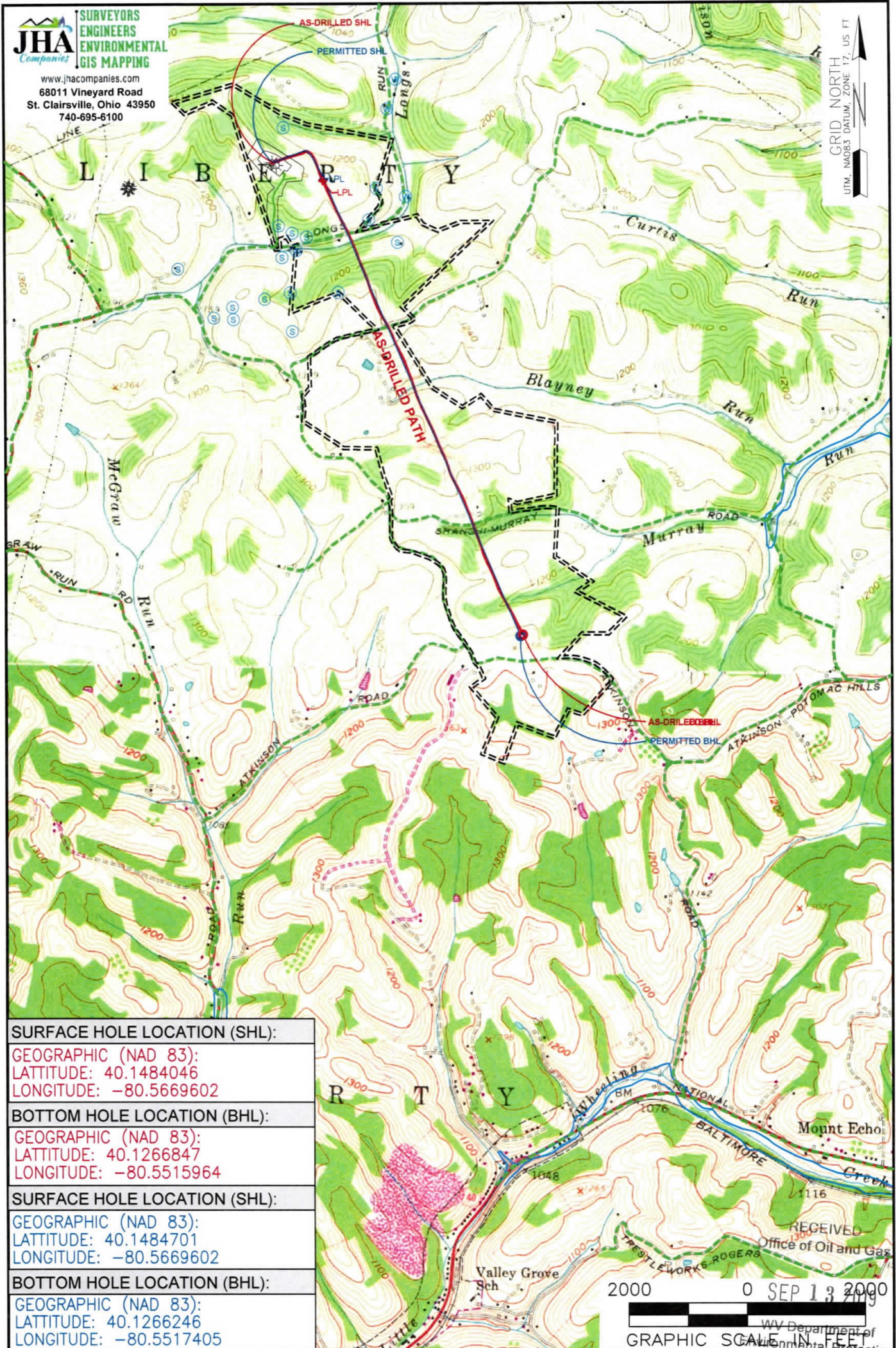


JHA Companies
**SURVEYORS
 ENGINEERS
 ENVIRONMENTAL
 GIS MAPPING**
 www.jhacompanies.com
 68011 Vineyard Road
 St. Clairsville, Ohio 43950
 740-695-6100

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



SURFACE HOLE LOCATION (SHL):
GEOGRAPHIC (NAD 83): LATITUDE: 40.1484046 LONGITUDE: -80.5669602
BOTTOM HOLE LOCATION (BHL):
GEOGRAPHIC (NAD 83): LATITUDE: 40.1266847 LONGITUDE: -80.5515964
SURFACE HOLE LOCATION (SHL):
GEOGRAPHIC (NAD 83): LATITUDE: 40.1484701 LONGITUDE: -80.5669602
BOTTOM HOLE LOCATION (BHL):
GEOGRAPHIC (NAD 83): LATITUDE: 40.1266246 LONGITUDE: -80.5517405

2000 0 SEP 13 2009
 WV Department of Environmental Protection
 RECEIVED
 Office of Oil and Gas
 GRAPHIC SCALE IN FEET

NOTES ON SURVEY
 1. 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.
 2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
 3. ALL INSETS ARE GRID NORTH UNLESS OTHERWISE DEPICTED.

LEGEND:

● EXISTING BOTTOM HOLE	— ACCESS ROAD
☼ EXISTING / PRODUCING WELLHEAD	- - - PUBLIC ROAD
LPL ✕ EXISTING LANDING POINT LOCATION	⬭ FLOOD PLAIN
● PROPOSED SURFACE HOLE / BOTTOM HOLE	— LEASE BOUNDARY
LPL ✕ PROPOSED LANDING POINT LOCATION	— AS-DRILLED PATH
	— PROPOSED PATH

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC	WELL (FARM) NAME: MICHAEL RATCLIFFE UD OHI	WELL # 7H	SERIAL # XXXX
ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201, MORGANTOWN, WV 26508	COUNTY - CODE OHIO - 069	DISTRICT; LIBERTY	
SURFACE OWNER: MICHAEL T. RATCLIFFE	USGS 7 1/2 QUADRANGLE MAP NAME BETHANY, WV		

LATITUDE: 40°10'00" SURFACE HOLE

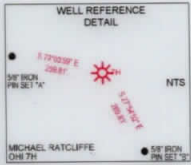
7076'

LATITUDE: 40°10'00" BOTTOM HOLE

2798'

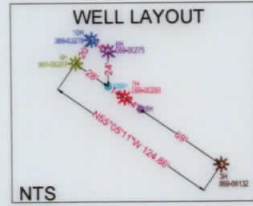


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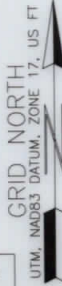


NOTES ON SURVEY

- 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.



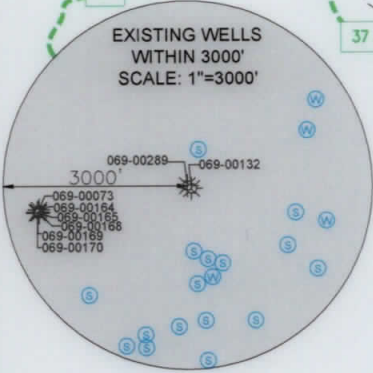
LINE	BEARING	DISTANCE
L1	N64°31'48"W	844.14'
L2	N02°29'28"W	1425.72'



LONGITUDE: -80°32'30" BOTTOM HOLE

6656'

LONGITUDE: -80°32'30" SURFACE HOLE



SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4444318.76 EASTING: 536884.06
LANDING POINT (LPL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4444230.21 EASTING: 537144.52
BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4441914.48 EASTING: 538204.83
SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4444318.76 EASTING: 536884.06
LANDING POINT (LPL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4444237.48 EASTING: 537149.68
BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4441907.75 EASTING: 538192.59

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



2000 0 2000

GRAPHIC SCALE IN FEET

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

MICHAEL RATCLIFFE UD
OPERATOR'S WELL #: OHI 7H

API WELL #: 47 STATE 069 COUNTY 289 PERMIT

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

WATERSHED: OHIO UPPER SOUTH ELEVATION: 1,281.3'

DISTRICT: LIBERTY COUNTY: OHIO QUADRANGLE: BETHANY, WV

SURFACE OWNER: MICHAEL T. RATCLIFFE ACREAGE: ±55.835

OIL & GAS ROYALTY OWNER: MICHAEL T. RATCLIFFE ACREAGE: ±55.835

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

CONVERT PLUG & ABANDON CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY) AS-DRILLED

TARGET FORMATION: BURKET ESTIMATED DEPTH: 6,262' TVD 14,936' TMD

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC ADDRESS: 1300 FORT PIERPONT DRIVE CITY: MORGANTOWN STATE: WV ZIP CODE: 26508

DESIGNATED AGENT: BRITTANY WOODY ADDRESS: 1300 FORT PIERPONT DRIVE CITY: MORGANTOWN STATE: WV ZIP CODE: 26508



LEGEND:

REVISIONS: DATE: 09-06-2019

DRAWN BY: D. REED
SCALE: 1" = 2000'
DRAWING NO: 2017-637
WELL LOCATION PLAT

WELL BORE TABLE FOR SURFACE / ROYALTY OWNERS		
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL
1	MICHAEL T. RATCLIFFE (S/R)	03-L5-12.4
TRACT	SURFACE OWNER	TAX PARCEL
2	TRAVIS C. RATCLIFFE	03-L5-12
3	JOSEPH G. PRINCE	03-L5-25
4	DONALD D. PRINCE	03-L5-24
5	SUSAN NORTHWOOD SMITH & RICHARD ALAN SMITH	03-L5-23.1
6	WALTER W. KNOLLINGER, JR. & MONA DEE KNOLLINGER	03-L5-23.4
7	DONALD L. & DEBORAH JO WADDELL	03-L5-23.6
8	DONALD L. & DEBORAH JO WADDELL	03-L5-23
9	BERNARD T. & MARJORIE A. RAAB	03-L8-7
10	ROBERT C. JONES	03-L8-11

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
A	JOSEPH P. & SHIRLEY J. TAGGART	03-L5-3
B	DONALD F. & J.L. DOLENCE	03-L5-11
C	TRAVIS CHRISTOPHER RATCLIFFE	03-L5-12.1
D	JOSEPH G. PRINCE & DONALD D. PRINCE	03-L5-11.2
E	GEORGE F. SMITH	03-L5-27
F	DALE R. & JACKIE A. RITCHEA	03-L5-23.2
G	GLENN A. DILLE	03-L8-9.7
H	NEAL P. BROWN	03-L8-9.6
I	PETER, JR. & D.J. COTTAGE, THE COTTAGE FAMILY REV TRUST)	03-L8-8
J	DONALD L. & D.J. WADDELL	03-L8-39
K	SCOTT A. & JILL L. DILLE	03-L8-9.3
L	GEORGE E., III & M.A. PORTER	03-L8-9.5
M	ROBERT F. & N.C. REASS	03-L9-1
N	JODY LEE SHILLING	03-L8-10
O	RANDY J. CREIGHTON	03-L8-11.2
P	PAUL A. MAIN	03-L8-10.1
Q	RICHARD C. & K.J. WHEAT	03-L8-10.2
R	DAVID E. DAVIS, JR.	03-L8-35
S	ROBERT C. JONES	03-L8-11.1
T	ROBERT A. SHILLING, SR.	03-L8-33.9
U	JOSEPH T. KLUG	03-L8-34.1
V	ROBERT A. SHILLING, SR.	03-L8-33
W	THOMAS P. & TERESA HUDRLIK	03-L8-12.12
X	BILL RAILING	03-L8-12.8
Y	VICKI L. & DANIEL P. TUSTIN	03-L8-12.6
Z	DANIEL P. TUSTIN, JR.	03-L8-12.9
AA	DANIEL PAUL TUSTIN, JR.	03-L8-12.11
AB	RICHARD R. & L.L. BLOOMFIELD	03-L8-12.10
AC	BARNETT E. & LAURIE L. BECK	03-L8-12.5
AD	KATHY J. HUNTER	03-L8-6
AE	A.R. & Z.I. NIXON	03-L8-5
AF	JENNIFER G. BURROWS	03-L8-4.1
AG	DAVID PAUL & DAWN M. DOYLE	03-L8-4
AH	RICHARD C. LINK (LIFE ESTATE: ROBERT W., JR. & D.M. LINK)	03-L5-22.6
AI	DAVID A. WADDELL	03-L5-23.5
AJ	EDWARD & ELIZABETH LINK	03-L5-23.7
AK	JASON & RACHEL MILLER	03-L5-23.3
AL	EDWARD R. & ELIZABETH A. LINK	03-L5-22
AM	MICHAEL T. RATCLIFFE	03-L5-12.3
AN	CASEY P. & DEVAN M. YOUNG	03-L5-13
AO	MARK & ANNELIESE KAUFMAN	03-L5-1.1

REVISIONS:	COMPANY:		 	
	OPERATOR'S		MICHAEL RATCLIFFE UD	
	WELL #:		OHI 7H	
	DISTRICT:	COUNTY:	STATE:	DATE: 09-06-2019
	LIBERTY	OHIO	WV	DRAWN BY: D. REED
				SCALE: N/A
				DRAWING NO: 2017-637
				WELL LOCATION PLAT