

SWARTZ 1C-25HZ WELL LOCATION CERTIFICATE

S ¼ COR. SEC. 13
2" ALUM. CAP (BASIS OF BEARINGS) SEE NOTE 2
PLS 25937, 1996

NW COR. SEC. 13
2" ALUM. CAP
PLS 25937, 1996

NE COR. SEC. 13
¾" ALUM. CAP
PLS 23520, 2002

SURFACE LOCATION:

GROUND ELEVATION=4956'
NAD83 STATE PLANE CO N
LATITUDE:40.131977°
LONGITUDE:-104.604688°
LATITUDE=40° 07' 55.115"
LONGITUDE=-104° 36' 16.877"

HEEL LOCATION:

NAD83 STATE PLANE CO N
LATITUDE:40.132896°
LONGITUDE:-104.604760°
LATITUDE=40° 07' 58.426"
LONGITUDE=-104° 36' 17.137"

NOTES:

BH AND HEEL LOCATIONS PROVIDED BY CLIENT.
LAND SURFACE USE-RANGELAND
EXISTING WELL SWARTZ 16-13 IS 361' NW
AT 660' FSL & 660' FEL.
SEE ATTACHED MAP FOR ADDITIONAL
IMPROVEMENTS WITHIN 500'

PDOP=1.5

GPS OPERATOR: BEN HARDENBERGH

W ¼ COR. SEC. 13
¾" ALUM. CAP
PLS 10855, 1998

BOTTOM HOLE LOCATION:

NAD83 STATE PLANE CO N
LATITUDE:40.109621°
LONGITUDE:-104.604477°
LATITUDE=40° 06' 34.636"
LONGITUDE=-104° 36' 16.117"

C ¼ COR. SEC. 13
¾" ALUM. CAP
PLS 24307, 2006

E ¼ COR. SEC. 13
¾" ALUM. CAP
PLS 27269, 2004

SW COR. SEC. 13
½" ALUM. CAP
PLS 34980, 2007

S89°57'07"W 2609.78'

S ¼ COR. SEC. 13
½" ALUM. CAP
PLS 38345, 2013

S01°06'51"E 8478.99'
(TRUE S00°32'08"E)

SE COR. SEC. 13
CALC'D FROM W.C. 30' E
¾" ALUM. CAP
PLS 27269, 1998

BHL- 2576' FNL
494' FEL

LEGEND

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- ◆ = EXISTING WELL
- ◆ = BOTTOM HOLE
- ▲ = HEEL
- BHL = BOTTOM HOLE LOCATION

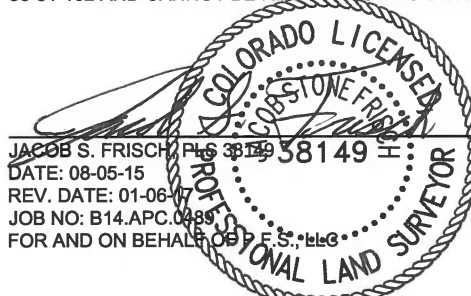
NOTES:

- THIS FIELD SURVEY CONFORMS TO THE MINIMUM STANDARDS SET BY THE C.O.G.C.C., RULE NO. 215
- BEARINGS ARE BASED ON THE ASSUMPTION THAT THE NORTH LINE OF THE NORTHEAST QUARTER OF SECTION 13, BEARS S89°36'50"E BETWEEN THE MONUMENTS SHOWN HEREON.
- GRID DISTANCES ARE SHOWN, AS GPS MEASURED IN THE FIELD, WITH TIES TO WELLS MEASURED PERPENDICULAR TO SECTION LINES. TO GET GROUND DISTANCES MULTIPLY THE SHOWN DISTANCE BY 1.000272228.
- ELEVATIONS SHOWN ARE NAVD 88, AS DERIVED BY GPS OBSERVATIONS.
- CERTIFIED AUGUST 5, 2015 FOR WELLS STAKED ON JANUARY 5, 2015. REVISED JANUARY 6, 2017 FOR HEEL AND BHL CHANGES.

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.

WELL SWARTZ 1C-25HZ TO BE LOCATED 310' FSL & 487' FEL

I, JACOB S. FRISCH, 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. 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.



SHEET 1 OF 3

PREPARED BY:



FIELD DATE:
01-05-15

DRAWING DATE:
01-05-17

BY:
MDC

CHECKED BY:
MLP

WELL NAME:
SWARTZ 1C-25HZ

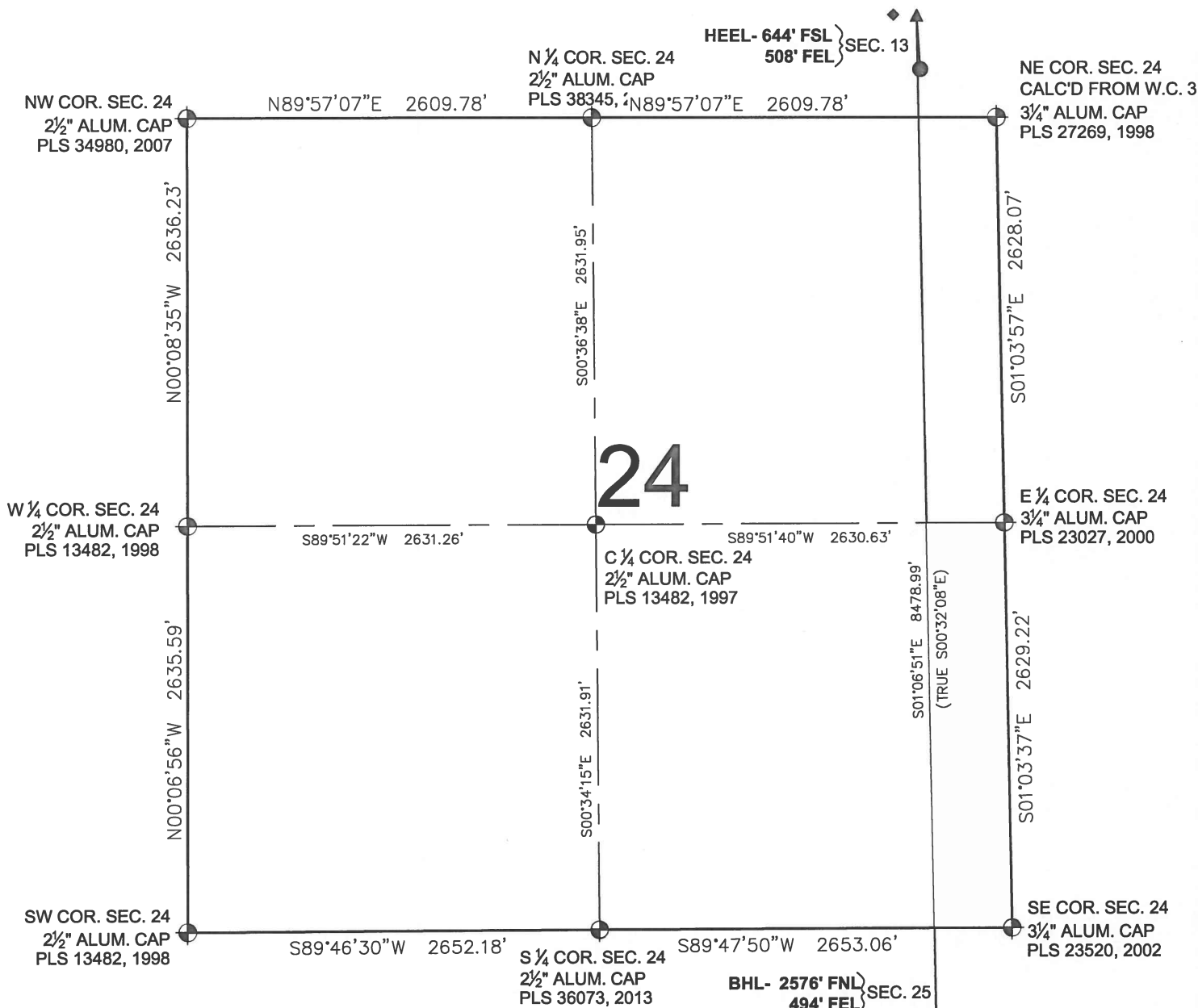
SURFACE LOCATION:

SE 1/4 SE 1/4 SEC. 13 T2N, R65W, 6TH P.M.
WELD COUNTY, COLORADO

PREPARED FOR:



SWARTZ 1C-25HZ WELL LOCATION CERTIFICATE



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JACOB S. FRISCH, PLS 38149
DATE: 08-05-15
REV. DATE: 01-06-17
JOB NO: B14.APC.0459
FOR AND ON BEHALF OF P.F.S., LLC



SHEET 2 OF 3

PREPARED BY:



FIELD DATE:

01-05-15

DRAWING DATE:

01-05-17

BY:

MDC

CHECKED BY:

MLP

WELL NAME:

SWARTZ 1C-25HZ

SURFACE LOCATION:

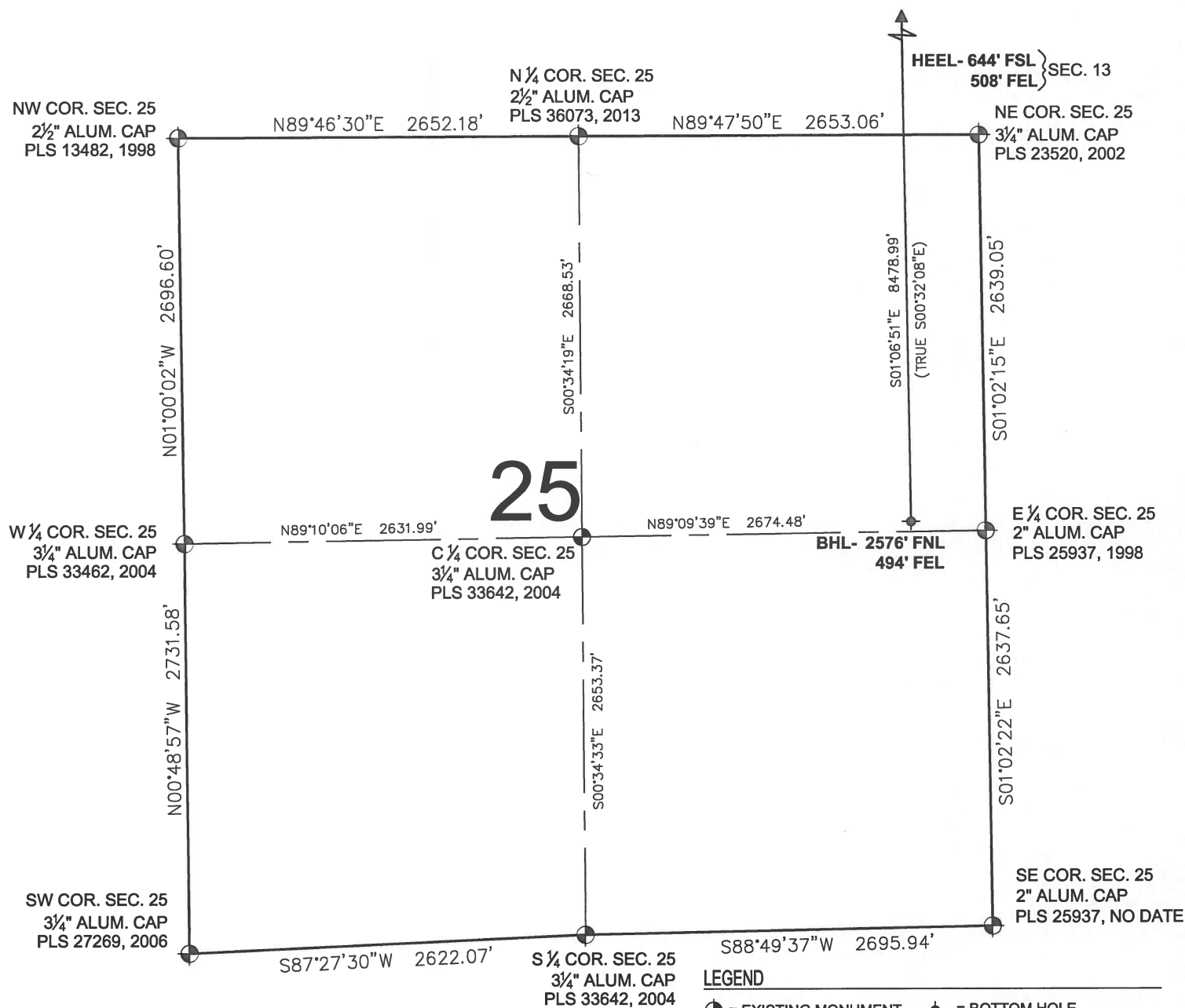
SE 1/4 SE 1/4 SEC. 13 T2N, R65W, 6TH P.M.

WELD COUNTY, COLORADO

PREPARED FOR:



SWARTZ 1C-25HZ WELL LOCATION CERTIFICATE



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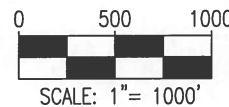
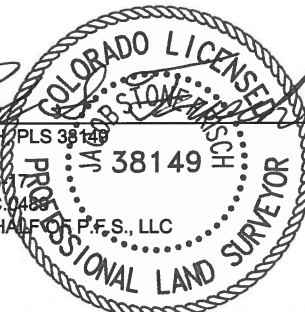
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JACOB S. FRISCH PLS 38149
DATE: 08-05-15
REV. DATE: 01-06-17
JOB NO: B14.APC.0488
FOR AND ON BEHALF OF P.F.S., LLC



SHEET 3 OF 3

PREPARED BY: 	FIELD DATE: 01-05-15 DRAWING DATE: 01-05-17 BY: MDC CHECKED BY: MLP	WELL NAME: SWARTZ 1C-25HZ SURFACE LOCATION: SE 1/4 SE 1/4 SEC. 13 T2N, R65W, 6TH P.M. WELD COUNTY, COLORADO	PREPARED FOR:
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