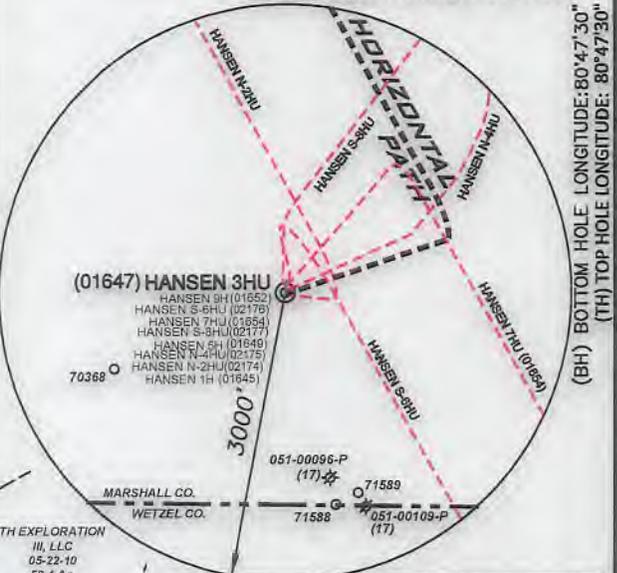


**HANSEN LEASE
WELL 3HU
426.3332± ACRES**

NOTES
 1. BORE PATH BASED ON GRID NORTH.
 2. NO WATER WELLS WITHIN 250' OF WELL WERE FOUND, NO DWELLINGS WITHIN 625' OF PAD CENTER WERE FOUND.
 3. OWNERSHIP TAKEN FROM PUBLIC RECORDS OF MARSHALL COUNTY, WV IN MARCH, 2017. COORDINATES AND WELL TIES BASED UPON DIFFERENTIAL GPS MEASUREMENTS.
 4. WELL LOCATION REFERENCES ARE BASED UPON THE MAGNETIC MERIDIAN.
 5. ALL DEEP WELLS WITHIN 3,000' OF LATERAL ARE SHOWN ON PLAT.

TOP HOLE LATITUDE: 39°45'00"
 BOTTOM HOLE LATITUDE: 39°47'30"



LEGEND

- LEASE TRACTS
- SURFACE TRACTS
- WELL LATERAL
- POINT PLEASANT LEGS
- 400' BORE PATH OFFSET
- 500' WELL BORE OFFSET
- UNIT BOUNDARY
- (A) LEASE # (SEE 6A1 FORM)

SURFACE HOLE
 UTM. NAD83, ZONE 17
 IN METERS
N) 4,397,436.04
E) 515,915.53

LANDING POINT 1
 UTM. NAD83, ZONE 17
 IN METERS
N) 4,397,784.12
E) 516,372.50

BOTTOM HOLE
 UTM. NAD83, ZONE 17
 IN METERS
N) 4,401,119.12
E) 514,413.58

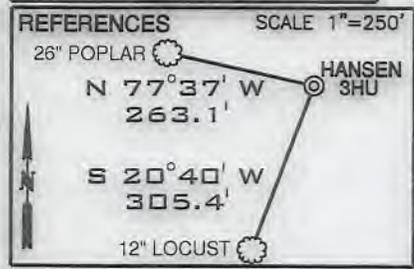
LINE	BEARING	DISTANCE
L1	N 58°19' W	1097.13'
L2	S 69°05' W	761.06'
L3	S 64°13' E	7.32
L4	N 71°33' E	1688.57'

NUMBER	CHORD DIRECTION	CHORD LENGTH	RADIUS	ARC LENGTH
C1	S 84°20' E	24.74'	34.50'	25.31'
C2	N 75°18' E	55.09'	347.52'	55.14'
C3	N 30°02' E	51.86'	46.91'	54.95'
C4	N 08°03' W	100.54'	322.48'	100.85'
C5	N 18°38' W	193.82'	1155.34'	194.05'
C6	N 25°14' W	273.80'	2289.23'	273.97'

(+) DENOTES LOCATION ON UNITED STATES TOPOGRAPHIC MAPS

DETAIL SKETCH "A"
 SCALE 1"=200'

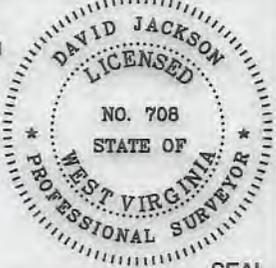
- HANSEN 9H (01652)
- HANSEN S-6HU (02176)
- HANSEN 7HU (01654)
- HANSEN S-8HU (02177)
- HANSEN 5H (01649)
- HANSEN N-4HU (02175)
- HANSEN 3HU (01647)
- HANSEN N-2HU (02174)
- HANSEN 1H (01645)



FILE NUMBER _____
 DRAWING NUMBER HANSEN_3HU_REV3
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION SUBMETER MAPPING
 GRADE GPS

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 THE RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION

P.S. 708
David L Jackson



JACKSON SURVEYING INC.
 P.O. Box 1460
 Clarksburg, WV 26302
 304-623-5851

WVDEP
 OFFICE OF OIL & GAS
 601 57TH STREET, SE
 CHARLESTON, WV 25304

DATE: JANUARY 26, 2019
 REVISED: JULY 08, 2019
 OPERATORS WELL NO. HANSEN 3HU
 API WELL NO. 47-051-01647DD
 STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS ___ LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___
 LOCATION ELEVATION 1247.0' WATERSHED (HUC 10) FRENCH CREEK - OHIO RIVER
 DISTRICT FRANKLIN COUNTY MARSHALL
 QUADRANGLE NEW MARTINSVILLE 7.5' LEASE NUMBER SEE WW-6A1 FORM

SURFACE OWNER COVESTRO, LLC ACREAGE 172.79
 OIL & GAS ROYALTY OWNER PPG INDUSTRIES, INC. LEASE ACREAGE 172.79
 PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___
 PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE (SPECIFY) ___

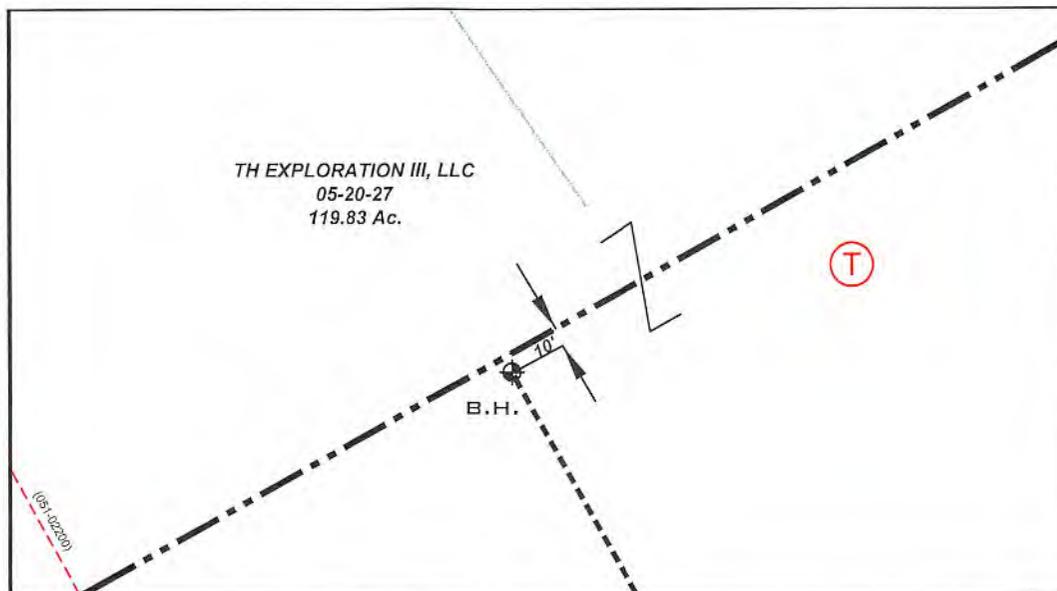
TARGET FORMATION POINT PLEASANT ESTIMATED DEPTH TVD: 11,398' TMD: 24,425'
 WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT DIANNA STAMPER
 CT CORPORATION SYSTEM
 ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 ADDRESS 5400 D BIG TYLER ROAD
 FORT WORTH, TX 76107 CHARLESTON, WV 25313

COUNTY NAME
 PERMIT

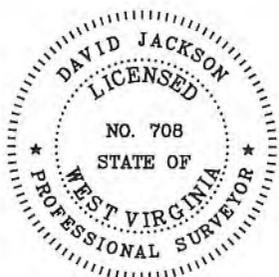
Form WW6

**HANSEN LEASE
WELL 3HU
426.3332± ACRES**

4705101647DD



Number	TAX MAP -PARCEL	ADJOINER OWNER	ACRES
S1	B 05-27-21	COVESTRO, LLC	22.67
S2	A 05-27-22	COVESTRO, LLC	172.79
S3	F 05-28-10	CAROL MARTIN	100.0
S4	E 05-28-9	COVESTRO, LLC	93.4
S5	05-28-2	COVESTRO, LLC	99.5
S6	G 05-28-3	TH EXPLORATION III, LLC	53.44
S7	H 05-22-13	JOHN M. MOORE , TERESA R. MOORE & ANDREA S. MOORE	40.57
S8	J 05-21-18	JOHN M. MOORE , TERESA R. MOORE & ANDREA S. MOORE	51.44
S9	K 05-21-20	JOHN M. MOORE , TERESA R. MOORE & ANDREA S. MOORE	31.0
S10	05-21-19.1	JOHN G. MOORE , ET AL	0.92
S11	Q 05-21-22	PEGGY LEE BOWEN, ET AL	18.29
S12	R 05-21-24	TH EXPLORATION III, LLC	132.5
S13	05-20-34	TH EXPLORATION III, LLC	116.7
S14	05-20-33	TH EXPLORATION III, LLC	42.186
S15	05-27-20.1	APPALACHIAN POWER CO.	43.973
S16	05-27-20	COVESTRO, LLC.	93.027
S17	05-27-19	COVESTRO, LLC.	33.786
S18	05-28-11	CAROL A. MARTIN	24.681
S19	05-21-15	TH EXPLORATION III, LLC	52.97
S20	05-21-16	TH EXPLORATION III, LLC	38.38
S21	05-21-17	TH EXPLORATION III, LLC	31.68
S22	05-21-8	TH EXPLORATION III, LLC	38.94
S23	05-21-3	TH EXPLORATION III, LLC	146.0
S24	05-20-32	TH EXPLORATION III, LLC	28.8
S25	05-20-29	TH EXPLORATION III, LLC	30.08
S26	05-19-23	WSD PROPERTIES, LLC	28.4
S27	05-22-1	MARY P. MASON, EST.	2.0
S28	05-22-2	TH EXPLORATION III, LLC	30.0
S29	O 05-22-18	EDWARD R. YOHO, JR.	77.13
S30	N 05-22-15	EDWARD R. YOHO, JR.	25.5
S31	05-22-16	EDWARD R. YOHO, JR.	57.0
S32	05-22-17	CNX GAS COMPANY, LLC.	37.5
S33	05-22-11	TH EXPLORATION III, LLC	55.65
S34	05-28-4	TH EXPLORATION III, LLC	48.44
S35	05-28-9	TH EXPLORATION III, LLC	63.44
S36	05-26-1	EDWIN BOOTH ANDERSON & MARK W. ANDERSON	12.94
S37	05-26-2	EDWIN BOOTH ANDERSON & MARK W. ANDERSON	67.5
S38	05-26-19	ERIC JAY & KARROLL S. BOOTH	50.0
S39	05-27-24	ROBERT F. ROTHLSBERGER	60.10
S40	C 05-27-23	ROBERT F. ROTHLSBERGER	35.77
S41	05-27-26	COVESTRO, LLC.	39.32
S42	05-27-27	JAMES ANDREW & KAREN R. LYNNE RICHMOND	8.9353
S43	D 05-28-8	COVESTRO, LLC.	56.32
S44	M 05-22-14	CONSOL RCPC, LLC.	0.30
S45	L 05-21-21	CONSOL RCPC, LLC.	4.0
S46	P 05-21-23	PEGGY LEE BROWN, ET AL	42.62
S47	S 05-20-28	TH EXPLORATION III, LLC	15.34
S48	I 05-22-12	TH EXPLORATION III, LLC	61.49



P.S. 708

David L Jackson



**TUG HILL
OPERATING**

OPERATOR'S
WELL #: HANSEN 3HU
DISTRICT: Franklin
COUNTY: Marshall
STATE: WV
API #: 47-051-01647

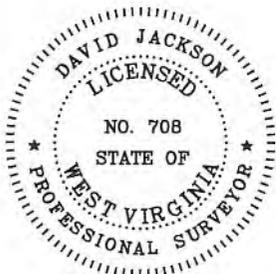
WELL PLAT
PAGE 2 OF 3
DATE: 01/26/2019
REVISED: 07/08/2019

form ww6

**HANSEN LEASE
WELL 3HU
426.3332± ACRES**

4705101647DD

Lease No.	Tags	Parcel	Oil & Gas Royalty Owner	Book	Page
10*14418	A	5-27-22	PPG INDUSTRIES, INC.	878	610
10*27022	B	5-27-21	COVESTRO LLC	1046	431
10*14609	C	5-27-23	PATRICIA M HADDIX	700	113
10*14610	C	5-27-23	SUZANNE HILL	699	45
10*14611	C	5-27-23	LILLIAN P GRIMM	699	41
10*14418	D	5-28-8	PPG INDUSTRIES, INC.	878	610
10*14418	E	5-28-9	PPG INDUSTRIES, INC.	878	610
10*14565	F	5-28-10	HARRY LEE GOUDY	670	59
10*14418	G	5-28-3	PPG INDUSTRIES, INC.	878	610
10*14482	G	5-28-3	RALPH EARNEST	745	578
10*14483	G	5-28-3	CHARLES H EARNEST	746	319
10*14484	G	5-28-3	ARTHUR L JOSEPH	748	474
10*14485	G	5-28-3	LINDA K HASSLEN	748	476
10*14486	G	5-28-3	THOMAS ATKINSON	754	248
10*14487	G	5-28-3	DOUGLAS ATKINSON	754	577
10*14488	G	5-28-3	HEATHER GUIDRY	754	244
10*14489	G	5-28-3	AUGUSTA L SPIHER	754	246
10*14490	G	5-28-3	JAMES WELCH JR	752	445
10*14491	G	5-28-3	CHRISTOPHER PRICE	752	208
10*14492	G	5-28-3	MARJORIE A MCLAUGHLIN	749	526
10*14937	H	5-22-13	JOHN M MOORE AND MELANIE A MOORE ETAL	850	524
10*14418	I	5-22-12	PPG INDUSTRIES, INC.	878	610
10*14937	J	5-21-18	JOHN M MOORE AND MELANIE A MOORE ETAL	850	524
10*14937	K	5-21-20	JOHN M MOORE AND MELANIE A MOORE ETAL	850	524
10*16471	L	5-21-21	CNX GAS COMPANY LLC	905	155
10*16471	M	5-22-14	CNX GAS COMPANY LLC	905	155
10*14457	N	5-22-15	HARRY LEE GOUDY	731	140
10*14457	O	5-22-18	HARRY LEE GOUDY	731	140
10*14947	P	5-21-23	DANA SMALLWOOD	850	520
10*14948	P	5-21-23	PEGGY L BROWN	850	522
10*14947	Q	5-21-22	DANA SMALLWOOD	850	520
10*14948	Q	5-21-22	PEGGY L BROWN	850	522
10*14418	R	5-21-24	PPG INDUSTRIES, INC.	878	610
10*14307	S	5-20-28	SALLY CYNTHIA HOPKINS	777	572
10*14308	S	5-20-28	MARY E BASSETT	779	492
10*14309	S	5-20-28	ROBERT B THOMAS	779	484
10*14310	S	5-20-28	JEAN C THOMAS	781	614
10*14324	S	5-20-28	RUTH E BASSETT MEADOWS	792	100
10*14325	S	5-20-28	ELIZABETH ANN STRAUSBAUGH	792	104
10*14326	S	5-20-28	JANET LEA BLANKENSHIP	792	580
10*14418	S	5-20-28	PPG INDUSTRIES, INC.	878	610
10*14307	T	5-20-27	SALLY CYNTHIA HOPKINS	777	572
10*14308	T	5-20-27	MARY E BASSETT	779	492
10*14309	T	5-20-27	ROBERT B THOMAS	779	484
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