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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

June 17, 2015

**WELL WORK PERMIT**

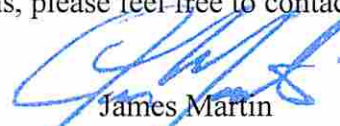
**Horizontal 6A Well**

This permit, API Well Number: 47-7700621, issued to ENERPLUS RESOURCES (USA) CORPORATION, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.



James Martin  
Chief

Operator's Well No: TANNER 1-4H  
Farm Name: TANNER, RITA

**API Well Number: 47-7700621**

**Permit Type: Horizontal 6A Well**

Date Issued: 06/17/2015

**Promoting a healthy environment.**

**06/19/2015**

# PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

## CONDITIONS

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1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
8. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.
9. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.

4707700621

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
WELL WORK PERMIT APPLICATION

1) Well Operator: Enerplus Resources Corporation 49449649 77 (Preston) 05 (Portland) 637 (Terra Alta)  
Operator ID County District Quadrangle

2) Operator's Well Number: Tanner 1-4H Well Pad Name: Tanner 1-4H

3) Farm Name/Surface Owner: Annette Tanner/Rita Tanner Public Road Access: Crooked Stump Road

4) Elevation, current ground: 2533' Elevation, proposed post-construction: 2533'

5) Well Type (a) Gas  Oil  Underground Storage

Other

(b) If Gas Shallow  Deep

Horizontal

6) Existing Pad: Yes or No yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Associated Pressure(s):  
Marcellus Formation, 7882 - 8013 ft TVD; 131 ft thickness. Initial reservoir pressure ~ 5610 psi

8) Proposed Total Vertical Depth: 7953 ft at landing point (heel)

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 14648'

11) Proposed Horizontal Leg Length: 6963

12) Approximate Fresh Water Strata Depths: 10ft; 120ft; 225ft

13) Method to Determine Fresh Water Depths: Nearby wells & springs, incision depth of Little Larel Ck, water show in Tanner 1-8 pilot

14) Approximate Saltwater Depths: none

15) Approximate Coal Seam Depths: none

16) Approximate Depth to Possible Void (coal mine, karst, other): none

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes  No

(a) If Yes, provide Mine Info: Name: \_\_\_\_\_  
Depth: \_\_\_\_\_  
Seam: \_\_\_\_\_  
Owner: \_\_\_\_\_

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18) CASING AND TUBING PROGRAM

<u>TYPE</u>	<u>Size</u>	<u>New or Used</u>	<u>Grade</u>	<u>Weight per ft. (lb/ft)</u>	<u>FOOTAGE: For Drilling</u>	<u>INTERVALS: Left in Well</u>	<u>CEMENT: Fill-up (Cu. Ft.)</u>
Conductor	20	new	J-55	94	40	40	to sfc; 46 cu ft
Fresh Water	13-3/8	new	J-55	54.4	375	375	to sfc; 356 cu ft
Coal		n/a					
Intermediate	9-5/8	new	J-55	36	2500	2500	to sfc; 1042 cu ft
Production	5-1/2	new	P-110	30	14647	14647	to 2000'; 3646 cu ft
Tubing	2-3/8	new	J-55	4.7			
Liners		n/a					

<u>TYPE</u>	<u>Size</u>	<u>Wellbore Diameter</u>	<u>Wall Thickness</u>	<u>Burst Pressure</u>	<u>Cement Type</u>	<u>Cement Yield (cu. ft./k)</u>
Conductor	20	24	-	-	Class A 15.6 ppg	1.18
Fresh Water	13-3/8	17-1/2	.760	2730	Class A 15.6 ppg	1.18
Coal	n/a					
Intermediate	9-5/8	12-1/4	.704	3520	Class A 15.7ppg	1.29
Production	5-1/2	8-3/4	.722	16660	Class A 14.7ppg	1.37
Tubing	2-3/8	n/a	.474	770	n/a	n/a
Liners	n/a					

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*Gas*  
*6/2/15*

PACKERS

Kind:				
Sizes:				
Depths Set:				

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Mobilize the drill rig. Drill a horizontal Marcellus gas well. Drill vertically to kick-off point at 4244' MD. The hole will be drilled with air, at a minimum, until the freshwater protection casing is cemented to surface. Drill a 24 degree tangent out to corner point then build a main curve to land at 8464' MD (7953 TVD) and drill horizontally to TD approximately 14648 MD. Run and cement casing. Demobilize the drill rig and mobilize the completion equipment. Complete well: perforate, fracture, stimulate, clean-out, run tubing, unload and test gas well. Set production equipment and tanks. Remedial cement procedures will be used as necessary to supplement cement volumes if cement return are not seen at the surface while cementing the 9 5/8".

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Fracturing method is 100 mesh and 40/70 sand slick water job. Will be using approximately 2000 gallons of 15% acid per stage. All water will contain scale inhibitor (0.25 gpt), biocide (0.25 gpt), and O2 scavenger (0.1 gpt). Anticipated maximum slurry rate is 80 bpm, max treating pressure is approximately 8500 psi.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 26.0

22) Area to be disturbed for well pad only, less access road (acres): 3.65

23) Describe centralizer placement for each casing string:

Surface and Intermediate Strings - centralizers will be placed on the first two joints and then every other joint. Lateral Strings - centralizers will be placed on every joint from the top of the curve then every fourth joint from the top of the curve to the intermediate casing string.

24) Describe all cement additives associated with each cement type:

See Attachment.

GS  
6/2/15

25) Proposed borehole conditioning procedures:

Circulate BU until hole is clean and mud is conditioned for cementing. Circulate as many bottom-up as necessary once casing is on the bottom to confirm full returns before cementing. If any losses are noted, stop and circulate LCM pill around to ensure losses will not be lost during cementing.

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\*Note: Attach additional sheets as needed.



4707700621

24) Describe all cement additives associated with each cement type:

Freshwater/Coal protection string: These respective 20" and 13 3/8" strings will be cemented back to surface with Class A Portland cement, containing no additional additives. Should a void be encountered, the 13 3/8" casing will be run to a depth of 50' below the void and cemented back to the surface using cement baskets above and below the void.

Intermediate cement (for 9 5/8" string): will contain retarder/extender to allow all cement to be pumped into the annulus and accelerator to speed the cement hardening process once it begins. Other cement additives used will be an expansion agent to provide complete bonding/fill between the casing and the hole and gas-block product, used to prevent migration of gas up the liquid cement before it hardens. As in the surface job, lost material will be added if necessary.

Production cement (for 5 1/2" string): will contain additional retarder/extender to allow all cement to be pumped into the annulus and accelerator to speed the cement hardening process once it begins. This cement blend will contain additional gas migration/gas block additive to prevent gas from migrating from the producing zone through the cement while the cement is still liquid. The production cement contains a solubility enhancer to ensure that the large volume of production cement pumped will thoroughly blend with dry additives and mix water before being pumped downhole.

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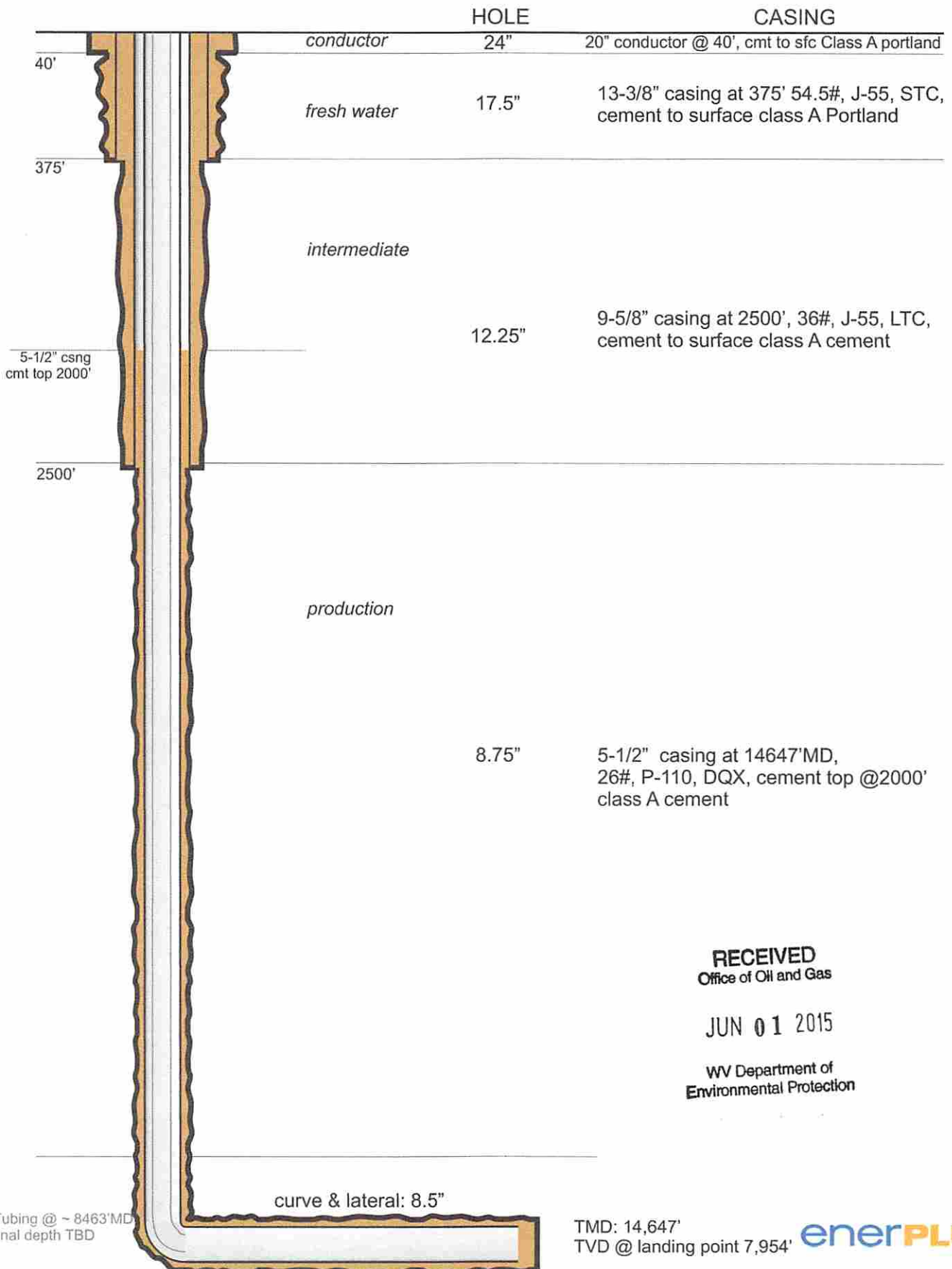
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06/19/2015

ENERPLUS Tanner 1-4H  
Casing plan #3

County: Preston Co., WV  
Prepared by: TA/ JPK  
Date: May 2015



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TMD: 14,647'  
TVD @ landing point 7,954'

**enerPLUS**

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WW-9  
(9/13)

4707700621  
API Number 47-077  
Operator's Well No. ~~Tanner 1-4H~~

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Enerplus Resources (USA) Corporation OP Code 49449649

Watershed (HUC 10) Little Laurel Run Quadrangle 637 (Terra Alta)

Elevation 2533' County Preston District Portland

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes  No

Will a pit be used? Yes  No

If so, please describe anticipated pit waste:

Will a synthetic liner be used in the pit? Yes  No  If so, what ml.?

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection ( UIC Permit Number \_\_\_\_\_ )
- Reuse (at API Number 47-77-0597 )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain \_\_\_\_\_)

Will closed loop system be used? If so, describe: Yes

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Oil-based synthetic  
Vertical hole drilled on air and brings water, curve and lateral synthetic oil-based mud

-If oil based, what type? Synthetic, petroleum, etc. Oil-based synthetic

Additives to be used in drilling medium? See Attached

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Removed offsite

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) NA

-Landfill or offsite name/permit number? WVS - Mosteller Landfill in Vintondale, Somerset County, PA 16157

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature Tim Miller

Company Official (Typed Name) Tim Miller

Company Official Title Landman

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DEC 15 2014

Subscribed and sworn before me this 1st day of October, 2014

[Signature]

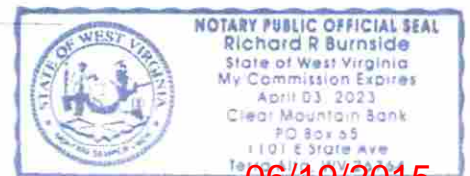
Notary Public

My commission expires April 03, 2023

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JAN 23 2015

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Environmental Protection



06/19/2015



4707700621

Form WW-9

Operator's Well No. Tanner 1-4H

**Enerplus Resources (USA) Corporation**

Proposed Revegetation Treatment: Acres Disturbed 26 Prevegetation pH 6.4

Lime <sup>6</sup>          Tons/acre or to correct to pH <sup>6.5</sup>         

Fertilizer type <sup>10-20-20</sup>         

Fertilizer amount <sup>500</sup>          lbs/acre

Mulch <sup>2-3</sup>          Tons/acre

**Seed Mixtures**

**Temporary**

**Permanent**

Seed Type	lbs/acre	Seed Type	lbs/acre
Tall fescue	40	Tall fescue	40
Annual rye	10	Annual rye	10
Ladino clover	5	Ladino clover	5
Birdsfoot trefoil	10	Birdsfoot trefoil	10

Attach:

Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: *Gaym J. Kirtland*

Comments:           
          
          
          
          
          
          
        

Title: *Inspector*

Date: *10/30/2014*

Field Reviewed? (  ) Yes (  ) No

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JAN 23 2015

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DEC 15 2014  
WV Department of  
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**06/19/2015**

4707700621

**FORM WW-9  
FLUIDS/CUTTINGS DISPOSAL AND RECLAMATION PLAN**

**ADDITIVES  
ENERPLUS RESOURCES (USA) CORPORATION  
TANNER 1-4H**

The following additives may be used for drilling at the Tanner 1-4H Well:

Base Oil  
Calcium Chloride Flake  
Carbo-Gel  
Carbo-TEC  
Carbo-Trol HT  
Caustic Soda  
Citric Acid  
Conqor  
Defoam  
DFE 459  
LC Glide  
Magma Fiber  
Mil-Bar Big Bag  
Mil-Bar  
Mil Carb

Mil-Graphite  
Mil-Lime  
Mil Pac LV  
Mil Pac  
Mil Sorb  
Mil Starch  
Milmica Fine  
New Drill  
Omni-Cote  
Potassium Chloride  
Rheo-Sweep  
Salt  
Shrink Wrap  
Soda Ash  
Walnut - Medium  
Xan-Plex

**Note:** Additional additives may be requested as operation permits. The SDS for the additives will be available onsite.

**Received  
Office of Oil & Gas  
JAN 23 2015**

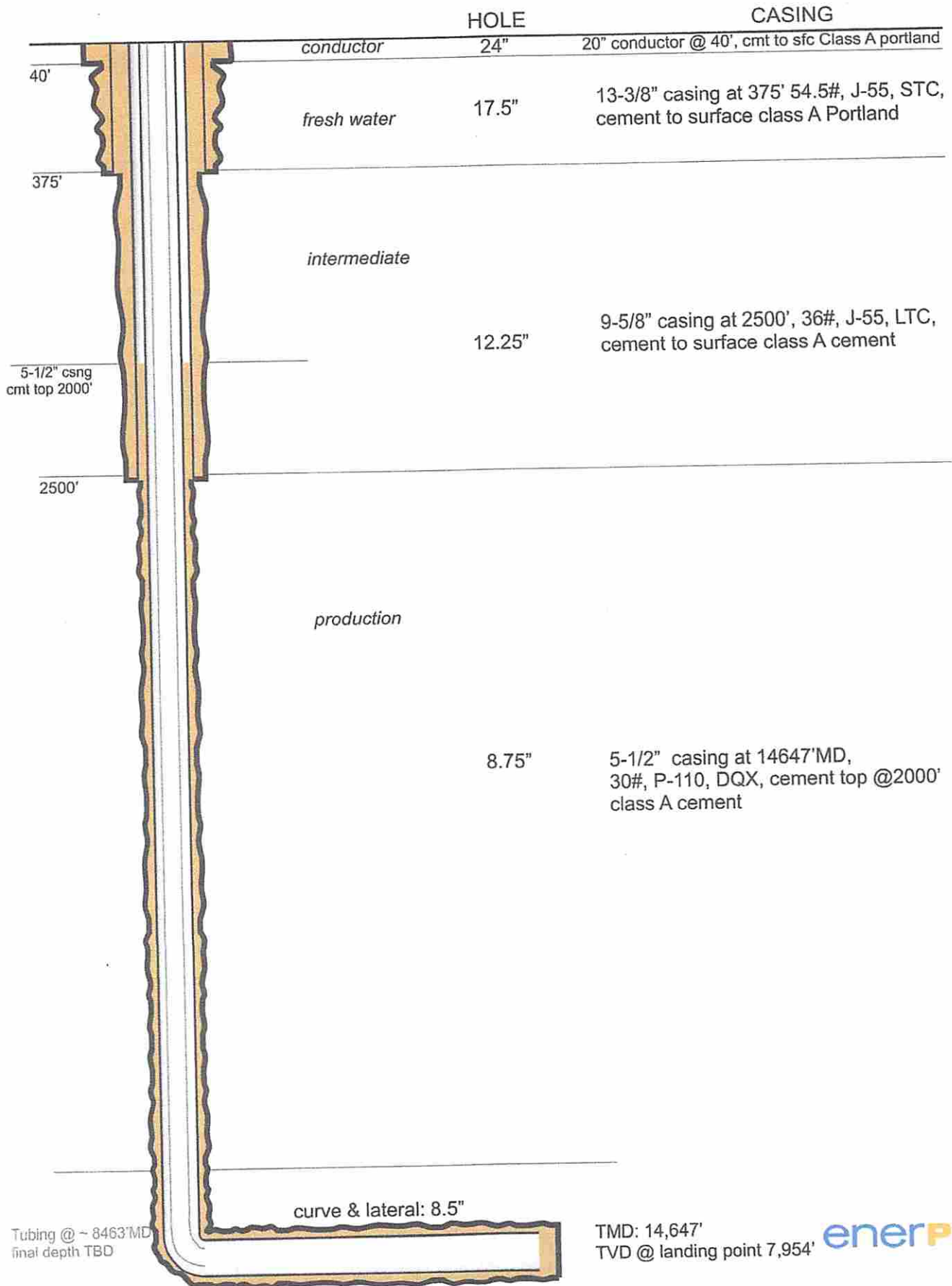
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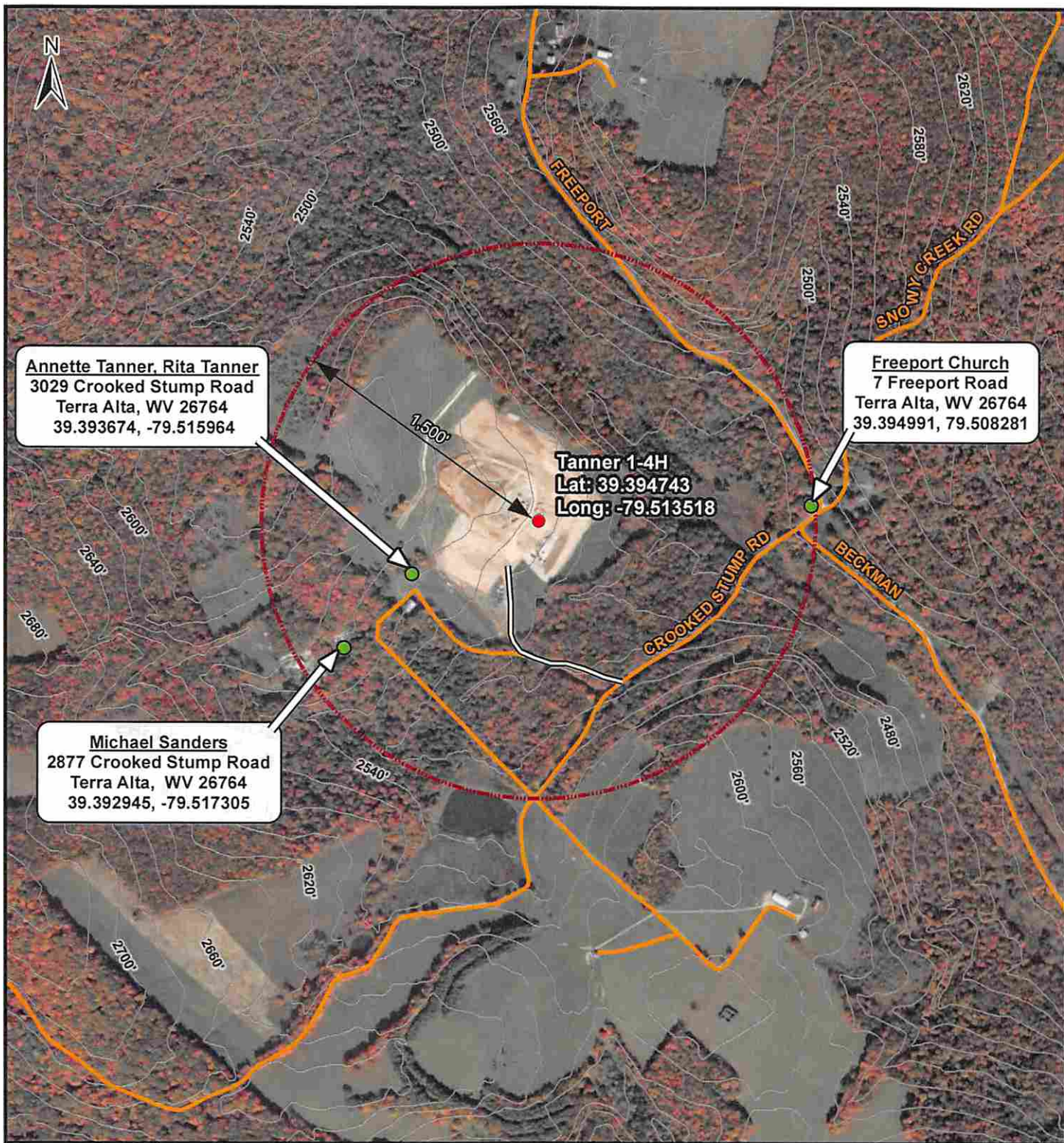
ENERPLUS Tanner 1-4H  
Casing plan #2

County: Preston Co., WV  
Prepared by: JPK  
Date: 27 Apr 2015



06/19/2015











**Annette Tanner, Rita Tanner**  
 3029 Crooked Stump Road  
 Terra Alta, WV 26764  
 39.393674, -79.515964

**Freeport Church**  
 7 Freeport Road  
 Terra Alta, WV 26764  
 39.394991, 79.508281

**Tanner 1-4H**  
 Lat: 39.394743  
 Long: -79.513518

**Michael Sanders**  
 2877 Crooked Stump Road  
 Terra Alta, WV 26764  
 39.392945, -79.517305

 Tanner 1-4H Pad	 Local Road
 Landowners with Water Wells	 20' Contours
 Pad Access Road	 1500' Buffer


\*No water purveyors located within 1500'

0 490 980 Feet

**enerPLUS**

Received **Tanner 1-4H**  
 Office of Oil & Water Well Map

JAN 23 2015 39.340488 -79.819851

 H&L COMPLIANCE SOLUTIONS, INC. ENVIRONMENTAL CONSULTANTS	Author: R. Young
	Revision: 0
	Date: 11/19/2014

06/19/2015



Latitude: 39°25'00"

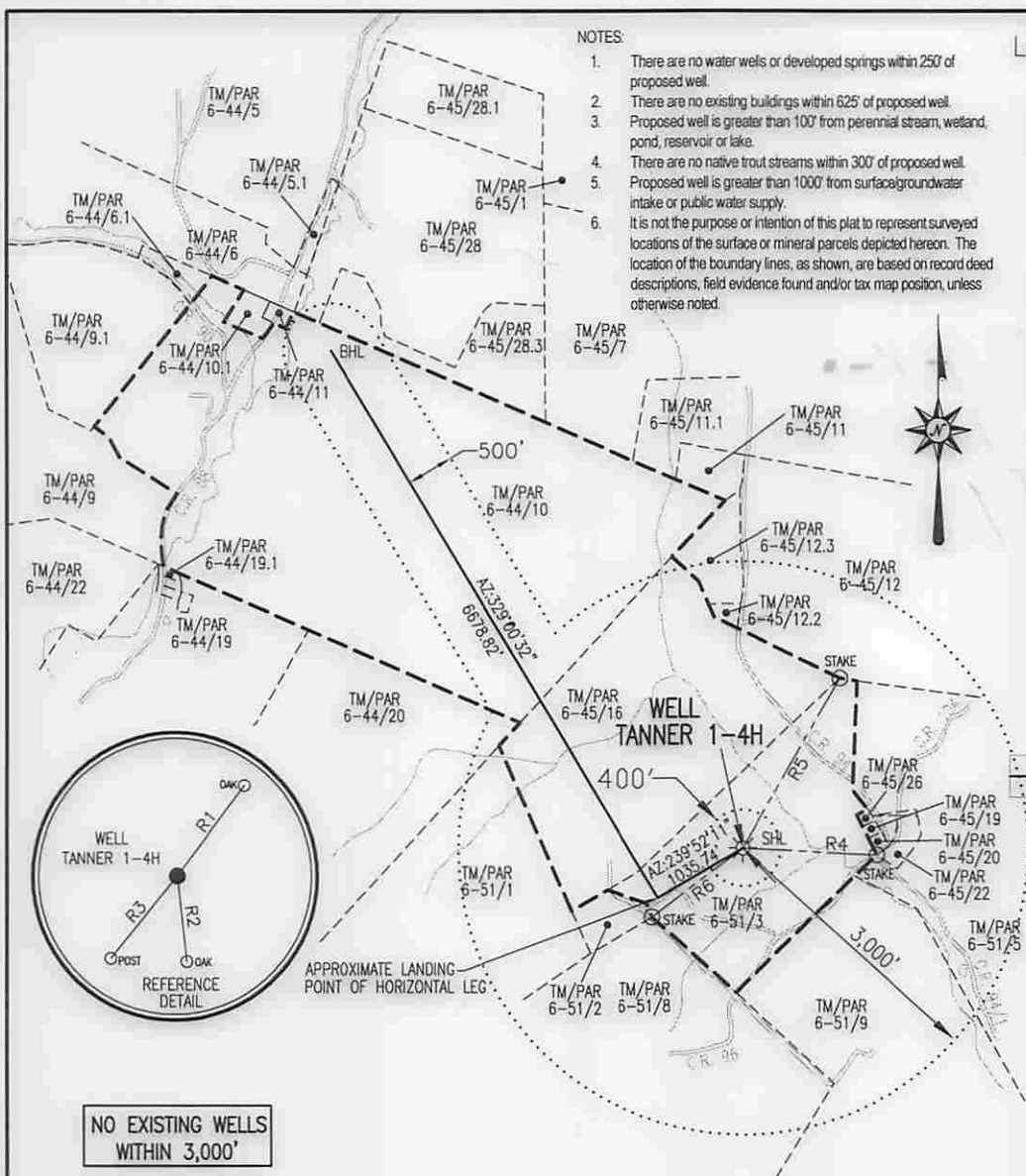
Longitude: 79°30'00"

NOTES:

1. There are no water wells or developed springs within 250' of proposed well.
2. There are no existing buildings within 625' of proposed well.
3. Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
4. There are no native trout streams within 300' of proposed well.
5. Proposed well is greater than 1000' from surface/groundwater intake or public water supply.
6. It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted hereon. The location of the boundary lines, as shown, are based on record deed descriptions, field evidence found and/or tax map position, unless otherwise noted.

LEGEND

- TOPO MAP POINT
- WELL
- ALL ARE POINTS UNLESS OTHERWISE NOTED.
- WATER SOURCE
- MINERAL TRACT BOUNDARY
- PARCEL LINES
- WELL REFERENCE
- PROPOSED HORIZONTAL WELL
- ROAD
- STREAM CENTER LINE



**SURFACE HOLE LOCATION (SHL)**  
 UTM 17-NAD83  
 N:4361639.41  
 E:628009.61  
 NAD83, WV NORTH  
 N:325897.47  
 E:1964706.01  
 LAT/LOG DATUM-WGS84  
 LAT:39°23'41.15"  
 LON:79°30'48.33"

**APPROX. LANDING POINT**  
 UTM 17-NAD83  
 N:4361476.45  
 E:627739.28  
 NAD83, WV NORTH  
 N:325377.56  
 E:1963810.21  
 LAT/LOG DATUM-WGS84  
 LAT:39°23'36.01"  
 LON:79°30'59.74"

**BOTTOM HOLE LOCATION (BHL)**  
 UTM 17-NAD83  
 N:4363203.63  
 E:626662.38  
 NAD83, WV NORTH  
 N:331102.95  
 E:1960371.24  
 LAT/LOG DATUM-WGS84  
 LAT:39°24'32.59"  
 LON:79°31'43.57"

LINE	BEARING	DISTANCE
R1	N 36°50'11" E	235.67'
R2	S 06°19'35" E	180.16'
R3	S 39°02'31" W	222.24'
R4	S 87°16'58" E	1412.51'
R5	N 29°47'56" E	2050.97'
R6	S 53°03'11" W	1196.11'

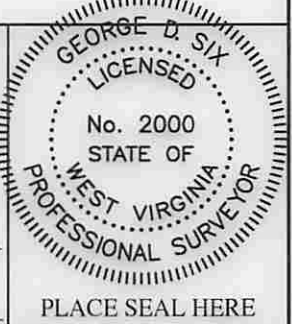
NO EXISTING WELLS WITHIN 3,000'

SEE PAGE 2 FOR SURFACE OWNERS AND LESSORS

**Blue Mountain Inc.**  
 11023 MASON DIXON HIGHWAY  
 BURTON, WV 26562  
 PHONE: (304) 662-6486

FILE #: TANNER 1-4H REV. 2  
 DRAWING #: TANNER 1-4H REV. 2  
 SCALE: 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY: 1/2500  
 PROVEN SOURCE OF ELEVATION: U.S.G.S. MONUMENT THOMAS 1498.81'

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 DEPARTMENT OF ENVIRONMENTAL PROTECTION.  
 Signed: *George D. Six*  
 R.P.E.: \_\_\_\_\_ L.L.S.: P.S. No. 2000



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP  
 OFFICE OF OIL & GAS  
 601 57TH STREET  
 CHARLESTON, WV 25304



DATE: OCTOBER 13, 2014  
 OPERATOR'S WELL #: TANNER 1-4H  
 API WELL #: 47 77 00621  
 STATE COUNTY PERMIT

Well Type:  Oil  Waste Disposal  Production  Deep  
 Gas  Liquid Injection  Storage  Shallow

WATERSHED: LITTLE YOUGHIOGHENY RIVER-YOUGHIOGHENY RIVER ELEVATION: 2533.00'  
 COUNTY/DISTRICT: PRESTON / PORTLAND QUADRANGLE: TERRA ALTA, WV 7.5'  
 SURFACE OWNER: RITA TANNER ACREAGE: 110.00±  
 OIL & GAS ROYALTY OWNER: RITA TANNER / ANNETTE TANNER ACREAGE: 607.244±

DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE   
 PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG & ABANDON   
 CLEAN OUT & REPLUG  OTHER CHANGE  (SPECIFY): \_\_\_\_\_

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 7,954'± TMD: 14,647'±  
 WELL OPERATOR: ENERPLUS RESOURCES (USA) CORPORATION DESIGNATED AGENT: TERRY STAMPER  
 Address: 950 17th STREET, SUITE 2200 Address: 5400 D BIG TYLER ROAD  
 City: DENVER State: CO Zip Code: 80202 City: CHARLESTON State: WV Zip Code: 25313

06/19/2015



# TANNER 1-4H

## PAGE 2 OF 2

DIST-TM/PAR	SURFACE OWNER
6-44/5	ALBERT D. JR. & CATHERINE L. CALHOUN
6-44/5.1	SCOTT H. WARD
6-44/6	DONALD GOFF SR.
6-44/6.1	DENNIS H. & CRYSTAL D. TERRANT
6-44/9.1	MICHAEL S. & JUNE A. SISLER
6-44/9.2	DONETTA S. NICE
6-44/10	DARWIN E. & SHARON L. STEMPLE
6-44/10.1	CHARLES & JANET NELLIE STEMPLE
6-44/11	CHARLES J. & JANET NELLIE STEMPLE
6-44/19	DONALD W. FALKNER
6-44/19.1	DOUGLAS ARNOLD FALKNER
6-44/20	BRADLEY K. & RICHARD A. STEMPLE
6-44/22	COTHELSTONE LLC
6-45/1	SHERI LYNN MCGUIRE & JOHN HOWELL
6-45/7	FREEMAN H. & W. W. WINTERS
6-45/11	ROBERT & KAREN DURR
6-45/11.1	RICHARD L. & ALMA ROBINSON
6-45/12	RUSSELL PETER SANDERS
6-45/12.1	GERALD & CAROLYN SANDERS
6-45/12.2	LAURENT PETER SANDERS
6-45/12.3	RUSSELL PETER & BARBARA ANN SANDERS
6-45/12.4	TIMOTHY SANDERS & TRINA STANTON
6-45/16	STEPHEN D. TANNER ET AL
6-45/19	DAVID A. CLUTTER
6-45/20	FREEPORT KING JAMES BIBLE CHURCH
6-45/22	MCCLUNG LLC
6-45/26	TIMOTHY KEVIN & TRINA LYNNE SANDERS
6-45/28	SCOTT H. WARD
6-45/28.1	DARWIN E. JR. & DARWIN E. STEMPLE SR.
6-45/28.3	SUSAN I. GAITHER & ALBERT J. HYMILLER
6-51/1	STEPHEN D. TANNER ET AL
6-51/2	MICHAEL E. & SUSAN R. SANDERS
6-51/3	RITA TANNER
6-51/5	MESSANGER LIMITED PARTNERSHIP LLLP
6-51/8	MCCLUNG LLC
6-51/9	MCCLUNG LLC

GAS LESSORS		
TAX MAP#	PARCEL#	OIL & GAS ROYALTY OWNERS
6-51	3	RITA TANNER / ANNETTE TANNER
6-45	16	RITA TANNER
6-45	16	ANNETTE TANNER
6-45	16	THOMAS J. NORDECK
6-45	16	JOY A. NORDECK MOSELEY
6-45	16	CONNIE S. STEMPLE
6-45	16	RICHARD A. STEMPLE
6-45	16	BRADLEY K. STEMPLE
6-45	16	BRANDY L. STEMPLE
6-45	16	STEVEN A. NORDECK
6-45	16	GEORGE V. NORDECK
6-45	16	STEPHEN ALAN NORDECK, TRUSTEE FOR DIANE L. NORDECK
6-45	16	ESTATE OF ROSE N. MINOR
6-44	10	DARWIN E. & SHARON L. STEMPLE

HGA  
47-077-00621  
06/19/2015

OCTOBER 13, 2014

WW-6A1  
(5/13)

Operator's Well No. Tanner 1-4H

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE  
Chapter 22, Article 6A, Section 5(a)(5)  
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
see attachment s				


**Acknowledgement of Possible Permitting/Approval  
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

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MAY 01 2015  
WV Department of  
Environmental Protection

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: Enerplus Resources (USA) Corporation  
 By: Debbie Wilpolt   
 Its: Land Lease Analyst

WW-6A1  
(5/13)

Operator's Well No. Tanner 1-4H

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE  
Chapter 22, Article 6A, Section 5(a)(5)  
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
	Rita Tanner	Magnum Land Services, LLC	13.50%	698/146
	Magnum Land Services, LLC	Enerplus Resources (USA) Corporation	Assign	725/362
	Annette Tanner	Magnum Land Services, LLC	13.50%	698/140
	Magnum Land Services, LLC	Enerplus Resources (USA) Corporation	Assign	725/326
	Richard A. Stemple	Magnum Land Services, LLC	12.50%	735/848
	Magnum Land Services, LLC	Enerplus Resources (USA) Corporation	Assign	744/74

**Acknowledgement of Possible Permitting/Approval  
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources
- WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

Office of Oil and Gas

June 10, 2015

WV Department of  
Environmental Protection

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: Enerplus Resources (USA) Corporation

By: Tony Lucero

Its: Lead, Regulatory Programs

07700621

Attached to and made a part hereof the WW-6A1 for the Tanner 1-4H paragraph (2) the parties and recordation data (if recorded) for lease(s) or other contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
06-45-28.3	Albert Hymiller and Susan Gaither	Magnum Land Services, LLC	12.50%	682/187
06-44-10 (Wellbore)	Darwin E and Sharon L Stemple	Magnum Land Services, LLC	12.50%	577/633
06-45-16 (Wellbore), 06-51-03 (Wellbore)	Stephen D and Rita D Tanner	Magnum Land Services, LLC	13.50%	698/146
06-45-16 (Wellbore), 06-51-03 (Wellbore)	Annette H Tanner	Magnum Land Services, LLC	13.50%	698/140
06-45-16 (Wellbore)	Joy Ann Nordeck	Magnum Land Services, LLC	12.50%	735/867
06-45-16 (Wellbore)	Thomas J Nordeck	Magnum Land Services, LLC	12.50%	735/852
06-45-16 (Wellbore)	Connie Sue Stemple	Magnum Land Services, LLC	12.50%	735/857
06-45-16 (Wellbore)	Brandy Lynn Stemple	Magnum Land Services, LLC	12.50%	735/862
06-45-16 (Wellbore)	Richard Alan Stemple	Magnum Land Services, LLC	12.50%	735/850
06-45-16 (Wellbore)	Bradley Kaylor Stemple	Magnum Land Services, LLC	12.50%	735/848
06-45-16 (Wellbore)	Steven Alan Nordeck	Magnum Land Services, LLC	12.50%	735/882
06-45-16 (Wellbore)	George Vaugh Nordeck	Magnum Land Services, LLC	12.50%	735/877
06-45-16 (Wellbore)	Steven Alan Nordeck for Diane Lyn Nordeck	Magnum Land Services, LLC	12.50%	735/905

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WV Department of  
Environmental Protection

September 25, 2014

West Virginia Department of Natural Resources  
Office of Oil and Gas  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304

RE: Road Crossing for Tanner 1-4H

Dear Sir or Madam,

Upon investigation of the proposed path of the Tanner 1-4H wellbore, it has been determined that the path will not cross under any state and/or county owned or maintained roadway.

Best regards,



Timothy Miller  
Landman

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Environmental Protection

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JAN 23 2015

Enerplus Resources (USA) Inc.  
950 17<sup>th</sup> Street, Suite 2200  
Denver . CO 80202-5558

06/19/2015



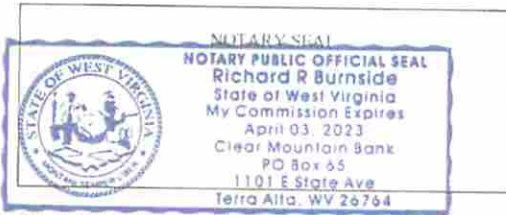


**Certification of Notice is hereby given:**

THEREFORE, I Tim Miller, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator: Enerplus Resources (USA) Corporation  
By: Tim Miller *[Signature]*  
Its: Landman  
Telephone: 720-279-5500

Address: 950 17th Street, Suite 2200  
Denver Colorado 80202  
Facsimile: 720-279-5550  
Email: tmiller@enerplus.com



Subscribed and sworn before me this 7<sup>th</sup> day of October.  
*[Signature]* Notary Public  
My Commission Expires April 03, 2023

**Oil and Gas Privacy Notice:**

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

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WV Department of  
Environmental Protection

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
NOTICE OF APPLICATION

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.  
Date of Notice: 09/23/2014 Date Permit Application Filed: 12/03/2014

Notice of:

- PERMIT FOR ANY WELL WORK       CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- PERSONAL SERVICE       REGISTERED MAIL       METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b), no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner.

Notice is hereby provided to:

SURFACE OWNER(s)  
Name: Rita Tanner ✓  
Address: 2 Waterfront Place  
Morgantown, WV 26505  
Name: Anita Tanner ✓  
Address: 712 South Hills Drive  
Morgantown, WV 26505

SURFACE OWNER(s) (Road and/or Other Disturbance)  
Name: Same  
Address: \_\_\_\_\_  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

SURFACE OWNER(s) (Impoundments/Pits)  
Name: Same  
Address: \_\_\_\_\_  
Received  
Office of Oil & Gas

COAL OWNER OR LESSEE  
Name: Same  
Address: \_\_\_\_\_

COAL OPERATOR  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

WATER PURVEYOR(s)  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

OPERATOR OF ANY NATURAL GAS STORAGE FIELD  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

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\*Please attach additional forms if necessary

JAN 23 2015

06/19/2015



**Notice is hereby given:**

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

**This Notice Shall Include:**

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall also include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

**Water Well Testing:**

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well.

**Water Testing Laboratories:**

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments.

**Well Location Restrictions**

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No wellpad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such

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WW-6A  
(5-12)

4707700621  
OPERATOR WELL NO. Tanner 1-4H  
Well Pad Name: Tanner

factors, if necessary.

**Written Comment:**

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

Chief, Office of Oil and Gas  
Department of Environmental Protection  
601 57<sup>th</sup> St. SE  
Charleston, WV 25304  
(304) 926-0450

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. **NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

**Time Limits and Methods for Filing Comments.**

The law requires these materials to be served on or before the date the operator files its Application. You have **THIRTY (30) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

**Comment Requirements**

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site <http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx> and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

**Permit Denial or Condition**

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

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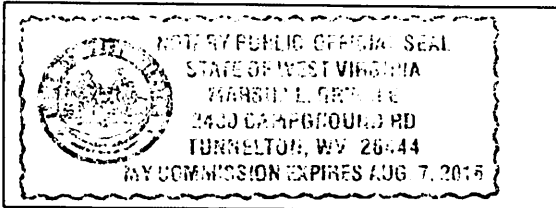
Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

**Notice is hereby given by:**

Well Operator: Enerplus Resources (USA) Corporation Address: 950 17th Street  
Telephone: 720-279-5500 Denver, Colorado 80202  
Email: tmiller@enerplus.com Facsimile: 720-279-5550

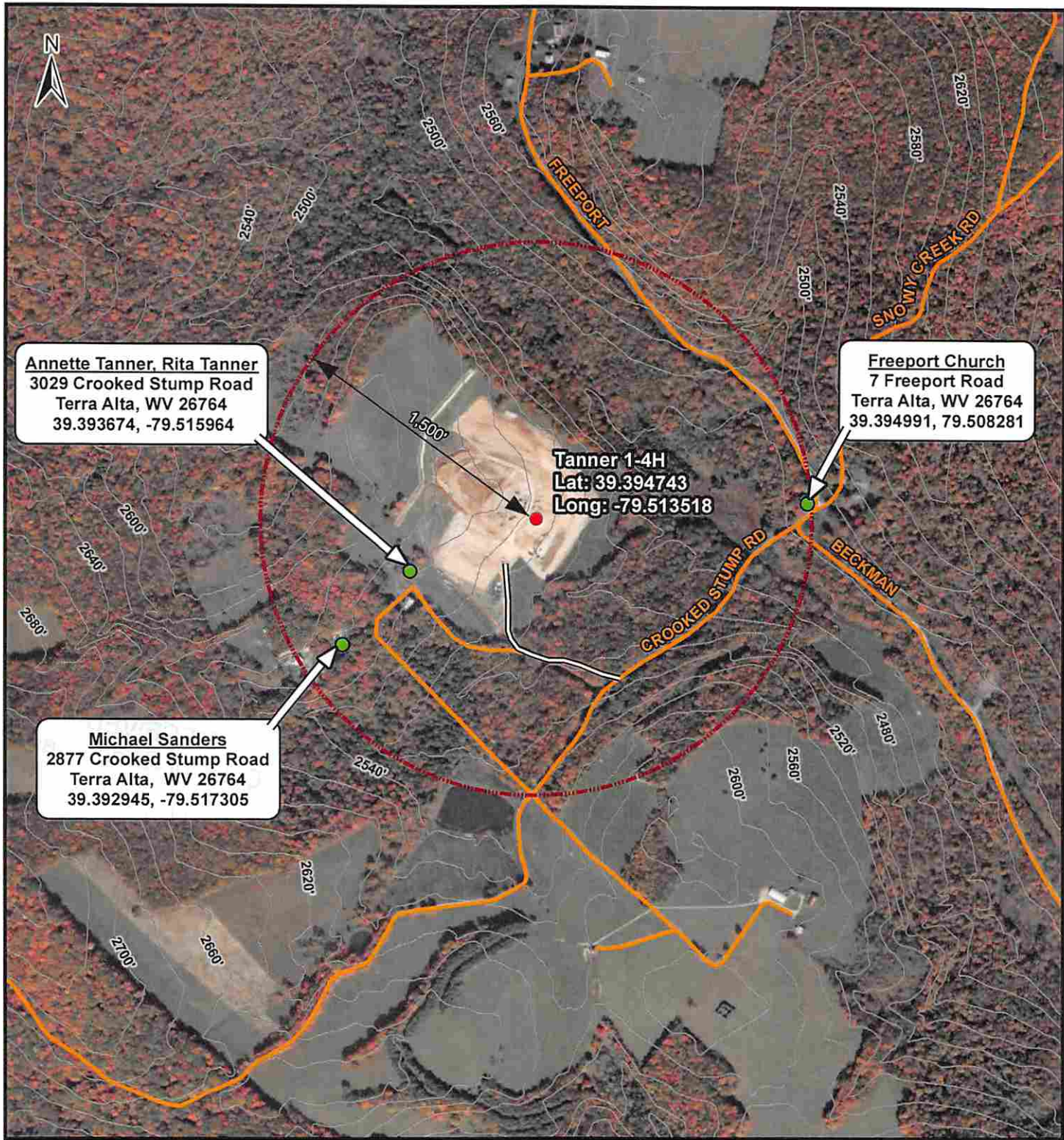
**Oil and Gas Privacy Notice:**

*Tommy Miller*  
The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).



Subscribed and sworn before me this 18 day of Nov, 2014.  
Wansher L. Griffin Notary Public  
My Commission Expires August 7, 2015

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**Annette Tanner, Rita Tanner**  
 3029 Crooked Stump Road  
 Terra Alta, WV 26764  
 39.393674, -79.515964

**Freeport Church**  
 7 Freeport Road  
 Terra Alta, WV 26764  
 39.394991, 79.508281

**Tanner 1-4H**  
 Lat: 39.394743  
 Long: -79.513518

**Michael Sanders**  
 2877 Crooked Stump Road  
 Terra Alta, WV 26764  
 39.392945, -79.517305

	Tanner 1-4H Pad		Local Road
	Landowners with Water Wells		20' Contours
	Pad Access Road		1500' Buffer

\*No water purveyors located within 1500'

0      490      980  
 Feet

**enerPLUS**

**Tanner 1-4H  
 Water Well Map**

39.340488 -79.819851

	Author: R. Young
HAL COMPLIANCE SOLUTIONS, INC. ENVIRONMENTAL CONSULTANTS	Revision: 0
	Date: 11/19/2014

06/19/2015



4707700621

Enerplus Resources (USA) Corporation – Tanner 1-4H Well Permit – List of Surface and Mineral Owners

Annette Tanner ✓ 712 South Hills Drive Morgantown, WV 26505	Surface, Coal and Mineral Owner
Rita Tanner ✓ 2 Waterfront Place Morgantown, WV 26505	Surface, Coal and Mineral Owner
Steven A. Nordeck ✓ 103 Aurora Avenue Terra Alta, WV 26764	Mineral Owner
George V. Nordeck ✓ 2196 Spruce Run Road Terra Alta, WV 26764	Mineral Owner
Diane L. Nordeck ✓ 205 Linwood Street Terra Alta, WV 26764	Mineral Owner
Joy Ann Nordeck Moseley A ✓ 136 Silver Creek Drive Swansboro, NC 28584	Mineral Owner
Thomas J. Nordeck ✓ 10207 Song Sparrow Lane Highlands Ranch, CO 80129	Mineral Owner
Darwin Stemple ✓ 1576 Snowy Creek Road Terra Alta, WV 26764	Mineral Owner
Richard A. Stemple ✓ 405 Ringer Avenue Terra Alta, WV 26764	Mineral Owner
Bradley K. Stemple ✓ 3888 Aurora Pike Terra Alta, WV 26764	Mineral Owner
Connie Sue Stemple and Brandy Lynn Stemple ✓ 201 Gregg Memorial Drive Terra Alta, WV 26764	Mineral Owner

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06/19/2015

WW-6A5  
(1/12)

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
NOTICE OF PLANNED OPERATION

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notice: 10/23/2014 Date Permit Application Filed: 12/03/2014

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

- CERTIFIED MAIL RETURN RECEIPT REQUESTED
- HAND DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)  
(at the address listed in the records of the sheriff at the time of notice):

Name: Rita Tanner  
Address: 2 Waterfront Place  
Morgantown, WV 26505

Name: Annette Tanner  
Address: 712 South Hills Drive  
Morgantown, WV 26505

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State:	West Virginia	UTM NAD 83	Easting:	625720.08
County:	Preston		Northing:	4350723.72
District:	Portland	Public Road Access:	Crooked Slump Road	
Quadrangle:	Terra Alta	Generally used farm name:	Tanner	
Watershed:	Laurel Run			

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by W. Va. Code § 22-6A-10(b) to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

Well Operator: Enerplus Resources (USA) Corporation  
Telephone: 720-279-5500  
Email: tmiller@enerplus.com

Address: 950 17th Street, Suite 2200  
Denver, Colorado 80202  
Facsimile: 720-279-5550

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

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Environmental Protection

06/19/2015



STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
**VOLUNTARY STATEMENT OF NO OBJECTION**

**Instructions to Persons Named on Page WW-6A**

The well operator named on page WW-6A is applying for a permit from the State of West Virginia to conduct oil or gas well work. Well work permits are valid for twenty-four (24) months. Please contact the listed well operator and the Office of Oil and Gas if you do not own any interest in the listed surface tract.

**Comment and Waiver Provisions**

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary.

Pursuant to West Virginia Code § 22-6A-8(b) No permit may be issued less than thirty days after the filing date of the application for any well work except plugging or replugging; and no permit for plugging or replugging may be issued less than five days after the filing date of the application except a permit for plugging or replugging a dry hole. *Provided*, That if the applicant certifies that all persons entitled to notice of the application under the provisions of subsection (b), section ten of this article have been served in person or by certified mail, return receipt requested, with a copy of the well work application, including the erosion and sediment control plan, if required, and the well plat, and further files written statements of no objection by all such persons, the secretary may issue the well work permit at any time.

**VOLUNTARY STATEMENT OF NO OBJECTION**

I, Rita Tanner, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through \_\_\_\_\_, including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>-79.18956</u>
County:	<u>Preston</u>		Northing:	<u>39.12142</u>
District:	<u>Portland</u>	Public Road Access:	<u>Crooked Stump Road</u>	
Quadrangle:	<u>Terra Alta</u>	Generally used farm name:	<u>Tanner</u>	
Watershed:	<u>Laurel Run</u>			

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

<p>*Please check the box that applies</p> <p><input checked="" type="checkbox"/> SURFACE OWNER</p> <p><input checked="" type="checkbox"/> SURFACE OWNER (Road and/or Other Disturbance)</p> <p><input type="checkbox"/> SURFACE OWNER (Impoundments/Pits)</p> <p><input type="checkbox"/> COAL OWNER OR LESSEE</p> <p><input type="checkbox"/> COAL OPERATOR</p> <p><input type="checkbox"/> WATER PURVEYOR</p> <p><input type="checkbox"/> OPERATOR OF ANY NATURAL GAS STORAGE FIELD</p>	<p><b>FOR EXECUTION BY A NATURAL PERSON</b></p> <p>Signature: <u>Rita Tanner</u></p> <p>Print Name: <u>Rita Tanner</u></p> <p>Date: <u>10/22/14</u></p>
	<p><b>FOR EXECUTION BY A CORPORATION, ETC.</b></p> <p>Company: _____</p> <p>By: _____</p> <p>Its: _____</p> <p>Signature: _____</p> <p>Date: _____</p>

**Oil and Gas Privacy Notice:**

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

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STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
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**VOLUNTARY STATEMENT OF NO OBJECTION**

I, Annette Tanner, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through \_\_\_\_\_, including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows:

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County:	<u>Preston</u>		Northing:	<u>39.12142</u>
District:	<u>Portland</u>	Public Road Access:	<u>Cracked Stump Road</u>	
Quadrangle:	<u>Terra Alta</u>	Generally used farm name:	<u>Tanner</u>	
Watershed:	<u>Laurel Run</u>			

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

- \*Please check the box that applies
- SURFACE OWNER
  - SURFACE OWNER (Road and/or Other Disturbance)
  - SURFACE OWNER (Impoundments/Pits)
  - COAL OWNER OR LESSEE
  - COAL OPERATOR
  - WATER PURVEYOR
  - OPERATOR OF ANY NATURAL GAS STORAGE FIELD

**FOR EXECUTION BY A NATURAL PERSON**

Signature: Annette Tanner  
Print Name: Annette Tanner  
Date: Oct. 22, 2014

**FOR EXECUTION BY A CORPORATION, ETC.**

Company: \_\_\_\_\_  
By: \_\_\_\_\_  
Its: \_\_\_\_\_

Signature: \_\_\_\_\_  
Date: \_\_\_\_\_

**Oil and Gas Privacy Notice:**

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

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07700621

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

1900 Kanawha Boulevard East • Building Five • Room 110  
Charleston, West Virginia 25305-0430 • (304) 558-3505

Earl Ray Tomblin  
Governor

Paul A. Mattox, Jr., P. E.  
Secretary of Transportation/  
Commissioner of Highways

April 29, 2015

James A. Martin, Chief  
Office of Oil and Gas  
Department of Environmental Protection  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304

Subject: DOH Permit for the Tanner1 Pad, Preston County  
Tanner1 4H Well site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #04-2011-0733 which has been issued to Enerplus Resources Corporation for access to the State Road for a well site located off of Route 96 SLS in Preston County.

The operator has signed a DISTRICT WIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

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Very Truly Yours,

MAY 01 2015

WV Department of  
Environmental Protection

Gary K. Clayton, P.E.  
Regional Maintenance Engineer  
Central Office O&G Coordinator

Cc: Tim Miller  
Enerplus Resources Corporation  
CH, OM, D-4  
File

06/19/2015

4707700621

**LIST OF CHEMICAL NAMES  
AND CAS NUMBERS FOR  
FRAC ADDITIVES**

**ENERPLUS RESOURCES (USA)  
CORPORATION  
Tanner 1-4H**

The following additives may be used for the Tanner 1-4H Gas Well:

<b>Descriptive Additive Type</b>	<b>CAS Number(s):</b>
Fresh Water	N/A
Sand	68130-15-4
FRP 121 - Water Soluble Polymer	Mixture
ECS6116A - Bromine Based Biocide	3252-43-5, 10222-01-2, 25322-68-3
Scalehib 100 - Water Soluble Polymer	Mixture
Flomax 50 - Non-toxic surfactant	67-63-0
FE OXYCLEAR - O2 Scavenger	Mixture
CMHPG - Modified Guar Gum	68130-15-4
LEB 10X - Polymer breaker	Mixture
HCL - Muriatic Acid	7647-01-0
UniHib A - Corrosion Inhibitor	67-56-1, 68802-97-1, 64741-68-0, 64742-98-6 008-20-6, 64742-81-0, 67-63-0, 95-63-0, 0-00-0, 91-20-3

**Note:** Additional additives may be required as operations permit.

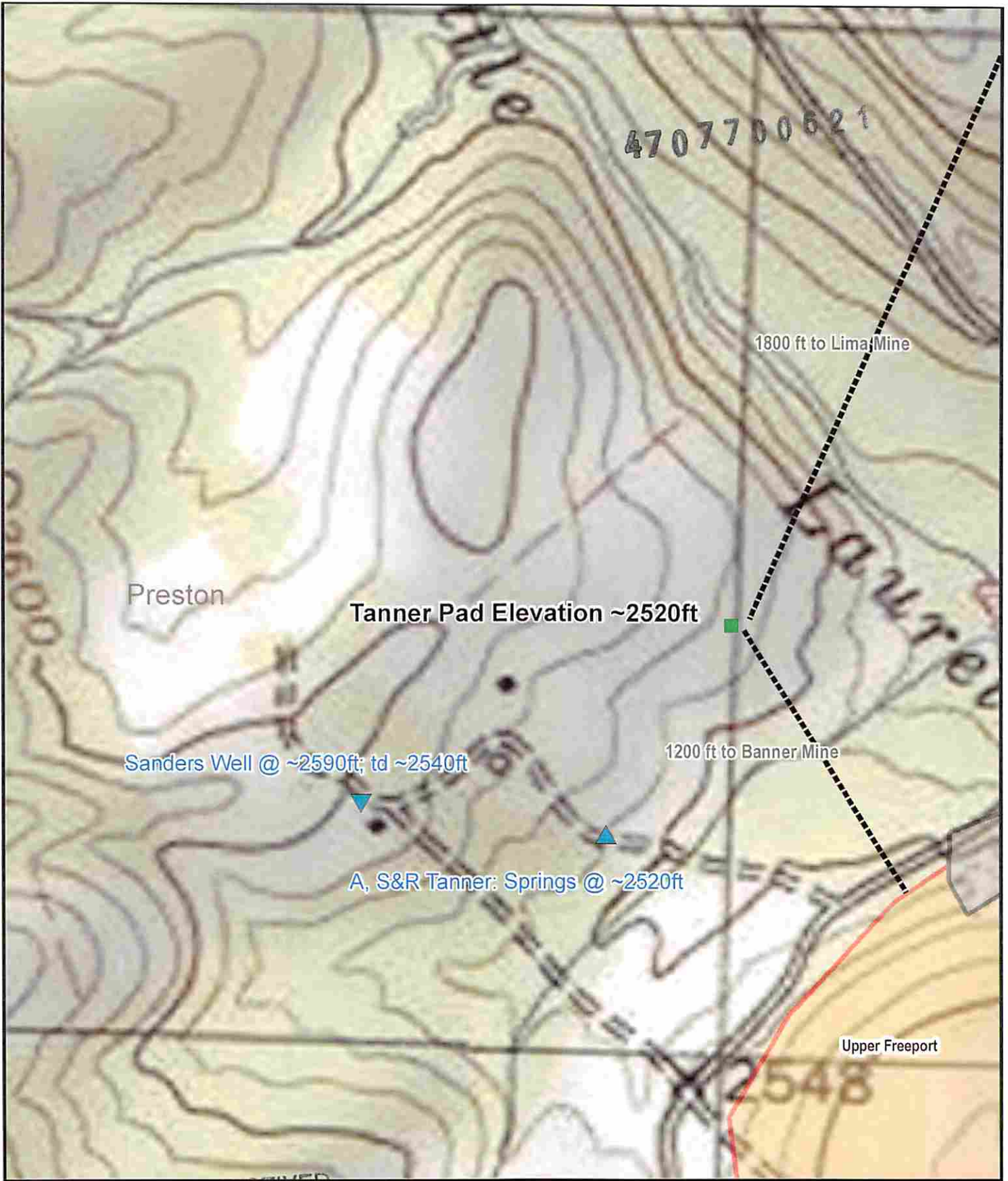
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Office of Oil & Gas  
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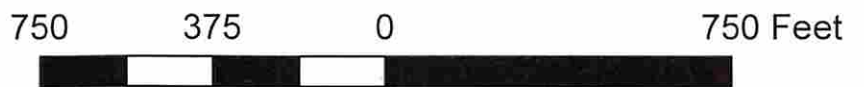
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**ENERPLUS TANNER PAD**  
 WV Department of Oil and Gas  
**COAL MINES & WATER SOURCES**  
 DEC 15 2014



**All\_mining**  
**Mine\_Type**  
 Surface  
 Underground

▲ Spring location  
 ▼ Water well location  
 ■ Tanner pad site

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 JUN 28 2015



# EROSION & SEDIMENT CONTROL PLAN

## TANNER 1-8HG WELL SITE

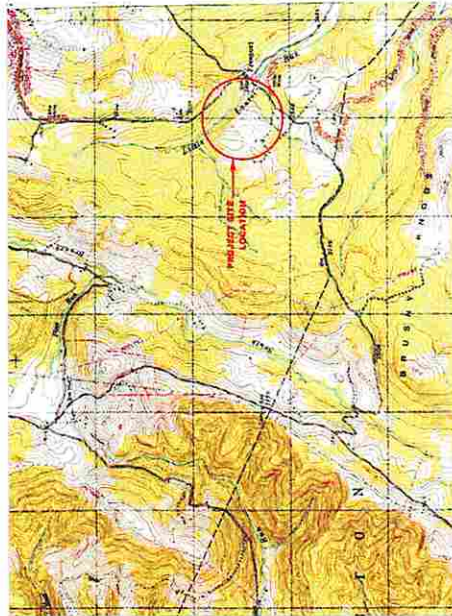
### PRESTON COUNTY, WEST VIRGINIA

#### FOR

# ENERPLUS RESOURCES (USA) CORPORATION

API#7700621

APPROVED  
 WVDEP OOG  
 6/15/15



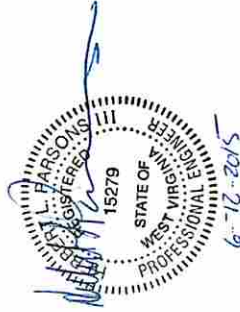
LOCATION MAP

1:500' 0 2000' 4000'  
SCALE

PROJECT NO. 1136002

JUNE 2012

DIEFFENBAUCH & HRITZ



INDEX	
DRAWING NO.	TITLE
1	TITLE SHEET
2-3	GENERAL NOTES
4	EXISTING SITE PLAN
5	PROPOSED SITE PLAN
6	ACCESS ROAD
7	SITE RESTORATION PLAN
8-9	IMPACTMENT CROSS SECTIONS
10	IMPACTMENT EROSION STORAGE
11-13	E&S DETAILS



