

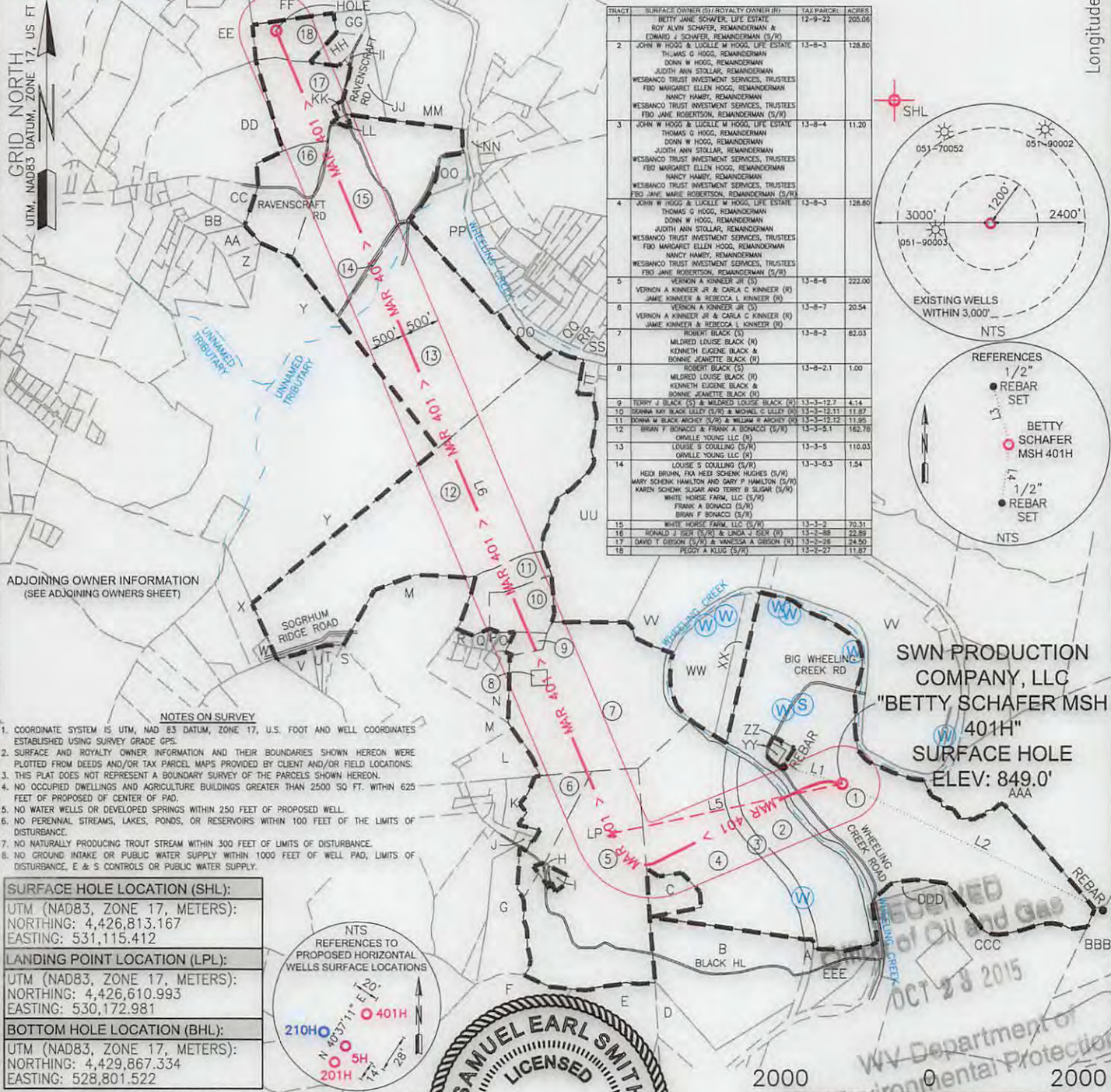


320 O'Bryan Lane • Van Buren, AR 72956  
Office: 479.474.7916 • Fax: 479.474.2450  
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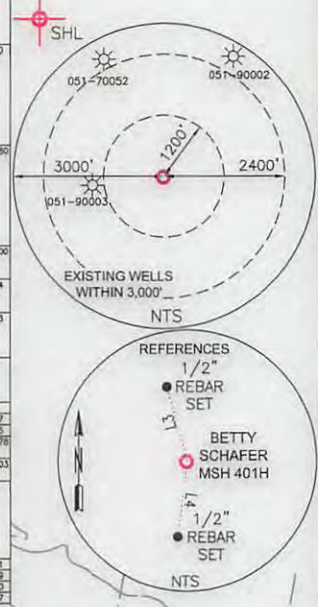
LINE	BEARING	DISTANCE	DESCRIPTION	MONUMENT
L1	N 74°20'41" W	824.76'	SHL TO LANDMARK	FOUND 5/8" REBAR
L2	S 64°12'27" E	3872.88'	SHL TO LANDMARK	FOUND 1/2" REBAR
L3	N 15°34'51" W	294.41'	SHL TO REF. PNT.	1/2" REBAR SET
L4	S 07°18'59" W	292.69'	SHL TO REF. PNT.	1/2" REBAR SET
LINE	BEARING	DISTANCE	CURVE LENGTH	DESCRIPTION
L5	S 77°53'32" W	3162.31'		SHL TO LP
L6	N 22°50'21" W	11592.37'		LP TO BHL

Latitude: 40°00'00"

Longitude: 80°37'30"



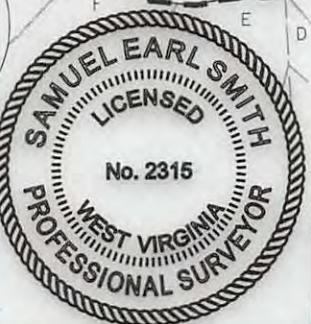
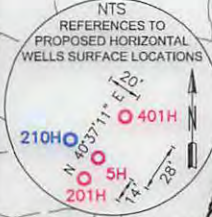
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL	ACRES
1	BETTY JANE SCHAFER, LIFE ESTATE; ROY ALVIN SCHAFER, REMANDERMAN & EDWARD J SCHAFER, REMANDERMAN (S/R)	12-9-22	200.09
2	JOHN W HOGG & LUCILLE W HOGG, LIFE ESTATE; THOMAS G HOGG, REMANDERMAN; DONN W HOGG, REMANDERMAN; JUDITH ANN STOLLAR, REMANDERMAN; WESSBAND TRUST INVESTMENT SERVICES, TRUSTEES; FBO MARGARET ELLEN HOGG, REMANDERMAN; NANCY HANBY, REMANDERMAN; WESSBAND TRUST INVESTMENT SERVICES, TRUSTEES; FBO JAMIE ROBERTSON, REMANDERMAN (S/R)	13-8-3	128.80
3	JOHN W HOGG & LUCILLE W HOGG, LIFE ESTATE; THOMAS G HOGG, REMANDERMAN; DONN W HOGG, REMANDERMAN; JUDITH ANN STOLLAR, REMANDERMAN; WESSBAND TRUST INVESTMENT SERVICES, TRUSTEES; FBO MARGARET ELLEN HOGG, REMANDERMAN; NANCY HANBY, REMANDERMAN; WESSBAND TRUST INVESTMENT SERVICES, TRUSTEES; FBO JAMIE ROBERTSON, REMANDERMAN (S/R)	13-8-4	11.20
4	JOHN W HOGG & LUCILLE W HOGG, LIFE ESTATE; THOMAS G HOGG, REMANDERMAN; DONN W HOGG, REMANDERMAN; JUDITH ANN STOLLAR, REMANDERMAN; WESSBAND TRUST INVESTMENT SERVICES, TRUSTEES; FBO MARGARET ELLEN HOGG, REMANDERMAN; NANCY HANBY, REMANDERMAN; WESSBAND TRUST INVESTMENT SERVICES, TRUSTEES; FBO JAMIE ROBERTSON, REMANDERMAN (S/R)	13-8-3	128.80
5	VERNON A KINNEER JR & CARLA C KINNEER (R); JAMIE KINNEER & REBECCA L KINNEER (R)	13-8-6	222.00
6	VERNON A KINNEER JR & CARLA C KINNEER (R); JAMIE KINNEER & REBECCA L KINNEER (R)	13-8-7	20.54
7	ROBERT BLACK (S); MILDRED LOUISE BLACK (R); KENNETH EUGENE BLACK & BONNIE JEANETTE BLACK (R)	13-8-2	82.03
8	MILDRED LOUISE BLACK (R); KENNETH EUGENE BLACK & BONNIE JEANETTE BLACK (R)	13-8-2-1	1.00
9	TERRY J BLACK (S) & MILDRED LOUISE BLACK (R)	13-3-12-7	4.14
10	DEANNA KAY BLACK LELLY (S/R) & MICHAEL G LELLY (R)	13-3-12-11	11.87
11	DEANNA W BLACK ARDREY (S/R) & WILLIAM W ARDREY (R)	13-3-12-12	11.89
12	BRIAN F BONACCI & FRANK A BONACCI (S/R); OMVILLE YOUNG LLC (R)	13-3-5-1	162.78
13	LOUISE S COULLING (S/R); OMVILLE YOUNG LLC (R)	13-3-5	110.03
14	LOUISE S COULLING (S/R); FRANK A BONACCI (S/R); BRIAN F BONACCI (S/R)	13-3-5-3	1.54
15	WHITE HORSE FARM, LLC (S/R)	13-3-2	70.31
16	RONALD J TISH (S/R) & LINDA J TISH (R)	13-3-88	22.89
17	DAVID T GIBSON (S/R) & YVONNE A GIBSON (R)	13-3-98	24.90
18	PEGGY A KLUG (S/R)	13-3-27	11.87



ADJOINING OWNER INFORMATION (SEE ADJOINING OWNERS SHEET)

- 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 OCCUPIED DWELLINGS AND AGRICULTURE BUILDINGS GREATER THAN 2500 SQ FT. 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, OR RESERVOIRS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
  - NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.
  - NO GROUND INTAKE OR PUBLIC WATER SUPPLY WITHIN 1000 FEET OF WELL PAD, LIMITS OF DISTURBANCE, E & S CONTROLS OR PUBLIC WATER SUPPLY.

<b>SURFACE HOLE LOCATION (SHL):</b>
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,426,813.167 EASTING: 531,115.412
<b>LANDING POINT LOCATION (LPL):</b>
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,426,610.993 EASTING: 530,172.981
<b>BOTTOM HOLE LOCATION (BHL):</b>
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,429,867.334 EASTING: 528,801.522



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. 2315 *Samuel Earl Smith*

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

COMPANY:	<b>SWN</b> Production Company, LLC
OPERATOR'S WELL #:	BETTY SCHAFER MSH 401H
API WELL #:	47 51
STATE	COUNTY PERMIT

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

WATERSHED: LITTLE WHEELING CREEK ELEVATION: 849.0'

DISTRICT: SAND HILL COUNTY: MARSHALL QUADRANGLE: MOUNDSVILLE, WV

SURFACE OWNER: BETTY JANE SCHAFER ACREAGE: ±205.06'

OIL & GAS ROYALTY OWNER: BETTY JANE SCHAFER, LE, ROY ALVIN SCHAFER, EDWARD J SCHAFER ACREAGE: ±205.06'

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: 5,988' TVD 18,899' 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

<b>LEGEND:</b>	<b>REVISIONS:</b>	<b>DATE:</b> 10-12-2015
○ PROPOSED SURFACE HOLE / BOTTOM HOLE	△ REVISED TVD & TMD, 10-15-2015	
☼ EXISTING / PRODUCING WELLHEAD		
○ ABANDONED WELL		
☼ PLUGGED & ABANDONED WELL		
△ CUT CONDUCTOR		
○ EXISTING SPRING		
○ EXISTING WATER WELL		
--- LEASE BOUNDARY		
--- 500' DHP BUFFER		
--- MAR 1 --- MARCELLUS DHP		
--- ABANDONED PATH		
		<b>DRAWN BY:</b> S. HUTSON
		<b>SCALE:</b> 1" = 2000'
		<b>DRAWING NO:</b> 59116
		<b>WELL LOCATION PLAT</b>



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ADJOINING OWNERS

TRACT	SURFACE OWNER	TAX PARCEL	ACRES
A	CONSOLIDATION COAL COMPANY	13-8-4.1	2.40
B	CONSOLIDATION COAL COMPANY	13-8-3.1	51.93
C	VERNON A KINNEER	13-8-5	9.04
D	JOHN W HOGG & LUCILLE M HOGG, LIFE ESTATE	13-8-3	128.80
E	GEORGE A CUNNINGHAM	13-9-3	74.60
F	RICHARD A RITZ	13-9-6	77.51
G	JAMIE KINNEER	13-8-7.9	19.75
H	CONSOLIDATION COAL COMPANY	13-8-6.1	0.83
I	JAMIE KINNEER	13-8-6.2	1.13
J	CARL V MYERS	13-8-7.4	0.72
K	CARL V MYERS	13-8-7.8	4.45
L	MATTHEW G ROUSH	13-8-34	11.33
M	CAROL ANN LOY	13-8-1	82.48
N	KENNETH E BLACK	13-3-12	9.49
O	TERRY J BLACK	13-3-12.8	1.03
P	DEANNA K LILLEY	13-3-12.3	0.56
Q	MILDRED L BLACK	13-3-12.5	0.92
R	WILLIAM R ARCHEY	13-3-12.1	0.96
S	CHARLES D FUNK	13-8-32	12.76
T	JOSEPH J KOSTELECKY & CAROLYN KOSTELECKY	13-8-31.1	1.75
U	DARRELL R LANCASTER	13-8-31	0.98
V	THOMAS P ZAHNOW	13-8-30	3.28
W	EDITH VIRGINIA SAMPSON EST.	13-7-19	0.52
X	DURBIN KEYSTONE TRUST	13-7-18	12.67
Y	LOUISE S COULLING, HEIDI BRUHN, MARY SCHENK HAMILTON & GARY P HAMILTON, KAREN SCHENK SLIGAR & TERRY B SLIGAR, WHITE HORSE FARM, LLC, FRANK A BONACCI, & BRIAN F BONACCI	13-3-3	199.29
Z	MICHAEL W GAUGHAN ET UX	13-2-90	3.12
AA	JAMES R ABEL & SHERI L ABEL	13-2-89	4.29
BB	DAVID E MCLAUGHLIN & SHELLY L MCLAUGHLIN	13-2-87	2.73
CC	CHARLES R FOX & LINDA K FOX	13-2-29.2	5.11
DD	CHARLES ROBERT WILLIS ET AL	13-2-29	44.59
EE	RICHARD E LONG ET UX	13-2-34	20.92
FF	WILLIAM E GIBSON	13-2-28	14.73
GG	PEGGY A KLUG	13-2-27.1	2.68
HH	WILLIAM E GIBSON	13-2-24	3.54
II	JOHN C CLARK	13-2-25	0.08
JJ	JOHN A GARVIN	13-2-23	10.43
KK	DAVID T GIBSON	13-2-24.1	24.50
LL	GWAINE R FOLMAR	13-3-1	0.35
MM	COVENANT COMMUNITY CHURCH TRUSTEES	13-2-22	45.17
NN	KAREN SCHENK SLIGAR	12-1-5	55.65
OO	WHITE HORSE FARM LLC	13-3-6	6.01
PP	HEIDI SCHENK HUGHES	13-3-5.2	18.10
QQ	BRIAN MARTIN	12-1B-21	2.06
RR	THOMAS A DAWSON	12-1B-21.1	3.05
SS	ROBERT E MCADAMS & JODY L MCADAMS	12-1B-27.1	1.91
TT	CONSOLIDATION COAL COMPANY	13-3-7	2.00
UU	IRWIN BLACK	13-3-11	104.26
VV	JOHN ALVIN GRAY	13-3-14	126.24
WW	BETTY JANE SCHAFER, LIFE ESTATE	12-9-22	205.06
XX	BETTY JANE SCHAFER, LIFE ESTATE ROY ALVIN SCHAFER, REMAINDERMAN & EDWARD J SCHAFER, REMAINDERMAN	12-9-24	7.88
YY	BETTY JANE SCHAFER	12-9-23	0.50
ZZ	BETTY JANE SCHAFER	12-9-22.1	1.30
AAA	CHARLES B FISHER	12-9-2	132.66
BBB	CALVIN MERINAR	12-9-19	85.66
CCC	OLIVE GROSKOPF	12-10-1.2	85.43
DDD	EUGENE ROMAN	12-10-1	4.06
EEE	CONSOLIDATION COAL COMPANY	13-8-3.2	9.95

4705101871

4705101871

RECEIVED  
 Office of Oil and Gas

OCT 23 2015

WV Department of  
 Environmental Protection  
 11/27/2015

REVISIONS:	COMPANY:	<b>SWN</b> Production Company, LLC	<b>SWN</b> Production Company™
	OPERATOR'S	BETTY SCHAFER MSH	DATE: 10-12-2015
	WELL #:	401H	DRAWN BY: S. HUTSON
	LOCATION:	SAND HILL DISTRICT, MARSHALL COUNTY, WEST VIRGINIA	SCALE: N/A
			DRAWING NO: 59116
			ADJOINING OWNERS