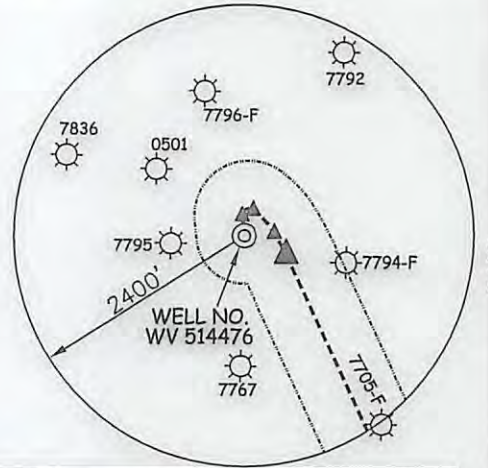


PEN54
WV 514476
EQT PRODUCTION COMPANY

BOTTOM HOLE LATITUDE 39°15'00" 9,699'

ROYALTY OWNERS		
MABLE BROADWATER ET AL	360 AC.±	LEASE NO. 103412
DONALD R. REYNOLDS ET AL	126 AC.±	LEASE NO. 1005916
DEAN E. FLANAGAN ET AL	153 AC.±	LEASE NO. 1005821
EQT PRODUCTION COMPANY ET AL	156 AC.±	LEASE NO. 708517

A	JERRY MORTON ET AL	243.50 ACRES±	C-TM-31-05
B	HEARTWOOD FORESTLAND FUND IV LP	185.30 ACRES±	C-TM-31-14
C	HEARTWOOD FORESTLAND FUND IV LP	196.90 ACRES±	C-TM-31-11
D	HEARTWOOD FORESTLAND FUND IV LP	53 ACRES±	C-TM-31-15
E	RANDALL LAMM	126.32 ACRES±	C-TM-31-19
F	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	42.51 ACRES±	C-TM-32-02
G	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	56.14 ACRES±	C-TM-32-02
H	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	57 ACRES±	C-TM-32-04
I	RANDALL LAMM	44 ACRES±	C-TM-36-5.1
J	RONNIE WAGES	66.95 ACRES±	C-TM-36-05
K	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	66.45 ACRES± BH	C-TM-32-05
L	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	57.60 ACRES±	C-TM-32-07
M	JACK MACKAY ET AL	235.03 ACRES±	C-TM-37-03
N	RONALD DODD ET AL	70.40 ACRES±	C-TM-37-02
O	JEFFERY JETT	18.31 ACRES±	C-TM-37-04
P	EDWIN G. WILLIAMS	40.77 ACRES±	C-TM-37-05
Q	EDWIN G. WILLIAMS	23 ACRES±	C-TM-37-5.1
R	MARY SIMMONS (LIFE) ET AL	30 ACRES±	C-TM-37-07
S	REBECCA COTTRILL ET AL	4.3 ACRES±	C-TM-37-08
T	CHARLES E. COTTRILL ET AL	16.15 ACRES±	C-TM-36-25
U	ROGER & MARY WILLIAMS	8.068 ACRES±	C-TM-37-5.2
V	JEFFERY JETT	25.015 ACRES±	C-TM-36-21.1
W	JUNIOR COTTRILL ET AL	33.065 ACRES±	C-TM-36-21
X	JEFFERY JETT	0.472 ACRES±	C-TM-36-21.2
Y	GARY COTTRILL	5.051 ACRES±	C-TM-36-11.4
Z	ROY DODD	2.51 ACRES±	C-TM-36-13
AA	GARY COTTRILL	40.847 ACRES±	C-TM-36-11.5
BB	GARY COTTRILL ET AL	23.322 ACRES±	C-TM-36-11
CC	ERNEST McATEE ET AL	48.88 ACRES±	C-TM-36-20
DD	PAUL HILVERS	90.70 ACRES±	C-TM-36-09
EE	FOUSS FARMS LLC	19 ACRES±	C-TM-36-08
FF	JACK HARGIS ET AL	45.47 ACRES±	C-TM-36-04
GG	RANDALL LAMM	45.502 ACRES±	C-TM-36-03
HH	HEARTWOOD FORESTLAND FUND IV LP	168.20 ACRES±	C-TM-31-14.1
II	DONALD DEEM ET AL	133.07 ACRES±	C-TM-31-10
JJ	ANTERO TREATMENT LLC	175.85 ACRES±	C-TM-31-06

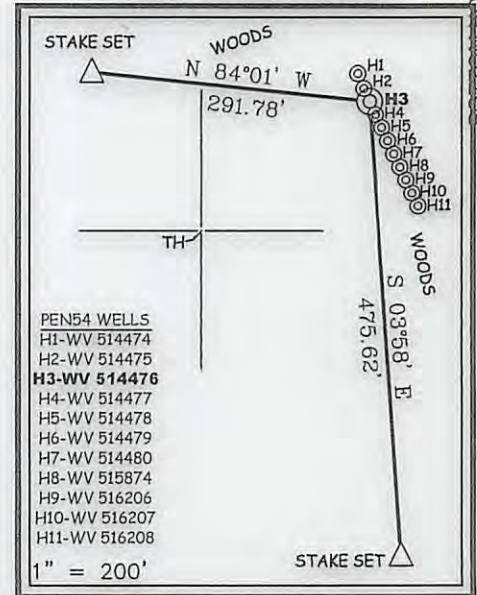


(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)
 NAD'27 S.P.C.(FT) N. 279,188.08 E. 1,595,787.72
 NAD'27 GEO. LAT-(N) 39.257719 LONG-(W) 80.927518
 NAD'83 UTM (M) N. 4,345,388.07 E. 506,268.12

LANDING POINT
 NAD'27 S.P.C.(FT) N. 278,990.91 E. 1,596,228.39
 NAD'27 GEO. LAT-(N) 39.257197 LONG-(W) 80.925951
 NAD'83 UTM (M) N. 4,345,330.25 E. 506,403.37

BOTTOM HOLE
 NAD'27 S.P.C.(FT) N. 269,161.61 E. 1,600,807.19
 NAD'27 GEO. LAT-(N) 39.230411 LONG-(W) 80.909239
 NAD'83 UTM (M) N. 4,342,359.10 E. 507,848.28

REFERENCES



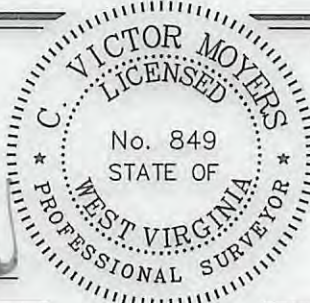
NOTES ON SURVEY

- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS ≥ 2500 SQ. FT. OR DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
- WELL SPOT CIRCLE & TOPO MARK SCALE IS 1"=2000'.

SLS
Land & Energy Development
Solutions from the ground up.
P.O. Box 150 • 12 Vanhorn Drive • Glenville, WV 26351 • (304) 462-5634
www.slsurveys.com

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 REGULATIONS ISSUED AND PRESCRIBED BY THE DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 849 *C. Victor Moyers*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE JUNE 25, 20 15
 REVISED 07/01/15, 06/23/16 & 07/12/16
 OPERATORS WELL NO. WV 514476
 API WELL NO. 47 - 085 - 10526
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8083P514476R3.dwg
 HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK) SCALE SEE NOTE 2

STATE OF WEST VIRGINIA
 DIVISION OF ENVIRONMENTAL PROTECTION
 OFFICE OF OIL AND GAS

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: GROUND PROPOSED ELEVATION 1,016' 1,016' WATERSHED NORTH FORK HUGHES RIVER
 DISTRICT CLAY COUNTY RITCHIE QUADRANGLES PENNSBORO & PULLMAN 7.5'
 SURFACE OWNER JERRY MORTON ET AL ACREAGE 243.50±
 ROYALTY OWNER ELLEN S. FRANCAVIGLIA ET AL ACREAGE 268±
 PROPOSED WORK: LEASE NO. 105403 **07/15/2016**
 DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER
 PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION MARCELLUS
 ESTIMATED DEPTH 6,275'

WELL OPERATOR EQT PRODUCTION COMPANY DESIGNATED AGENT REX C. RAY
 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330

TOP HOLE LONGITUDE 80°52'30" 12,365'

COUNTY NAME PERMIT

PEN54
WV 514476
EQT PRODUCTION COMPANY

BOTTOM HOLE LATITUDE 39°15'00"

9,699'

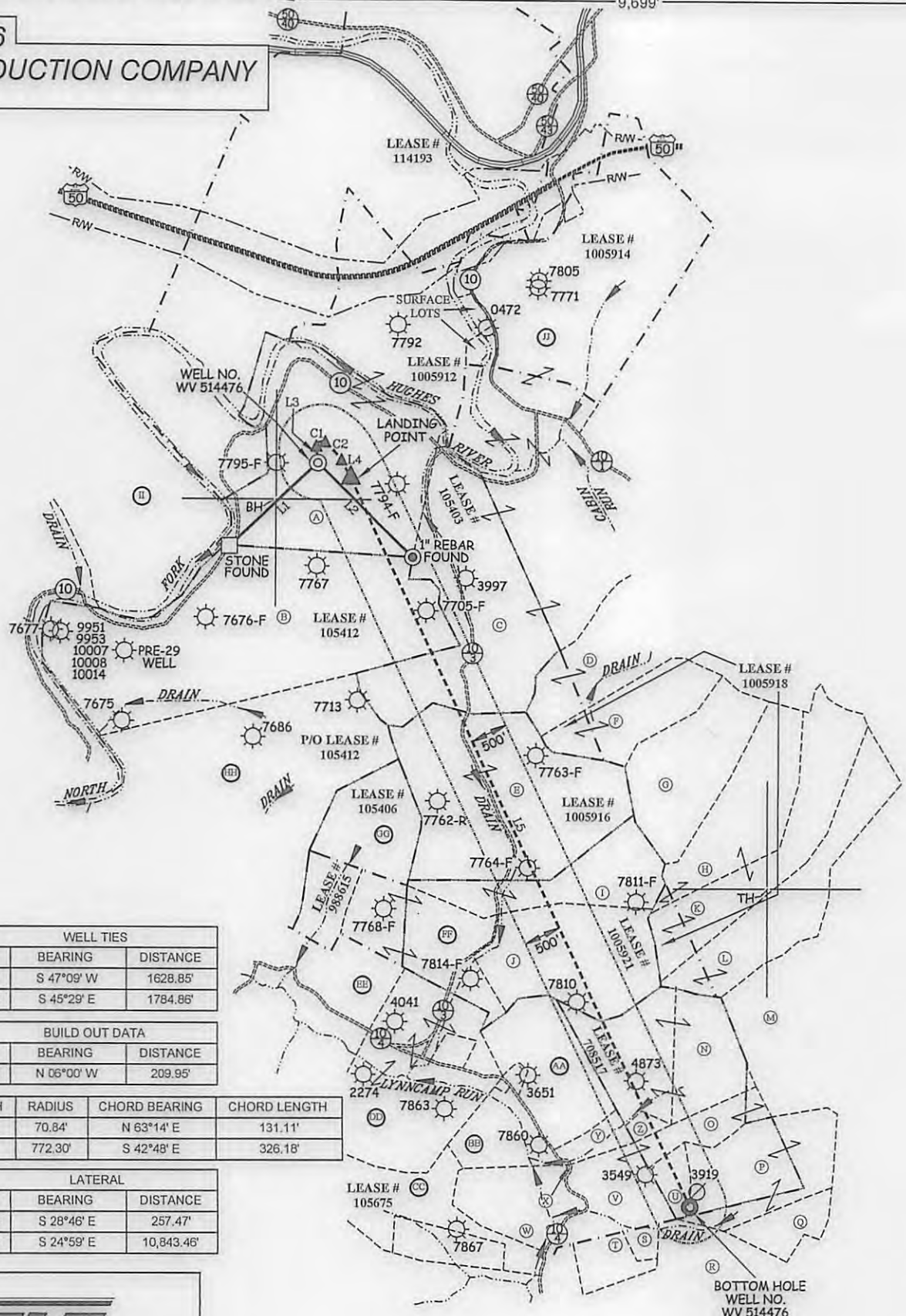
NAD'27 GRID NORTH

7,132'

12,365'

BOTTOM HOLE LONGITUDE 80°52'30"

TOP HOLE LONGITUDE 80°55'00"



WELL TIES		
ID	BEARING	DISTANCE
L1	S 47°09' W	1628.85'
L2	S 45°29' E	1784.86'

BUILD OUT DATA		
ID	BEARING	DISTANCE
L3	N 06°00' W	209.95'

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	167.49'	70.84'	N 63°14' E	131.11'
C2	326.66'	772.30'	S 42°48' E	326.18'

LATERAL		
ID	BEARING	DISTANCE
L4	S 28°46' E	257.47'
L5	S 24°59' E	10,843.46'

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(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

LEGEND

- LEASE LINE
 - SURFACE LINE
 - WELL LATERAL
 - OFFSET LINE
 - TIE LINE
 - CREEK
 - ROAD
 - COUNTY ROUTE
 - STATE ROUTE
 - PROPOSED WELL
 - EXISTING WELL
 - PERMITTED WELL
 - CLAY DISTRICT
 - TAX MAP-PARCEL
- C-TM-00-00

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STATE OF WEST VIRGINIA
 DIVISION OF
 ENVIRONMENTAL PROTECTION
 OFFICE OF OIL AND GAS



SCALE 1" = 2000' FILE NO. 8083P514476R3
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 OPERATORS WELL NO. WV 514476
 API WELL NO. 47
 STATE 085 COUNTY 10226 PERMIT

WELL OPERATOR EQT PRODUCTION COMPANY DESIGNATED AGENT REX C. RAY
 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280
 BRIDGEPORT, WV 26330 BRIDGEPORT, WV 26330

COUNTY NAME

PERMIT

07/15/2015