104.73193°

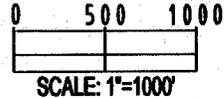
**BOTTOM HOLE LOCATION**  
 NAD83  
 LATITUDE= 40.26068°  
 LONGITUDE= 104.73431°

**NOTES:**  
 THIS IS A DIRECTIONAL WELL  
 BH LOCATION TO BE 150' FNL & 160' FWL  
 BH LOCATION PROVIDED BY CLIENT.  
 LAND SURFACE USE-AGRICULTURAL FIELD  
 TWINNING EXISTING WELL HSR-IRWIN  
 4-1 WHICH IS 49' SE  
 EXISTING WELL HSR-IRWIN 4-1 IS  
 800' FNL & 822' FWL  
 EXISTING WELL LUDWIG 31-1 IS 60' S  
 PIVOT TRACKS ARE 144' NW, 22' SE, 182' SE  
 & 348' SE  
 GPS OPERATOR: TRAVIS KRAICH  
 NO OTHER VISIBLE IMPROVEMENTS  
 WITHIN 400'.

WELL LUDWIG 30-1 TO BE LOCATED 783' FNL AND 775' FWL, SECTION 1, T3N, R66W 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 (PDOP VALUE IS LESS THAN 8.0, LATITUDE AND LONGITUDE ARE ACCURATE TO 5 DECIMAL PLACES, AND GPS OBSERVATIONS ARE DIFFERENTIAL AND DONE BY QUALIFIED PERSONNEL.)
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, DANIEL J. CORRIELL, 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 **LUDWIG 30-1**. 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.

DANIEL J. CORRIELL, PLS 38065  
 COLORADO LICENSED PROFESSIONAL LAND SURVEYOR  
 FOR AND ON BEHALF OF P.F.S., LLC

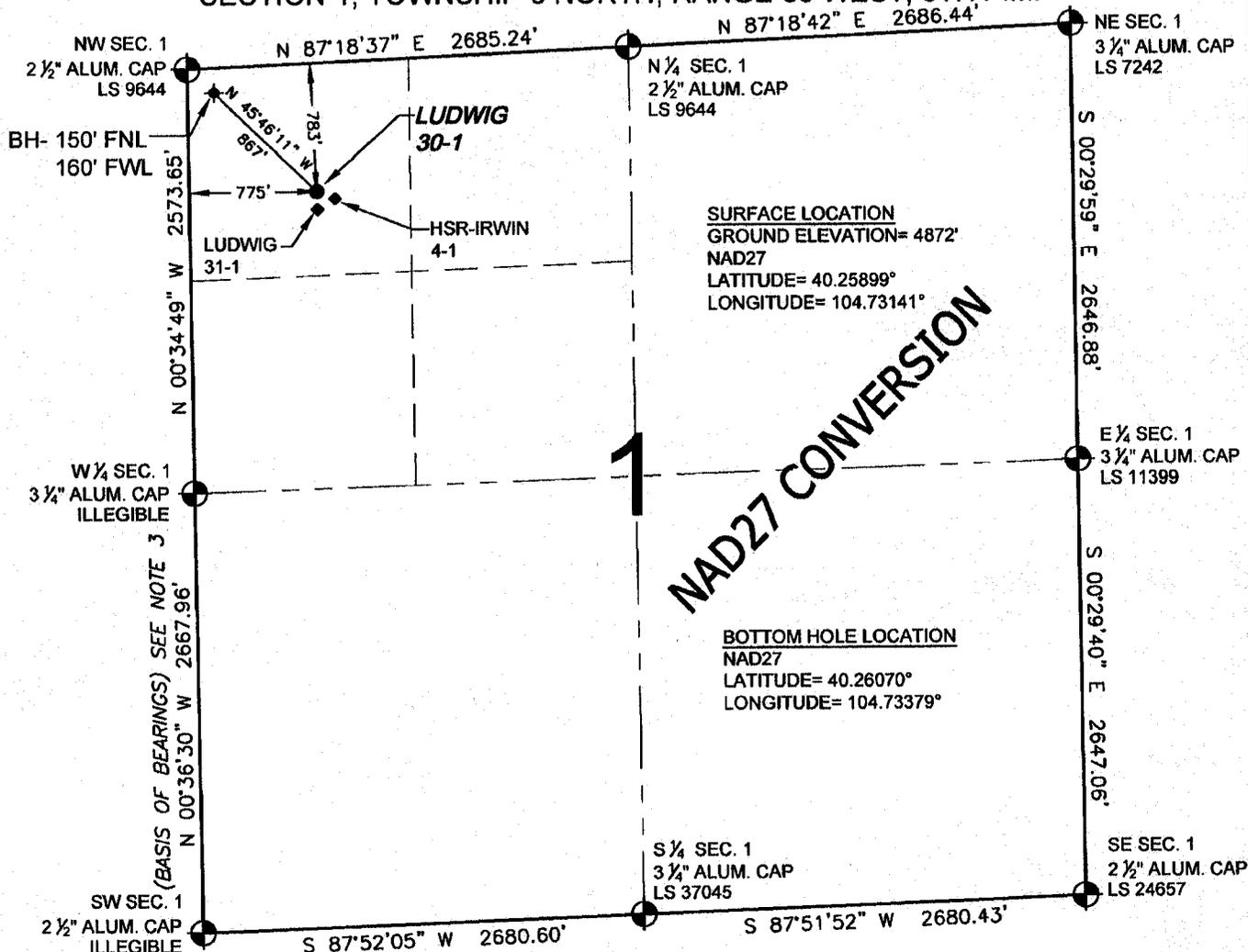


PREPARED BY:  PFS Professional Field Services, LLC 1804 W. 53rd Ave. Denver, CO 80204	FIELD DATE: 03-10-09	WELL NAME: LUDWIG 30-1
	DRAWING DATE: 03-11-09	WELL LOCATION: SURFACE LOCATION: WELD COUNTY, COLORADO
	BY: SMF	NW 1/4 NW 1/4, SEC. 1, T3N, R66W

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 1, TOWNSHIP 3 NORTH, RANGE 66 WEST, 6TH P.M.



WELL LUDWIG 30-1 TO BE LOCATED 783' FNL AND 775' FWL, SECTION 1, T3N, R66W OF THE 6th P.M.

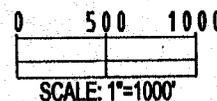
**NOTES:**

- THIS SURVEY WAS DONE BY GPS METHODS AND CONFORMS TO THE MINIMUM STANDARDS SET BY THE C.O.G.C.C., RULE NO. 215 (PDOP VALUE IS LESS THAN 6.0, LATITUDE AND LONGITUDE ARE ACCURATE TO 5 DECIMAL PLACES, AND GPS OBSERVATIONS ARE DIFFERENTIAL AND DONE BY QUALIFIED PERSONNEL.)
- 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.

**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:  PFS 1801 W. 13th Ave. Denver, CO 80204	FIELD DATE: 03-10-09	WELL NAME: LUDWIG 30-1
	DRAWING DATE: 03-11-09	SURFACE LOCATION: WELD COUNTY, COLORADO
	BY: SMF	NW 1/4 NW 1/4, SEC. 1, T3N, R66W

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.