

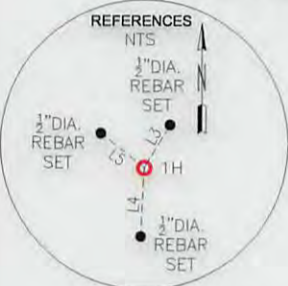
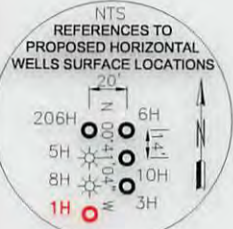
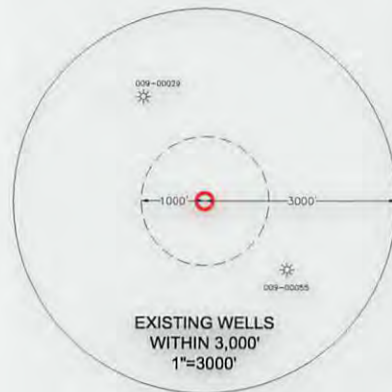


RETTEW Associates, Inc.
 27 Travato Street, Suite 101
 Bridgeport, WV 26330
 Phone (800) 738-8395
 Email: rettetw@rettetw.com
 Website: www.rettetw.com

SURFACE HOLE LOCATION (SHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,449,173.209 EASTING: 532,116.747
LANDING POINT LOCATION (LPL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,449,213.162 EASTING: 531,906.562
BOTTOM HOLE LOCATION (BHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,451,182.933 EASTING: 531,112.103

GRID NORTH
 UTM, NAD83 DATUM, ZONE 17, US FT

LINE	BEARING	DISTANCE	DESCRIPTION	MONUMENT
L1	N 00°32'16" E	1,126.05'	SHL TO LANDMARK	
L2	N 51°59'52" E	664.49'	SHL TO LANDMARK	
L3	N 29°54'15" E	198.96'	SHL TO REF. PNT.	1/2"Ø REBAR SET
L4	S 00°57'38" E	265.78'	SHL TO REF. PNT.	1/2"Ø REBAR SET
L5	N 39°17'46" W	209.62'	SHL TO REF. PNT.	1/2"Ø REBAR SET
L6	S 15°51'32" W	520.16'	SHL TO HOME	CORNER HOME
L7	N 79°14'14" W	701.93'	SHL TO LP	

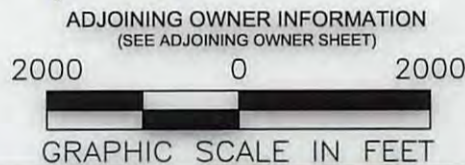


NOTES ON SURVEY

- COORDINATES SYSTEM IS UTM, NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
- SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND FIELD LOCATIONS.
- THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
- DWELLINGS AND BUILDINGS WITHIN 625 FEET OF PROPOSED CENTER OF PAD.
- NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
- NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
- NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.

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 REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

P.S. 2241



COMPANY: **SWN** Production Company, LLC

<p>(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS</p> <p>WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25034</p>	MINIMUM DEGREE OF ACCURACY: 1/200 PROVEN SURVEY SOURCE OF ELEVATION: GRADE GPS (NAVD 88, US FT)	COMPANY: SWN Production Company, LLC OPERATOR'S WELL #: 1H API WELL #: 47 09 DD203 STATE COUNTY PERMIT
	KATHY MAYHEW BRK	OPERATOR'S WELL #: 1H

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

WATERSHED: UPPER OHIO WHEELING ELEVATION: 1281.1± (AS-BUILT)

DISTRICT: BUFFALO COUNTY: BROOKE QUADRANGLE: BETHANY, WV-PA & TILTONSVILLE, OH-WV

SURFACE OWNER: MAYHEW, KATHY LYNN & MICHAEL, ETAL ACREAGE: ±84.74

OIL & GAS ROYALTY OWNER: MAYHEW, KATHY LYNN & MICHAEL, ETAL ACREAGE: ±84.74

DRILL DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION

CONVERT PLUG & ABANDON CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY) **09/15/2017**

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 6,042' TVD 13,387' TMD

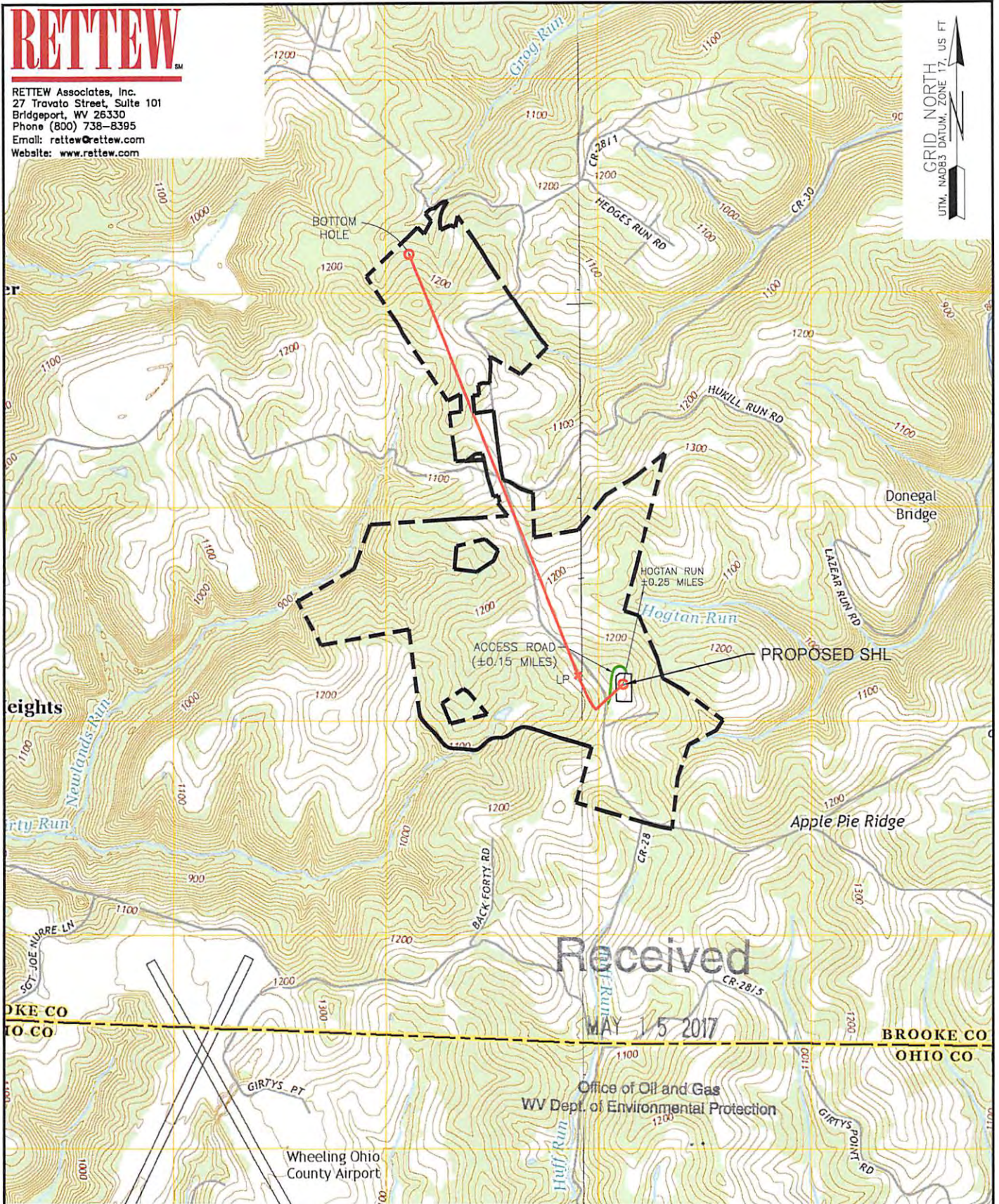
WELL OPERATOR: SWN PRODUCTION COMPANY, LLC	DESIGNATED AGENT: DEE SOUTHALL
ADDRESS: P.O. BOX 1300	ADDRESS: P.O. BOX 1300
CITY: JANE LEW STATE: WV ZIP CODE: 26378	CITY: JANE LEW STATE: WV ZIP CODE: 26378

LEGEND:	REVISIONS:	DATE: 05-12-2017
(Red circle with cross) PROPOSED SURFACE HOLE / BOTTOM HOLE (Star) EXISTING / PRODUCING WELLHEAD (Star with X) ABANDONED WELL (Star with X and circle) PLUGGED & ABANDONED WELL (Triangle) CUT CONDUCTOR (Dashed line) TIE LINE (Thick black line) LEASE BOUNDARY (Red line) MARCELLUS DHP (Thin black line) ABANDONED PATH	(Table with 2 columns: Description, Date) (Empty rows for revisions)	DRAWN BY: W. MCCLEAF SCALE: 1" = 2000' DRAWING NO: 087569047 WELL LOCATION PLAT

RETTEW

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GRID NORTH
 UTM, NAD83 DATUM, ZONE 17, US FT



Received
 MAY 15 2017

Office of Oil and Gas
 WV Dept. of Environmental Protection

WELL: KATHY MAYHEW BRK 1H
 QUAD: BETHANY, WV-PA &
 TILTONVILLE, OH-WV



NAME AND DISTANCE TO THE NEAREST STREAM: HOGTAN RUN IS LOCATED ±0.25 MILES NE OF THE CENTER OF THE DRILL PAD.		STREAM CROSSING COORDINATES (NAD 83): NO NEW CROSSINGS.		COMPANY: SWN Production Company, LLC		SWN ^{R+V+0} Production Company™	
WELL RESTRICTIONS: WELL PAD, LOD, & E & S CONTROL FEATURES TO PERENNIAL STREAM, LAKE, POND, RESERVOIR OR WETLAND: >100 FEET WELL PAD, LOD, & E & S CONTROL FEATURES TO NATURALLY PRODUCING TROUT STREAM: >300 FEET WELL PAD, LOD, & E & S CONTROL FEATURES TO GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY: >1000 FEET WELL SHL TO EXISTING WATER WELL OR DEVELOPED SPRING: >250 FEET CENTER OF PAD TO OCCUPIED DWELLING STRUCTURE: >625 FEET CENTER OF PAD TO AGRICULTURAL BUILDINGS LARGER THAN 2500 SQ FT: >625 FEET				OPERATOR'S KATHY MAYHEW BRK		WELL #: 1H	
FEMA FLOOD INFORMATION: BY GRAPHIC PLOTTING ONLY FEMA FIRM INCORPORATED AREA OF BROOKE COUNTY, WEST VIRGINIA; MAP NUMBERS 54009C130D & 54009C140D; EFFECTIVE DATE: APRIL 19, 2010. NO FLOOD ZONES ARE SITUATED WITHIN THE UNIT.				LOCATION: BUFFALO DISTRICT, BROOKE COUNTY, WEST VIRGINIA		SURFACE HOLE LOCATION: GEOGRAPHIC (NAD83): LATITUDE: 40.192336° LONGITUDE: -80.622688°	
LEGEND: <ul style="list-style-type: none"> ○ PROPOSED SURFACE HOLE / BOTTOM HOLE ⊗ EXISTING / PRODUCING WELLHEAD ⊗ ABANDONED WELL ⊗ PLUGGED & ABANDONED WELL △ CUT CONDUCTOR ⊙ EXISTING SPRING ⊙ EXISTING WATER WELL — ACCESS ROAD — ACCESS ROAD TO PREV. SITE — HIGHWAY/INTERSTATE — COUNTY ROAD 				BOTTOM HOLE LOCATION: GEOGRAPHIC (NAD83): LATITUDE: 40.210480° LONGITUDE: -80.634393°		REVISIONS:	
				DATE: 05-12-2017		DRAWN BY: W. MCCLEAF	
						SCALE: 1" = 2000'	
						DRAWING NO: 087569047	
						TOPOGRAPHIC MAP	

09/15/2017