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west virginia department of environmental protection

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Office of Oil and Gas  
601 57th Street SE  
Charleston, WV 25304  
(304) 926-0450  
(304) 926-0452 fax

Earl Ray Tomblin, Governor  
Randy C. Huffman, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

## PERMIT MODIFICATION APPROVAL

September 10, 2015

TRIANA ENERGY, LLC  
900 VIRGINIA STREET, EAST - SUITE 400  
CHARLESTO, WV 25301

Re: Permit Modification Approval for API Number 9101285, Well #: DUNHAM 2H

Oil and Gas Operator:

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

Gene Smith  
Assistant Chief of Permitting  
Office of Oil and Gas

Promoting a healthy environment.

09/11/2015



September 1, 2015

Mr. James Martin, Chief  
Office of Oil and Gas  
West Virginia Department of Environmental Protection  
601 57<sup>th</sup> Street, S. E.  
Charleston, West Virginia 25304

**Re: Triana Energy, LLC – Well Plat Modification Requests  
Dunham 2H, 4H and 6H Horizontal Wells, Booth's Creek District, Taylor County, WV**

Dear Mr. Martin:

Upon completion of as-drilled plats for its Dunham 2H, 4H and 6H horizontal natural gas wells drilled in Booth's Creek District, Taylor County, West Virginia, Triana Energy discovered that the surface location of each well was inadvertently relocated exactly 30 feet south from their permitted locations. Triana has conducted an exhaustive investigation to determine the cause of the relocation, however no conclusion was reached. The well pad was originally designed to accommodate six wells, but was later reduced to five wells, due to mineral lease constraints. Inasmuch as the approved well locations are spaced 30 feet apart, we can only presume that an error occurred in stakeout during the transition from six wells to five wells.

In any event, Triana apologizes for any inconvenience and hereby requests that the well permits and records for the three wells are modified to reflect the accurate surface hole locations. Corrected plats for the wells are included herewith. Mylar plats were submitted to your office with corrected WR-35 Completion Reports.

Please feel free to contact me should you have any questions or need additional information. We look forward to working with you and your staff on this project.

Sincerely,

Walter C. Showen, III  
Manager, Permitting



1,352'

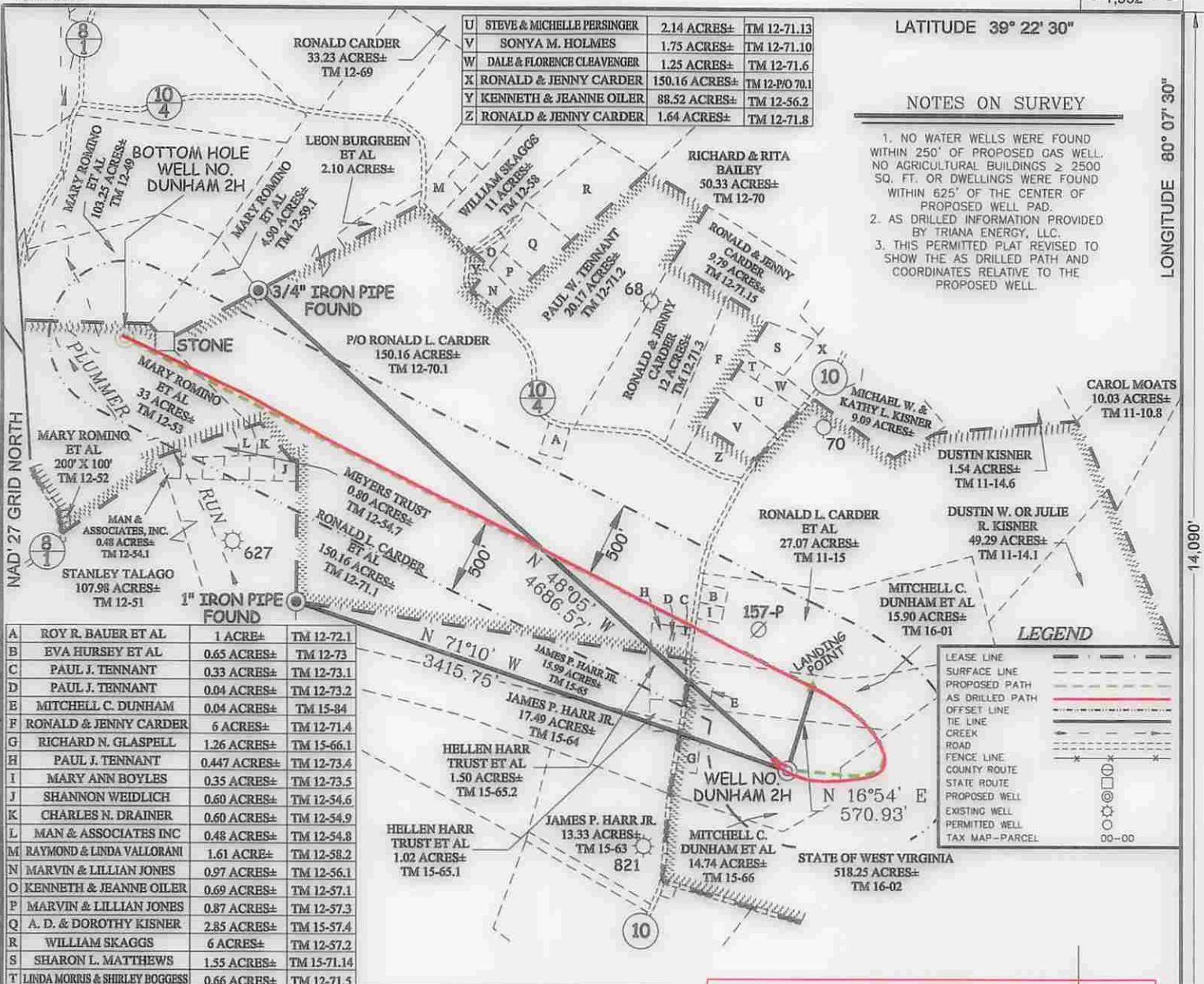
LATITUDE 39° 22' 30"

LONGITUDE 80° 07' 30"

U	STEVE & MICHELLE PERSINGER	2.14 ACRES±	TM 12-71.13
V	SONYA M. HOLMES	1.75 ACRES±	TM 12-71.10
W	DALE & FLORENCE CLEAVINGER	1.25 ACRES±	TM 12-71.6
X	RONALD & JENNY CARDER	150.16 ACRES±	TM 12-PD 70.1
Y	KENNETH & JEANNE OILER	88.52 ACRES±	TM 12-56.2
Z	RONALD & JENNY CARDER	1.64 ACRES±	TM 12-71.8

NOTES ON SURVEY

1. 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.
2. AS DRILLED INFORMATION PROVIDED BY TRIANA ENERGY, LLC.
3. THIS PERMITTED PLAT REVISED TO SHOW THE AS DRILLED PATH AND COORDINATES RELATIVE TO THE PROPOSED WELL.



A	ROY R. BAUER ET AL	1 ACRE±	TM 12-72.1
B	EVA HURSEY ET AL	0.65 ACRES±	TM 12-73
C	PAUL J. TENNANT	0.33 ACRES±	TM 12-73.1
D	PAUL J. TENNANT	0.04 ACRES±	TM 12-73.2
E	MITCHELL C. DUNHAM	0.04 ACRES±	TM 15-84
F	RONALD & JENNY CARDER	6 ACRES±	TM 12-71.4
G	RICHARD N. GLASPELL	1.26 ACRES±	TM 15-66.1
H	PAUL J. TENNANT	0.447 ACRES±	TM 12-73.4
I	MARY ANN BOYLES	0.35 ACRES±	TM 12-73.5
J	SHANNON WEIDLICH	0.60 ACRES±	TM 12-54.6
K	CHARLES N. DRAINER	0.60 ACRES±	TM 12-54.9
L	MAN & ASSOCIATES INC	0.48 ACRES±	TM 12-54.8
M	RAYMOND & LINDA VALLORANI	1.61 ACRE±	TM 12-58.2
N	MARVIN & LILLIAN JONES	0.97 ACRES±	TM 12-56.1
O	KENNETH & JEANNE OILER	0.69 ACRES±	TM 12-57.1
P	MARVIN & LILLIAN JONES	0.87 ACRES±	TM 12-57.3
Q	A. D. & DOROTHY KISNER	2.85 ACRES±	TM 15-57.4
R	WILLIAM SKAGGS	6 ACRES±	TM 12-57.2
S	SHARON L. MATTHEWS	1.55 ACRES±	TM 15-71.14
T	LINDA MORRIS & SHIRLEY BOGGS	0.66 ACRES±	TM 12-71.5

**LEGEND**

- LEASE LINE
- SURFACE LINE
- PROPOSED PATH
- AS DRILLED PATH
- OFFSET LINE
- TIE LINE
- CREEK
- ROAD
- FENCE LINE
- COUNTY ROUTE
- STATE ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- TAX MAP - PARCEL

**DUNHAM LEASE**  
**DUNHAM 2H**  
 711.55 ACRES± LEASE  
 (S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)  
 NAD27 S.P.C.(FT) N. 305,226 E. 1,821,868  
 NAD27 GEO. LAT-(N) 39.33631 LONG-(W) 80.12978  
 NAD83 UTM (M) N. 4,354,470 E. 575,013  
**LANDING POINT**  
 NAD27 S.P.C.(FT) N. 305,773 E. 1,822,034  
 NAD27 GEO. LAT-(N) 39.33782 LONG-(W) 80.12921  
 NAD83 UTM (M) N. 4,354,637 E. 575,061  
**BOTTOM HOLE**  
 NAD27 S.P.C.(FT) N. 308,047 E. 1,817,502  
 NAD27 GEO. LAT-(N) 39.34397 LONG-(W) 80.14529  
 NAD83 UTM (M) N. 4,355,307 E. 573,669

**AS DRILLED COORDINATES**  
**FOR WELL NO. DUNHAM 2H**  
 (S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)  
 NAD27 S.P.C.(FT) N. 305,257 E. 1,821,867  
 NAD27 GEO. LAT-(N) 39.33640 LONG-(W) 80.12978  
 NAD83 UTM (M) N. 4,354,479 E. 575,013  
**BOTTOM HOLE**  
 NAD27 S.P.C.(FT) N. 308,062 E. 1,817,484  
 NAD27 GEO. LAT-(N) 39.34401 LONG-(W) 80.14535  
 NAD83 UTM (M) N. 4,355,312 E. 573,663

**Professional Energy Consultants**  
 A DIVISION OF SMITH LAND SURVEYING, INC.  
  
 SURVEYORS  
 ENGINEERS  
 ENVIRONMENTAL  
 PROJECT MGMT.  
 (304) 462-5534 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. *Matthew J. Hilton*  
 2294



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
 DATE DECEMBER 17, 20 13  
 REVISED 06/13/14 & 07/29/15  
 OPERATORS WELL NO. DUNHAM 2H  
 API WELL NO. 47 - 091 - 01285H6A  
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 7754AD2H  
 HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK)  
 SCALE 1" = 1000'

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

WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION X STORAGE DEEP SHALLOW X  
 LOCATION: ELEVATION 1,420' WATERSHED TAYLOR TRIBUTARY OF LOST RUN  
 DISTRICT BOOTH'S CREEK COUNTY TAYLOR QUADRANGLE ROSEMONT 7.5'  
 SURFACE OWNER MITCHELL DUNHAM ET AL ACREAGE 14.74±  
 ROYALTY OWNER SEE ATTACHED WW-6A1 ACREAGE 711.55±  
 PROPOSED WORK: LEASE NO. 09/11/2015  
 DRILL X CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE X 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 TVD 7,800' / TMD 13,251'

WELL OPERATOR TRIANA ENERGY, L.L.C. DESIGNATED AGENT RACHELLE A. KING  
 ADDRESS 900 VIRGINIA STREET EAST, SUITE 400 ADDRESS 900 VIRGINIA STREET EAST, SUITE 400  
 CHARLESTON, WV 25301 CHARLESTON, WV 25301