

SHULL FED 31-32-9HN WELL LOCATION CERTIFICATE

N ¼ COR. SEC. 31
2 ½" ALUM. CAP
PLS 38452, 2016

NW COR. SEC. 31
2 ½" ALUM. CAP
PLS 38452, 2016

NE COR. SEC. 31
2 ½" ALUM. CAP
PLS 17492, 2010

SURFACE LOCATION:
GROUND ELEVATION=4880'
NAD83
LATITUDE:40.704143° N
LONGITUDE:104.023906° W

LANDING POINT LOCATION:
NAD83
LATITUDE:40.703892° N
LONGITUDE:104.018954° W

BOTTOM HOLE LOCATION:
NAD83
LATITUDE:40.703957° N
LONGITUDE:103.993961° W

31

W ¼ COR. SEC. 31
2 ½" ALUM. CAP
PLS 22097, 2012

NE COR. LOT 3
2 ½" ALUM. CAP
PLS 22097, NO DATE

E ¼ COR. SEC. 31
2 ½" ALUM. CAP
PLS 38452, 2016

**SHULL FED
31-32-9HN**

LP: 1705' FSL
2140' FEL

BHL: 1705' FSL
460' FEL } SEC. 32

NOTES:
BH LOCATION PROVIDED BY CLIENT.
LAND SURFACE USE-RANGELAND
SEE LOCATION DRAWING FOR ADDITIONAL
IMPROVEMENTS WITHIN 500'

PDOP=2.7
GPS OPERATOR: ALEC SHULL
S ¼ COR. SEC. 31
2 ½" ALUM. CAP
PLS 38452, 2016

SE COR. SEC. 31
2 ½" ALUM. CAP
PLS 22097, NO DATE

SW COR. SEC. 31
2 ½" ALUM. CAP
PLS 37897, 2010

W ¼ COR. SEC. 31
2 ½" ALUM. CAP
PLS 22097, 2012

NW COR. SEC. 6
2 ½" ALUM. CAP
PLS 37897, 2010

S89°15'06"E
2634.10'

N ¼ COR. SEC. 6
2 ½" ALUM. CAP
PLS 38452, 2016

NE COR. SEC. 6
2 ½" ALUM. CAP
PLS 37897, 2010

N89°18'21"E
2624.31'

LEGEND

- ⊕ = EXISTING MONUMENT
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- = PROPOSED WELL
- ◆ = EXISTING WELL
- ⊕ = BOTTOM HOLE
- ▲ = LANDING POINT
- LP = LANDING POINT
- BHL = BOTTOM HOLE LOCATION

**WELL SHULL FED 31-32-9HN TO BE
LOCATED 1778' FSL & 1779' FWL**

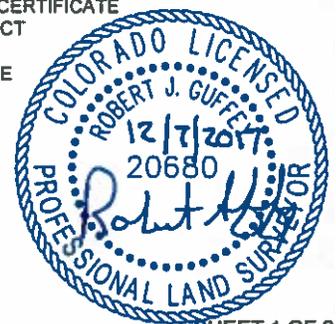


NOTES

1. THIS FIELD SURVEY CONFORMS TO THE MINIMUM STANDARDS SET BY THE C.O.G.C.C., RULE NO. 215
2. BEARINGS ARE BASED ON THE ASSUMPTION THAT THE EAST LINE OF THE SOUTHEAST QUARTER OF SECTION 31, BEARS S00°34'05"E BETWEEN THE MONUMENTS SHOWN HEREON.
3. ALL DISTANCES AND BEARINGS SHOWN HEREON ARE GROUND VALUES AS GPS MEASURED IN THE FIELD, WITH TIES TO WELLS MEASURED PERPENDICULAR TO SECTION LINES. THIS LOW DISTORTION PROJECTION (LDP) IS BASED ON THE NORTH AMERICAN DATUM OF 1983, U.S. SURVEY FOOT WITH A LATITUDE ORIGIN OF 40 655085"N, A CENTRAL MERIDIAN LONGITUDE OF 104.086861"W, AND A SCALE FACTOR ON THE CENTRAL MERIDIAN OF 1.000232 (EXACT). THE LDP BASIS OF BEARINGS IS GEODETIC NORTH.
4. FIELD VERIFICATION OF MONUMENTS COMPLETED WITHIN 1 YEAR OF SIGNATURE DATE.

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.

I, ROBERT J. GUFFEY, A LICENSED PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO DO HEREBY CERTIFY TO **MALLARD EXPLORATION**, 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.

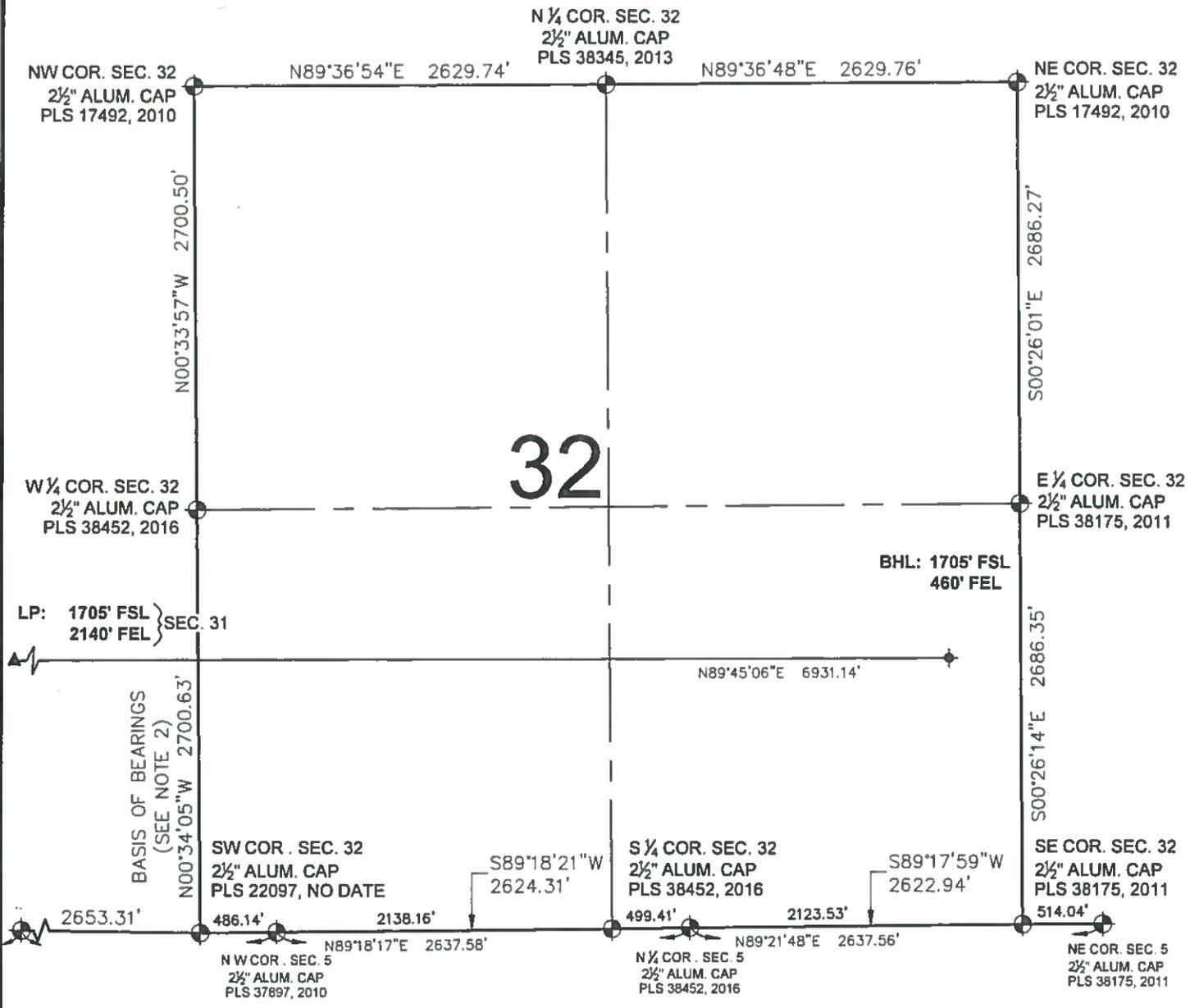


ROBERT J. GUFFEY, PLS 20680
COLORADO LICENSED PROFESSIONAL LAND SURVEYOR
FOR AND ON BEHALF OF P.F.S., LLC

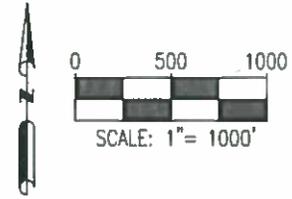
SHEET 1 OF 2

<p>ASCENT GEOMATIC SOLUTIONS</p>	FIELD DATE: 02-24-16	WELL NAME: SHULL FED 31-32-9HN	PREPARED FOR:
	DRAWING DATE: 12-04-17	SURFACE LOCATION: NE 1/4 SW 1/4 SEC. 31 T9N, R59W, 6TH P.M.	MALLARD EXPLORATION
BY: MJE	CHECKED: SMF	WELD COUNTY, COLORADO	

SHULL FED 31-32-9HN WELL LOCATION CERTIFICATE

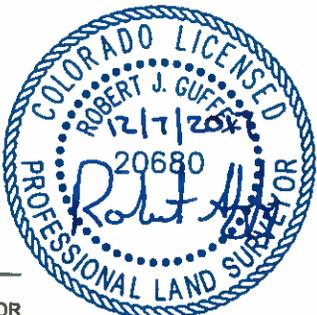


32



- LEGEND**
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 - = CALCULATED POSITION ▲ = LANDING POINT
 - = PROPOSED WELL LP = LANDING POINT
 - ◆ = EXISTING WELL BHL = BOTTOM HOLE LOCATION

ROBERT J. GUFFEY, PLS 20680
 COLORADO LICENSED PROFESSIONAL LAND SURVEYOR
 FOR AND ON BEHALF OF P.F.S., LLC



SHEET 2 OF 2

 <p>ASCENT GEOMATICS SOLUTIONS</p>	FIELD DATE: 02-24-16	WELL NAME: SHULL FED 31-32-9HN	PREPARED FOR:  <p>MALLARD EXPLORATION</p>
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