



---

**west virginia** department of environmental protection

---

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

February 12, 2015

**WELL WORK PERMIT**

**Vertical Well**

This permit, API Well Number: 47-5902257, issued to TRIANA ENERGY, LLC, 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: TCF - GX1  
Farm Name: CARBON FUELS PROPERTIES, L.  
**API Well Number: 47-5902257**  
**Permit Type: Vertical Well**  
Date Issued: 02/12/2015

Promoting a healthy environment.

02/13/2015

## PERMIT CONDITIONS

West Virginia Code §22-6-11 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

---

1. 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 §22-6-20, 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.
2. Pursuant to 35 CSR 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
3. Pursuant to 35 CSR 4-19.1.c, if the operator is unable to sample and analyze any water well or spring with one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
5. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours
7. Well work activities shall not constitute a hazard to the safety of persons.
8. 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.

5902257

WW - 2B  
(Rev. 8/10)

Received  
Office of Oil & Gas

NOV 25 2014

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

1) Well Operator: Triana Energy, LLC  
Operator ID: 494486431 County: Mingo District: Stafford Quadrangle: Wharncliffe

2) Operator's Well Number: TCF-GX1V 3) Elevation: 1,620'

4) Well Type: (a) Oil \_\_\_\_\_ or Gas X  
(b) If Gas: Production X / Underground Storage \_\_\_\_\_  
Deep \_\_\_\_\_ / Shallow X

5) Proposed Target Formation(s): Lower Huron Proposed Target Depth: 5,300'

6) Proposed Total Depth: 5,300' Feet Formation at Proposed Total Depth: Lower Huron

7) Approximate fresh water strata depths: 673'

8) Approximate salt water depths: 2,558'

9) Approximate coal seam depths: 89', 129', 134', 169', 209'

10) Approximate void depths, (coal, Karst, other): N/A

11) Does land contain coal seams tributary to active mine? YES

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)

Drill vertical well, log and complete for production of natural gas.

13) CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE	INTERVALS	CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor	16"	LS	55#		31'	Grout
Fresh Water	11.75"	LS	42#		1,142'	CTS
Coal						
Intermediate	8.625"	H-40	28#		2,361'	
Production	5.5"	80	11.6#		5,300'	N/A
Tubing						
Liners						

Packers: Kind: Mechanical open hole straddle packer system  
Sizes: \_\_\_\_\_  
Depths Set \_\_\_\_\_

02/13/2015

Received  
Office of Oil & Gas

WW-2A  
(Rev. 6-14)

NOV 25 2014

1). Date: October 15, 2014  
2.) Operator's Well Number TCF-GX1V  
State County Permit  
3.) API Well No.: 47- -

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

4) Surface Owner(s) to be served:  
(a) Name Carbon Fuels Property, LLC  
Address 1500 North Big Run Road  
Ashland, KY 41102  
(b) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
5) (a) Coal Operator  
Name Glen Alum Operations, LLC  
Address 2720 Pennsylvania Avenue ✓  
Charleston, WV 25302  
(b) Coal Owner(s) with Declaration  
Name Carbon Fuels Property, LLC  
Address 1500 North Big Run Road  
Ashland, KY 41102  
(c) Coal Lessee with Declaration  
Name Glen Alum Operations, LLC ✓  
Address 2720 Pennsylvania Avenue  
Charleston, WV 25302  
6) Inspector Jeremy James  
Address P.O. Box 147  
Ona, WV 25545  
Telephone 304-951-2596

**TO THE PERSONS NAMED ABOVE TAKE NOTICE THAT:**

OR  
 Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas

Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through \_\_\_ on the above named parties by:

- Personal Service (Affidavit attached)
- Certified Mail (Postmarked postal receipt attached)
- Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 35 CSR 4, and I agree to the terms and conditions of any permit issued under this application.

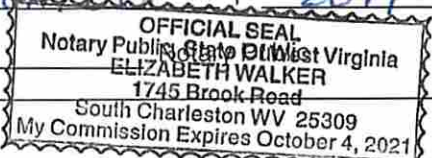
I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator Triana Energy, LLC  
By: Walter C. Showen, III *W.C. Showen*  
Its: Manager, Permitting  
Address: 900 Virginia Street East, Suite 400  
Charleston, WV 25301  
Telephone: 304-205-8503  
Email: tshowen@ trianaenergy.com

Subscribed and sworn before me this 17<sup>th</sup> day of November, 2014

*Elizabeth Walker*  
My Commission Expires 10-4-21  
Oil and Gas Privacy Notice



5902257

U.S. Postal Service™  
CERTIFIED MAIL™ RECEIPT  
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

7013 2630 0000 4456 6175

OFFICIAL USE

Postage	\$	11.70
Certified Fee		\$3.30
Return Receipt Fee (Endorsement Required)		\$2.70
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$7.40



Received  
Office of Oil & Gas  
NOV 25 2014

Sent To: Glen Alum Operations, LLC  
 Street, Apt. No., or PO Box No.: 2720 Pennsylvania Avenue  
 City, State, ZIP+4: Charleston, WV 25302

PS Form 3800, August 2006 See Reverse for Instructions

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> <li>Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	<p>A. Signature <input type="checkbox"/> Agent <input checked="" type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) <u>Joni Cummins</u> C. Date of Delivery</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No          If YES, enter delivery address below:</p>
<p>1. Article Addressed to:</p> <p><u>Glen Alum Operations, LLC</u>  <u>2720 Pennsylvania Avenue</u>  <u>Charleston, WV 25302</u></p>	<p>3. Service Type</p> <p><input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Priority Mail Express™</p> <p><input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise</p> <p><input type="checkbox"/> Insured Mail <input type="checkbox"/> Collect on Delivery</p>
<p>2. Article Number (Transfer from service label)</p> <p>7013 2630 0000 4456 6175</p>	<p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>

PS Form 3811, July 2013

Domestic Return Receipt

02/13/2015

5900225

PS Form 3811, July 2013  
 Domestic Return Receipt  
 7010 0290 0000 9764 1909  
 2. Article Number (Transfer from service label)

1. Article Addressed to:  
 ■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.  
 ■ Print your name and address on the reverse so that we can return the card to you.  
 ■ Attach this card to the back of the mailpiece, or on the front if space permits.

Carbon Fuels Properties, LLC  
 1500 North Big Run Road  
 Ashland, KY 41102

3. Service Type  
 Certified Mail®  
 Registered Mail  
 Insured Mail  
 Restricted Delivery? (Extra Fee)  Yes

4. Restricted Delivery? (Extra Fee)  Yes

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

B. Received by (Printed Name) \_\_\_\_\_  
 C. Date of Delivery \_\_\_\_\_

A. Signature \_\_\_\_\_  
 Addressee  
 Agent

COMPLETE THIS SECTION ON DELIVERY

COMPLETE THIS SECTION

Carbon Fuels Properties, LLC  
 1500 North Big Run Road  
 Ashland, KY 41102

RETURN RECEIPT  
 REQUESTED

*Refused*

Received

DEC 5 2014

Office of Oil and Gas  
 WV Dept. of Environmental Protection

WW-2A1  
(Rev. 1/11)

Received  
Office of Oil & Gas Operator's Well Number TCF-GX1V

NOV 25 2014

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE  
Chapter 22, Article 6, Section 8(d)  
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:

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
Carbon Fuels, LLC	Cathy Raygoza	41% of 1/8	97/345
Carbon Fuels, LLC	Robert Addington	18% of 1/8	97/345
Carbon Fuels, LLC	Bruce Addington	18% of 1/8	97/345
Carbon Fuels, LLC	Stephen Addington	18% of 1/8	97/345
Carbon Fuels, LLC	Michael Robinson	5% of 1/8	97/345
Through Sale & Assignment	Nytis Exploration		402/646
Through Farmout/Memorandum of Agreement	Triana Energy, LLC	WI	103/128

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

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: \_\_\_\_\_  
 By: Its: \_\_\_\_\_  
 Triana Energy, LLC  
 Walter C. Showen, III  
 Manager, Permitting

WW-2B1  
(5-12)

Well No. TCF-GX1V

West Virginia Department of Environmental Protection  
Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

Be advised, you have the right to sample and analyze any water supply at your own expense.

Listed below is the laboratory chosen by operator to perform analysis, and contactor chosen to collect sample.

Certified Laboratory Name ALS Global  
Sampling Contractor ALS Global

Well Operator Triana Energy, LLC  
Address 900 Virginia Street East, Suite 400  
Charleston, WV 25301  
Telephone 304-205-8503

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

\* There are no water wells or springs within 2,000' of the proposed well site.

RECEIVED  
Office of Oil and Gas

FEB 9 2015

WV Department of  
Environmental Protection

02/13/2015



WW-9  
(5/13)

Received  
Office of Oil & Gas

Page \_\_\_\_\_ of \_\_\_\_\_  
API Number 47 - \_\_\_\_\_ - \_\_\_\_\_  
Operator's Well No. TCF-GX1V

NOV 25 2014

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Triana Energy, LLC OP Code 494486431

Watershed (HUC 10) Tug Fork Quadrangle Wharnccliffe

Elevation 1,620' County \_\_\_\_\_ District Stafford

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

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

If so, please describe anticipated pit waste: Drill water and various formation cuttings

Will a synthetic liner be used in the pit? Yes X No \_\_\_\_\_ If so, what ml.? 30 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 \_\_\_\_\_)

Will closed loop system be used? No

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. Air, freshwater for dusting

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

Additives to be used in drilling medium? N/A

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

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

-Landfill or offsite name/permit number? N/A

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 [Signature]

Company Official (Typed Name) Walter C. Showen, III

Company Official Title Manager, Permitting

Subscribed and sworn before me this 17th day of November

[Signature]  
My commission expires 10-4-21



02/13/2015

Received  
Office of Oil & Gas  
NOV 25 2014

Form WW-9

Operator's Well No. TCF-GX1V

Proposed Revegetation Treatment: Acres Disturbed +/- 1.0 Prevegetation pH \_\_\_\_\_

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 650 lbs/acre (500 lbs minimum)

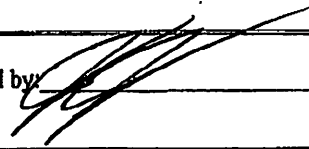
Mulch 2 Tons/acre

Seed Mixtures

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
KY-31	40	Orchard Grass	15
Alsike Clover	5	Alsike Clover	5
Annual Rye	15		

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

Photocopied section of involved 7.5' topographic sheet.

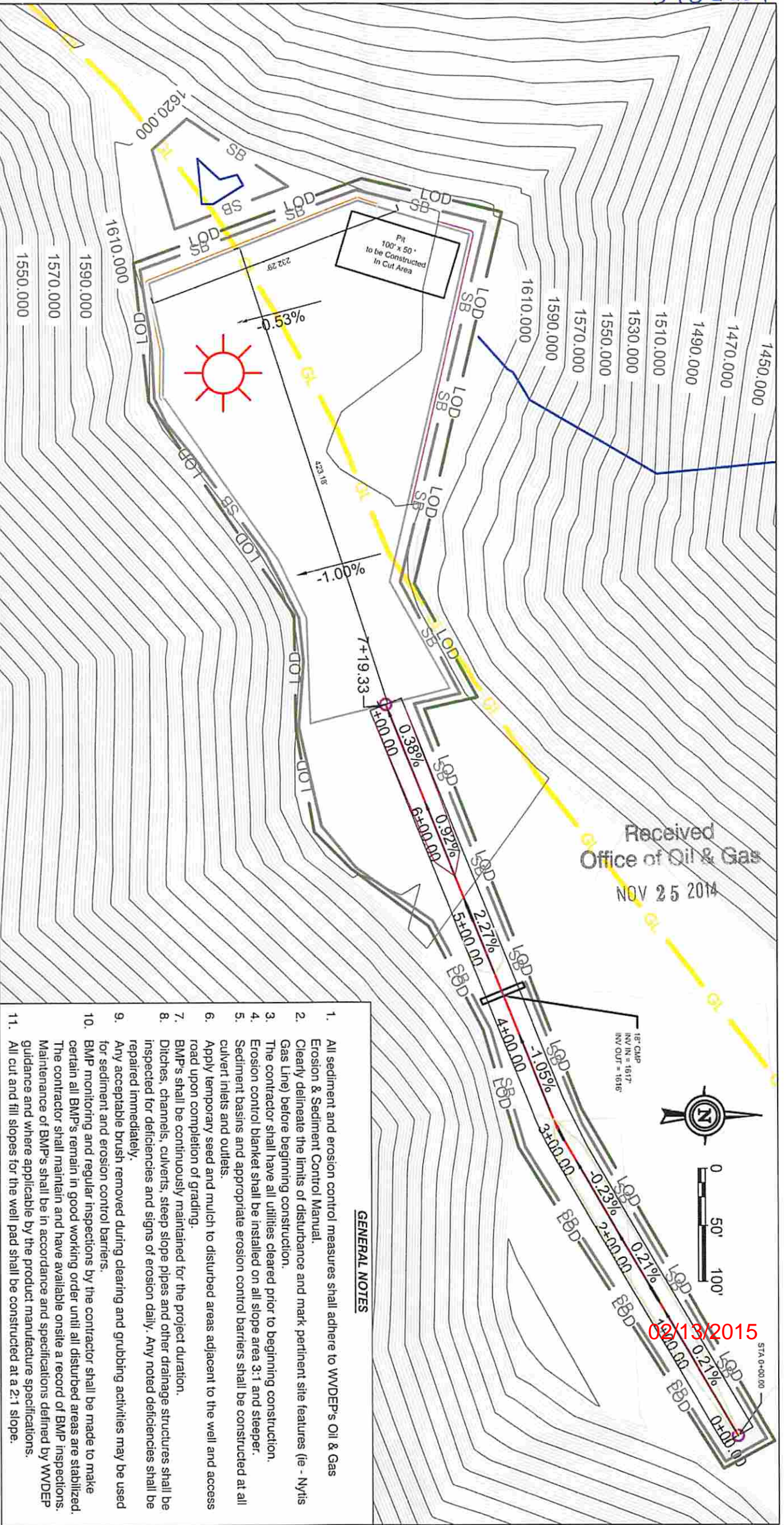
Plan Approved by: 

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

Title: inspector OOG Date: 11-18-14

Field Reviewed?  Yes  No

5902257



DRAWN: JTS  
 CHECKED: PWF  
 SCALE: 1" = 100'  
 REVISED:



CARBON FUELS PAD G  
 MINGO COUNTY, WEST VIRGINIA

CONSTRUCTION & RECLAMATION PLAN  
 THIS DOCUMENT WAS PREPARED BY  
 MICHAEL BAKER JR., INC.  
 FOR TRIANA ENERGY, LLC

**LEGEND**

- Stream
- Welland
- Silt Barrier
- Limits of Disturbance

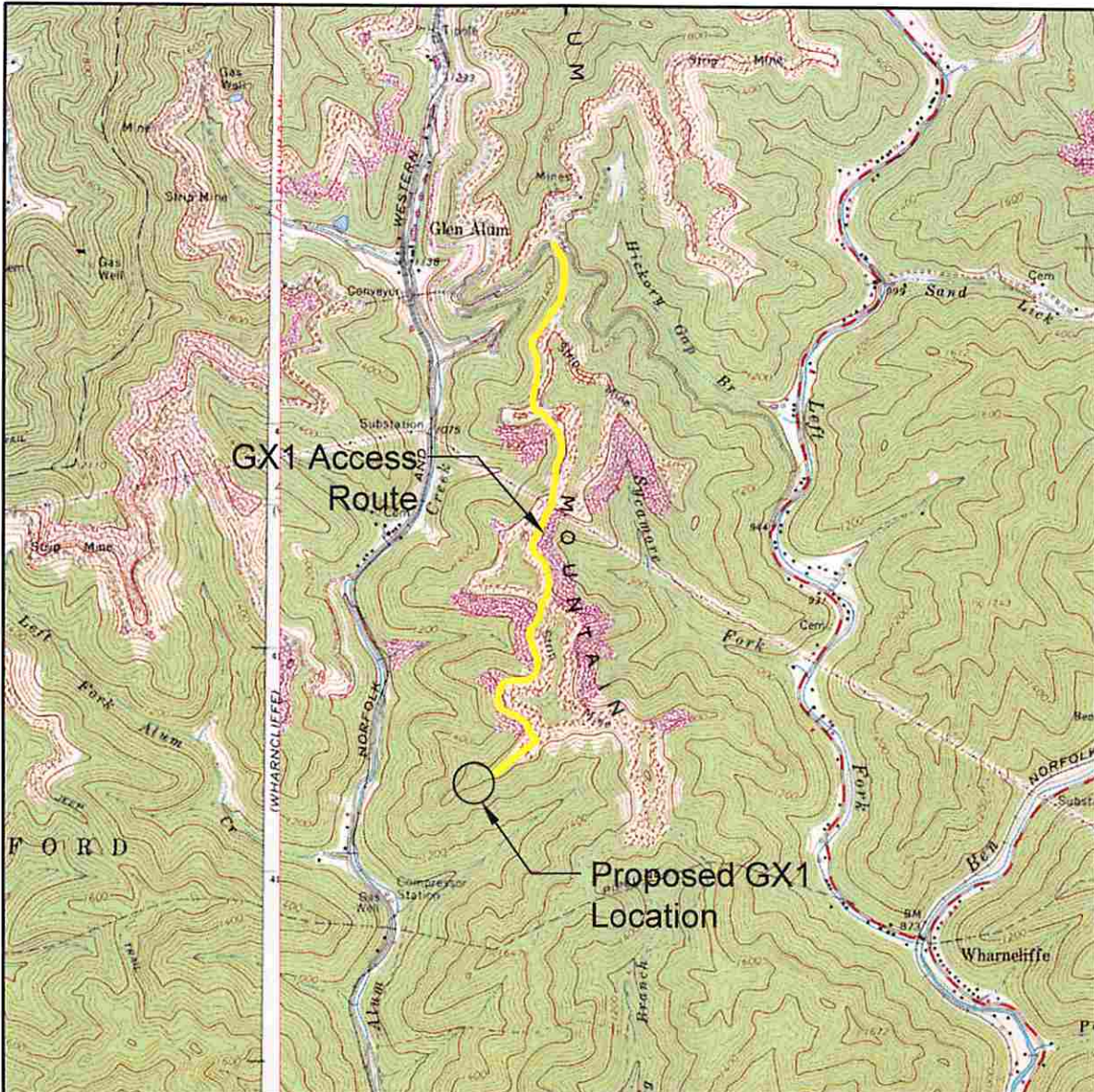
**Baker**  
 MICHAEL BAKER JR., INC.  
 508B W WASHINGTON ST.  
 CHARLESTON, WV 25313  
 304-799-0921

**GENERAL NOTES**

1. All sediment and erosion control measures shall adhere to WVDEP's Oil & Gas Erosion & Sediment Control Manual.
2. Clearly delineate the limits of disturbance and mark pertinent site features (ie - Nytris Gas Line) before beginning construction.
3. The contractor shall have all utilities cleared prior to beginning construction.
4. Erosion control blanket shall be installed on all slope area 3:1 and steeper.
5. Sediment basins and appropriate erosion control barriers shall be constructed at all culvert inlets and outlets.
6. Apply temporary seed and mulch to disturbed areas adjacent to the well and access road upon completion of grading.
7. BMP's shall be continuously maintained for the project duration.
8. Ditches, channels, culverts, steep slope pipes and other drainage structures shall be inspected for deficiencies and signs of erosion daily. Any noted deficiencies shall be repaired immediately.
9. Any acceptable brush removed during clearing and grubbing activities may be used for sediment and erosion control barriers.
10. BMP monitoring and regular inspections by the contractor shall be made to make certain all BMP's remain in good working order until all disturbed areas are stabilized. The contractor shall maintain and have available onsite a record of BMP inspections. Maintenance of BMP's shall be in accordance and specifications defined by WVDEP guidance and where applicable by the product manufacture specifications.
11. All cut and fill slopes for the well pad shall be constructed at a 2:1 slope.

02/13/2015

STA 0+00.00



GX1 Access Route

RECEIVED  
Office of Oil and Gas

FEB 9 2015

WV Department of  
Environmental Protection

**TRIANA  
CARBON FUELS - G PAD  
TOPOGRAPHIC LOCATION PLAT**

Located Near the Community of Glen Alum  
Stafford District (9), Mingo County (59), West Virginia  
Wharnccliffe Quadrangle

GX1 - Top Hole Coordinates (NAD 83)

Northing - 205982.04 sf

Easting - 1681800.95 sf

Latitude - 37° 33' 41.30

Longitude - 81° 59' 20.73

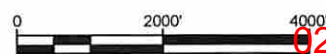
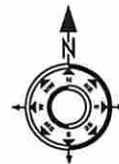
UTM

Northing - 4157620.980 m

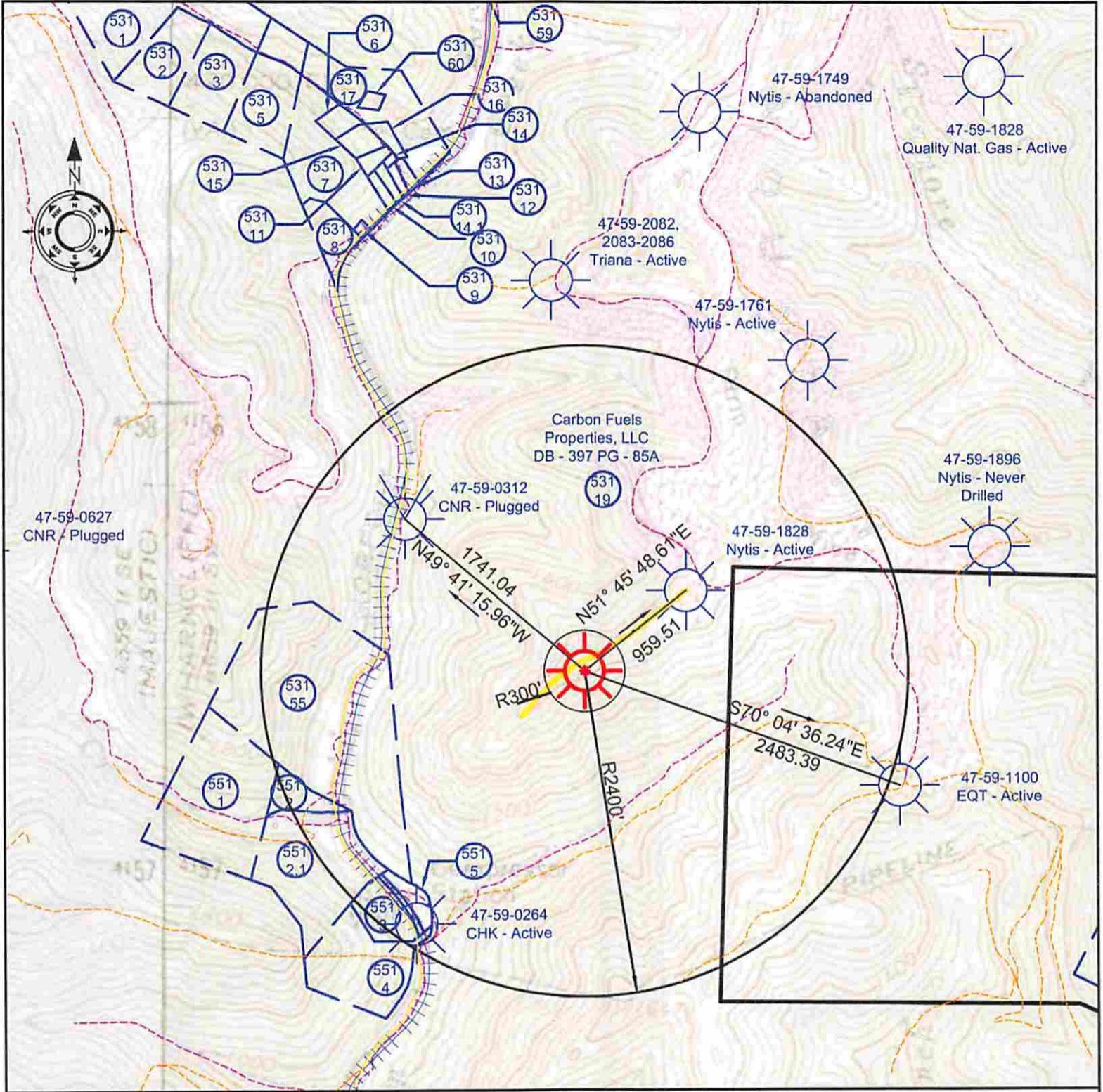
Easting - 412644.762 m






Scale: 1"=2000'



02/13/2015

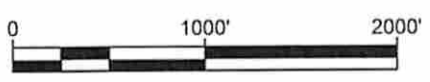


-  Surface Adjoiners
-  Tax Map & Parcel Number
-  Lease Boundary
-  Nylis 1828 Gas Line Location
-  Roads

Received  
Office of Oil & Gas  
NOV 25 2014

GX1 - Top Hole Coordinates (NAD 83)  
 Northing - 205982.04 sf  
 Easting - 1681800.95 sf  
 Latitude - 37° 33' 41.30  
 Longitude - 81° 59' 20.73  
 UTM  
 Northing - 4157620.980 m  
 Easting - 412644.762 m

**TRIANA  
 CARBON FUELS - G PAD  
 TOPOGRAPHIC LOCATION PLAT**



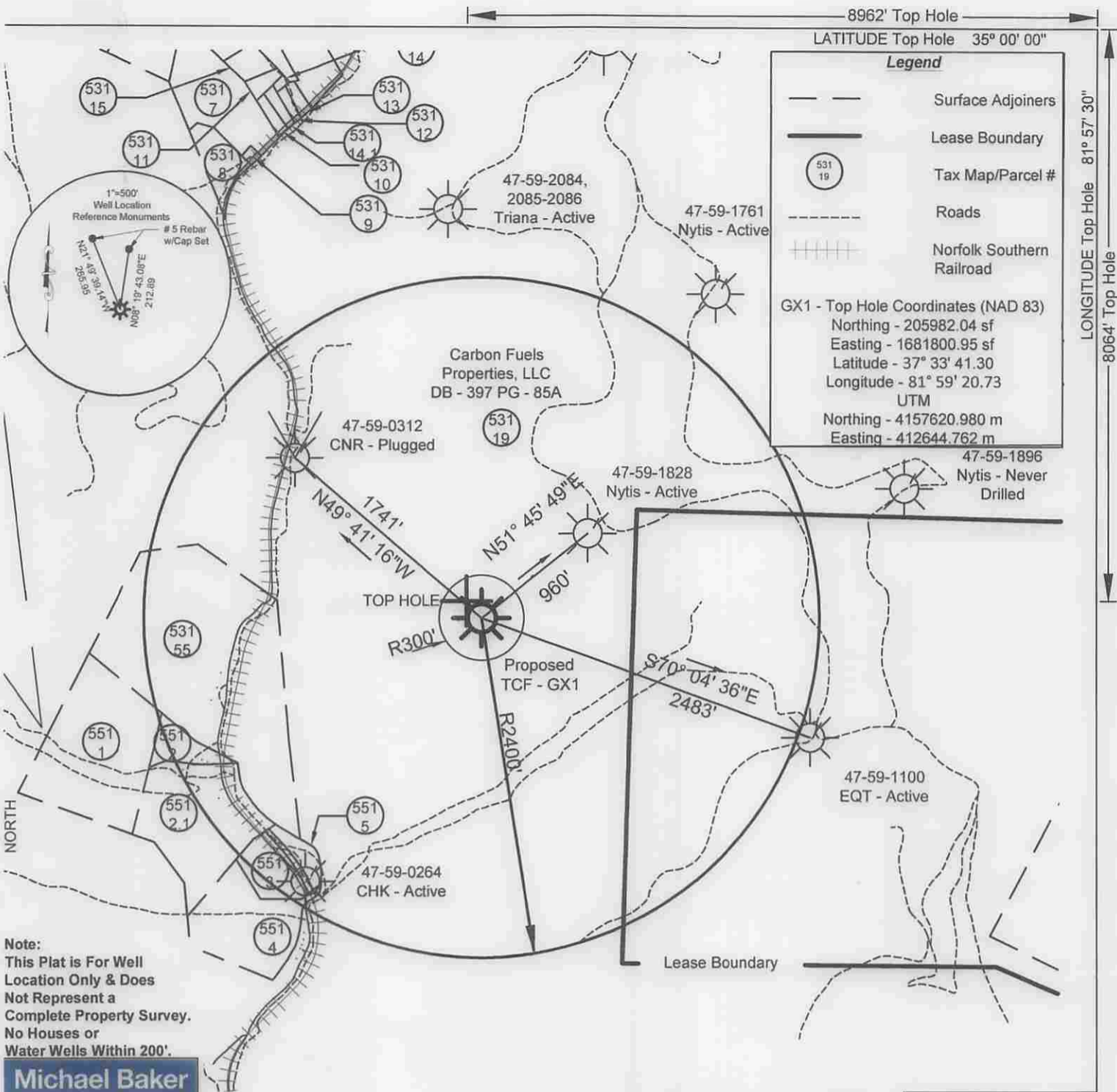
Located Near the Community of Glen Alum  
 Stafford District (9), Mingo County (59), West Virginia  
 Wharnccliffe Quadrangle

02/13/2015



Date: October 15, 2014  
 Drawn by: JTS  
 Scale: 1"=1000'  
 File: G\_Pad.dwg

**Baker**  
**Michael Baker Jr., Inc.**  
 5088 West Washington Street  
 Charleston, WV 25313  
 304-769-0821



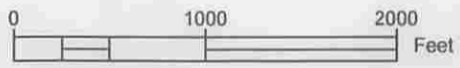
**Legend**

- Surface Adjoiners
- Lease Boundary
- 531 Tax Map/Parcel #
- - - Roads
- ++++ Norfolk Southern Railroad

GX1 - Top Hole Coordinates (NAD 83)  
 Northing - 205982.04 sf  
 Easting - 1681800.95 sf  
 Latitude - 37° 33' 41.30  
 Longitude - 81° 59' 20.73  
 UTM  
 Northing - 4157620.980 m  
 Easting - 412644.762 m

**Note:**  
 This Plat is For Well Location Only & Does Not Represent a Complete Property Survey. No Houses or Water Wells Within 200'.

**Michael Baker INTERNATIONAL**  
 Michael Baker International  
 5088 W Washington St.  
 Charleston, WV 25313  
 304-769-0821



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS (7 1/2')

FILE NO. Triana Carbon Fuels  
 DRAWING NO. G\_Pad2.dwg  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY Subfoot GPS  
 PROVEN SOURCE OF ELEVATION Subfoot GPS

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 RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

(SIGNED) *Patrick W. Fogarty*  
 R.P.E. \_\_\_\_\_ L.L.S. 970



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 601 57TH STREET  
 CHARLESTON, WV 25304



DATE September 23, 2014  
 OPERATOR'S WELL NO. TCF - GX1  
 API WELL NO. \_\_\_\_\_  
47 059 02257  
 STATE COUNTY PERMIT

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
 (IF "GAS,") PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 1620' NAVD 88 WATERSHED Tug Fork  
 DISTRICT Stafford COUNTY Mingo  
 QUADRANGLE Wharmliffe

SURFACE OWNER Carbon Fuels Properties, LLC ACREAGE 3491.69 +/-  
 OIL & GAS ROYALTY OWNER Carbon Fuels Properties, LLC LEASE ACREAGE 7411 +/-  
 COAL OWNER Carbon Fuels Properties, LLC LEASE NO. CFP-001

PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON  CLEAN OUT AND REPLUG   
 TARGET FORMATION Lower Huron ESTIMATED DEPTH 5365'  
 WELL OPERATOR Triana Energy, LLC DESIGNATED AGENT Rachelle A. King  
 ADDRESS 900 Virginia Street East, Suite 400 ADDRESS 900 Virginia Street East, Suite 400  
Charleston, WV 25301 Charleston, WV 25301

8962' Top Hole  
 LATITUDE Top Hole 35° 00' 00"  
 81° 57' 30"  
 8064' Top Hole  
 COUNTY NAME Mingo  
 PERMIT 02/13/2015

WELL OPERATOR: Triana Energy, LLC  
 ADDRESS: 900 Virginia Street East, Suite 400  
 CHARLESTON, WV 25301

DESIGNATED AGENT: Rachelle A. King  
 ADDRESS: 900 Virginia Street East, Suite 400  
 CHARLESTON, WV 25301

PLUG AND ABANDON:  CLEAN OUT AND REPLUG

TARGET FORMATION: Lower Huron  
 ESTIMATED DEPTH: 2365'

FORMATION:  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
 STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW  
 PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR  
 COAL OWNER: Carbon Fuels Properties, LLC  
 LEASE NO.: CFP-001

OIL & GAS LEASE NO.: Carbon Fuels Properties, LLC  
 LEASE ACREAGE: 7411 +/-  
 SURFACE OWNER: Carbon Fuels Properties, LLC  
 ACREAGE: 3481.88 +/-

QUADRANGLE: Wardsville  
 DISTRICT: Stafford  
 COUNTY: Mingo  
 LOCATION: ELEVATION 1620, NAVD 88  
 WATERSHED: Twp Fork  
 WASTE DISPOSAL:  GAS  LIQUID INJECTION

CHARLESTON, WV 25304  
 601 57TH STREET  
 WEST VIRGINIA DEPARTMENT  
 OF ENVIRONMENTAL PROTECTION

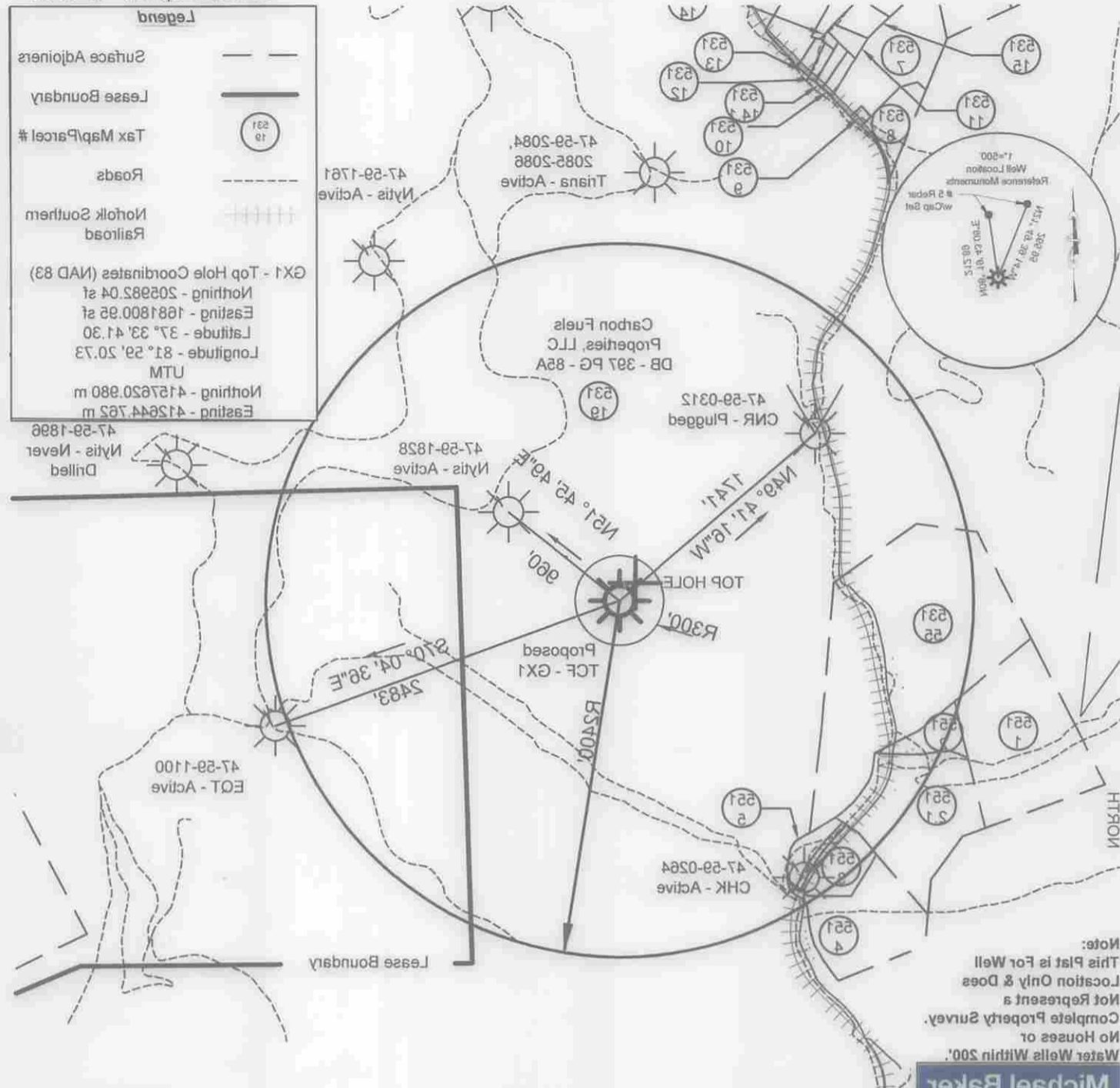
R.P.E. \_\_\_\_\_ L.S. \_\_\_\_\_ 970 (SIGNED)  
 I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS  
 PLAN IS CORRECT TO THE BEST OF MY KNOWLEDGE  
 AND BELIEF, AND SHOWS ALL THE INFORMATION  
 REQUIRED BY LAW AND THE RULES ISSUED AND PRESCRIBED  
 BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

PLACED IN HERE  
 PROFESSIONAL SURVEYOR  
 STATE OF WEST VIRGINIA  
 NO. 970  
 RICHARD W. FOGARTY  
 LICENSED

304-789-0821  
 CHESTOWN, WV 25313  
 5088 W WASHINGTON ST.  
 MICHAEL BAKER INTERNATIONAL

Note:  
 Water Wells Within 200'.  
 No Houses or  
 Complete Property Survey.  
 Not Represent a  
 Location Only & Does  
 This Plat is For Well

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS (1:25,000)



8862' Top Hole  
 LATITUDE Top Hole 38° 00' 00"

800ft Job Hole  
 CONDUIT TO JOB HOLE 18' x 24' x 30'