

# 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.

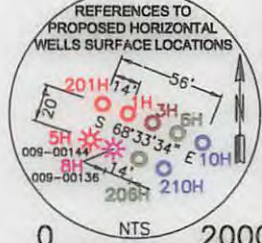
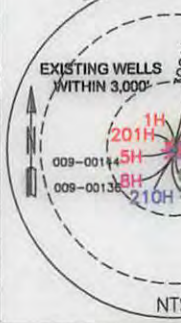
**SWN PRODUCTION COMPANY, LLC**  
**"RUSSELL HERVEY BRK 210H"**  
**SURFACE HOLE**  
ELEV: 1166'

Latitude: 39°14'57" 4,232'

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

12.253'

Longitude: 84°50'34"



TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL	ACRES
1	(S)RUSSELL D. HERVEY (R)RUSSELL D. HERVEY & LISA K. HERVEY	05-03-828-0045-0000	37.84
2	(S)BROOKE COUNTY PARK COMMISSION (R)RICHARD P. GIST (R)FRIGNA GIST ABLITT (R)JAN GIST LEVIN	05-03-828-0064-0000	135.00
3	(S)STARWAGG INDUSTRIES	05-03-828-0062-0000	3.63
4	(S)BROOKE COUNTY PARK COMMISSION	05-03-828-0063-0000	16.69
5	(R)JAMES ROBERT HERVEY & KAREN L. HERVEY (S)WILLIAM JUDSON HERVEY II & THERESA J. HERVEY (R)FRED L. HERVEY & CATHY JO HERVEY (R)MARY KATHRYN HERVEY DEGARMO & ALAN H. DEGARMO (R)RUSSELL D. HERVEY & LISA K. HERVEY (R)BROOKE COUNTY PARK & RECREATION COMMISSION	05-03-828-0060-0000	101.61
6	(S)PHOENIX-GREENLAIN PARTNERS (R)JAMES ROBERT HERVEY & KAREN L. HERVEY (R)WILLIAM JUDSON HERVEY II & THERESA J. HERVEY (R)FRED L. HERVEY & CATHY JO HERVEY (R)MARY KATHRYN HERVEY DEGARMO & ALAN H. DEGARMO (R)RUSSELL D. HERVEY & LISA K. HERVEY	05-30-833-0113-0000	101.53
7	(S)STARWAGG INDUSTRIES (R)JAMES ROBERT HERVEY & KAREN L. HERVEY (R)WILLIAM JUDSON HERVEY II & THERESA J. HERVEY (R)FRED L. HERVEY & CATHY JO HERVEY (R)MARY KATHRYN HERVEY DEGARMO & ALAN H. DEGARMO (R)RUSSELL D. HERVEY & LISA K. HERVEY	05-03-833-0026-0000	53.59
8	(S)JAMES H. STEWART (R)JAMES H. STEWART & PAMELA JO STEWART	05-03-833-0031-0000	141.68
9	(S)CHARLES L. & LAURA J. MCCOY (R)LAURA G. INMAN AND JAMES C. INMAN JR. (R)KAREN G. YOUNKINS & TERRY D. YOUNKINS	05-03-833-0107-0002	1.01
10	(S)CHARLES L. & LAURA J. MCCOY (R)LAURA G. INMAN AND JAMES C. INMAN JR. (R)KAREN G. YOUNKINS & TERRY D. YOUNKINS	05-03-833-0107-0001	1.00
11	(S)JOHN C. WALES, SR. (R)JOHN C. WALES, SR. & BARBARA A. WALES	05-03-833-0110-0000	24.47
12	(S)MARLENE K. HULL (R)LAURA G. INMAN AND JAMES C. INMAN JR. (R)KAREN G. YOUNKINS & TERRY D. YOUNKINS	05-03-833-0108-0000	30.00
13	(S)DENZEL H. L. CONLEY & MARY LOU CONLEY (R)LAURA G. INMAN AND JAMES C. INMAN JR. (R)KAREN G. YOUNKINS & TERRY D. YOUNKINS	05-03-833-0108-0000	120.73

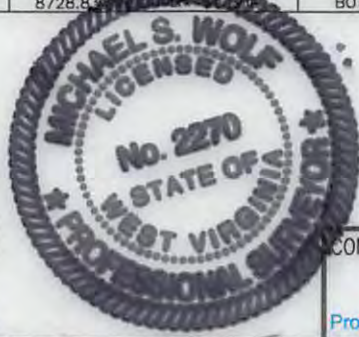
**SURFACE HOLE LOCATION (SHL):**  
UTM (NAD83, ZONE 17, METERS):  
NORTHING: 4,456,496.949  
EASTING: 537,707.098

**LANDING POINT LOCATION (LPL):**  
UTM (NAD83, ZONE 17, METERS):  
NORTHING: 4,456,539.021  
EASTING: 538,036.868

**BOTTOM HOLE LOCATION (BHL):**  
UTM (NAD83, ZONE 17, METERS):  
NORTHING: 4,454,045.307  
EASTING: 538,964.190

LINE	DESCRIPTION	DISTANCE	DESCRIPTION	MONUMENT
L1	N 43°04'25" W	38.81'	SHL TO 201H	EXISTING WELL HEAD
L2	N 68°10'56" W	36.00'	SHL TO 5H	EXISTING WELL HEAD
L3	N 70°19'04" W	3703.74'	SHL TO LANDMARK	IRF FOUND
L4	N 32°43'01" W	2697.75'	SHL TO LANDMARK	CONCRETE MONUMENT
L5	N 82°43'46" E	1090.69'	SHL TO LP	LANDING POINT
L6	S 20°23'54" E	8728.84'	SHL TO BH	BOTTOM HOLE

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 *[Signature]* 1/4/16

(+) 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 SURVEY SOURCE OF ELEVATION: GRADE GPS (NAVD 88, US FT)

COMPANY: **SWN** Production Company, LLC

RUSSELL HERVEY BRK  
OPERATOR'S WELL #: 210H  
API WELL #: 47 009 00173 H6A  
STATE COUNTY PERMIT

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

WATERSHED: BUFFALO CREEK ELEVATION: 1166'

DISTRICT: BUFFALO COUNTY: BROOKE QUADRANGLE: STEUBENVILLE EAST

SURFACE OWNER: RUSSELL D. HERVEY ACREAGE: ±37.84

OIL & GAS ROYALTY OWNER: RUSSELL D. HERVEY & LISA K. HERVEY ACREAGE: ±37.84

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: 5,902' TVD 15,182' 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

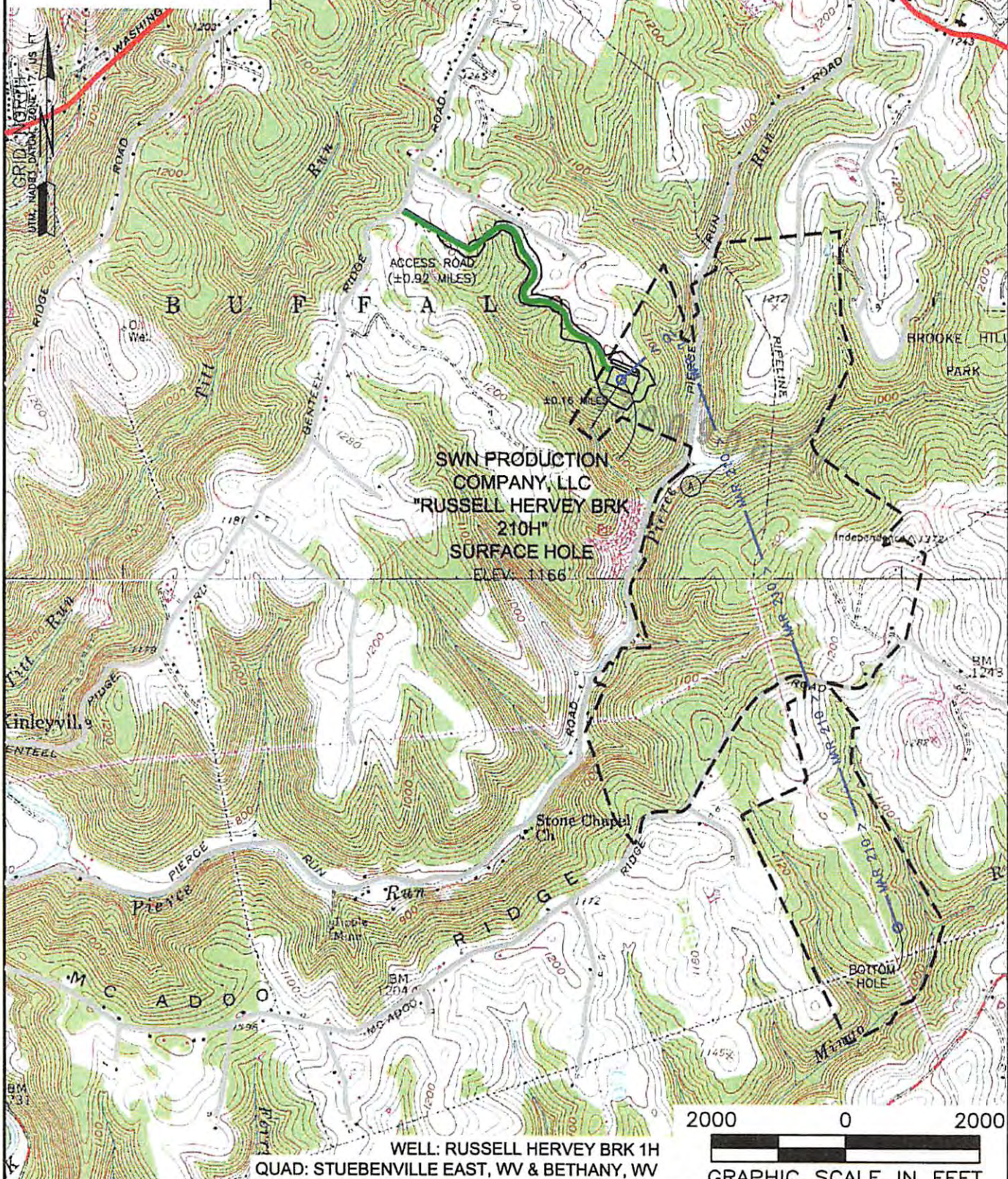
LEGEND:  
○ PROPOSED SURFACE HOLE / BOTTOM HOLE  
\* EXISTING / PRODUCING WELLHEAD  
- - - ABANDONED WELL  
- - - PLUGGED & ABANDONED WELL  
△ CUT CONDUCTOR

REVISIONS:  
- - - LEASE BOUNDARY  
- - - 500' DHP BUFFER  
- - - MAR 210 -> MARCELLUS DHP  
- - - ABANDONED PATH

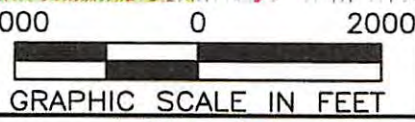
DATE: 01-04-2016  
SHEET 1 OF 2  
DRAWN BY: S. BRADY  
SCALE: 1" = 2000'  
DRAWING NO: 050-5495  
WELL LOCATION PLAT

# THRASHER

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



WELL: RUSSELL HERVEY BRK 1H  
QUAD: STUEBENVILLE EAST, WV & BETHANY, WV



<b>NAME AND DISTANCE TO THE NEAREST STREAM:</b> AN UN-NAMED TRIBUTARY TO PIERCE RUN IS LOCATED ±0.16 MILES SOUTHWEST OF THE CENTER OF THE DRILL PAD.		<b>COMPANY:</b> 	
<b>WELL RESTRICTIONS:</b> 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 LAGER THAN 2500 SQ FT: >625 FEET		<b>OPERATOR'S</b> RUSSELL HERVEY BRK <b>WELL #:</b> 210H <b>LOCATION:</b> BUFFALO DISTRICT, BROOKE COUNTY, WEST VIRGINIA <b>SURFACE HOLE LOCATION:</b> GEOGRAPHIC (NAD83): LATITUDE: 40.258084° LONGITUDE: -80.556583° <b>BOTTOM HOLE LOCATION:</b> GEOGRAPHIC (NAD83): LATITUDE: 40.235939° LONGITUDE: -80.541950°	
<b>FEMA FLOOD INFORMATION:</b> NO FLOOD ZONES.		DATE: 11-03-2015 DRAWN BY: S. BRADY SCALE: 1" = 2000' DRAWING NO: 050-5495 TOPOGRAPHIC MAP	
<b>LEGEND:</b> ○ PROPOSED SURFACE HOLE / BOTTOM HOLE ✖ EXISTING / PRODUCING WELLHEAD ✖ ABANDONED WELL ✖ PLUGGED & ABANDONED WELL △ CUT CONDUCTOR		<b>REVISIONS:</b> Received Office of Oil & Gas NOV 05 2015	
(S) EXISTING SPRING (W) EXISTING WATER WELL — ACCESS ROAD — ACCESS ROAD TO PREV. SITE — HIGHWAY/INTERSTATE — COUNTY ROAD		DATE: 11-03-2015 DRAWN BY: S. BRADY SCALE: 1" = 2000' DRAWING NO: 050-5495 TOPOGRAPHIC MAP	

01/15/2016