

# THRASHER

THE THRASHER GROUP, INC.  
600 WHITE OAKS BLVD.  
BRIDGEPORT, WV 26330  
PHONE 304-624-4108

### 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.
- NO 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.

| LINE | BEARING       | DISTANCE |
|------|---------------|----------|
| L1   | N 75°06'47" E | 1314.88' |
| L2   | S 15°12'01" E | 3882.95' |
| L3   | N 36°37'47" W | 1266.87' |
| L4   | S 13°21'37" E | 1492.66' |

| WELL BORE TABLE FOR SURFACE / ROYALTY OWNERS |  |            |         |
|--|--|------------|---------|
| TRACT  | SURFACE OWNER (S) / ROYALTY OWNER (R)  | TAX PARCEL | ACRES   |
| 1  | STATE OF WEST VIRGINIA BUREAU OF COMMERCE-DIVISION OF NATURAL RESOURCE PUBLIC LAND CORPORATION | 04-CC16-19 | 169.433 |
| 2  | DEBORAH JANE HAMILTON  | 04-C12K-7B | 109.62  |
| 3  | STATE OF WEST VIRGINIA BUREAU OF COMMERCE-DIVISION OF NATURAL RESOURCE PUBLIC LAND CORPORATION | 04-CC16-22 | 74.032  |

### SURFACE HOLE LOCATION (SHL):

UTM (NAD83, ZONE 17, METERS):  
NORTHING: 4,465,703.689  
EASTING: 540,109.792

### LANDING POINT (LPL):

UTM (NAD83, ZONE 17, METERS):  
NORTHING: 4,465,806.654  
EASTING: 540,497.118

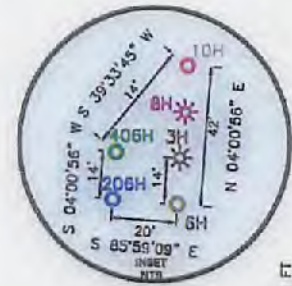
### BOTTOM HOLE LOCATION (BHL):

UTM (NAD83, ZONE 17, METERS):  
NORTHING: 4,464,684.535  
EASTING: 540,807.432

SHL 7,780'

BHL 5,491'  
Latitude: 40°22'30"

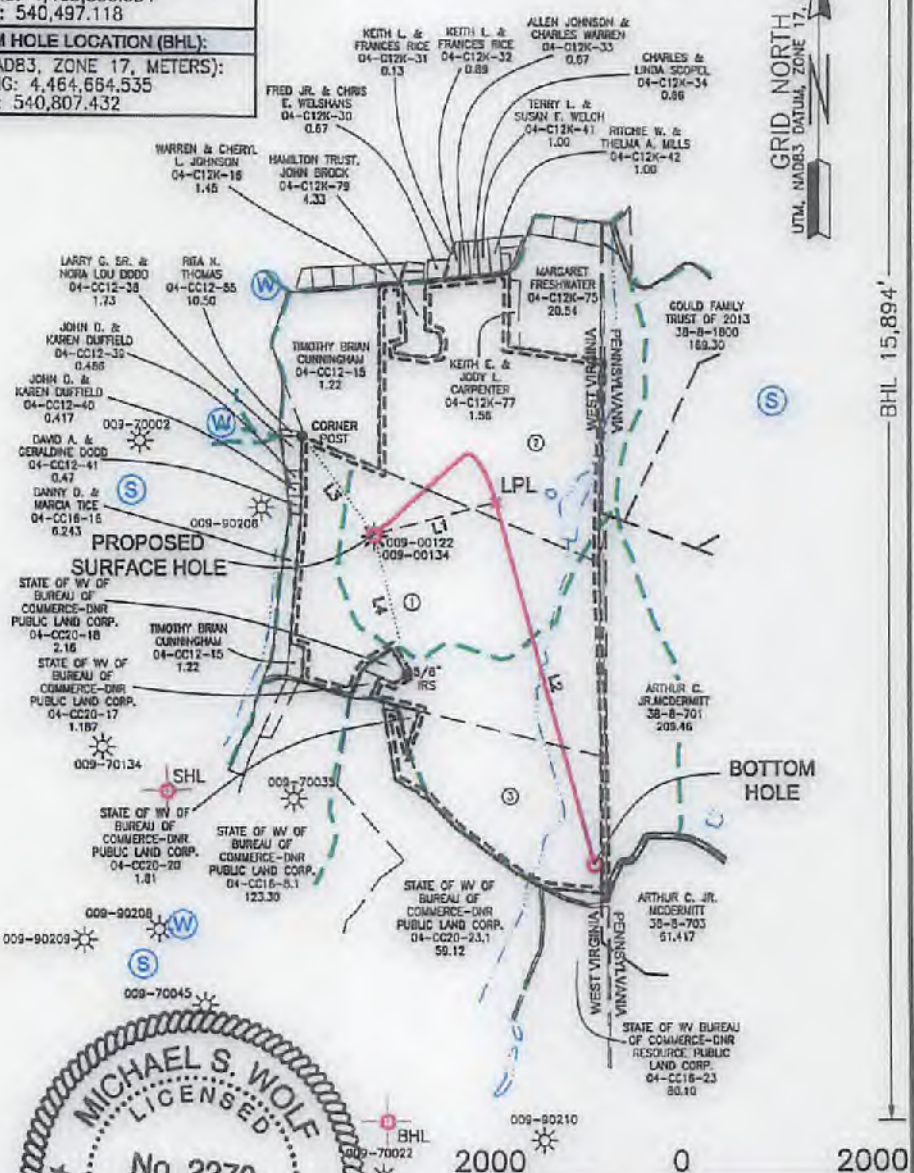
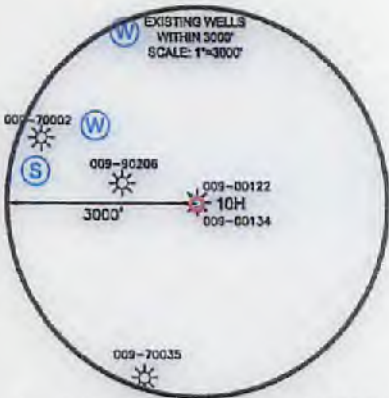
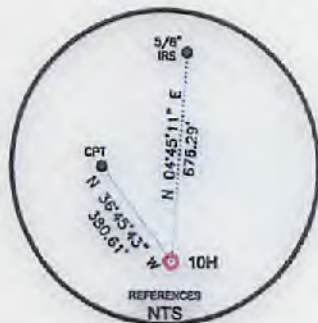
Longitude: 80°30'00"



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

SHL 12,485'

BHL 15,894'



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. 2270 *M.S. Wolf* 11/30/17

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
WVDEP  
OFFICE OF OIL & GAS  
601 57TH STREET  
CHARLESTON, WV 25034

MINIMUM DEGREE OF ACCURACY: 1/200  
PROVEN SOURCE OF ELEVATION: SURVEY GRADE GPS (NAVD 85, US FT)

COMPANY: **SWN** Production Company, LLC

STATE OF WV DNR B BRK  
OPERATOR'S WELL #: 10H  
API WELL #: 47 STATE 009 COUNTY 00236 PERMIT

WELL TYPE: OIL  WASTE DISPOSAL  PRODUCTION  DEEP  GAS  LIQUID INJECTION  STORAGE  SHALLOW   
WATERSHED: UPPER OHIO NORTH ELEVATION: 1200.8'  
DISTRICT: CROSS CREEK COUNTY: BROOKE QUADRANGLE: STEUBENVILLE EAST  
SURFACE OWNER: STATE OF WV BUREAU OF COMMERCE-DNR PUBLIC LAND CORPORATION ACREAGE: ±169.433  
OIL & GAS ROYALTY OWNER: STATE OF WV BUREAU OF COMMERCE-DNR PUBLIC LAND CORPORATION ACREAGE: ±169.433  
DRILL  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION   
CONVERT  PLUG & ABANDON  CLEAN OUT & REPLUG  OTHER CHANGE  (SPECIFY) \_\_\_\_\_  
TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 5,709 01/05/2018 TVD 10,083 TMD

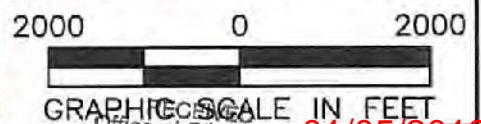
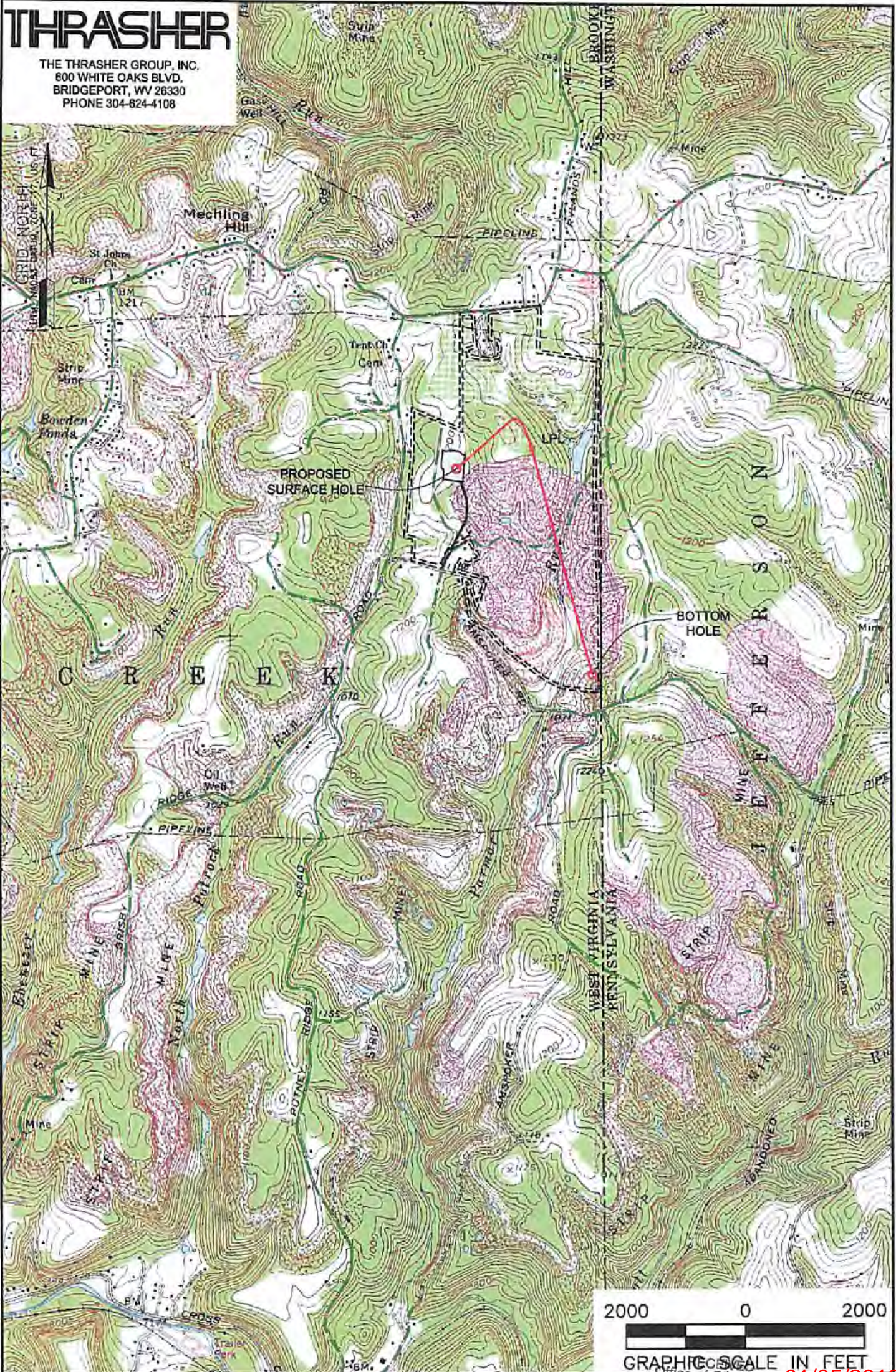
WELL OPERATOR: SWN PRODUCTION COMPANY, LLC DESIGNATED AGENT: DEE SOUTHALL  
ADDRESS: P.O. BOX 1300 ADDRESS: P.O. BOX 1300  
CITY: JANE LEW STATE: WV ZIP CODE: 26378 CITY: JANE LEW STATE: WV ZIP CODE: 26378

LEGEND:  
○ PROPOSED SURFACE HOLE / BOTTOM HOLE  
\* EXISTING / PRODUCING WELLHEAD  
LPL \* LANDING POINT LOCATION  
⊙ EXISTING WATER WELL  
⊕ EXISTING SPRING  
— SURVEYED BOUNDARY  
— DRILLING UNIT  
— LEASE BOUNDARY  
— PROPOSED PATH  
REVISIONS:  
DATE: 11-30-2017  
DRAWN BY: R. DOERR  
SCALE: 1" = 2000'  
DRAWING NO: 030-3233  
WELL LOCATION PLAT



# THRASHER

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 600 WHITE OAKS BLVD.  
 BRIDGEPORT, WV 26330  
 PHONE 304-824-4108



**NOTES ON SURVEY**

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2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
4. ALL INSETS ARE GRID NORTH UNLESS OTHERWISE DEPICTED.

WELL OPERATOR:  
 SWN PRODUCTION COMPANY, LLC  
 ADDRESS:  
 P.O. BOX 1300 JANE LEW, WV 26378

SURFACE OWNER:  
 STATE OF WV BUREAU OF COMMERCE-DNR PUBLIC LAND CORP.

WELL (FARM) NAME:  
 STATE OF WV DNR B BRK  
 COUNTY: - CODE  
 BROOKE - 009  
 USGS 7 1/2 QUADRANGLE MAP NAME  
 STEUBENVILLE EAST, WV

WELL #  
 10H  
 SERIAL #  
 XXXX

DISTRICT:  
 CROSS CREEK

DEC 7 2017  
 WV Department of  
 Environmental Protection

01/05/2018