

(BOTTOM HOLE: 80°39'17.7")

LON: -80°40'32.4"

2538'

LAT: 39°37'30"

LON: 80°40'00"

1 - Well ties and Latitude and Longitude were measured by DGPS (Sub-meter Mapping Grade). Bearings are referenced to UTM Grid North (Zone 17 North - NAD 1927).

2 - Surface owners and adjoiners information obtained from the Wetzel County Assessor's tax records.

3 - No Title Opinion was provided to the Surveyor during this survey. This survey is subject to a complete title Opinion.

SURVEY NOTES

UTM Coordinates  
(Zone 17N-NAD 1983)

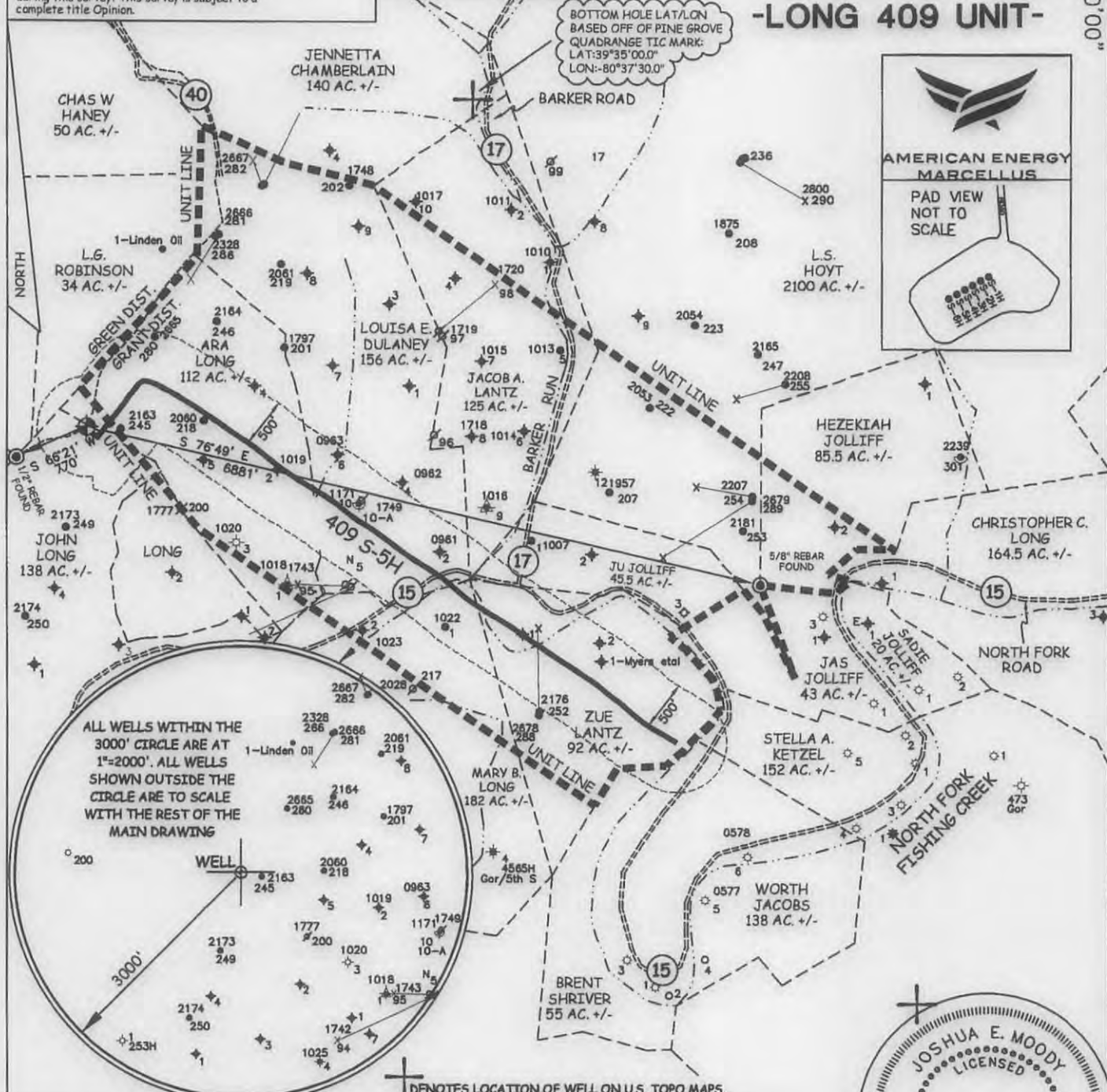
Surface N-4,381,628m.  
E-527,867m.

Bottom Hole N-4,380,672m.  
E-529,655m.

LOCATION REFERENCES

NAD 1983  
N 82°29' W 272' UTILITY POLE  
N 45°40' E 207' SPIKE

# MAP OF H.G. ENERGY, LLC -LONG 409 UNIT-



JOB # 12-025  
DRAWING # 12HG409FOLDER  
SCALE 1" = 1500'  
MINIMUM DEGREE OF ACCURACY SUB-METER  
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



**WEST VIRGINIA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION,  
OFFICE OF OIL AND GAS**

**MOODY LAND SURVEYING, LLC**  
ST. MARYS, WV 26170



REV.2  
JOSHUA E. MOODY, P.S. 2020  
DATE 12/08/14  
OPERATOR'S WELL # 409 S-5H

WEST VIRGINIA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  HORIZONTAL   
(IF "GAS") PRODUCTION  STORAGE  DEEP  SHALLOW   
LOCATION: ELEVATION 1340' WATERSHED NORTH FOR, FISHING CREEK API WELL # 47-103-  
DISTRICT GRANT COUNTY WETZEL STATE 47 COUNTY 103 PERMIT           
QUADRANGLE PINE GROVE 7.5'

SURFACE OWNER FRANCIS D. & FREEDA M. BROWN (surface hole) ACREAGE 103 ACRES +/-  
OIL & GAS ROYALTY OWNER ROBERT B. MYERS ET AL LEASE ACREAGE 580 ACRES +/-  
PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR  
STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION   
OTHER PHYSICAL CHANGE IN WELL (SPECIFY) AS DRILLED LOCATION  
PLUG & ABANDON  CLEAN OUT & REPLUG   
TARGET FORMATION MARCELLUS ESTIMATED DEPTH TVD= 7,354.88' MD= 13,575'  
WELL OPERATOR AMERICAN ENERGY-MARCELLUS DESIGNATED AGENT BRANDON McKINLEY  
ADDRESS 3501 NW 63rd STREET ADDRESS 3501 NW 63rd STREET  
OKLAHOMA CITY, OK 73116 OKLAHOMA CITY, OK 73116

FORM WW-6 LEASE # 31950-50 et al

LAT: 39°35'01.8" (BOTTOM HOLE: 39°34'30.6")

COUNTY NAME PERMIT