



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

February 10, 2015

PDC MOUNTAINEER LLC
POST OFFICE BOX 26
BRIDGEPORT, WV 26330

Re: Permit Modification Approval for API Number 3305822 , Well #: GOFF 19HM

Shorten lateral, modify lateral spacing

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,

Gene Smith
Assistant Chief of Permitting
Office of Oil and Gas

February 5, 2015

Mr. James Martin
Chief – Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304

Dear Mr. Martin,

We are requesting a modification to our Goff East #19HM permit, API #47-033-05822. We are requesting the modification to more efficiently test lateral spacing, we would like to drill these northern laterals at 660 foot spacing between the laterals. Also, this modification would allow us to more effectively drill our leasehold position, while accommodating another operator. We hope that you consider this modification and appreciate your time in reviewing our request.

Best Regards,

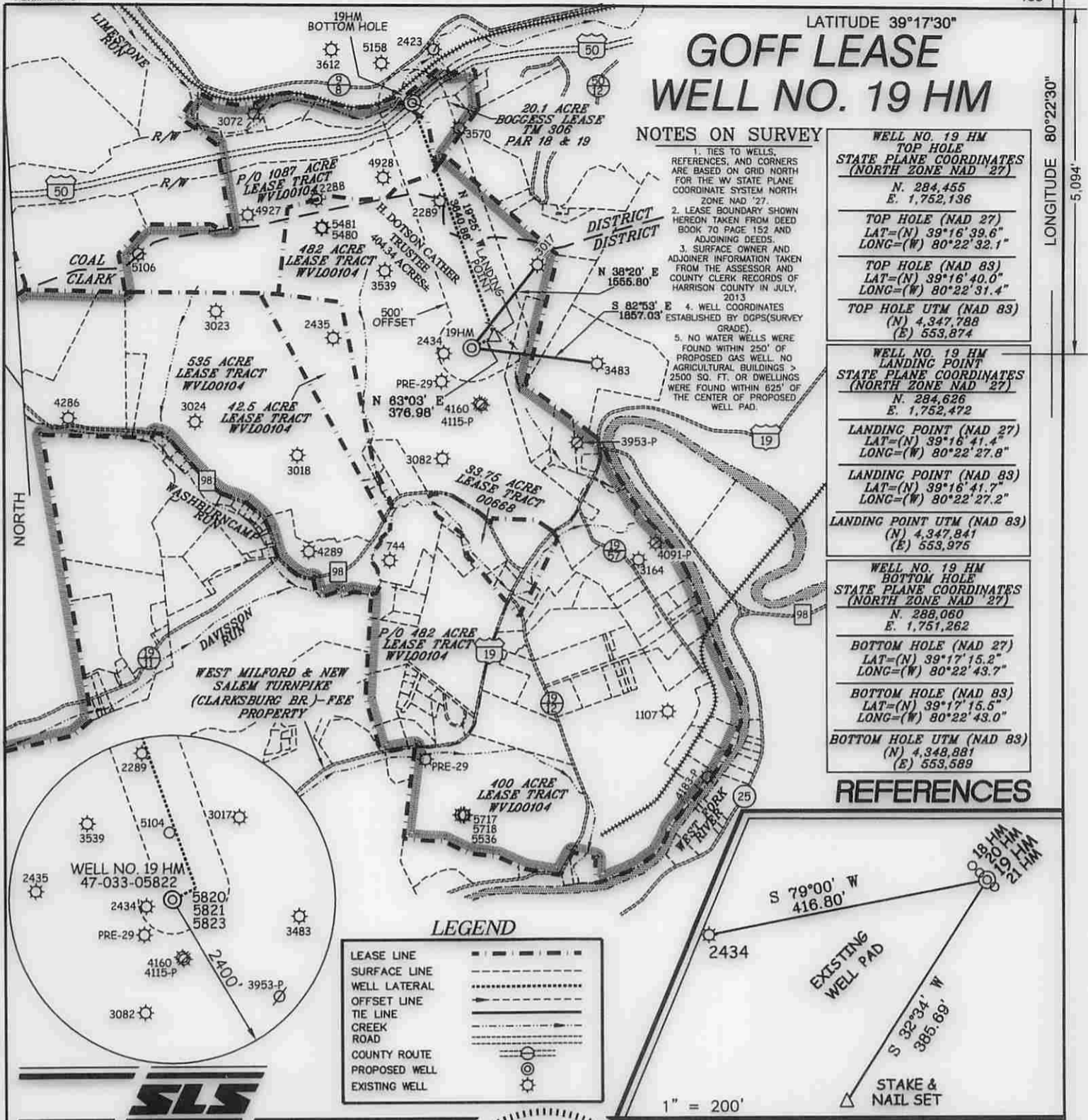


Jonathan Farmer
SVP of Marcellus Operations

Received

FEB - 5 2015

Office of Oil and Gas
WV Dept. of Environmental Protection



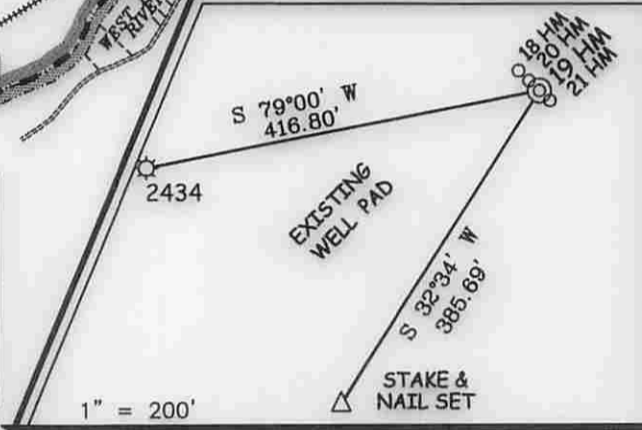
GOFF LEASE WELL NO. 19 HM

NOTES ON SURVEY

- TIES TO WELLS, REFERENCES, AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
- LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 70 PAGE 152 AND ADJOINING DEEDS.
- SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF HARRISON COUNTY IN JULY, 2013.
- WELL COORDINATES ESTABLISHED BY DGPS (SURVEY GRADE).
- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS > 2500 SQ. FT. OR DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.

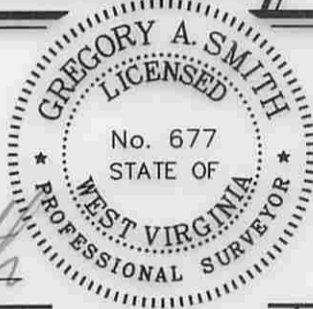
WELL NO. 19 HM TOP HOLE STATE PLANE COORDINATES (NORTH ZONE NAD '27) N. 284,455 E. 1,752,136 TOP HOLE (NAD 27) LAT=(N) 39°16'39.6" LONG=(W) 80°22'32.1" TOP HOLE (NAD 83) LAT=(N) 39°16'40.0" LONG=(W) 80°22'31.4" TOP HOLE UTM (NAD 83) (N) 4,347,788 (E) 553,874
WELL NO. 19 HM LANDING POINT STATE PLANE COORDINATES (NORTH ZONE NAD '27) N. 284,626 E. 1,752,472 LANDING POINT (NAD 27) LAT=(N) 39°16'41.4" LONG=(W) 80°22'27.8" LANDING POINT (NAD 83) LAT=(N) 39°16'41.7" LONG=(W) 80°22'27.2" LANDING POINT UTM (NAD 83) (N) 4,347,841 (E) 553,975
WELL NO. 19 HM BOTTOM HOLE STATE PLANE COORDINATES (NORTH ZONE NAD '27) N. 288,060 E. 1,751,262 BOTTOM HOLE (NAD 27) LAT=(N) 39°17'15.2" LONG=(W) 80°22'43.7" BOTTOM HOLE (NAD 83) LAT=(N) 39°17'15.5" LONG=(W) 80°22'43.0" BOTTOM HOLE UTM (NAD 83) (N) 4,348,881 (E) 553,589

REFERENCES



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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 677 *Gregory A. Smith*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE APRIL 16, 20 14
 REVISED FEBRUARY 4, 20 15
 OPERATORS WELL NO. GOFF 19HM
 API WELL NO. 47 - 033 - 5822 Mod
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 8329P19(475-70)
 PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 2,000'

STATE OF WEST VIRGINIA
 DIVISION OF ENVIRONMENTAL PROTECTION
 OFFICE OF OIL AND GAS

WELL TYPE: OIL ___ GAS LIQUID INJECTION ___ WASTE DISPOSAL ___ IF "GAS" PRODUCTION STORAGE ___ DEEP ___ SHALLOW

LOCATION: ELEVATION 1122.80' WATERSHED WEST FORK RIVER
 DISTRICT CLARK COUNTY HARRISON QUADRANGLE WOLF SUMMIT 7.5'
 SURFACE OWNER H. DOTSON CATHER TRUSTEE ACREAGE 404.34±
 ROYALTY OWNER H. DOTSON CATHER TRUSTEE ETAL ACREAGE 1087± & 20.1±

PROPOSED WORK: DRILL CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___ OTHER ___
 PHYSICAL CHANGE IN WELL (SPECIFY) TARGET FORMATION MARCELLUS
 ESTIMATED DEPTH 7,089' TVD / TMD 11,284'

WELL OPERATOR PDC MOUNTAINEER, LLC DESIGNATED AGENT STEVEN P. JOHNSON
 ADDRESS 120 GENESIS BOULEVARD ADDRESS 120 GENESIS BOULEVARD
 BRIDGEPORT, WV 26330 BRIDGEPORT, WV 26330

02/13/2015

COUNTY NAME PERMIT