

# THRASHER

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

LINE	DESCRIPTION	DISTANCE	DESCRIPTION	MONUMENT
L1	S 85°54'43" W	45.72'	SHL TO 5H	EXISTING WELL HEAD
L2	S 76°29'09" W	34.53'	SHL TO 8H	EXISTING WELL HEAD
L3	N 70°37'36" W	3704.34'	SHL TO LANDMARK	IRF FOUND
L4	N 33°03'41" W	2686.06'	SHL TO LANDMARK	CONCRETE MONUMENT
L5	S 42°36'05" W	572.93'	SHL TO LP	LANDING POINT
L6	S 13°54'53" E	5835.31'	LP TO BHL	BOTTOM HOLE

### NOTES ON SURVEY

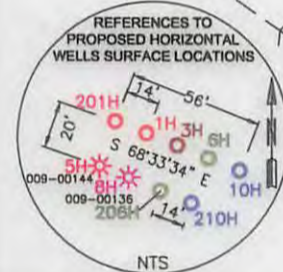
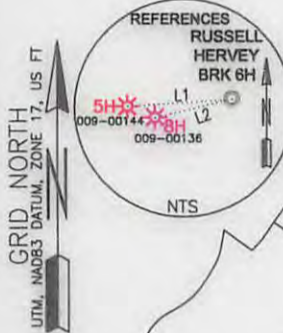
- COORDINATES SYSTEM IS UTM, NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
- SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND FIELD LOCATIONS.
- THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
- NO DWELLINGS AND BUILDINGS WITHIN 625 FEET OF PROPOSED OF 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 6H" SURFACE HOLE

ELEV: 1166'

TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL	ACRES
1	(S/R)RUSSELL D. HERVEY	05-03-828-0045-0000	37.84
2	(S/R)MICHAEL AND BARBARA WHITCO / PATRICIA GRAHAM	05-03-828-0043-0000	72.00
3	(S/R)STARTRAC INDUSTRIES, INC.	05-03-833-0025-0000	81.23
4	(S/R)PHOENIX-GREENLAWN PARTNERS, LP	05-03-833-0029-0000	93.50
5	(S/R)THEODORE E. AND MELISSA A. EATON	05-03-833-0026-0000	1.75
6	(S/R)JAMES H. STEWART AND PAMELA J. STEWART	05-03-833-0031-0000	141.68

TRACT	ADJOINER	PARCEL
A	WILLIAM JUDSON HERVEY, II	05-03-828-0045-0002
B	DONALD AND JANICE EATON	05-03-828-0057-0000
C	BERNARD J. KNORR, II AND NICOLE C. KNORR	05-03-828-0057-0002
D	BERNARD J. KNORR, II AND NICOLE C. KNORR	05-03-828-0058-0000
E	BROOKE COUNTY PARK COMMISSION	05-03-828-0064-0000
F	BROOKE COUNTY PARK COMMISSION	05-03-828-0060-0000
G	STARTRAC INDUSTRIES, INC.	05-03-833-0026-0000
H	STELLA MERRICK	05-03-833-0027-0000
I	PHOENIX-GREENLAWN PARTNERS, LP	05-03-833-0113-0000
J	BARBARA WALES	05-03-833-0110-0001
K	CHARLES L. AND LAURA J. MCGOWAN	05-03-833-0107-0001
L	CHARLES L. AND LAURA J. MCGOWAN	05-03-833-0107-0002
M	CHARLES L. AND LAURA J. MCGOWAN	05-03-833-0107-0003
N	CHARLES L. AND LAURA J. MCGOWAN	05-03-833-0107-0004
O	DON KOSEVIC, ET AL	05-03-833-0107-0000
P	JAMIE D. BURNS	05-03-833-0107-0005
Q	JAMIE D. BURNS	05-03-833-0107-0006
R	JOHN T. AND SALLY JEAN MILLER	05-03-833-0112-0000
S	HENRY E. DONLEY IV AND THORNE CARPHONE	05-03-833-0108-0000
T	MARGARET ELLYN CORBIN	05-03-833-0105-0000
U	CHARLES R. CORBIN, JR. AND MARGARET L. CORBIN	05-03-833-0104-0000
V	CHARLES R. CORBIN, JR.	05-03-833-0103-0000
W	CHARLES R. CORBIN, JR. AND MARGARET L. CORBIN	05-03-833-0102-0000
X	MELVIN AND DORIS GILBERTSON	05-03-833-0086-0000
Y	PHOENIX-GREENLAWN PARTNERS, LP	05-03-833-0035-0000
Z	PHOENIX-GREENLAWN PARTNERS, LP	05-03-833-0034-0000
AA	SHARON CUNNINGHAM	05-03-833-0030-0000
AB	DONALD M. AND JANICE F. EATON	05-03-833-0033-0000
AC	SHARON A. CUNNINGHAM	05-03-833-0033-0001
AD	SHARON A. CUNNINGHAM	05-03-833-0032-0000
AE	PHOENIX-GREENLAWN PARTNERS, LP	05-03-833-0040-0000
AF	PHOENIX-GREENLAWN PARTNERS, LP	05-03-833-0023-0000
AG	PHOENIX-GREENLAWN PARTNERS, LP	05-03-833-0024-0000
AH	DONNA M. SULLMAN	05-03-828-0022-0000
AI	MICHAEL WHITCO, ET AL	05-03-828-0029-0000
AJ	RANDY AND PATRICIA GRAHAM	05-03-828-0028-0001
AK	RANDY R. AND PATRICIA J. GRAHAM	05-03-828-0043-0000

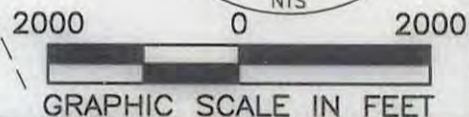


<b>SURFACE HOLE LOCATION (SHL):</b>
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,456,502.623 EASTING: 537,709.306
<b>LANDING POINT LOCATION (LPL):</b>
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,456,374.081 EASTING: 537,591.100
<b>BOTTOM HOLE LOCATION (BHL):</b>
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,454,647.669 EASTING: 538,018.819

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

*W.S. W. 1/4/16*

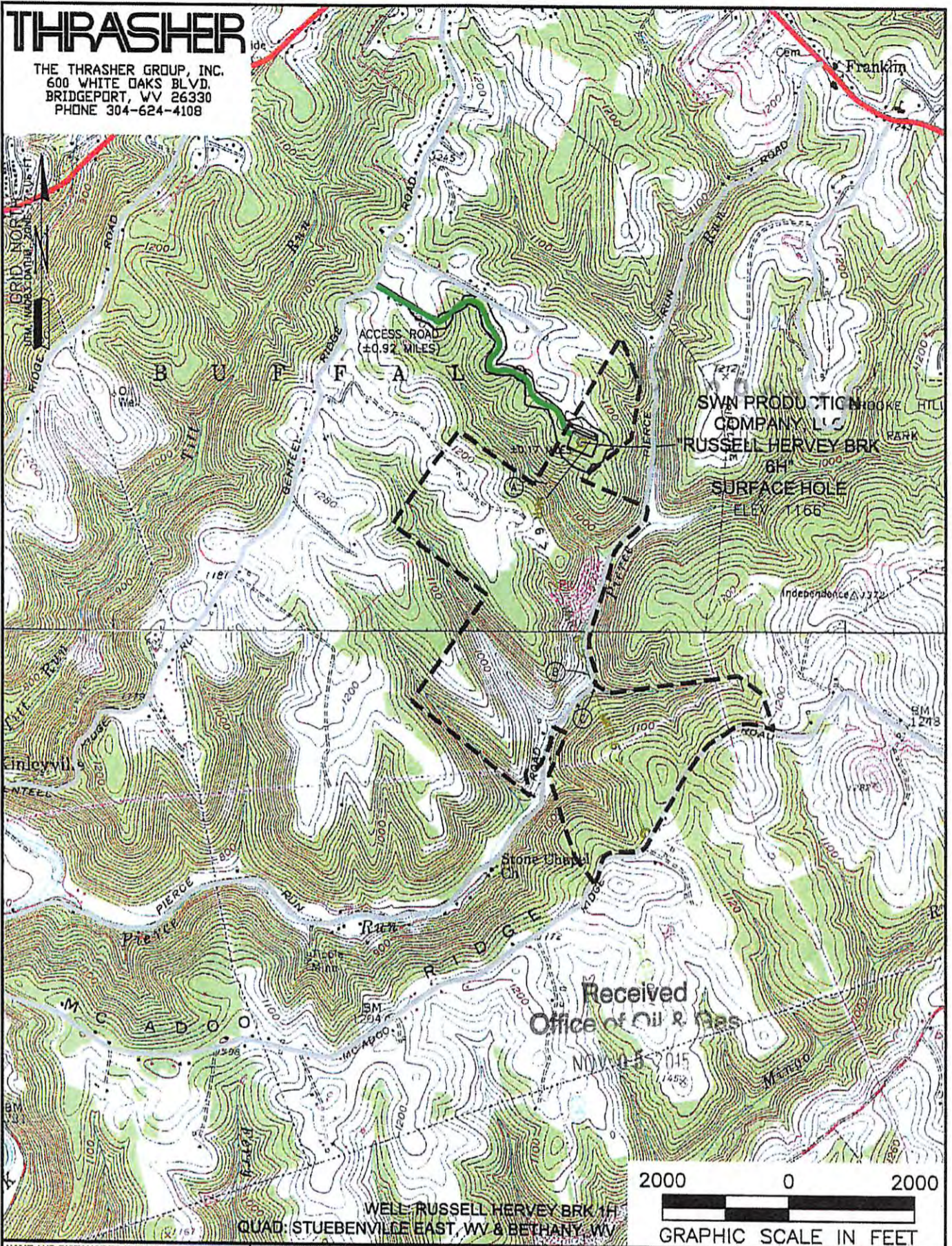


COMPANY: **SWN** Production Company, LLC

<p>(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS</p> <p>WVDEP OFFICE OF OIL &amp; GAS 601 57TH STREET CHARLESTON, WV 25034</p>	<p>MINIMUM DEGREE OF ACCURACY: 1/200</p> <p>PROVEN SOURCE OF SURVEY GRADE GPS ELEVATION: (NAVD 88, US FT)</p>	<p>COMPANY: <b>SWN</b> Production Company, LLC</p> <p>OPERATOR'S WELL #: 6H</p> <p>API WELL #: 47 009 00169 H6A STATE COUNTY PERMIT</p>
	<p>WELL TYPE: OIL <input type="checkbox"/> WASTE DISPOSAL <input type="checkbox"/> PRODUCTION <input type="checkbox"/> DEEP <input type="checkbox"/> GAS <input checked="" type="checkbox"/> LIQUID INJECTION <input type="checkbox"/> STORAGE <input type="checkbox"/> SHALLOW <input checked="" type="checkbox"/></p> <p>WATERSHED: BUFFALO CREEK</p> <p>DISTRICT: BUFFALO COUNTY: BROOKE</p> <p>SURFACE OWNER: RUSSELL D. HERVEY</p> <p>OIL &amp; GAS ROYALTY OWNER: RUSSELL D. HERVEY AND LISA K. HERVEY</p> <p>DRILL <input checked="" type="checkbox"/> DRILL DEEPER <input type="checkbox"/> REDRILL <input type="checkbox"/> FRACTURE OR STIMULATE <input checked="" type="checkbox"/> PLUG OFF OLD FORMATION <input type="checkbox"/> PERFORATE NEW FORMATION <input type="checkbox"/></p> <p>CONVERT <input type="checkbox"/> PLUG &amp; ABANDON <input type="checkbox"/> CLEAN OUT &amp; REPLUG <input type="checkbox"/> OTHER CHANGE <input type="checkbox"/> (SPECIFY)</p> <p>TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 5,883' TVD 12,247' TMD</p>	<p>RUSSELL HERVEY BRK</p> <p>ELEVATION: 1166'</p> <p>QUADRANGLE: STEUBENVILLE EAST &amp; BETHANY</p> <p>ACREAGE: ±37.84</p> <p>ACREAGE: ±37.84</p> <p>DATE: 01-15-2016</p>
<p>WELL OPERATOR: SWN PRODUCTION COMPANY, LLC</p> <p>ADDRESS: P.O. BOX 1300</p> <p>CITY: JANE LEW STATE: WV ZIP CODE: 26378</p>	<p>DESIGNATED AGENT: DEE SOUTHALL</p> <p>ADDRESS: P.O. BOX 1300</p> <p>CITY: JANE LEW STATE: WV ZIP CODE: 26378</p>	<p>REVISIONS:</p> <p>DATE: 01-04-2016</p> <p>DRAWN BY: E. LYTLE</p> <p>SCALE: 1" = 200'</p> <p>DRAWING NO: 050-5495</p> <p>WELL LOCATION PLAT</p>

# THRASHER

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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 ±0.17 MILES SOUTHWEST OF THE CENTER OF THE DRILL PAD.		<b>STREAM CROSSING COORDINATES (NAD 83):</b> A. LAT: 40.256354' / LONG: -80.558545' B. LAT: 40.248181' / LONG: -80.555953' C. LAT: 40.247666' / LONG: -80.555953'		<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 LARGER THAN 2500 SQ FT: >625 FEET		<b>OPERATOR'S</b> RUSSELL HERVEY BRK			
<b>FEMA FLOOD INFORMATION:</b> NO FLOOD ZONES.		<b>WELL #:</b> 6H		<b>LOCATION:</b> BUFFALO DISTRICT, BROOKE COUNTY, WEST VIRGINIA	
<b>LEGEND:</b> ○ 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		<b>SURFACE HOLE LOCATION:</b> GEOGRAPHIC (NAD83): LATITUDE: 40.258135' LONGITUDE: -80.556557'	
<b>REVISIONS:</b>		<b>BOTTOM HOLE LOCATION:</b> GEOGRAPHIC (NAD83): LATITUDE: 40.241409' LONGITUDE: -80.553027'		01/15/2016	
DATE: 11-03-2015		DRAWN BY: E. LYTLE		SCALE: 1" = 2000'	
DRAWING NO: 050-5495		TOPOGRAPHIC MAP		PROPERTY NUMBER 2501163264	
PAD ID 3001156180		TUESDAY NOVEMBER 03 2015 11:34AM		L:\050-5495-RUSSELL HERVEY BRK-SOUTHWESTERN ENERGY-SURVEY\RUSSELL HERVEY BRK 6H 10-27-2015.DWG	