



320 O'Bryan Lane • Van Buren, AR 72956
Office: 479.474.7916 • Fax: 479.474.2450
Surveying • handa-inc.com

LINE	DESCRIPTION	DISTANCE	DESCRIPTION	MONUMENT
L1	N 73°30'22" W	1306.76'	SHL TO LANDMARK	5/8" REBAR
L2	S 47°00'40" W	845.32'	SHL TO LANDMARK	5/8" REBAR
L3	S 70°52'58" W	1205.19'	SHL TO TPL	
L4	N 45°18'24" W	7198.46'	TPL TO BHL	
L5	N 67°46'07" E	311.21'	SHL TO REF. PNT.	5/8" REBAR
L6	S 64°33'24" W	227.00'	SHL TO REF. PNT.	5/8" REBAR

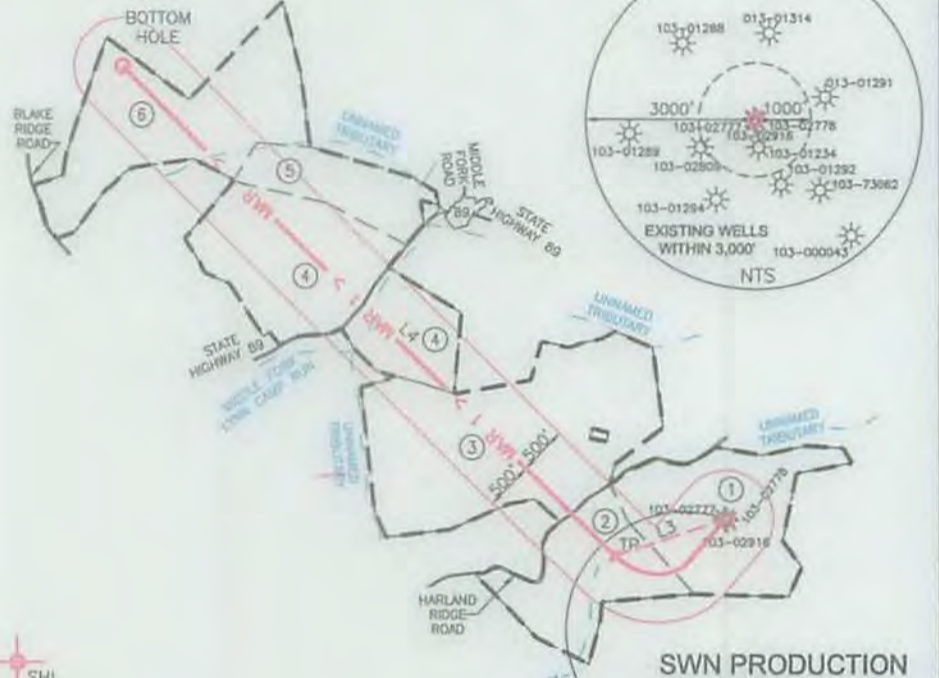
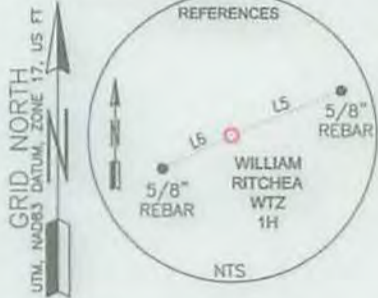
Latitude: 39°42'30"

Longitude: 80°37'30"

NOTES ON SURVEY

- COORDINATES SYSTEM IS UTM, MAD 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 1000 FEET OF THE LIMITS OF DISTURBANCE.
- NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.

TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL	ACRES	LEASE NUMBER
1	WILLIAM D RITCHEA & SHIRLEY E RITCHEA (S/R)	12-15-21	62.00	WV-0000113-000
2	WILLIAM R PITOSCIA (S) TASA CORPORATION (R) HERBERT W LINDSAY & MARIE LINDSAY (R) RUSSELL RAND & GWENDOLYN RAND (R)	12-14-27	57.00	WV-0000109-001 WV-0000109-002 WV-0000109-003
3	WILLIAM R PITOSCIA (S) TASA CORPORATION (R) HERBERT W LINDSAY & MARIE LINDSAY (R) RUSSELL RAND & GWENDOLYN RAND (R)	12-14-16	104.01	WV-0000109-001 WV-0000109-002 WV-0000109-003
4	MICHAEL E LASURE & VELVA C LASURE (S) RAY C HERMAN & DAIL A HERMAN (R)	12-14-6	22.84	1-254831-000
4	MICHAEL E LASURE & VELVA C LASURE (S) RAY C HERMAN & ROSE M HERMAN (R) DAIL A HERMAN (R)	12-14-6	52.89	WV-0000128-000
5	WAYNE HUGGINS & SANDRA M HUGGINS (S) F E BUCHNER (R), WILLARD HERMAN (R), DALE A HERMAN (R), RAY C HERMAN (R), DORA HALL PALMER (R), & FRANKIE E WOODSTUFF & ALBERT WOODSTUFF (R)	12-9-46.1	25.00	1-264519-000
6	NORMAN E KEENEY JR & NANCY M KEENEY (S) OTIS SIMMONS & MABEL SIMMONS (R), ETHEL RAMSEY & ELMER RAMSEY (R), & HAROLD SIMMONS & ROXIE SIMMONS (R)	12-9-45	100.00	1-254812-000

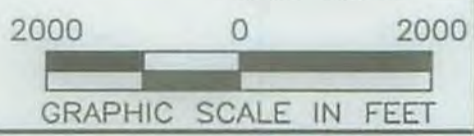


SURFACE HOLE LOCATION (SHL):	
GEOGRAPHIC (NAD83):	
LATITUDE: 39.669602°	LONGITUDE: -80.659388°
UTM (NAD83, ZONE 17, FEET):	
NORTHING: 14,406,607.496	EASTING: 1,736,263.613
UTM (NAD83, ZONE 17, METERS):	
NORTHING: 4,391,142.747	EASTING: 529,214.208
"TURNING POINT" LOCATION (TPL):	
GEOGRAPHIC (NAD83):	
LATITUDE: 39.668530°	LONGITUDE: -80.663438°
UTM (NAD83, ZONE 17, FEET):	
NORTHING: 14,406,212.981	EASTING: 1,735,125.419
UTM (NAD83, ZONE 17, METERS):	
NORTHING: 4,391,022.499	EASTING: 528,867.285
BOTTOM HOLE LOCATION (BHL):	
GEOGRAPHIC (NAD83):	
LATITUDE: 39.682748°	LONGITUDE: -80.681550°
UTM (NAD83, ZONE 17, FEET):	
NORTHING: 14,411,273.366	EASTING: 1,730,010.595
UTM (NAD83, ZONE 17, METERS):	
NORTHING: 4,392,564.907	EASTING: 527,308.284

SURVEYED BY TRIPLE H ENTERPRISES, WEST UNION, WV.



SWN PRODUCTION COMPANY, LLC
"WILLIAM RITCHEA WTZ 1H"
SURFACE HOLE
ELEV: 1563.3'



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. 667 *Darrell Boice*

	(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS	MINIMUM DEGREE OF ACCURACY: 1/200	WILLIAM RITCHEA WTZ
	WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25034	PROVEN SURVEY SOURCE OF ELEVATION: GRADE GPS (NAVD 88, US FT)	OPERATOR'S WELL #: 1H
			API WELL #: 47 103 03128 STATE COUNTY PERMIT

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

WATERSHED: LITTLE FISHING CREEK ELEVATION: 1563.3'

DISTRICT: PROCTOR COUNTY: WETZEL QUADRANGLE: WILEYVILLE, WV

SURFACE OWNER: WILLIAM D & SHIRLEY E RITCHEA ACREAGE: ±62.00

OIL & GAS ROYALTY OWNER: WILLIAM D & SHIRLEY E RITCHEA ACREAGE: ±62.00

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: 7,556' TD 16,056' TD

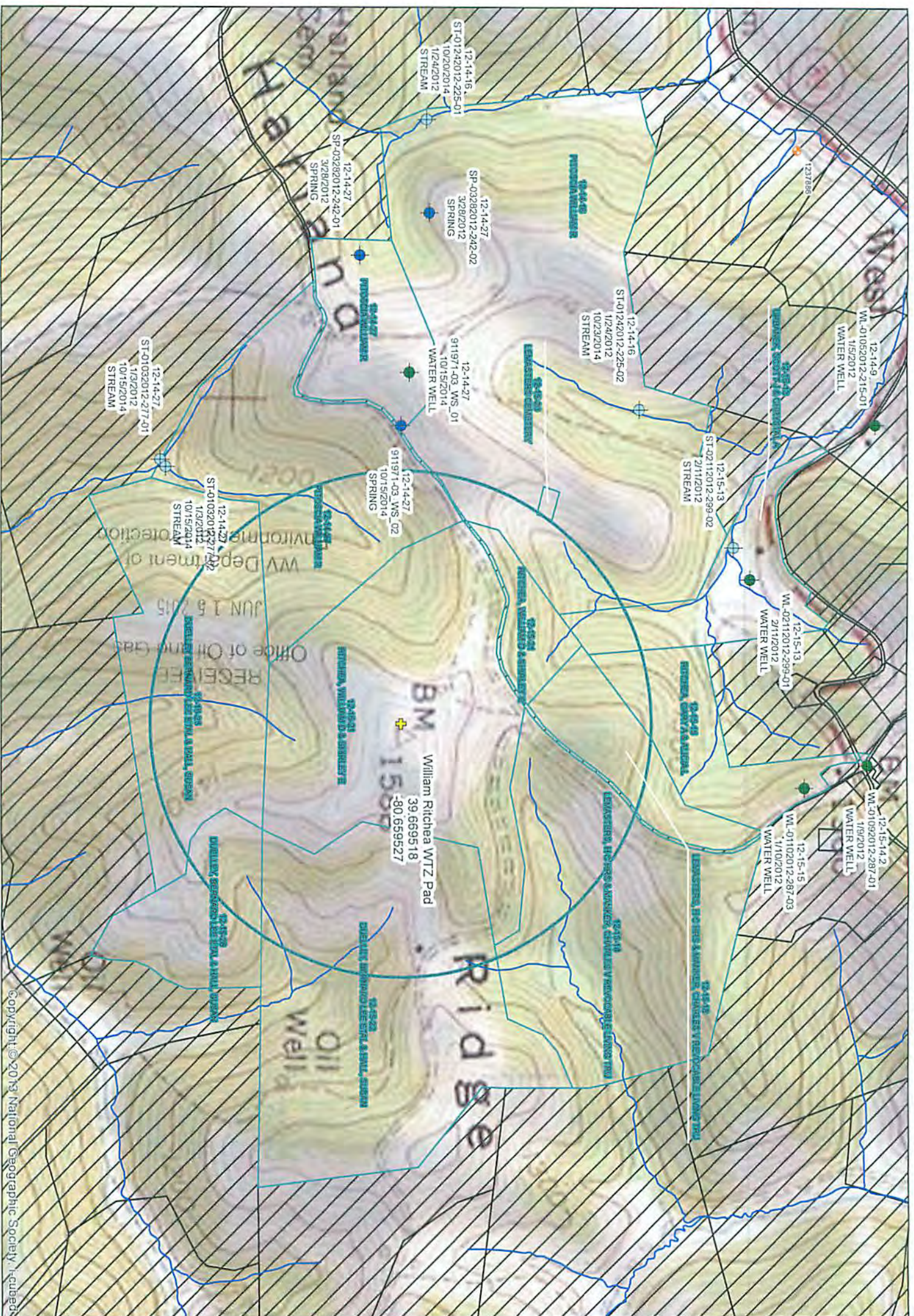
WELL OPERATOR: SWN PRODUCTION COMPANY, LLC DESIGNATED AGENT: DEE SOUTHALL

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:	REVISIONS:	DATE: 05-14-2015

07/31/2015

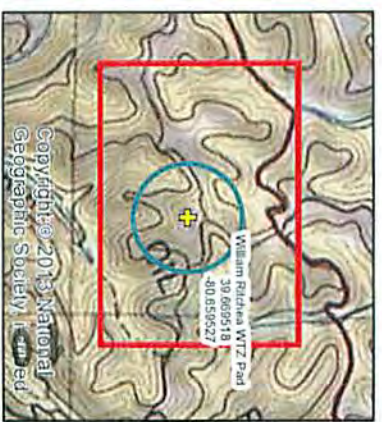


Path: D:\Harrisburg\GIS_Data\South Western Energy\Marcellus\WV\Wetzel\William_Ritchea_WTZ_PAD\Projects\William_Ritchea_Permitting.mxd

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Legend

- William Ritchea Wtz Pad
 - USGS NURE Well
 - Streams
 - 1,500' Radius of Site
 - Parcel Outside the Radius
 - Parcel Within 1,500' of Site - 10 parcels highlighted
- Baseline Sample Location**
- Spring
 - Water Well
- Baseline Sample Location labeled with:
 Parcel Number:
 System Location Code
 Sample Date
 Location Type



William Ritchea Wtz Pad
 39,669,518
 -80,659,527

Map Coordinate System:
 NAD 1983 StatePlane West Virginia North FIPS 4701 Feet
 Projection: Lambert Conformal Conic
 Datum: North American 1983
 False Easting: 1,698,500.00000

Notes:
 1. SWN is abbreviation for SWN Production Company, LLC
 2. The stream and surface water data were obtained from
<http://wvgis.wvu.edu/dataset.php?ID=255>

303128



SWN Production Company, LLC
 William Ritchea Wtz Pad
 Wetzel County, WV

Permit Map

drawn	TAV	checked	date	approved	figure no.
06/09/2015					1

job no.	3137301000010001000	date	10/05/2015	rev no.	William_Ritchea_Permitting
revision					

