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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)

January 24, 2014

**WELL WORK PERMIT**

**Horizontal 6A Well**

This permit, API Well Number: 47-10302944, issued to TRANS ENERGY, INC., 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: BLACKSHERE 201H  
Farm Name: TRANS ENERGY, INC.  
**API Well Number: 47-10302944**  
**Permit Type: Horizontal 6A Well**  
Date Issued: 01/24/2014

**Promoting a healthy environment.**

## 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.

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### CONDITIONS

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1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACOE). Through this permit, you are hereby being advised to consult with USACOE 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.

WW - 6B  
(3/13)

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

1) Well Operator: Trans Energy Inc 494481575 Wetzel Grant Folsom  
Operator ID County District Quadrangle

2) Operator's Well Number: Blackshere 201H Well Pad Name: Blackshere

3 Elevation, current ground: 866' Elevation, proposed post-construction: 870

4) Well Type: (a) Gas  Oil  Underground Storage

Other \_\_\_\_\_  
(b) If Gas: Shallow  Deep   
Horizontal

5) Existing Pad? Yes or No: Yes

Dm H  
9-12-13

6) Proposed Target Formation(s), Depth(s), Anticipated Thicknesses and Associated Pressure(s):  
Marcellus Shale 7200' 60' thick 4000 psi

7) Proposed Total Vertical Depth: 7200'

8) Formation at Total Vertical Depth: Marcellus Shale

9) Proposed Total Measured Depth: 15,000

10) Approximate Fresh Water Strata Depths: 60, 150'

11) Method to Determine Fresh Water Depth: Water Wells drilled in the County, information provided by Health Dept.

12) Approximate Saltwater Depths: 1500'

13) Approximate Coal Seam Depths: 850'

14) Approximate Depth to Possible Void (coal mine, karst, other): N/A ✓

15) Does proposed well location contain coal seams directly overlying or adjacent to an active mine? If so, indicate name and depth of mine: No

16) Describe proposed well work: Drill and Complete horizontal well in the Marcellus Shale. Lateral to be approximately 7800' in length.

17) Describe fracturing/stimulating methods in detail:  
A water fracture treatment is proposed a mixture of sand and water will be used to stimulate the Marcellus Shale

18) Total area to be disturbed, including roads, stockpile area, pits, etc, (acres): 4.30

19) Area to be disturbed for well pad only, less access road (acres): 3.09 - this is an as built

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NOV 26 2013

20)

**CASING AND TUBING PROGRAM**

<b>TYPE</b>	<b>Size</b>	<b>New or Used</b>	<b>Grade</b>	<b>Weight per ft.</b>	<b>FOOTAGE: For Drilling</b>	<b>INTERVALS: Left in Well</b>	<b>CEMENT: Fill -up (Cu. Ft.)</b>
Conductor	20	new	J-55	94	80	80	CTS
Fresh Water	13 3/8	new	J-55	54.5	820	820	CTS
Coal							
Intermediate	9 5/8	new	J-55	40	3300	3300	CTS
Production	5 1/2	new	P-110	20		15000	To 3,000'
Tubing							
Liners							

*DmH 9-12-13*

<b>TYPE</b>	<b>Size</b>	<b>Wellbore Diameter</b>	<b>Wall Thickness</b>	<b>Burst Pressure</b>	<b>Cement Type</b>	<b>Cement Yield</b>
Conductor	20	26	0.438	1530	Type 1	13 cu ft/sk
Fresh Water	13 3/8	17 1/2	0.38	2730	Type 1	1.25 cu ft/sk
Coal						
Intermediate	9 5/8	12 1/2	.352	3520	Type 1	1.26 cu ft/sk
Production	5 1/2	8 3/4	.361	12630	Pos H Class H	1.18 cu ft/sk
Tubing						
Liners						

**PACKERS**

Kind:				
Sizes:				
Depths Set:				

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WW - 6B  
(3/13)

21) Describe centralizer placement for each casing string.

Fresh water string - 1 centralizer every 160'

Intermediate string - 1 centralizer every 100' from 3300' to 900'

Production string - 1 centralizer every 80' from TD to above ROP (7000')

22) Describe all cement additives associated with each cement type.

Standard Type 1 cement additives associated with each cement type.

Type 1 + 2% CaCl<sub>2</sub> + Y4# Flake - Surface Cement mixed @ 15.6 ppg CaCl<sub>2</sub>, Flake (cellohane flake)

Type 1 + 1% CaCl<sub>2</sub> + Y4# Flake - Intermediate Cement mixed @ 15.6 ppg

Class H in lateral - retarder and fluid loss and dree water additive

23) Proposed borehole conditioning procedures.

Before cement casing mud will be thinned and all gas will be circulated out of the mid before cementing.

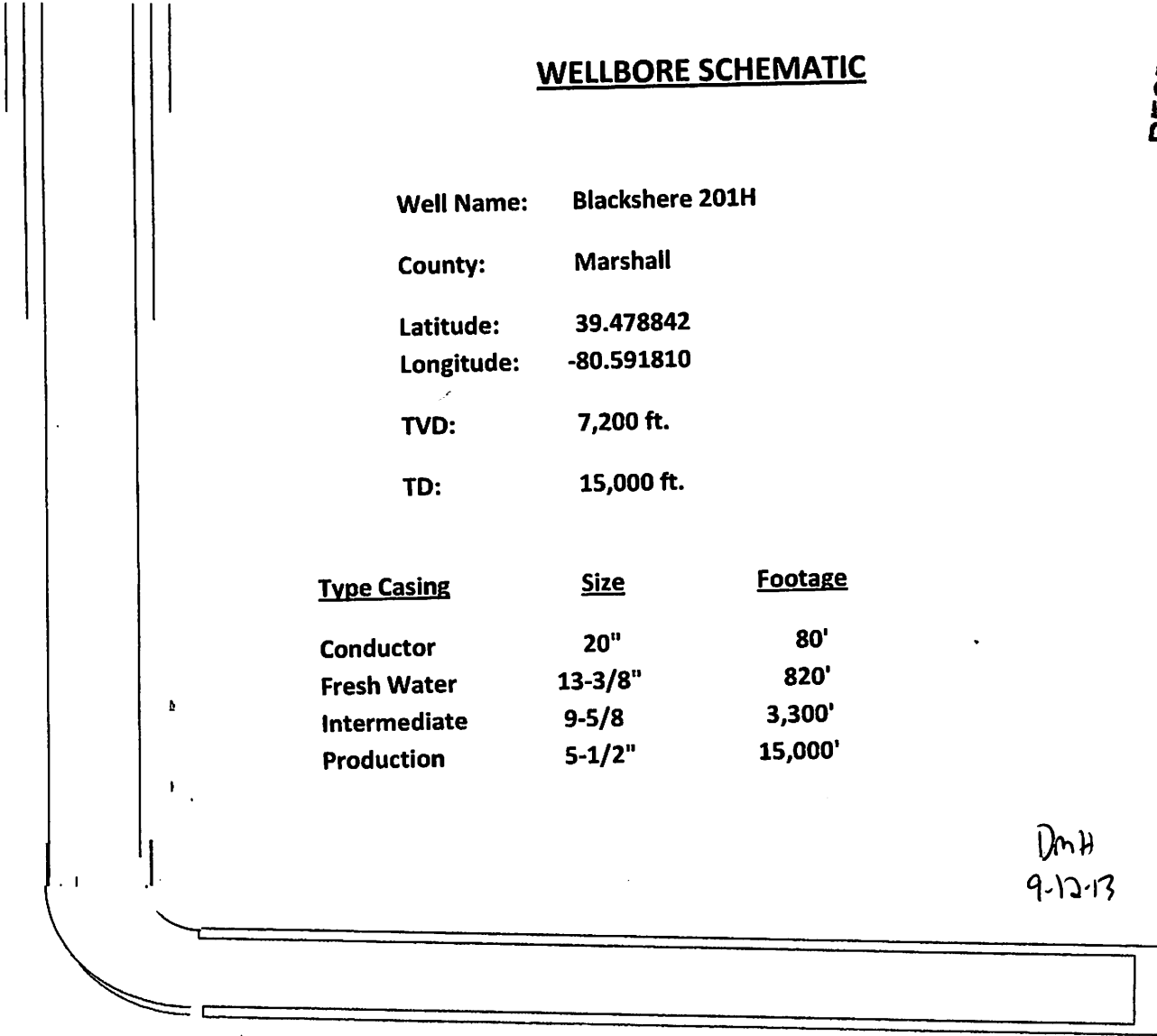
\*Note: Attach additional sheets as needed.

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WV Department of  
Environmental Protection

103-02944



**WELLBORE SCHEMATIC**

Well Name: Blackshere 201H  
County: Marshall  
Latitude: 39.478842  
Longitude: -80.591810  
TVD: 7,200 ft.  
TD: 15,000 ft.

<u>Type Casing</u>	<u>Size</u>	<u>Footage</u>
Conductor	20"	80'
Fresh Water	13-3/8"	820'
Intermediate	9-5/8"	3,300'
Production	5-1/2"	15,000'

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9-12-13

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Trans Energy Inc OP Code 494481575

Watershed (HUC 10) Arches Fork Quadrangle Folsom

Elevation 866' County Wetzel District Grant

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

Will a pit be used for drill cuttings? Yes \_\_\_\_\_ No X

If so, please describe anticipated pit waste: \_\_\_\_\_

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

Proposed Disposal Method For Treated Pit Wastes:

- \_\_\_\_\_ Land Application
- \_\_\_\_\_ Underground Injection ( UIC Permit Number \_\_\_\_\_ )
- \_\_\_\_\_ Reuse (at API Number \_\_\_\_\_ )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain All frac fluids will be flowed back into storage containers and Buckeye Water Service Company will haul to an approved water disposal facilities) \_\_\_\_\_

Will closed loop system be used? Yes

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. Freshwater mud until reaching Marcellus then synthetic

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

Additives to be used in drilling medium? See attached

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. All cuttings will be hauled to approved landfill

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) No Pit

-Landfill or offsite name/permit number? Short Creek Landfill SWF - 1034

*DMH  
9-12-13*

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 Leslie Gearhart

Company Official (Typed Name) Leslie Gearhart

Company Official Title VP-Operations

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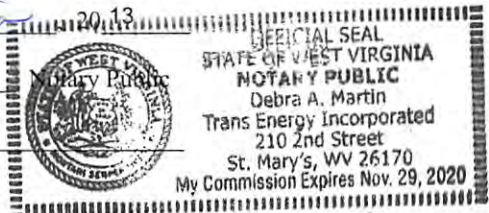
SEP 25 2013

WV Department of  
Environmental Protection

Subscribed and sworn before me this 11<sup>th</sup> day of August September, 2013

Debra A Martin Debra A Martin

My commission expires November 29, 2020



Trans Energy Inc

Proposed Revegetation Treatment: Acres Disturbed \_\_\_\_\_ Prevegetation pH \_\_\_\_\_

Lime 2 Tons/acre or to correct to pH 65

Fertilizer (10-20-20 or equivalent) 600 lbs/acre (500 lbs minimum)

Mulch 90 Bales Tons/acre

Seed Mixtures

Seed Type	Area I	lbs/acre	Seed Type	Area II	lbs/acre
Meadow Mix		100	Meadow Mix		100
Oats or Rye		50	Oats or Rye		50

Attach:  
Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]

Comments: \_\_\_\_\_

Title: Oil & Gas Inspector

Date: 9-12-12

Field Reviewed?  Yes

No

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SEP 25 2013  
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09/10/2013

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# TRANS ENERGY INC.

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WELL SITE SAFETY PLAN  
Blackshere 201H

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## Water Management Plan: Primary Water Sources



WMP- 01649

API/ID Number: 047-103-02944

Operator:

Trans Energy Inc.

Blackshere 201H

### Important:

For each proposed primary water source (including source intakes for purchased water sources) identified in your water management plan, and summarized herein, DEP has made an evaluation concerning water availability over the specified date range. DEP's assessment is based on the following considerations:

- Statistical analysis of historical USGS stream gauge data (transferred to un-gauged locations as necessary);
- Identification of sensitive aquatic life (endangered species, mussels, etc.);
- Quantification of known existing demands on the water supply (Large Quantity Users);
- Minimum flows required by the Army Corps of Engineers; and
- Designated stream uses.

Based on these factors, DEP has provided, for each intake location (and origination point for purchased water), a reference gauge location and discharge flow reading which must be surpassed prior to withdrawals. Additionally, DEP has established a minimum passby flow at the withdrawal location which must also be surpassed prior to withdrawals. These thresholds are considered terms of the permit and are enforceable as such.

**DEP is aware that some intake points will be used for multiple wells and well sites. In these cases, the thresholds set by the Water Management Plan are to be interpreted as total withdrawal limits for each location over the specified date range regardless of how many wells are supported by that intake.**

For all purchased water intakes, determinations of water availability are made at the original source intake location. It is the responsibility of the Oil and Gas Operator, not the seller, to cease withdrawal of water from the seller when flows are less than the minimum gauge reading at the stream gauge referenced by the Water Management Plan in order to protect stream uses.

Note that the determinations made herein are based on the best available data, but it is impossible to predict water availability in the future. While the DEP has carefully established these minimum withdrawal thresholds, it remains the operator's responsibility to protect aquatic life at all times. Approval to withdrawal is contingent upon permission from the land owner. It is the responsibility of the operator to secure and maintain permission prior to any withdrawals.

The operator is reminded that 24-48 hours prior to withdrawing (or purchasing) water, DEP must be notified by email at [DEP.water.use@wv.gov](mailto:DEP.water.use@wv.gov).

 APPROVED DEC 03 2013

## Source Summary

WMP- 01649

API Number:

047-103-02944

Operator:

Trans Energy Inc.

Blackshere 201H

### Stream/River

● Source      **S. Fk. of Fishing Creek @ Myers Withdrawal Site**      **Wetzel**      Owner:      **Jim B. Myers**

Start Date	End Date	Total Volume (gal)	Max. daily purchase (gal)	Intake Latitude:	Intake Longitude:
5/1/2014	5/1/2015	6,300,000		39.5036	-80.58671

Regulated Stream?      Ref. Gauge ID:      **3114500**      **MIDDLE ISLAND CREEK AT LITTLE, WV**

**Max. Pump rate (gpm):      2,940      Min. Gauge Reading (cfs):      74.05      Min. Passby (cfs)      9.68**

DEP Comments:

● Source      **Arches Fork Creek @ Trans Energy Withdrawal Site**      **Wetzel**      Owner:      **Trans Energy, Inc.**

Start Date	End Date	Total Volume (gal)	Max. daily purchase (gal)	Intake Latitude:	Intake Longitude:
5/1/2014	5/1/2015	6,300,000		39.478669	-80.591232

Regulated Stream?      Ref. Gauge ID:      **3114500**      **MIDDLE ISLAND CREEK AT LITTLE, WV**

**Max. Pump rate (gpm):      2,940      Min. Gauge Reading (cfs):      74.05      Min. Passby (cfs)      1.08**

DEP Comments:

### Source Summary

WMP- 01649

API Number:

047-103-02944

Operator:

Trans Energy Inc.

Blackshere 201H

### Purchased Water

Source **Ohio River @ J&R Excavating** Marshall Owner: **J&R Excavating**

Start Date	End Date	Total Volume (gal)	Max. daily purchase (gal)	Intake Latitude:	Intake Longitude:
5/1/2014	5/1/2015	6,300,000	1,890,000	39.998509	-80.737336

Regulated Stream? Ohio River Min. Flow Ref. Gauge ID: 9999999 Ohio River Station: Willow Island Lock & Dam

Max. Pump rate (gpm): Min. Gauge Reading (cfs): **6,468.00** Min. Passby (cfs)

DEP Comments: Refer to the specified station on the National Weather Service's Ohio River forecast website: <http://www.erh.noaa.gov/ohrfc//flows.shtml>

## Source Detail

WMP- 01649

API/ID Number: 047-103-02944

Operator:

Trans Energy Inc.

Blackshere 201H

Source ID: 30516    Source Name: Ohio River @ J&R Excavating  
J&R Excavating

Source Latitude: 39.998509

Source Longitude: -80.737336

HUC-8 Code: 5030106

Drainage Area (sq. mi.): 25000    County: Marshall

Anticipated withdrawal start date: 5/1/2014

Anticipated withdrawal end date: 5/1/2015

- Endangered Species?     Mussel Stream?
- Trout Stream?     Tier 3?
- Regulated Stream?    Ohio River Min. Flow
- Proximate PSD?
- Gauged Stream?

Total Volume from Source (gal): 6,300,000

Max. Pump rate (gpm):

Max. Simultaneous Trucks: 0

Max. Truck pump rate (gpm)

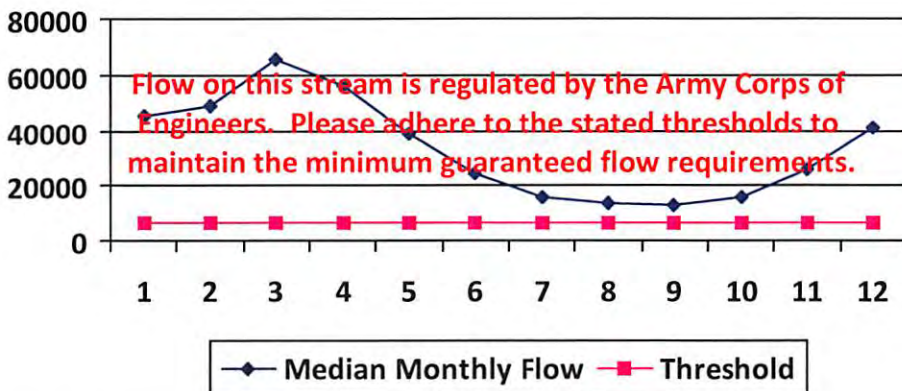
Reference Gaug: 9999999    Ohio River Station: Willow Island Lock & Dam

Drainage Area (sq. mi.): 25,000.00

Gauge Threshold (cfs): 6468

Month	Median monthly flow (cfs)	Threshold (+ pump)	Estimated Available water (cfs)
1	45,700.00	-	-
2	49,200.00	-	-
3	65,700.00	-	-
4	56,100.00	-	-
5	38,700.00	-	-
6	24,300.00	-	-
7	16,000.00	-	-
8	13,400.00	-	-
9	12,800.00	-	-
10	15,500.00	-	-
11	26,300.00	-	-
12	41,300.00	-	-

### Water Availability Profile



### Water Availability Assessment of Location

Base Threshold (cfs):	-
Upstream Demand (cfs):	0.00
Downstream Demand (cfs):	0.00
Pump rate (cfs):	-
Headwater Safety (cfs):	0.00
Ungauged Stream Safety (cfs):	0.00
<hr/>	
Min. Gauge Reading (cfs):	-
Passby at Location (cfs):	-

"Threshold", as depicted in the chart above is meant only to indicate the calculated base threshold at the proposed withdrawal location. This value does not include the proposed pump rate or existing demand on the stream. Refer to the monthly breakdown above for a more complete estimation of water availability by month.

## Source Detail

WMP-01649

API/ID Number: 047-103-02944

Operator:

Trans Energy Inc.

Blackshere 201H

Source ID: 30517 Source Name S. Fk. of Fishing Creek @ Myers Withdrawal Site  
Jim B. Myers

Source Latitude: 39.5036  
Source Longitude: -80.58671

HUC-8 Code: 5030201

Drainage Area (sq. mi.): 40.23 County: Wetzel

Anticipated withdrawal start date: 5/1/2014

Anticipated withdrawal end date: 5/1/2015

Endangered Species?  Mussel Stream?

Total Volume from Source (gal): 6,300,000

Trout Stream?  Tier 3?

Max. Pump rate (gpm): 2,940

Regulated Stream?

Max. Simultaneous Trucks: 0

Proximate PSD?

Max. Truck pump rate (gpm) 0

Gauged Stream?

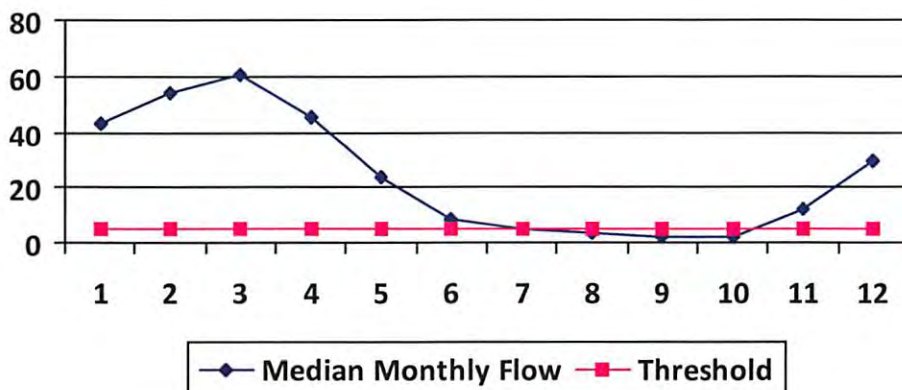
Reference Gaug 3114500 MIDDLE ISLAND CREEK AT LITTLE, WV

Drainage Area (sq. mi.) 458.00

Gauge Threshold (cfs): 45

Month	Median monthly flow (cfs)	Threshold (+ pump)	Estimated Available water (cfs)
1	43.14	12.48	31.02
2	54.27	12.48	42.14
3	60.72	12.48	48.60
4	45.09	12.48	32.97
5	23.79	12.48	11.66
6	8.31	12.48	-3.82
7	4.70	12.48	-7.43
8	3.87	12.48	-8.26
9	1.98	12.48	-10.14
10	2.49	12.48	-9.64
11	12.16	12.48	0.04
12	29.72	12.48	17.59

### Water Availability Profile



### Water Availability Assessment of Location

Base Threshold (cfs):	3.95
Upstream Demand (cfs):	0.00
Downstream Demand (cfs):	3.75
Pump rate (cfs):	6.55
Headwater Safety (cfs):	0.99
Ungauged Stream Safety (cfs):	0.99
Min. Gauge Reading (cfs):	74.05
Passby at Location (cfs):	9.68

"Threshold", as depicted in the chart above is meant only to indicate the calculated base threshold at the proposed withdrawal location. This value does not include the proposed pump rate or existing demand on the stream. Refer to the monthly breakdown above for a more complete estimation of water availability by month.

## Source Detail

WMP- 01649

API/ID Number: 047-103-02944

Operator:

Trans Energy Inc.

Blackshere 201H

Source ID: 30518    Source Name: Arches Fork Creek @ Trans Energy Withdrawal Site  
Trans Energy, Inc.

Source Latitude: 39.478669

Source Longitude: -80.591232

HUC-8 Code: 5030201

Drainage Area (sq. mi.): 7.29    County: Wetzell

Anticipated withdrawal start date: 5/1/2014

Anticipated withdrawal end date: 5/1/2015

Endangered Species?     Mussel Stream?

Trout Stream?     Tier 3?

Total Volume from Source (gal): 6,300,000

Regulated Stream?

Max. Pump rate (gpm): 2,940

Proximate PSD?

Max. Simultaneous Trucks: 0

Gauged Stream?

Max. Truck pump rate (gpm): 0

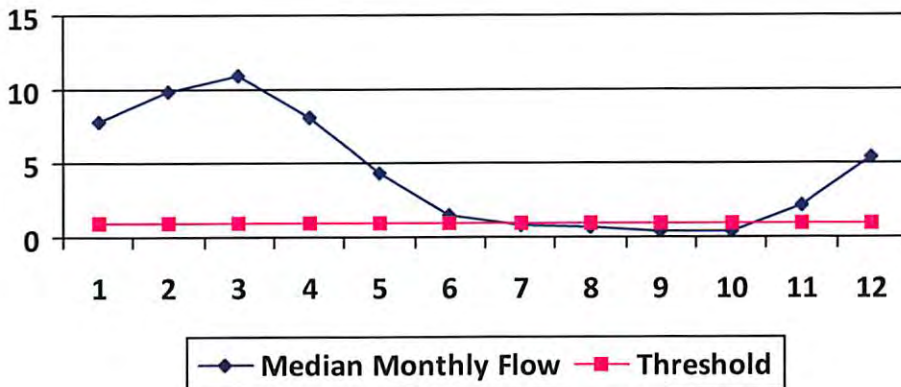
Reference Gaug: 3114500    MIDDLE ISLAND CREEK AT LITTLE, WV

Drainage Area (sq. mi.): 458.00

Gauge Threshold (cfs): 45

Month	Median monthly flow (cfs)	Threshold (+ pump)	Estimated Available water (cfs)
1	7.82	7.63	0.46
2	9.83	7.63	2.48
3	11.00	7.63	3.64
4	8.17	7.63	0.81
5	4.31	7.63	-3.05
6	1.51	7.63	-5.85
7	0.85	7.63	-6.51
8	0.70	7.63	-6.66
9	0.36	7.63	-7.00
10	0.45	7.63	-6.91
11	2.20	7.63	-5.15
12	5.39	7.63	-1.97

### Water Availability Profile



### Water Availability Assessment of Location

Base Threshold (cfs): 0.72

Upstream Demand (cfs): 0.00

Downstream Demand (cfs): 0.00

Pump rate (cfs): 6.55

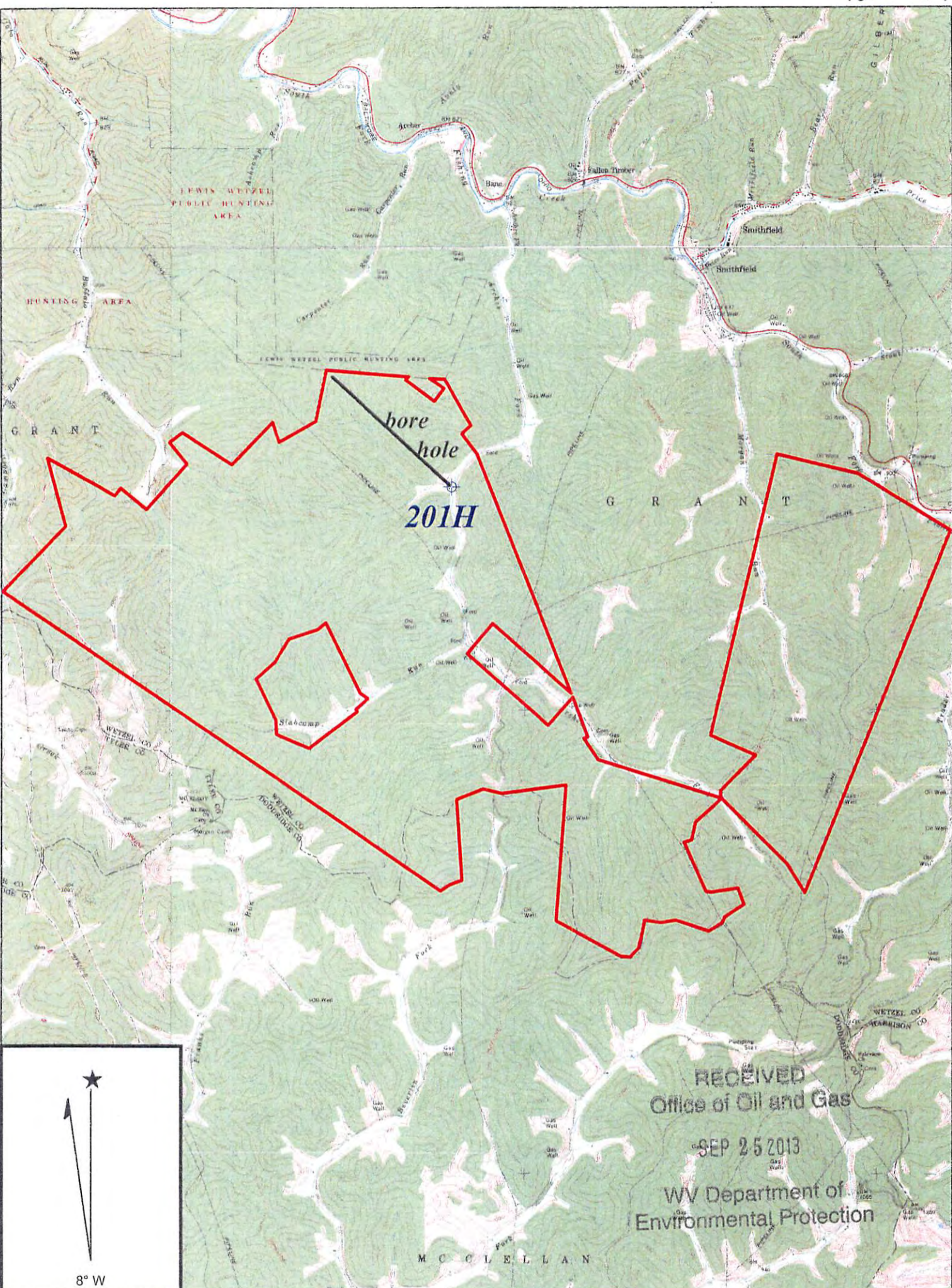
Headwater Safety (cfs): 0.18

Ungauged Stream Safety (cfs): 0.18

Min. Gauge Reading (cfs): 74.05

Passby at Location (cfs): 1.07

"Threshold", as depicted in the chart above is meant only to indicate the calculated base threshold at the proposed withdrawal location. This value does not include the proposed pump rate or existing demand on the stream. Refer to the monthly breakdown above for a more complete estimation of water availability by month.



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**FOLSOM QUADRANGLE**

SCALE 1" = 4000'

**TRANS ENERGY, INC.**

**WELL: BLACKSHERE 201 H  
BLACKSHERE, ET AL ET AL +/- 6900 ACRE LEASE**

**GRANT DISTRICT    WETZEL COUNTY    WEST VIRGINIA**



bottom hole 80°36' 20.5" (80.605694)

6360'

top hole 80°35' 30.52" (80.591810)

2475'

LATITUDE

39°30' 00"

# BLACKSHERE HEIRS, ET AL +/- 6900 ACRE LEASE

80°35' 00"

4160'

LONGITUDE

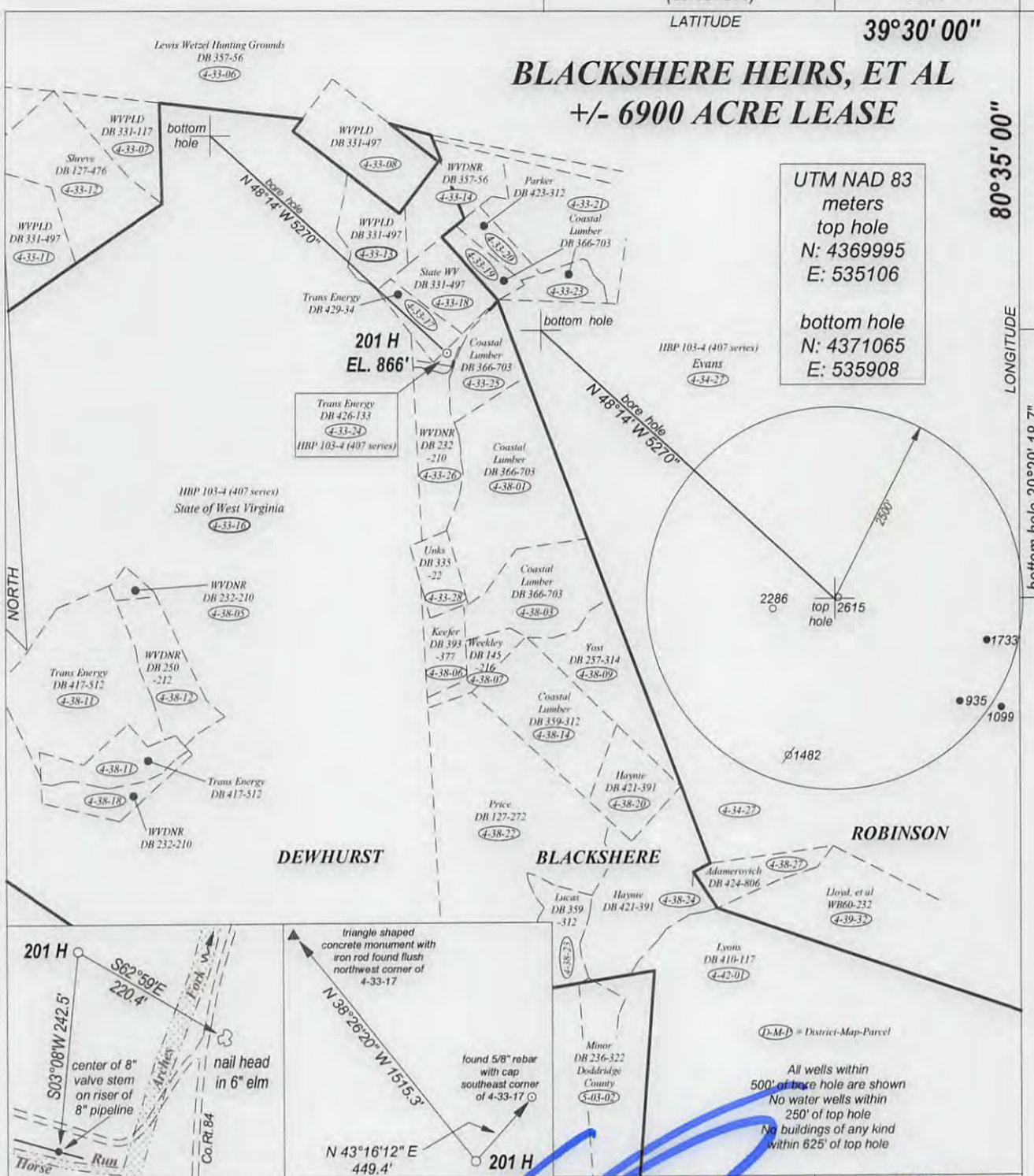
7675'

bottom hole 39°29' 18.7" (39.488530)

top hole 39°28' 43.83" (39.478842)

UTM NAD 83  
meters  
top hole  
N: 4369995  
E: 535106

bottom hole  
N: 4371065  
E: 535908



FILE NO. \_\_\_\_\_  
DRAWING NO. \_\_\_\_\_  
SCALE 1" = 2500'  
MINIMUM DEGREE OF ACCURACY 1 : 200  
PROVEN SOURCE OF ELEVATION GPS  
OBSERVATION

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 ENERGY

(SIGNED) \_\_\_\_\_  
PROFESSIONAL SURVEYOR: 551



STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY  
DIVISION OF OIL AND GAS

DATE AUGUST 30TH, 2013  
OPERATORS WELL NO. BLACKSHERE 201H

API 47 - 103 - 02944 H6A  
STATE COUNTY PERMIT

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

LOCATION: ELEVATION 866' WATER SHED ARCHES FORK  
DISTRICT GRANT COUNTY WETZEL QUADRANGLE FOLSOM

SURFACE OWNER TRANS ENERGY, INC ACREAGE 4.675  
OIL & GAS ROYALTY BLACKSHERE HEIRS LEASE AC +/- 6900

PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL   
FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION   
PERFORATE NEW FORMATION   
OTHER PHYSICAL CHANGE IN WELL   
PLUG AND ABANDON  CLEAN OUT AND REPLUG

TARGET FORMATION MARCELLUS SHALE ESTIMATED DEPTH 7200'

WELL OPERATOR TRANS ENERGY, INC. DESIGNATED AGENT LOREN BAGLEY  
ADDRESS P. O. BOX 393 ADDRESS P. O. BOX 393  
ST. MARYS, WV 26170 ST. MARYS, WV 26170

FORM WW - 6

COUNTY NAME

PERMIT