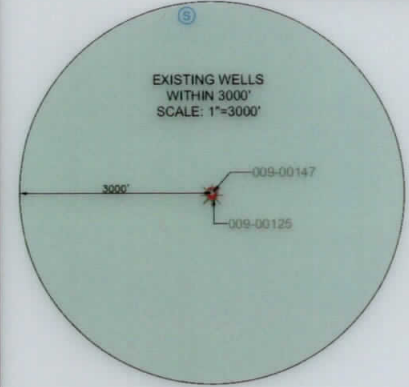
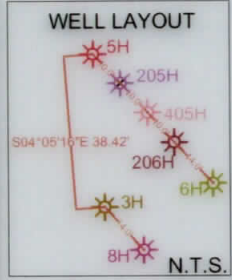


JHA Companies
ENGINEERS SURVEYORS ENVIRONMENTAL GIS MAPPING
 www.jhacompanies.com
 68011 Vineyard Road
 St. Clairsville, Ohio 43950
 740-695-6100

(2000' SCALE) LATITUDE: 40°20'00" SURFACE HOLE
 9797'

(2000' SCALE) LATITUDE: 40°22'30" BOTTOM HOLE
 2616'



LINE	BEARING	DISTANCE
L1	N30°01'26"W	1580.25'
L2	S15°52'26"W	1431.47'



SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4463508.51 EASTING: 539494.33
LANDING POINT LOCATION (LPL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4463545.62 EASTING: 539693.01
BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4466976.28 EASTING: 538119.48
SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4463508.51 EASTING: 539494.33
LANDING POINT LOCATION (LPL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4463562.15 EASTING: 539691.53
TURNING POINT LOCATION (TPL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4465270.59 EASTING: 538802.08
BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4466977.07 EASTING: 538121.89

- NOTES ON SURVEY**
- COORDINATE 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/OR FIELD LOCATIONS.
 - THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
 - NO DWELLINGS OR BUILDINGS WITHIN 625 FEET OF PROPOSED CENTER OF PAD.
 - 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 THE LIMITS OF DISTURBANCE.
 - NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.



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. 2041

COMPANY: **SWN** Production Company, LLC

(+) 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)	STATE OF WV DNR A OPERATOR'S WELL #: BRK 5H API WELL #: 47 009 304 STATE COUNTY PERMIT
---	--	---

WELL TYPE: OIL	WASTE DISPOSAL	PRODUCTION <input checked="" type="checkbox"/>	DEEP	GAS <input checked="" type="checkbox"/>	LIQUID INJECTION	STORAGE	SHALLOW <input checked="" type="checkbox"/>
WATERSHED: UPPER OHIO NORTH				ELEVATION: 1140.0'			
DISTRICT: CROSS CREEK				COUNTY: BROOKE			
SURFACE OWNER: STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DNR				QUADRANGLE: STEUBENVILLE EAST, OH			
OIL & GAS ROYALTY OWNER: STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DNR				ACREAGE: ±97.50			
				ACREAGE: ±97.50			
DRILL	DRILL DEEPER	REDRILL	FRACTURE OR STIMULATE	PLUG OFF OLD FORMATION	PERFORATE NEW FORMATION		
CONVERT	PLUG & ABANDON		CLEAN OUT & REPLUG	OTHER CHANGE <input checked="" type="checkbox"/> (SPECIFY) AS-DRILLED			
TARGET FORMATION: MARCELLUS				ESTIMATED DEPTH: 5,717' TVD 18,617' TMD			

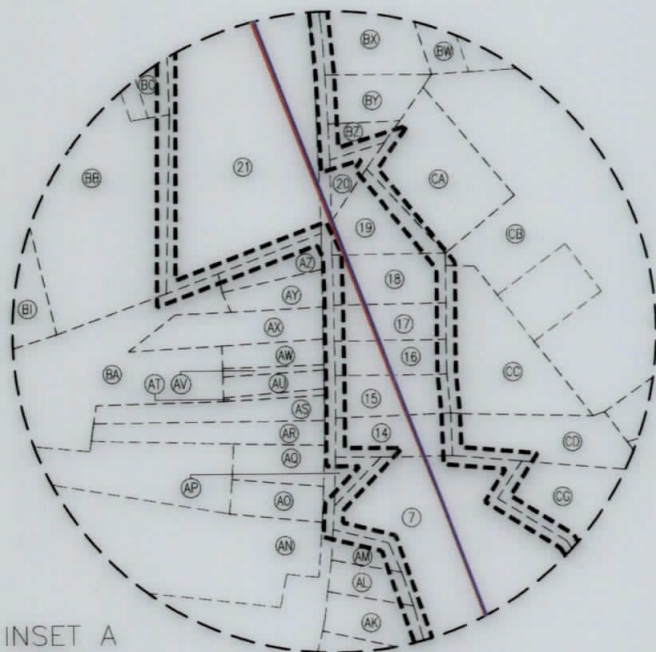
WELL OPERATOR: SWN PRODUCTION COMPANY, LLC	DESIGNATED AGENT: BRITTANY WOODY
ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201	ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201
CITY: MORGANTOWN STATE: WV ZIP CODE: 26508	CITY: MORGANTOWN STATE: WV ZIP CODE: 26508

LEGEND:

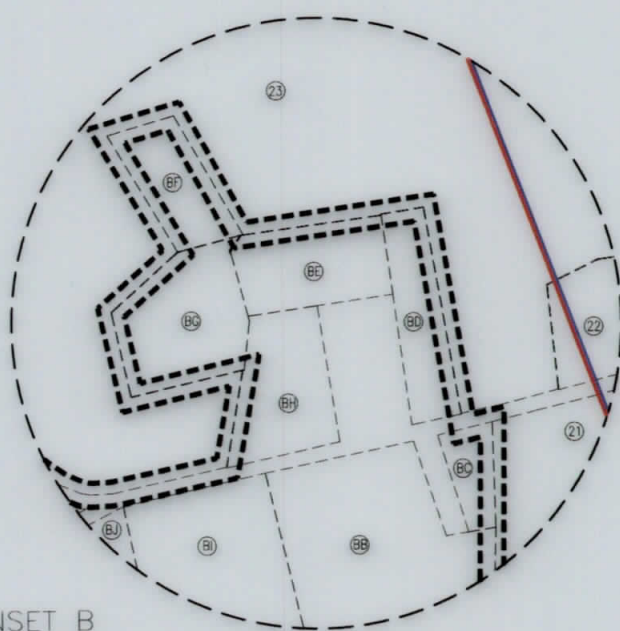
EXISTING BOTTOM HOLE	ACCESS ROAD
EXISTING / PRODUCING WELLHEAD	PUBLIC ROAD
EXISTING LANDING POINT LOCATION	FLOOD PLAIN
PROPOSED SURFACE HOLE / BOTTOM HOLE	LEASE BOUNDARY
PROPOSED LANDING POINT LOCATION	AS DRILLED PATH
	PROPOSED PATH

REVISIONS:	DATE: 04-07-2021
	API NO: 47-009-00304
	DRAWN BY: R. GRIMES
	SCALE: 1" = 3000'
	DRAWING NO: 2019-0789
	WELL LOCATION PLAT

4432'
 8207'
 (2000' SCALE) LONGITUDE: 80°30'00" SURFACE HOLE
 (2000' SCALE) LONGITUDE: 80°32'30" BOTTOM HOLE



INSET A
N.T.S.



INSET B
N.T.S.

WELL BORE TABLE FOR SURFACE / ROYALTY OWNERS		
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL
1	STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DIVISION OF NATURAL RESOURCES, PUBLIC LAND CORPORATION FOR THE USE AND BENEFIT OF THE WILDLIFE RESOURCES SECTION (S/R)	04-CC16-0007.0001
TRACT	SURFACE OWNER	TAX PARCEL
2	STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DIVISION OF NATURAL RESOURCES, PUBLIC LAND CORPORATION FOR THE USE AND BENEFIT OF THE WILDLIFE RESOURCES SECTION	04-CC16-0008.0001
3	THE PALFALVY IRREVOCABLE TRUST (DENNIS PALFALVY, III)	04-CC16-0005.0000
4	RONALD ALLEN REED	04-CC16-0004.0000
5	PAUL MAROSI	04-CC16-0001.0000
6	LAURA J. & STUART STEUDEBAKER	04-C150-0030.0000
7	DAVID L. & CHERYL D. MILL	04-C11S-0058.0000
8	WALTER & MARJORIE JESKIEWICZ	04-C150-0016.0000
9	ROBERT W. HARBIN	04-C11S-0051.0000
10	PATRICIA I. GOLDSMITH	04-C11S-0052.0000
11	NICOLE E. LONG	04-C11S-0053.0000
12	JASON M. & JENNIFER D. KAZMIRSKI (SURVIVOR)	04-C11S-0054.0000
13	WRIGHT FAMILY TRUST 12/10/13 (DOUG & PENNY WRIGHT TRUSTEES)	04-C11S-0055.0000
14	DENNIS CALVIN GOOCH	04-C11S-0085.0000
15	FREDERICK E. WELSHANS	04-C11S-0086.0000
16	ANGELA C. CALVARESE	04-C11S-0087.0000
17	ROBERT B. & BETTY EILEEN WYKE	04-C11S-0088.0000
18	DAVID P. MELLISH	04-C11M-0035.0000
19	DAVID LANCASTER	04-C11M-0032.0000
20	CHAD A. & CHRISTINA M. RICCELLI (L/E: ROSE ANN RICCELLI)	04-C11M-0031.0000
21	ST. JOHN'S CEMETERY ASSOCIATION	04-C11M-0039.0000
22	ST. JOHN'S EPISCOPAL CHURCH	04-C11M-0003.0000
23	MARK JR. & MARY SECRIST (SURVIVOR)	04-C11M-0001.0000

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
A	STATE OF WEST VIRGINIA, DIVISION OF NATURAL RESOURCES	04-CC16-0006.0000
B	LENORA J. RINEHART	04-CC15-0074.0000
C	LARRY E. REED	04-CC15-0068.0001
D	REED GEHRING FAMILY TRUST, DATED 10/17/2008	04-CC16-0032.0000
E	GORDON KIGER	04-C15H-0013.0000
F	FRANK & CYNTHIA PAESANO	04-C15H-0014.0000
G	MIKE E. & MARY E. BAILEY	04-C15H-0015.0000
H	DALE W. GAYNOR, JR.	04-C15H-0016.0000
I	DELONG FAMILY KEYSTONE TRUST (VAL JEAN DELONG, TRUSTEE)	04-C15D-0040.0000
J	GLENN THOMPSON	04-C15D-0037.0000
K	JOSEPH A. BIRMINGHAM, JR.	04-C15D-0030.0002
L	CHARLES L. & CYNTHIA WILLIAMSON	04-C15D-0031.0000
M	DOUGLAS SWAIN	04-C15D-0030.0003
N	SHAFFER FAMILY IRREVOCABLE TRUST (INCOME ONLY TRUST)	04-C15D-0027.0000
O	TROY LUCAS	04-C15D-0025.0000
P	TROY LUCAS	04-C15D-0022.0000
Q	CHRISTOPHER E. SMITH	04-C15D-0020.0000
R	JESSE J. BURDINE	04-C15D-0019.0000
S	ROBERTA L. ROGOWSKI (REVOCABLE TRUST)	04-C15D-0014.0000
T	WALTER & MARJORIE JESKIEWICZ	04-C15D-0015.0000
U	DAVID L. & KAREN K. DULANEY (IRREVOCABLE TRUST)	04-C15D-0017.0000
V	DAMON R. MCCORD	04-C15D-0045.0000
W	WILLARD E. & NORMA D. SCOTT	04-C11S-0049.0000
X	JAMES E. & JOYCE M. CRAFT	04-C11S-0048.0000
Y	MICHAEL F. & PATRICIA BRADLEY	04-C11S-0047.0000
Z	JAMES A. CLARK	04-C11S-0056.0000
AA	ROBERT A. WYATT	04-C11S-0057.0000
AB	JEFFREY S. DULANEY	04-C11S-0046.0000
AC	HELEN T. CARBASHO	04-C11S-0045.0000
AD	ROBERTA L. ROGOWSKI (REVOCABLE TRUST)	04-C11S-0044.0000
AE	WILLIAM C. & BARBARA J. WILHARM (SURVIVOR)	04-C11S-0063.0000
AF	WILLIAM C. & BARBARA J. WILHARM (SURVIVOR)	04-C11S-0062.0000
AG	NEIL C. & LINDA S. STEWART (SURVIVOR)	04-C11S-0061.0000
AH	NEIL C. & LINDA S. STEWART (SURVIVOR)	04-C11S-0060.0000
AI	CHARLES E. & DEBORA HENDERSHOT	04-C11S-0059.0000

08/27/2021

REVISIONS:

COMPANY:

OPERATOR'S

WELL #:

DISTRICT:

CROSS CREEK

SWN
Production Company, LLC

STATE OF WV DNR A
BRK 5H

COUNTY:
BROOKE

STATE:
WV

DATE: 04-07-2021

API NO: 47-009-00304

DRAWN BY: R. GRIMES



SCALE: N/A

DRAWING NO: 2019-0789

WELL LOCATION PLAT

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
AJ	SHARON K. MICHAELSON	04-C11S-0080.0000
AK	SHARON K. MICHAELSON	04-C11S-0081.0000
AL	ANNA BELLE BRYANT	04-C11S-0082.0000
AM	UNITED PRESBYTERIAN CHURCH	04-C11S-0083.0000
AN	PROPERTY SERVICES LLC	04-C11S-0010.0000
AO	WILLIAM A. & VICKY L. HERCULES (SURVIVOR)	04-C11S-0009.0000
AP	MARY ANN MARTIN	04-C11S-0084.0000
AQ	WILLIAM A. & VICKY L. HERCULES (SURVIVOR)	04-C11S-0008.0000
AR	BEVERLY K. CLIFTON	04-C11S-0007.0000
AS	ANTHONY & DIANE P. PAOLISSO	04-C11S-0006.0000
AT	ANTHONY & DIANE P. PAOLISSO (SURVIVOR)	04-C11S-0005.0001
AU	KEVIN L. & SHARON E. HARMS	04-C11S-0005.0000
AV	HELEN P. SMITH	04-C11S-0004.0000
AW	HELEN P. SMITH	04-C11S-0003.0000
AX	RANDY L. GASTON	04-C11S-0002.0000
AY	DAVID A., RANDY L., LARY J., & DENISE O. GASTON	04-C11M-0037.0000
AZ	RICHARD K. RAINERI	04-C11M-0038.0000
BA	ST. JOHN'S CEMETERY CO.	04-C11S-0001.0000
BB	ST. JOHN'S CEMETERY ASSOCIATION	04-C11M-0039.0000
BC	RICHARD S. & SANDRA BARBER	04-C11M-0040.0000
BD	MARK C. SECRIST JR.	04-C11M-0002.0000
BE	LYNN M. CAREY	04-C11M-0001.0003
BF	MARK C. JR & MARY E. SECRIST (SURVIVOR)	04-C11M-0001.0005
BG	JEFFREY L. & TAMARA L. HAIR	04-C11M-0001.0002
BH	MARK C. & MARY E. SECRIST (JTWS)	04-C11M-0001.0004
BI	ST. JOHN'S CEMETERY ASSOCIATION	04-C11L-0013.0000
BJ	MARIETTA COLLEGE	04-C11L-0014.0000
BK	BRIAN E. & CAITLIN E. SIMMONS	04-C11L-0018.0000
BL	DEBORAH L. KAUL	04-C11L-0019.0000
BM	DEBORAH L. KAUL	04-C11L-0020.0000
BN	JOHN C. & FRANCENE FORTE KAVANAUGH	04-C11L-0021.0000
BO	JOSEPH A. ADAMS JR. & ERIN BILLINGSLEY (SURVIVOR)	04-C11L-0095.0000
BP	SARA R. LANIGAN	04-C11L-0012.0000
BQ	SUSAN GRIFFITH, BETH MCBRIDE, & WYLIE MCBRIDE JR.	04-CC11-0083.0000
BR	LINDA BURDISS	04-CC11-0084.0000
BS	LINDA BURDISS	04-CC11-0085.0000
BT	MARK C. SECRIST JR. & MARY E. SECRIST (SURVIVOR)	04-C11M-0005.0000
BU	TRUSTEES OF THE OLDE ST. JOHN'S EPISCOPAL CHURCH	04-C11M-0005.0003
BV	GERALD E. GOURLEY	04-C11M-0004.0000
BW	BARBARA MCVICKER & MARIA FRANCIS	04-C11M-0027.0000
BX	PAUL MAROSI	04-C11M-0028.0000
BY	PAUL MAROSI	04-C11M-0029.0000
BZ	CHAD A. & CHRISTINA M. RICCELLI (L/E: ROSE ANN RICCELLI)	04-C11M-0030.0000
CA	LAWRENCE V. & LISA L. PERRONE (SURVIVOR)	04-C11M-0033.0000
CB	PETREL IRREVOCABLE TRUST 7/25/13 (NANCY PETREL, TRUSTEE)	04-C11M-0034.0000
CC	DAVID P. MELLISH	04-C11S-0089.0000
CD	ANGELA CASTELLANO CALVARESE	04-C11S-0090.0000
CE	RONALD C. BOTTORF II	04-C11S-0091.0000
CF	RONALD C. BOTTORF II	04-C11S-0092.0000
CG	SHAWN A. DENNIS	04-C12J-0033.0000
CH	TAWNIA R. DENNIS	04-CC12-0062.0000
CI	MATTHEW C. & HOLLY W. LEWIS (SURVIVOR)	04-CC12-0054.0001
CJ	NEIL E. VANCAMP JR. & MICHELLE L. VANCAMP (SURVIVOR)	04-CC16-0028.0000
CK	WILLIAM RICHARD WILLS	04-CC16-0033.0000
CL	LAWRENCE & JILL MAZZELLA	04-CC16-0025.0000
CM	RALPH A. BRADY II & JOYCE ANN JOHNSTON (SURVIVOR)	04-CC16-0003.0000
CN	RALPH A. BRADY II & JOYCE ANN JOHNSTON (SURVIVOR)	04-CC16-0002.0000
CO	RICHARD B. GASVODA	04-CC16-0001.0001
CP	RICHARD B. GASVODA	04-CC16-0001.0004
CQ	DENNIS MOLNAR SR. & DENNIS MOLNAR JR.	04-CC16-0013.0000
CR	STATE OF WEST VIRGINIA, DIVISION OF NATURAL RESOURCES	04-CC16-0012.0000
CS	STATE OF WEST VIRGINIA, DIVISION OF NATURAL RESOURCES	04-CC16-0010.0000
CT	TERRY A. DAMI ETAL (L/E: JOSEPH T. & LOIS C DAMI)	04-CC16-0009.0000
CU	STATE OF WEST VIRGINIA, DIVISION OF NATURAL RESOURCES	04-CC16-0011.0000
CV	STATE OF WEST VIRGINIA, DIVISION OF NATURAL RESOURCES	04-CC16-0023.0001
CW	STATE OF WEST VIRGINIA, DIVISION OF NATURAL RESOURCES	04-CC16-0023.0000
CX	STATE OF WEST VIRGINIA, DIVISION OF NATURAL RESOURCES	04-CC16-0008.0000
CY	STATE OF WEST VIRGINIA, DIVISION OF NATURAL RESOURCES	04-CC20-0046.0000
CZ	STATE OF WEST VIRGINIA, DIVISION OF NATURAL RESOURCES	04-CC20-0025.0000
DA	STATE OF WEST VIRGINIA, DIVISION OF NATURAL RESOURCES	04-CC20-0025.0001
DB	COLLIERS SPORTSMAN CLUB	04-CC20-0024.0000
DC	COLLIERS SPORTSMAN CLUB	04-CC20-0045.0000
DD	FREDA M. DUNN & ROBERT SAUNDRA (L/E: FREDA DUNN)	04-CC20-0001.0000
DE	DAVID C DAMI	04-CC20-0001.0001

08/27/2021

REVISIONS:	COMPANY: 			
	OPERATOR'S STATE OF WV DNR A		DATE: 04-07-2021	
	WELL #: BRK 5H		API NO: 47-009-00304	
	DISTRICT: CROSS CREEK	COUNTY: BROOKE	STATE: WV	SCALE: N/A
				DRAWING NO: 2019-0789
				WELL LOCATION PLAT