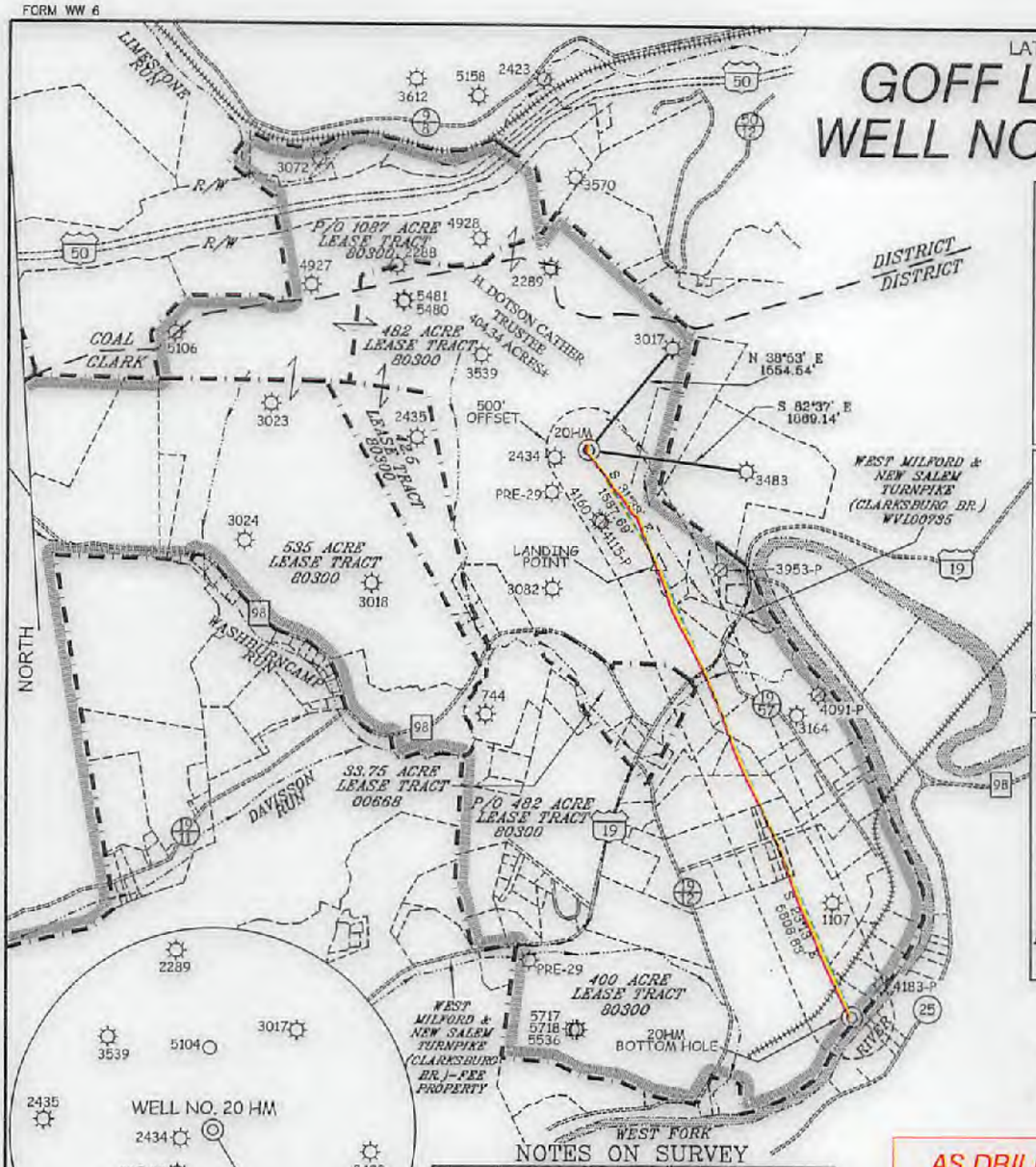
FORM WW-6

GOFF LEASE
WELL NO. 20 HM



WELL NO. 20 HM TOP HOLE STATE PLANE COORDINATES (NORTH ZONE NAD '27)
N. 284,465 E. 1,752,125
TOP HOLE (NAD 27) LAT=(N) 39°16'39.8" LONG=(W) 80°22'32.2"
TOP HOLE (NAD 83) LAT=(N) 39°16'40.1" LONG=(W) 80°22'31.6"
TOP HOLE UTM (NAD 83) (N) 4,347,791 (E) 553,870

WELL NO. 20 HM LANDING POINT STATE PLANE COORDINATES (NORTH ZONE NAD '27)
N. 283,112 E. 1,752,956
LANDING POINT (NAD 27) LAT=(N) 39°16'26.4" LONG=(W) 80°22'21.5
LANDING POINT (NAD 83) LAT=(N) 39°16'26.8" LONG=(W) 80°22'20.8"
LANDING POINT UTM (NAD 83) (N) 4,347,383 (E) 554,130

WELL NO. 20 HM BOTTOM HOLE STATE PLANE COORDINATES (NORTH ZONE NAD '27)
N. 277,773 E. 1,755,246
BOTTOM HOLE (NAD 27) LAT=(N) 39°15'33.9" LONG=(W) 80°21'51.7"
BOTTOM HOLE (NAD 83) LAT=(N) 39°15'34.2" LONG=(W) 80°21'51.1"
BOTTOM HOLE UTM (NAD 83) (N) 4,345,768 (E) 554,855

LEGEND

AS DRILLED ———

PROPOSED - - - - - -

NOTES ON SURVEY

1. TIES TO WELLS, REFERENCES, AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
2. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 70 PAGE 152 AND ADJOINING DEEDS.
3. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF HARRISON COUNTY IN JULY, 2013.
4. WELL COORDINATES ESTABLISHED BY DGPS(SURVEY GRADE).
5. NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250'. NO APPLICABLE DWELLINGS OR BUILDINGS WITHIN 625'.
6. PLAT UPDATED 05-05-17 TO SHOW AS DRILLED DATA PROVIDED BY ARSENAL RESOURCES.

AS DRILLED COORDINATES FOR WELL NO. 20HM

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)

NAD'27 S.P.C. (FT)	N. 284,466.0	E. 1,752,124.8
NAD'27 GEO.	LAT-(N) 39°16'39.8"	LONG-(W) 80°22'32.3"
NAD'83 GEO.	LAT-(N) 39°16'40.1"	LONG-(W) 80°22'31.6"
NAD'83 UTM (M)	N. 4,347,791.0	E. 553,870.0
BOTTOM HOLE		
NAD'27 S.P.C. (FT)	N. 277,763.7	E. 1,755,245.8
NAD'27 GEO.	LAT-(N) 39°15'33.8"	LONG-(W) 80°21'51.7"
NAD'83 GEO.	LAT-(N) 39°15'34.1"	LONG-(W) 80°21'51.1"
NAD'83 UTM (M)	N. 4,345,764.9	E. 554,854.8

SLS

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

GREGORY A. SMITH LICENSED No. 677 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE MAY 21 , 20 14

REVISED 06/05/14 & 05/05/17

OPERATORS WELL NO. GOFF 20HM

API WELL NO. 47 — 33 — 05821
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 8099P20R3(475-70)

SCALE 1" = 2,000'

PROVEN SOURCE OF ELEVATION DGPS (SURVEY GRADE)

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

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

LOCATION: ELEVATION PRE 1,128.00' POST 1126.30' 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 & STATE OF W.V.(TURNPIKE) ACREAGE 1087± 09/15/2017

PROPOSED WORK: LEASE NO. 80300 & WVL00735

DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X 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 14,024'

WELL OPERATOR PDC MOUNTAINEER, LLC DESIGNATED AGENT STEVEN P. JOHNSON

ADDRESS 120 GENESIS BOULEVARD ADDRESS 120 GENESIS BOULEVARD

BRIDGEPORT, WV 26330 BRIDGEPORT, WV 26330

COUNTY NAME PERMIT