

(BOTTOM HOLE: 80°39'36.4")

LON: -80°40'35.4"

2770'

LAT: 39°37'30"

LON: 80°40'00"

15.135'

LAT: 39°35'00.5" (BOTTOM HOLE: 39°34'17.1")

1 - Well Nos and Latitude and Longitude were measured by GPS (Sub-meter Mapping Grade). Bearings are referenced to UTM Grid North (Zone 17 North - NAD 1983).

2 - Surface owners and adjacent 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)

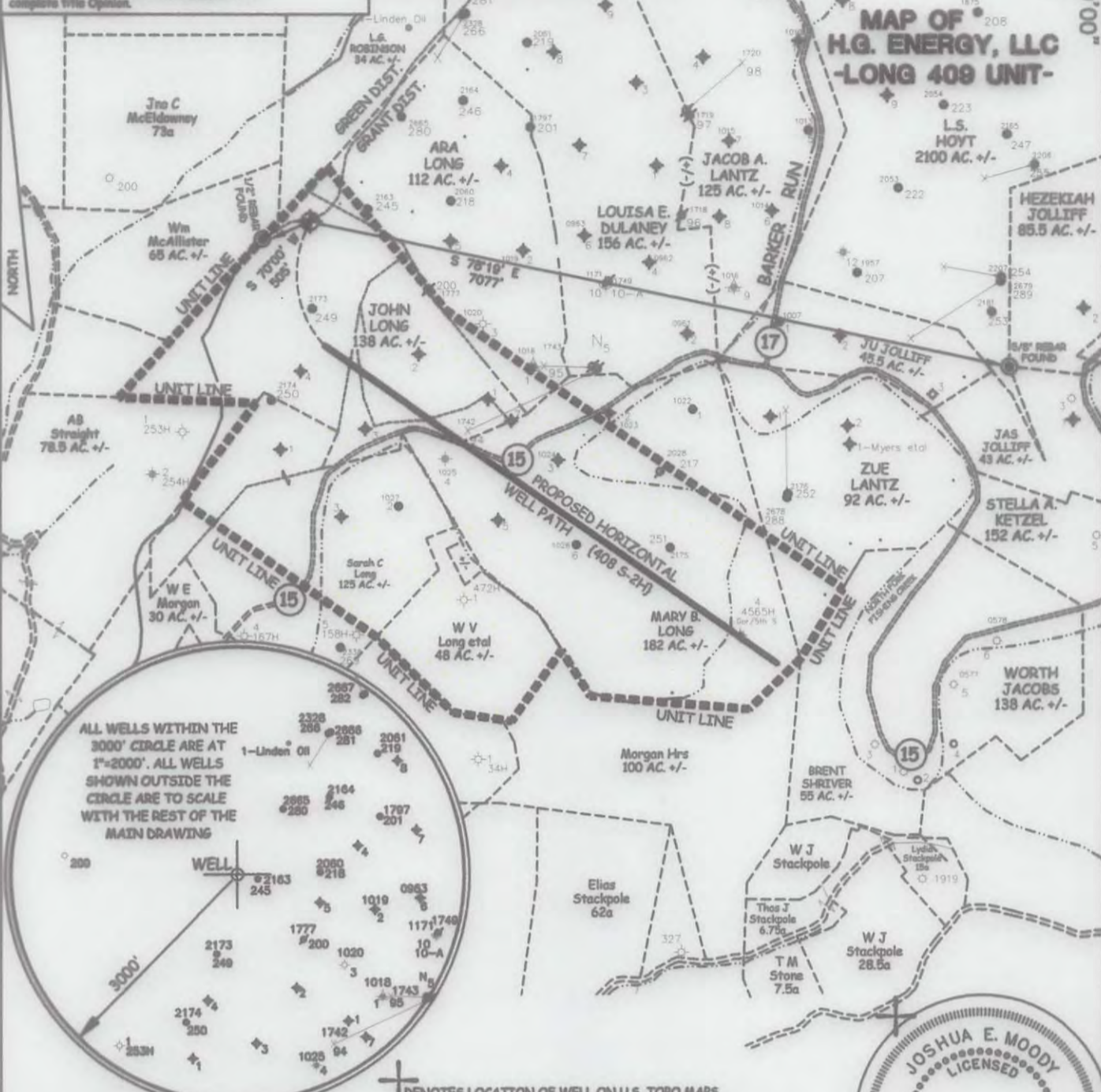
Surface N-4,381,586m.  
E-527,797m.

Bottom Hole N-4,380,253m.  
E-529,210m.

LOCATION REFERENCES

NAD 1983  
N 48°21' E 221' SPIKE  
S 84°48' E 160' SPIKE

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



ALL WELLS WITHIN THE 3000' CIRCLE ARE AT 1"=2000'. ALL WELLS SHOWN OUTSIDE THE CIRCLE ARE TO SCALE WITH THE REST OF THE MAIN DRAWING



⊕ DENOTES LOCATION OF WELL ON U.S. TOPO MAPS.

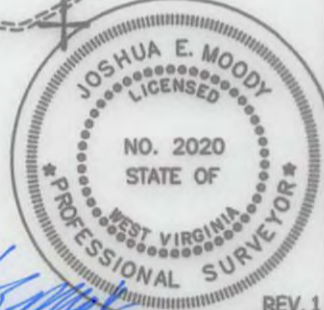
JOB # 12-025  
DRAWING # 12HG409FOLDER  
SCALE 1" = 1500'  
MINIMUM DEGREE OF ACCURACY SUB-METER  
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

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



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 47 - 103 - 2888  
DISTRICT GRANT COUNTY WETZEL STATE COUNTY PERMIT  
QUADRANGLE PINE GROVE 7.5'

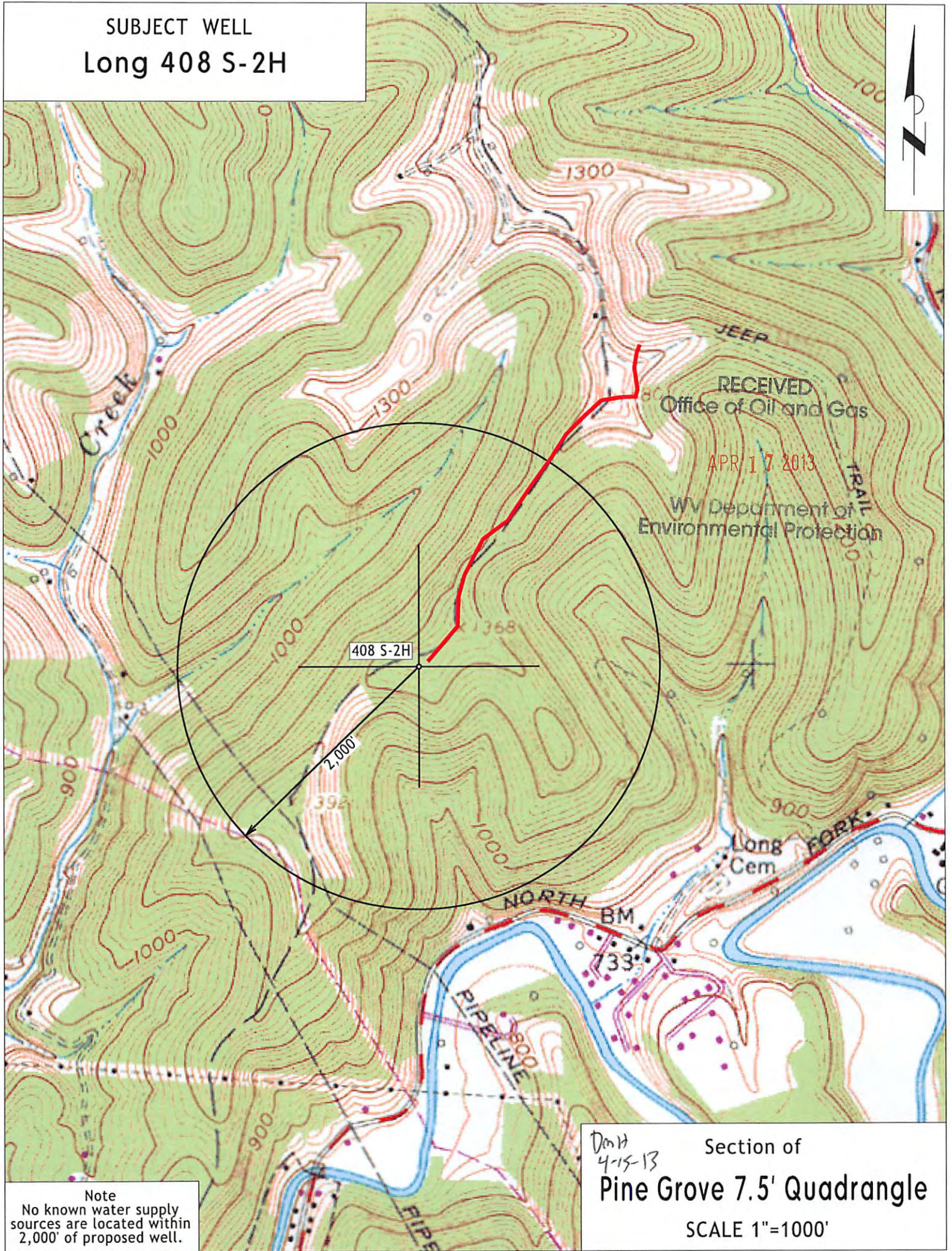
SURFACE OWNER FRANCIS D. & FREEDA M. BROWN (surface hole) ACREAGE 103 ACRES +/-  
OIL & GAS ROYALTY OWNER ROBERT B. MYERS ET AL LEASE ACREAGE 419 ACRES +/-  
PROPOSED WORK: DRILL  CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR  
STIMULATE  PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_  
OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_  
PLUG & ABANDON \_\_\_ CLEAN OUT & REPLUG \_\_\_  
TARGET FORMATION MARCELLUS  
WELL OPERATOR H.G. ENERGY, LLC  
ADDRESS 5260 DuPONT ROAD PARKERSBURG, WV 26101  
ESTIMATED DEPTH TVD= 7,396' MD= 13,252'  
DESIGNATED AGENT MIKE KIRSCH  
ADDRESS 5260 DuPONT ROAD PARKERSBURG, WV 26101

FORM WW-6 LEASE # 31950-50 et al

07/05/2013



SUBJECT WELL  
Long 408 S-2H



Note  
No known water supply  
sources are located within  
2,000' of proposed well.

DonH  
4-15-13  
Section of  
**Pine Grove 7.5' Quadrangle**  
SCALE 1"=1000'