



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

PERMIT MODIFICATION APPROVAL

September 10, 2014

HG ENERGY, LLC
5260 DUPONT ROAD
PARKERSBURG, WV 26101

Re: Permit Modification Approval for API Number 4303472 , Well #: EPHRAIM GRIFFITH NO **215**
TD WILL BE DEEPENED TO 4100' IN DEVONIAN SHALE

Oil and Gas Operator:

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,


gsm

Gene Smith
Assistant Chief of Permitting
Office of Oil and Gas

4303472 M

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

- 1) Well Operator: HG Energy, LLC
- 2) Operator's Well Number: Ephraim Griffith No. 215 3) Elevation 887'
- 4) Well Type: (a) Oil or Gas _____
 (b) If Gas: Production _____ Underground Storage _____
- 5) Proposed Target Formation(s): Berea/Shale
- 6) Proposed Total Depth: TVD 4100' ft.
- 7) Approximate fresh water strata depths: 245'
- 8) Approximate salt water depths: 950'
- 9) Approximate coal seam depths: 310'
- 10) Does land contain coal seams tributary to active mine? Yes _____ No
- 11) Proposed Well Work: Drill and stimulate production well in Berea and Shale

12) **CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight Per Ft.	For Drilling	Left in Well	
Conductor						
Fresh Water	7"	LS	17#	410'	410'	Cement to surface
Coal						
Intermediate						
Production	4 1/2"	J-55	10.5#	4100'	4100'	200 Sacks
Tubing						
Liners						

Packers: Kind _____
 Sizes _____
 Depths set _____

For Office of Oil and Gas Use Only

- Fee(s) Paid
 Well Work Permit
 Reclamation Fund
 WPCP
 Plat
 WW-9
 WW-2B
 Bond _____
 Agent
(Type)

4303472M

Longitude = 81° 57' 03.6"

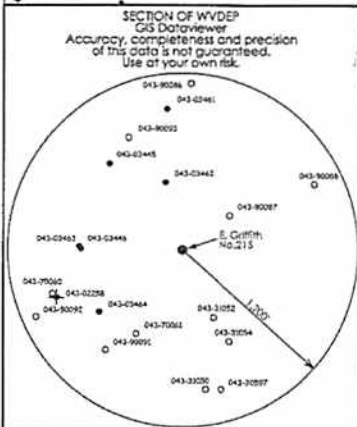
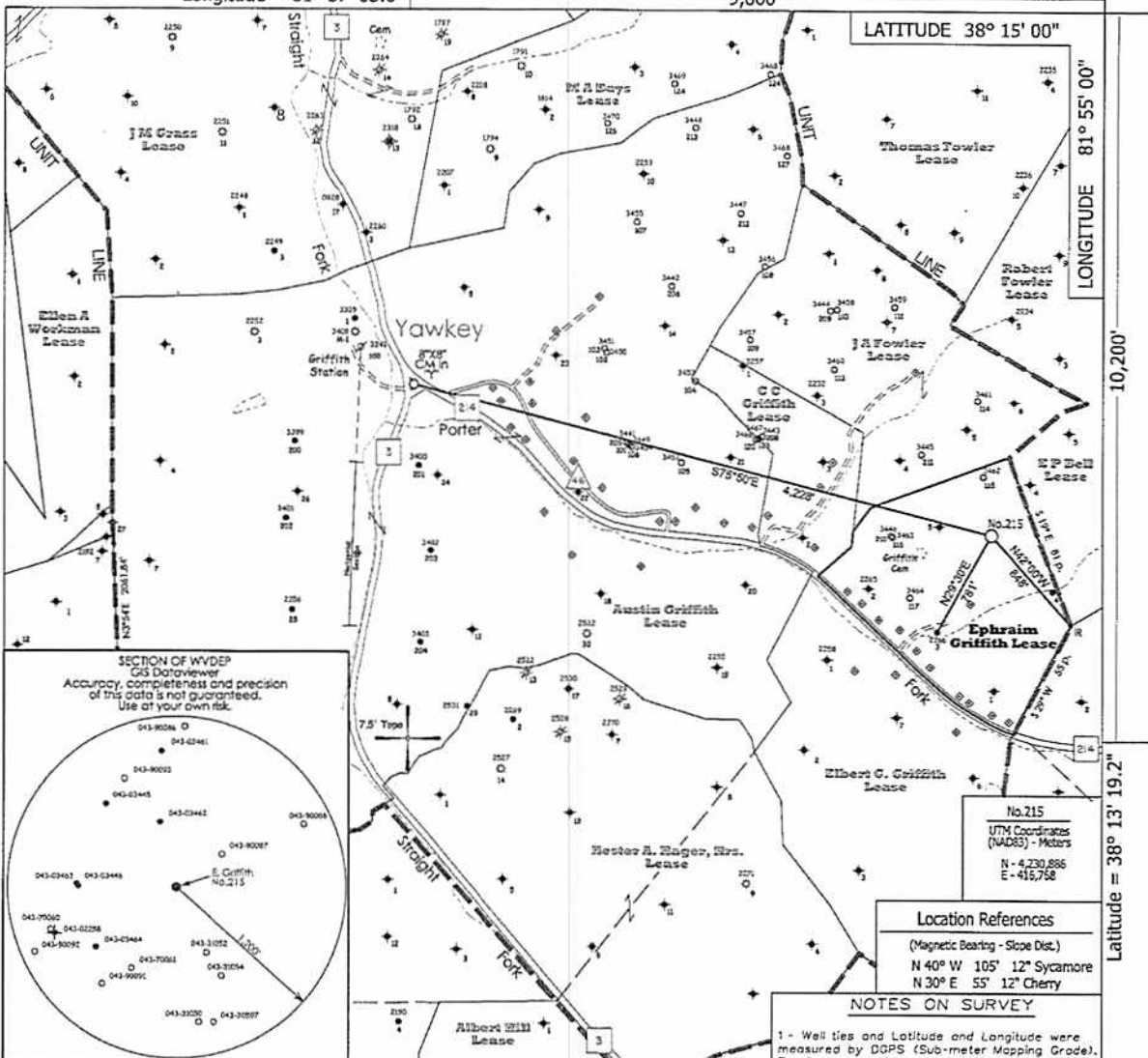
9,860'

LATITUDE 38° 15' 00"

LONGITUDE 81° 55' 00"

10,200'

Latitude = 38° 13' 19.2"



No. 215
UTM Coordinates (NAD83) - Meters
N - 4,230,886
E - 415,758

Location References
(Magnetic Bearing - Slope Dist.)
N 40° W 105' 12" Sycamore
N 30° E 55' 12" Cherry

NOTES ON SURVEY

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 owner information obtained from the Lincoln County Assessor's tax records.

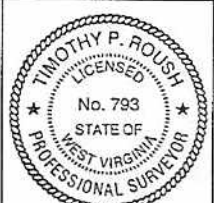
◆ - DENOTES A POSSIBLE WATER SUPPLY SOURCE LOCATED FROM CIRCA 2003 AERIAL PHOTOGRAPHY - NOT BY SURVEY. OTHER SOURCES MAY BE PRESENT.

⊕ - DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

FILE NO. _____
MAP NO. N S E W
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY Sub-Meter
PROVEN SOURCE OF ELEVATION DGPS Survey
 (Sub-Meter Mapping Grade)

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 PRESCRIBED BY THE DEPARTMENT OF MINES.

(SIGNED) *[Signature]*
TIMOTHY P. ROUSH PS 793



WEST VIRGINIA
Division of Environmental Protection
Office of Oil and Gas
601 57th Street
Charleston, West Virginia 25301



DATE August 13, 2014
FARM Ephraim Griffith No. 215
API WELL NO. 47-043-03472

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
LOCATION: ELEVATION 887' WATERSHED Porter Fork
DISTRICT Duval COUNTY Lincoln
QUADRANGLE Griffithville 7.5'
SURFACE OWNER Jason Bender, et ux ACREAGE 32.72 Ac.
OIL & GAS ROYALTY OWNER HG Energy, LLC, et al LEASE ACREAGE 42 Ac.
 LEASE NO. 71091-50
PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR
STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW
FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON CLEAN OUT AND REPLUG
TARGET FORMATION Berea/Shale ESTIMATED DEPTH 4,100'
WELL OPERATOR HG Energy LLC. DESIGNATED AGENT Diane White
ADDRESS 5260 DuPont Road ADDRESS 5260 DuPont Road
 Parkersburg, WV 26101 Parkersburg, WV 26101

FORM IV-6

09/12/2014