

**State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work**

API: 47-051-01668 County: MARSHALL District: CAMERON
 Quad: CAMERON Pad Name: SIVERT Field/Pool Name: MARCELLUS SHALE
 Farm name: SIVERT WELL NAME : SIVERT 1H
 Operator (as registered with the OOG): TRANS ENERGY, INC.
 Address: P. O. BOX 393 City: ST. MARYS State: WV Zip: 26170

As Drilled Location NAD 83/UTM *** SEE ATTACHED AS-BUILT WELL LOCATION MAP ***

| | | | | |
|------------------------|----------|----------------|---------|----------------|
| Top hole | Northing | <u>4411674</u> | Easting | <u>537118</u> |
| Landing Point of curve | Northing | <u>4411784</u> | Easting | <u>5373.04</u> |
| Bottom hole | Northing | <u>4410717</u> | Easting | <u>537010</u> |

Elevation (ft): 1438' Type of Well: NEW Type of Report: FINAL

Permit Type: HORIZONTAL 6A Depth Type: SHALLOW

Type of Operation: DRILL

Well Type: GAS

Type of Completion: SINGLE Fluids Produced: BRINE, GAS and NGL

Drilled With: ROTARY

Drilling Media: MUD Intermediate hole: MUD

Production hole: MUD

Mud Type(s) and Additive(s) MUD TYPE - SYTHETIC BASE DRILLING MUD

| | | | | | |
|-------------------|------------------------|------------------------|-----------------------|--------------------|-----------------|
| ADDITIVES: | Calcium Carbonate | Hydrated Lime | Synvert Synthetic 1-L | Citric Acid | Drispac Low Vis |
| | Calcium Chloride | Cedar Fiber | Bentonite | Sodium Bicarbonate | L-20C |
| | Synvert LEM | Rubber Crumb | Soda Ash, dense | Glycerine | Bioclear |
| | Synvert Synthetic WA-L | Cottonseed Hulls | Lignite | Desco | |
| | Barite | Synvert Synthetic 11-L | Aluminum Sterate | Caustic Soda Beads | |

Date permit issued: 11/18/2013 Date drilling commenced: 7/20/2014 Date drilling ceased: 8/31/2014

Date completion activities began: 9/23/2014 Date completion activities ceased: 12/7/2014

Verbal plugging: N/A Date permission granted: N/A Granted by: N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug.

Fresh water depth (s) ft: 50', 150' Open mine(s) (Y/N) depths: N/A

Salt water depth(s) ft: 1,525' Void(s) encountered (Y/N) depths: N/A

Coal Depth(s) ft: 900' Cavern(s) encountered (Y/N) depths: N/A

Is coal being mined in area (Y/N)

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Reviewed by:

AX
05/04/14
05/06/2016

API: 47-051-01668 WELL NAME : SIVERT 1H

| CASING STINGS | Hole Size | Casing Size | Depth | New or Used | Grade wt/ft | Basket Depth(s) | Did cement circulate (Y/N) Provide details below. |
|---------------------------|----------------|----------------|---------------|-------------|-----------------|-----------------|------------------------------------------------------|
| Conductor | - | <u>20"</u> | <u>10'</u> | <u>NEW</u> | <u>J-55/94</u> | - | - |
| Surface | <u>17 1/2"</u> | <u>13 3/8"</u> | <u>1045'</u> | <u>NEW</u> | <u>J-55/545</u> | - | <u>YES</u> |
| Coal | - | - | - | - | - | - | - |
| Intermediate 1 | - | <u>9 5/8"</u> | <u>2885'</u> | <u>NEW</u> | <u>J-55/40</u> | - | <u>YES</u> |
| Intermediate 2 | - | - | - | - | - | - | - |
| Intermediate 3 | - | - | - | - | - | - | - |
| Production | <u>8 3/4"</u> | <u>5 1/2"</u> | <u>12185'</u> | <u>NEW</u> | <u>P-110/20</u> | - | - |
| Tubing | - | - | - | - | - | - | - |
| Packer type and Depth Set | | | | | | | |

Comment Details:

| CEMENT DATA | Class / type of Cement | Number of Sacks | Slurry wt (ppg) | Yield (ft ³ /sks) | Volume (ft ³) | Cement Top (MD) | WOC (hrs) |
|----------------|------------------------|------------------|------------------|------------------------------|---------------------------|-----------------|-------------|
| Conductor | <u>TYPE 1</u> | - | - | - | - | - | - |
| Surface | <u>TYPE 1</u> | - | <u>15.6</u> | - | - | <u>SURFACE</u> | <u>10.5</u> |
| Coal | - | - | - | - | - | - | - |
| Intermediate 1 | <u>TYPE 1</u> | <u>940</u> | <u>15.6</u> | - | - | <u>SURFACE</u> | <u>3.0</u> |
| Intermediate 2 | - | - | - | - | - | - | - |
| Intermediate 3 | - | - | - | - | - | - | - |
| Production | <u>CLASS H</u> | <u>1362/1142</u> | <u>13.5/15.6</u> | <u>1.34/1.18</u> | <u>1825/1348</u> | <u>SURFACE</u> | <u>7.0</u> |
| Tubing | - | - | - | - | - | - | - |

Drillers TD (ft): 12191' Loggers TD (ft): 12193'
 Deepest formation penetrated: MARCELLUS SHALE Plug back to (ft): N/A
 Plug back procedure: N/A

Kick off depth (ft) 6692'

Check all wireline logs run: caliper density deviated/directional induction
 neutron resistivity gamma ray temperature sonic

Well cored? NO Were cuttings collected? NO

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING

FRESS WATER STRING - 1 CENTRALIZER EVERY 160'

INTERMEDIATE STRING - 1 CENTRALIZER EVERY 100' FROM 3,300' TO 900'

PRODUCTION STRING - 1 CENTRALIZER EVERY 80' FROM TD TO ABOVE ROP (7000')

WAS WELL COMPLETED AS SHOT HOLE? YES DETAILS: RECEIVED
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WAS WELL COMPLETED OPEN HOLE? NO DETAILS: JUN 22 2015

WERE TRACERS USED? NO TYPE OF TRACER(S) USED: N/A

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05/06/2016

| | | |
|------|---------------------|------------------------------|
| API: | <u>47-051-01668</u> | WELL NAME : <u>SIVERT 1H</u> |
|------|---------------------|------------------------------|

Drilling Contractor: **H&P INTERNATIONAL DRILLING**
Address: 912 N EAGLE VALLEY ROAD City: HOWARD State: PA Zip: 16841

Logging Contractor: **BAKER HUGHES**
Address: 17015 ALDINE WESTFIELD ROAD City: WOOSTER State: OH Zip: 44691

Cementing Company: **BAKER HUGHES**
Address: 17015 ALDINE WESTFIELD ROAD City: WOOSTER State: OH Zip: 44691

Stimulating Company: **GO FRAC**
Address: 7000 CALMONT AVENUE, SUITE 310 City: FORT WORTH State: TX Zip: 76116

Completed by: Leslie A. Gearhart, Vice President of Operations

Telephone: 304/684-7053

Signature: 

DATE: 6/17/15

*** SEE ATTACHED CHEMICAL DISCLOSURE ***

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| | |
|----------------------------------|---------------|
| Fracture Start Date/Time: | 10/1/14 19:20 |
| Fracture End Date/Time: | 10/26/14 5:39 |
| State: | West Virginia |
| County: | Marshall |
| API Number: | 47-051-01668 |
| Operator Number: | 494481575 |
| Well Name: | Sivert 1H |
| Federal Well: | No |
| Longitude: | -80.5661 |
| Latitude: | 39.8542 |
| Long/Lat Projection: | NAD27 |
| True Vertical Depth (TVD): | 7,172' |
| Total Clean Fluid Volume* (gal): | 4,144,434 |

| Additive | Specific Gravity | Additive Quantity | Mass (lbs) | |
|-------------------|------------------|-------------------|------------|-----|
| Freshwater | 1.00 | 4,144,434 | 34,585,302 | gal |
| 100 Mesh | 2.65 | 1,476,608 | 1,476,608 | lb |
| 40/70 White Sand | 2.65 | 1,584,340 | 1,584,340 | lb |
| 20/40 White Sand | 2.65 | 923,229 | 923,229 | lb |
| Plexhib 256 | 0.86 | 26 | 187 | gal |
| HCl Acid 10-15% | 1.07 | 13,000 | 116,079 | gal |
| Ferriplex 66 | 1.15 | 26 | 250 | gal |
| Greenflush | 0.81 | 291 | 1,967 | gal |
| Sodium Persulfate | 2.60 | 0 | 0 | lb |
| Beta M-4.0 | 1.05 | 0 | 0 | gal |
| Plexbreak 145 | 0.95 | 26 | 206 | gal |
| Plexslick 953 | 1.06 | 3,079 | 27,236 | gal |
| | | | | gal |

Total Slurry Mass (Lbs)
38,715,403

Ingredients Section:

| Trade Name | Supplier | Purpose | Ingredients | Chemical Abstract Service Number (CAS #) | Maximum Ingredient Concentration in Additive (% by mass)** | Mass per Component (LBS) | Maximum Ingredient Concentration in HF Fluid (% by mass)** |
|-------------------|-----------------|---------------------|-----------------------------------|------------------------------------------|------------------------------------------------------------|--------------------------|------------------------------------------------------------|
| Freshwater | Republic Energy | Frac Base | Water | 7732-18-5 | 100.00% | 34,585,302 | 89.33215% |
| 100 Mesh | US Silica | Proppant | Sand | 14808-60-7 | 100.00% | 1,476,608 | 3.81401% |
| 40/70 White Sand | US Silica | Proppant | Sand | 14808-60-7 | 100.00% | 1,584,340 | 4.09227% |
| 20/40 White Sand | US Silica | Proppant | Sand | 14808-60-7 | 100.00% | 923,229 | 2.38466% |
| HCl Acid 10-15% | GoFrac | Acid | Hydrochloric Acid | 7647-01-0 | 15.00% | 17,412 | 0.04497% |
| Ferriplex 66 | Chemplex | Iron Control | Acetic Acid | 64-19-7 | 50.00% | 125 | 0.00032% |
| | | | Citric Acid | 77-92-9 | 30.00% | 75 | 0.00019% |
| | | | Water | 7732-18-5 | 35.00% | 87 | 0.00023% |
| Greenflush | Chemplex | Cleaner | Alcohol Ethoxylate Surfactants | Proprietary | 10.00% | 197 | 0.00051% |
| Plexbreak 145 | Chemplex | Non-Emulsifier | Cocamide Diethanolamine Salt | 68603-42-9 | 10.00% | 21 | 0.00005% |
| | | | Diethanolamine | 111-42-2 | 5.00% | 10 | 0.00003% |
| | | | Ethylene Glycol Monobutyl Ether | 111-76-2 | 15.00% | 31 | 0.00008% |
| | | | Methyl Alcohol | 67-56-1 | 15.00% | 31 | 0.00008% |
| | | | Water | 7732-18-5 | 66.00% | 136 | 0.00035% |
| Plexhib 256 | Chemplex | Corrosion Inhibitor | Alcohol Ethoxylate Surfactants | Proprietary | 30.00% | 56 | 0.00014% |
| | | | Methyl Alcohol | 67-56-1 | 70.00% | 131 | 0.00034% |
| | | | n-olefins | Proprietary | 10.00% | 19 | 0.00005% |
| | | | Propargyl Alcohol | 107-19-7 | 8.00% | 15 | 0.00004% |
| | | | Thiourea-formaldehyde copolymer | 68527-49-1 | 30.00% | 56 | 0.00014% |
| Sodium Persulfate | Chemplex | Active Breaker | Sodium Persulfate | 7775-27-1 | 100.00% | 0 | 0.00000% |
| Plexslick 953 | Chemplex | Friction Reducer | Alcohol Ethoxylate Surfactants | Proprietary | 8.00% | 2,179 | 0.00563% |
| | | | Hydrotreated Petroleum Distillate | 64742-47-8 | 30.00% | 8,171 | 0.02110% |
| | | | Polyacrylamide-co-acrylic acid | Proprietary | 32.00% | 8,715 | 0.02251% |
| | | | Water | 7732-18-5 | 35.00% | 9,533 | 0.02462% |
| Beta M-4.0 | PIP | Guar Gel | Guar Gum | 9000-30-0 | 50.00% | 0 | 0.00000% |
| | | | Petroleum Distillate | 64742-47-8 | 55.00% | 0 | 0.00000% |
| | | | Clay | Proprietary | 5.00% | 0 | 0.00000% |

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*Total Water Volume sources may include fresh water, produced water, and/or recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

All component information listed was obtained from the supplier's Material Safety Data Sheets (MSDS). As such, the Operator is not responsible for inaccurate and/or incomplete information. Any questions regarding the content of the MSDS should be directed to the supplier who provided it. The Occupational Safety and Health Administration's (OSHA) regulations govern the criteria for the disclosure of this information. Please note that Federal Law protects "proprietary", "trade secret", and "confidential business information" and the criteria for how this information is reported on an MSDS is subject to 29 CFR 1910.1200(i) and Appendix D.

bottom hole 80°34'03.4" (80.567611)

top hole 80°33'57.88" (80.566079)

As Drilled

SIVERT, ET AL 203.749 ACRE LEASE

NORTH

Mueller

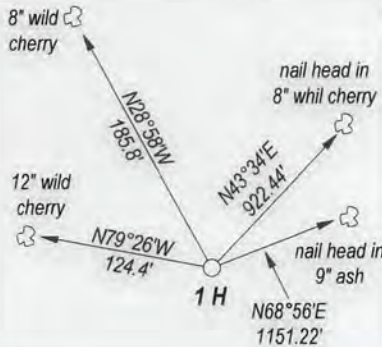
Robinson

Robinson

UTM NAD 83
top hole
N: 4411674.1
E: 537118.0
bottom hole
N: 4410717
E: 537010

WV NORTH NAD. 83
N: 495048.741
E: 1669212.464

McELROY MINE
COORD.
N: -62442.607
E: 94996.667



1100 CBM

S02°W 1868'

South 2900' true north

bore hole

bore hole

bottom hole

Robinson

County

Route 64

Simmons

Mueller

Koch

S78°E 681'

bottom hole

bottom hole

Robinson

Sivert

Mueller

Mueller

Mueller

Dempewolf

Mueller

Mueller

Mueller

Mueller

Mueller

Mueller

Mueller

Mueller

Mueller

Mueller

Mueller

Mueller

Mueller

Mueller

Mueller

Mueller

Mueller

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 1000'
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 APRIL 2ND, 2013
OPERATORS WELL NO. SIVERT 1H

API 47 - 051 - 01668
STATE COUNTY PERMIT

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

LOATION: ELEVATION 1438' WATER SHED NORTH FORK OF GRAVE CREEK
DISTRICT CAMERON COUNTY MARSHALL QUADRANGLE CAMERON

SURFACE OWNER GEORGE L. SIVERT & ANTOINETTE M. SIVERT ACREAGE 109.479
OIL & GAS ROYALTY SIVERT, ET AL LEASE AC 203.749

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

top hole 39°51'15.41" (39.854281)

bottom hole 39°50'44.3" (39.845639)

LONGITUDE 7570'

10700'

FORM WW - 6

COUNTY NAME

PREMIT

05/06/2016