



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

January 31, 2012

WELL WORK PERMIT

Horizontal Well

This permit, API Well Number: 47-9502041, issued to TRIAD HUNTER, 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 of completion of drilling, 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: COLLINS UNIT 1117
Farm Name: COLLINS, DORIS & EARL
API Well Number: 47-9502041
Permit Type: Horizontal Well
Date Issued: 01/31/2012

Promoting a healthy environment.

11/07/2025

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. 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 twenty-five 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.
3. Pursuant to 35 CSR § 4-19.1.c, if the operator is unable to sample and analyze any water well or spring within 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.

95.02041H

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

1) Well Operator Triad Hunter, LLC 494494833 Tyler Ellsworth Middlebourne
Operator ID County District Quadrangle

2) Operator's Well Number: Collins Unit #1117 3) Elevation: 740'

4) Well Type: (a) Oil ☒ or Gas ☒
(b) If Gas: Production ☒ / Underground Storage NA
Deep NA / Shallow ☒

5) Proposed Target Formation(s): Marcellus Shale Proposed Target Depth: 6,000' TVD

6) Proposed Total Depth: 11,650' MD Feet Formation at Proposed Total Depth: Marcellus Shale

7) Approximate fresh water strata depths: 300'

8) Approximate salt water depths: 700' - 1800'

9) Approximate coal seam depths: Various thin seams from 500' - 1600'

10) Approximate void depths, (coal, Karst, other): no open coal mines, karsting or voids, if encountered will be reported

11) Does land contain coal seams tributary to active mine? No

12) Describe proposed well work in detail

Drill and complete new horizontal Marcellus Shale well. Will land horizontal at a TVD of 6,000 feet in the Marcellus Shale, 6,435' MD, and drill to an approximate MD of 11,650 feet with an effective horizontal lateral length of 5,215 feet in the Marcellus Shale. Production casing will be run to Total Depth (est. 11,650') and cemented to surface. Production casing will be perforated and the Marcellus Shale will be stimulated with a multiple stage fracture treatment. Coiled tubing will be utilized to drill out frac plugs and clean out wellbore. The well will be flow back into frac tanks and test flow rates during flow back. Tubing will be run in well and well placed in production.

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	20"	A53B	90 ppf	100'	100'	<u>cement to surface (C.T.S.)</u>
Fresh Water	13 3/8"	H-40	36 ppf	400'	400'	<u>cement to surface (C.T.S.)</u>
Coal						
Intermediate	9 5/8"	J-55	36 ppf	2000'	2000'	<u>casing to be run approx. 100' below Big Run. C.T.S.</u>
Production	5 1/2"	P-110	20 ppf	11,650'	11,650'	<u>cement to surface C.T.S.</u>
Tubing	2 3/8"	J-55	4.7 ppf			
Liners						

Packers: Kind
Sizes
Depths Set

11/07/2025

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

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name Triad Hunter, LLC OP Code 49449833

Watershed Middle Island Creek Quadrangle Middlebourne

Elevation 740' County Tyler District Ellsworth

Description of anticipated Pit Waste: Freshwater, saltwater, possible oil, drill cuttings (synthetic based mud will be handled in a closed loop system, not in pit)

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

Will a synthetic liner be used in the pit? Yes If so, what mil.? 30 mil

Proposed Disposal Method For Treated Pit Wastes:

NA Land Application
X Underground Injection (UIC Permit Number 387 Ohio disposal Well 34-121-3995 and 34-121-4086)
NA Reuse (at API Number NA)
NA Off Site Disposal (Supply form WW-9 for disposal location)
NA Other (Explain NA)

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. Air on top hole and synthetic based mud for lateral/horizontal portion

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

Additives to be used? See attached MSDS for SBM

Will closed loop system be used? Yes

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

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

-Landfill or offsite name/permit number? SWF1025

RECEIVED
Office of Oil & Gas

JAN 11 2012

WV Department of
Environmental Protection

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.

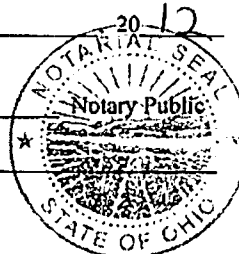
Company Official Signature [Signature]

Company Official (Typed Name) Rocky Roberts

Company Official Title Senior VP of Appalachian Operations

Subscribed and sworn before me this 5th day of January

Elizabeth R. Tebay
My commission expires 2012

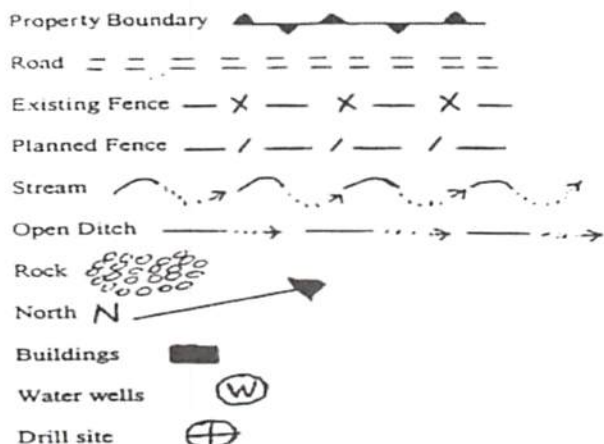


ELIZABETH R. TEBAY
NOTARY PUBLIC
In and For The State of Ohio
My Commission Expires
2012

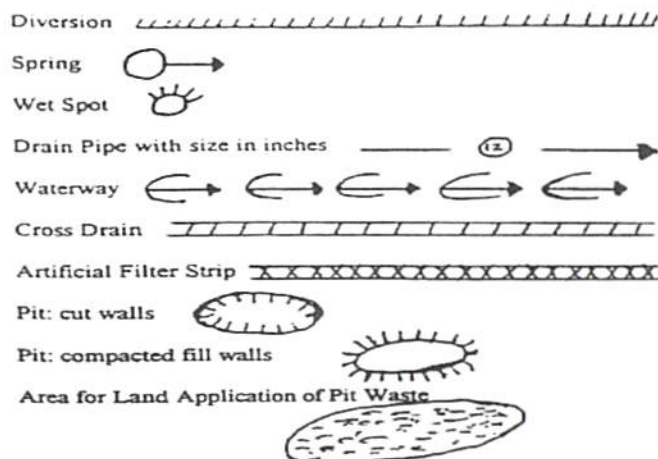
11/07/2025

95-02041H

Operator's Well No. Collins Unit #1117



LEGEND

Proposed Revegetation Treatment: Acres Disturbed 6 ac drilling pad and road Prevegetation pH 6 - 7Lime 2 - 5 Tons/acre or to correct to pH 6.0 - 7.0Fertilizer (10-20-20 or equivalent) 500 lbs/acre (500 lbs minimum)Mulch 2 Tons/acre

Seed Mixtures

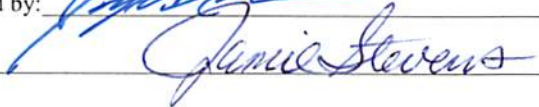
Seed Type	Area I	lbs/acre
common orchard grass		
perennial rye		
medium red clover		
common timothy		

Seed Type	Area II	lbs/acre
road to be stoned		
areas requiring to be revegetated will be same as area 1		

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: InspectorDate: 10-17-1110-17-2011

Field Reviewed?

(X) Yes

() No

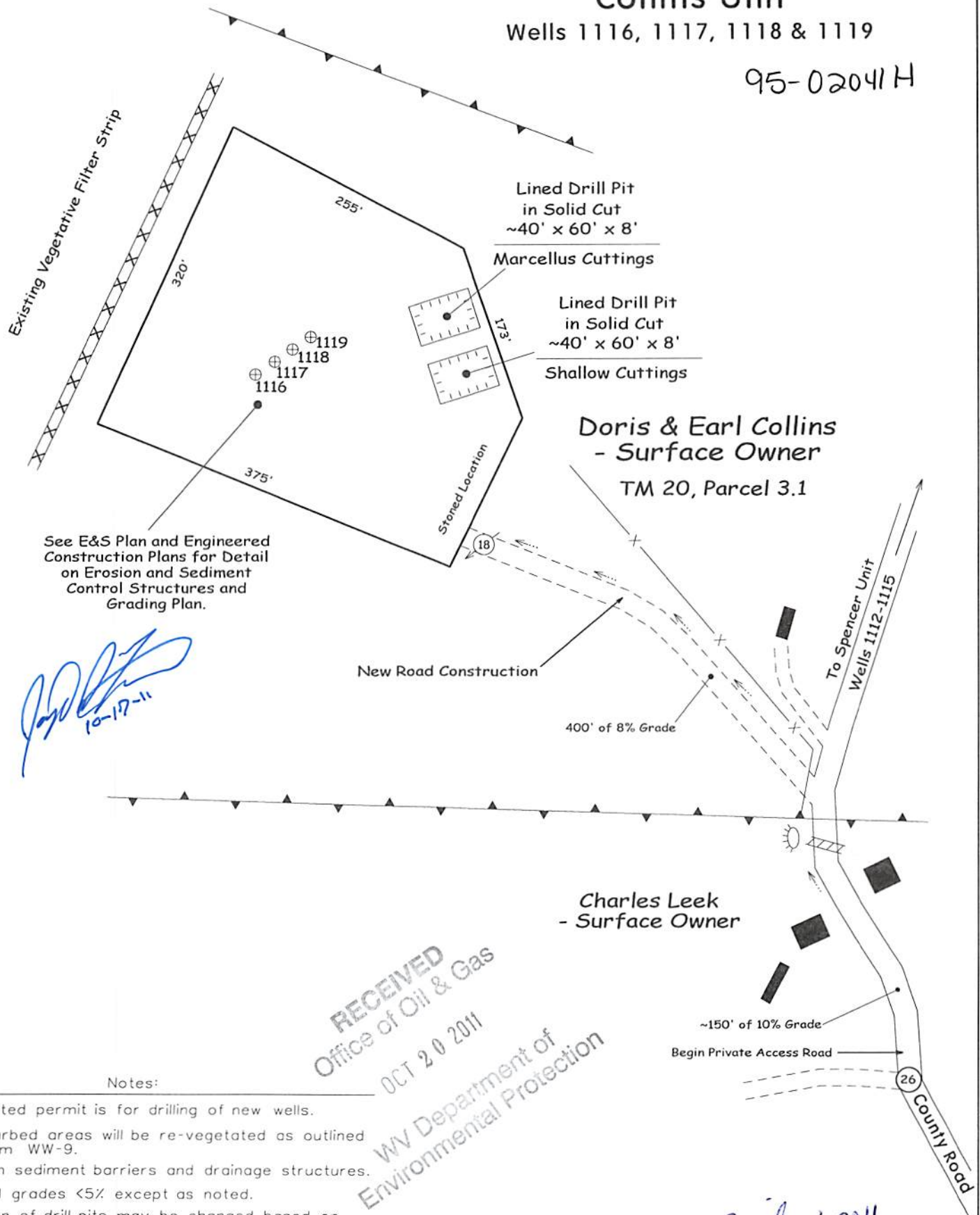
11/07/2025

Reclamation Plan For:

Collins Unit

Wells 1116, 1117, 1118 & 1119

95-020414



Notes:

- Requested permit is for drilling of new wells.
- All disturbed areas will be re-vegetated as outlined on Form WW-9.
- Maintain sediment barriers and drainage structures.
- All road grades <5% except as noted.
- Location of drill pits may be changed based on as-built considerations.
- All slopes or grades will be pre-seeded and mulched.
- Entire location will be covered by 6" stone base.

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Office of Oil & Gas
OCT 20 2011
WV Department of
Environmental Protection

Janice
10-17-2011
11/07/2025
Note: Drawing not to Scale

95-02041H

**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
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See Attached Schedule A

**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: Triad Hunter, LLC
By: Rocky Roberts
Its: Senior VP of Appalachian Operations

11/07/2025

95-02041 H

"SCHEDULE A"
Collins Unit #1117

Grantor, Lessor	Grantee, Lessee	Royalty	Book/Pg
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All Oil and Gas Leases covering the tract of land identified on surveyor plat as DORIS & EARL COLLINS(22 AC) – TRACT A

Doris Collins and Earl Collins	Triad Hunter, LLC	1/8 th portion divided in unit	378/168
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All Oil and Gas Leases covering the tract of land identified on surveyor plat as TERRY JONES(45.6 AC) – TRACT B

Joyce Ollom	EOG Resources, Inc	1/8 th portion divided in unit	353/292
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All Oil and Gas Leases covering the tract of land identified on surveyor plat as J.C. & BARBARA NUSS(12,50.8,30.43,7.47AC) – TRACT C, D, E & F

J.C. and Barbara Nuss	Triad Energy Corporation, Inc	1/8 th portion divided in unit	355/210(12AC)
J.C. and Barbara Nuss	Triad Energy Corporation, Inc	1/8 th portion divided in unit	355/216(50.8AC)
J.C. and Barbara Nuss	Triad Hunter, LLC	1/8 th portion divided in unit	377/466(30.43 AC)
J.C. and Barbara Nuss	Triad Hunter, LLC	1/8 th portion divided in unit	377/424(7.47 AC)

All Oil and Gas Leases covering the tract of land identified on surveyor plat as LAWRENCE O. EVANS(28.79 AC) – TRACT G

Lawrence O. Evans Jr.	Triad Energy Corporation, Inc	1/8 th portion divided in unit	354/472
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All Oil and Gas Leases covering the tract of land identified on surveyor plat as LAWRENCE O. EVANS(55.53 AC) – TRACT H

Lawrence O. Evans Jr. & Linda Evans	Triad Energy Corporation, Inc	1/8 th portion divided in unit	354/468
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Office of Oil & Gas
OCT 20 2011
WV Department of
Environmental Protection

11/07/2025

95-020414



TRIAD HUNTER, LLC.

October 17, 2011

WVDEP
Office of Oil & Gas
c/o Laura Adkins
601 57th Street, SE
Charleston, WV 25304

RE: Collins Unit #1117 Permit Applications
Ellsworth District, Tyler County, West Virginia

Dear Ms. Adkins,

The oil and gas underlying State Routes 10/1, 24, 24/2, and 26 will not be affected by the above mentioned proposed laterals. Certified title performed by our Title Attorneys and repeated investigation by our contract abstractors have determined that the State of West Virginia/West Virginia Division of Highways does not have an adverse claim to the minerals underlying those portions of State Routes 10/1, 24, 24/2, and 26.

Furthermore Triad Hunter, LLC acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities that include, but not limited to the WV Division of Highways, U.S. Army Corp of Engineers, U.S. Fish Wildlife Service and County Floodplain Coordinator.

Regards,

Rocky Roberts
Sr. VP of Appalachian Operations
Triad Hunter, LLC

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OCT 20 2011
WV Department of
Environmental Protection

11/07/2025

WW-2B1

Well No. Collins Unit #1117

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.

If no water well or spring is located within 1000 feet, the Chief may require the operator to sample and analyze water from a water well or spring within 2000 feet of the proposed well site.

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

The laboratory used by the operator to analyze the samples will be approved by the Chief. The operator named below has decided to use the following laboratory to analyze the water samples:

<input checked="" type="checkbox"/> Contractor Name <input type="checkbox"/> Well operator's private laboratory	<u>Kemron and MicroBac Labs</u> <hr/> Well Operator <u>Triad Hunter, LLC</u> Address <u>P.O. Box 430</u> <u>Reno, Ohio 45773</u> Telephone <u>740-374-2940</u>
--	--

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 please indicate such.

DORIS & EARL COLLINS - WATER SAMPLE HAS BEEN OBTAINED ON 6/15/11

* CHARLES LEEK

TERRY JONES

JANET NEFF

11/07/2025

1.) Date: OCTOBER 14, 2011
2.) Operator's Well Number Collins Unit #1117
State 47- County 095 Permit 02041H
3.) API Well No.:

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 Doris & Earl Collins W
Address 1212 2nd Street
Moundsville, WV 26041
(b) Name Charles Leek
Address 22 Bridgeway Addition
Middlebourne, WV 26149
(c) Name _____
Address _____
6) Inspector Joe Taylor
Address _____
Telephone 304-380-7469

5) (a) Coal Operator
Name NA
Address _____
(b) Coal Owner(s) with Declaration
Name NA
Address _____
(c) Coal Lessee with Declaration
Name NA
Address _____

TO THE PERSONS NAMED ABOVE TAKE NOTICE THAT:

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

OR

X 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)
X 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 Triad Hunter, LLC
ELIZABETH R. TEBY
NOTARY PUBLIC
In and For The State of Ohio
My Commission Expires 2-29-12

Rocky Roberts
Senior VP of Appalachian Operations
P.O. Box 430
Reno, Ohio 45773
740-374-0940

Subscribed and sworn before me this 14th day of October, 2011

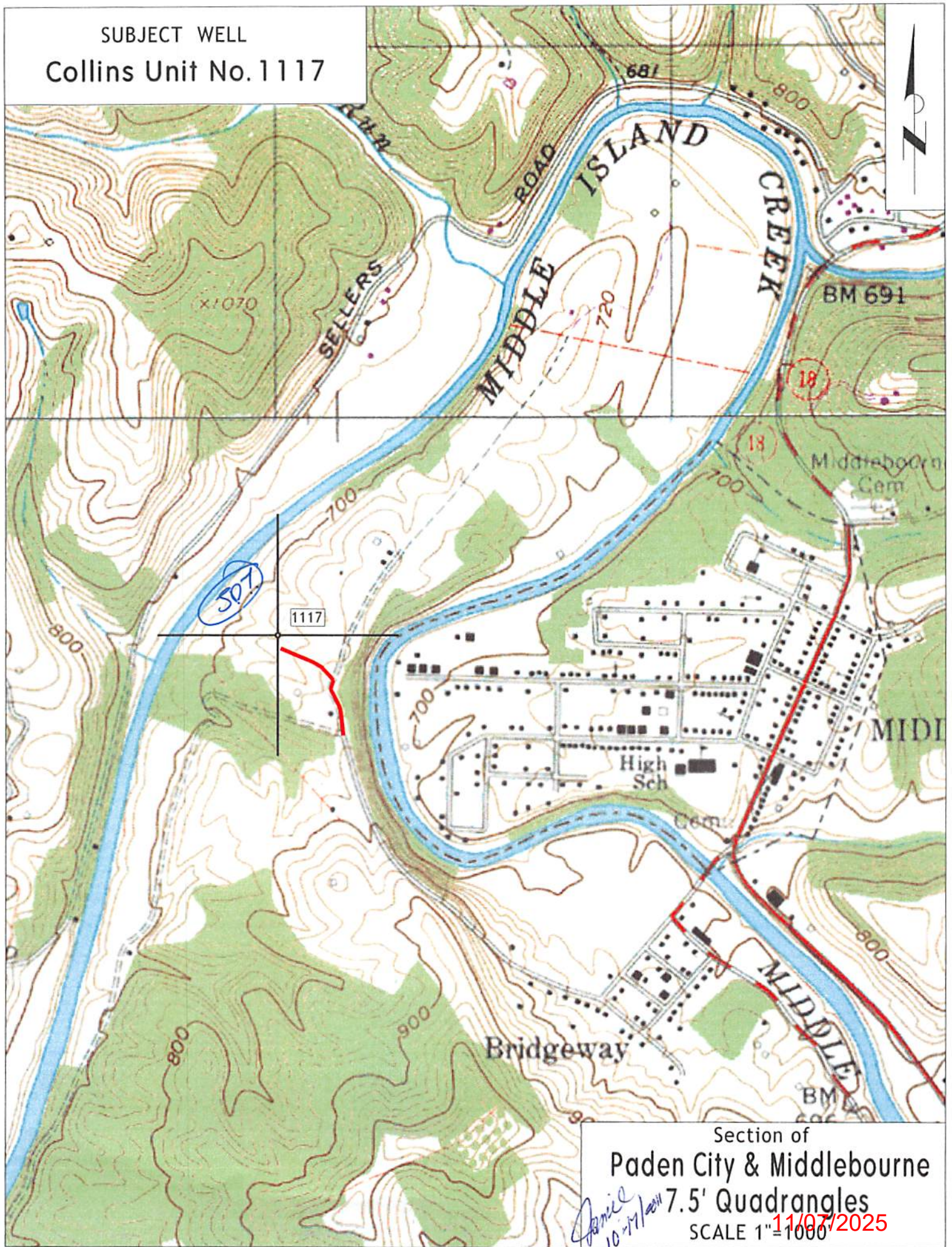
Elizabeth R. Teby Notary Public
My Commission Expires 2-29-12

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a 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 of your personal information, please contact DEP's Chief Privacy Officer at deprivacyofficer@wv.gov

11/07/2025

SUBJECT WELL
Collins Unit No. 1117



MINERAL INTEREST KEY

A - Doris & Earl Collins
 B - Terry Jones
 C, D, E & F - J.C. & Barbara Nuss
 G & H - Lawrence O. Evans Jr.

NOTES

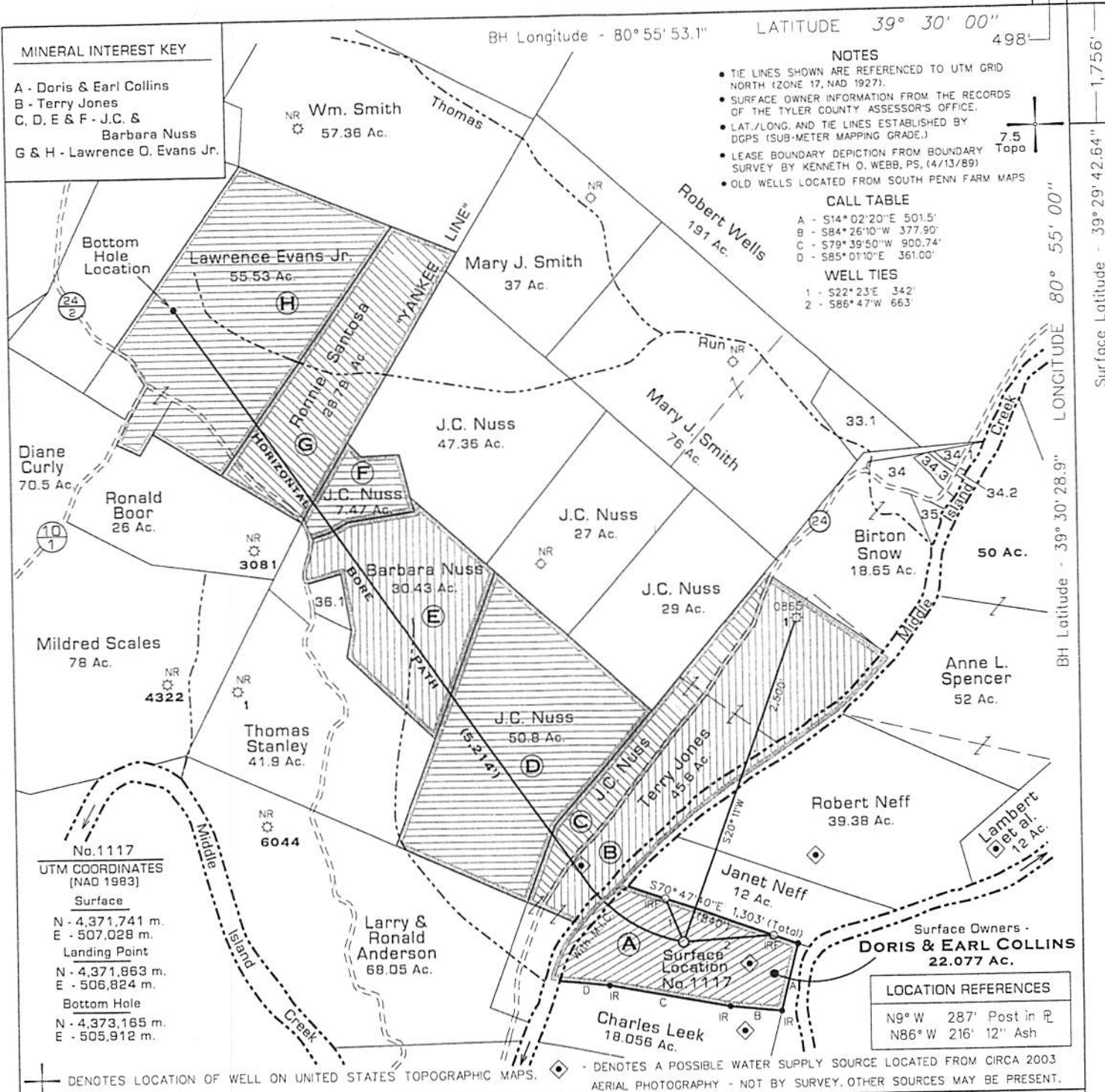
- TIE LINES SHOWN ARE REFERENCED TO UTM GRID NORTH (ZONE 17, NAD 1983).
- SURFACE OWNER INFORMATION FROM THE RECORDS OF THE TYLER COUNTY ASSESSOR'S OFFICE.
- LAT./LONG. AND TIE LINES ESTABLISHED BY DGPS (SUB-METER MAPPING GRADE.)
- LEASE BOUNDARY DEPICTION FROM BOUNDARY SURVEY BY KENNETH O. WEBB, PS, (4/13/89)
- OLD WELLS LOCATED FROM SOUTH PENN FARM MAPS

CALL TABLE

A - S14° 02' 20" E 501.5'
 B - S84° 26' 10" W 377.90'
 C - S79° 39' 50" W 900.74'
 D - S85° 01' 10" E 361.00'

WELL TIES

1 - S22° 23' E 342'
 2 - S86° 47' W 663'



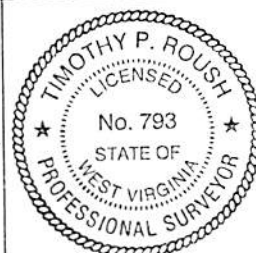
FILE NO. 115-73
 DRAWING NO. 1117
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY Sub-Meter
 PROVEN SOURCE OF ELEVATION DGPS Survey

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 MINES.

(SIGNED)

TIMOTHY P. ROUSH

PS 793



WEST VIRGINIA

Division of Environmental Protection
 Office of Oil and Gas
 601 57th Street
 Charleston, West Virginia 25304



DATE September 20, 2011

FARM Collins Unit No. 1117

API WELL NO.

47-095-02041H

WELL TYPE: OIL ☐ GAS ☒ LIQUID INJECTION ☐ WASTE DISPOSAL ☐
 (IF "GAS") PRODUCTION ☒ STORAGE ☐ DEEP ☐ SHALLOW ☒ HORIZONTAL ☒
 LOCATION: ELEVATION 740' WATERSHED Middle Island Creek
 DISTRICT Ellsworth COUNTY Tyler
 QUADRANGLE Middlebourne 7.5'

SURFACE OWNER Doris & Earl Collins ACREAGE 22.077 Ac.
 OIL & GAS ROYALTY OWNER Doris & Earl Collins et al. (See Mineral Key) LEASE ACREAGE 637.273 Ac. (Collins Unit)
 LEASE NO.

PROPOSED WORK: DRILL ☒ CONVERT ☐ DRILL DEEPER ☐ REDRILL ☐ FRACTURE OR
 STIMULATE ☒ PLUG OFF OLD FORMATION ☐ PERFORATE NEW
 FORMATION ☐ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) Drill horizontal shallow well

PLUG AND ABANDON ☐ CLEAN OUT AND REPLUG ☐

TARGET FORMATION Marcellus Shale ESTIMATED DEPTH 6,000'(TVD) 11,650'(MD)

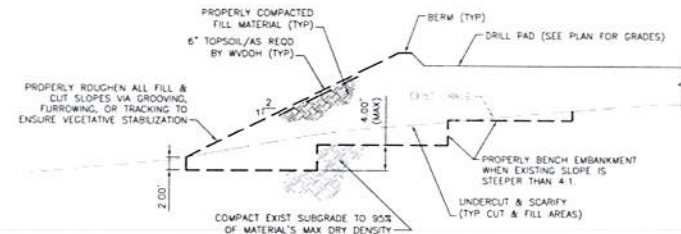
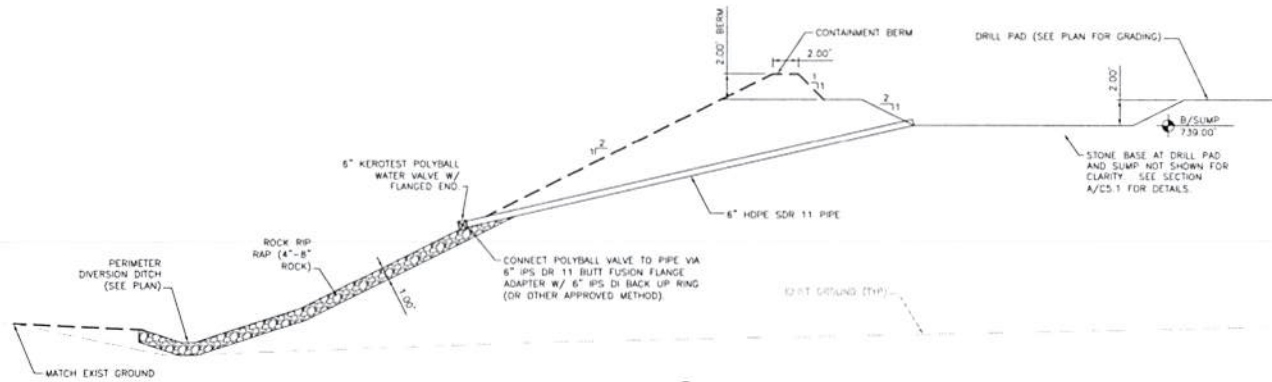
WELL OPERATOR Triad Hunter, LLC DESIGNATED AGENT Kimberly Arnold

ADDRESS 777 Post Oak Blvd., Suite 910 ADDRESS P.O. Box 154
Houston, TX 77056 Waverly, WV 26184

11/07/2025

The image shows two types of graphical scales. On the left is a vertical scale with a black bar and white segments, marked with numbers 0, 10, 20, and 30. Below it is the text "SCALE: 1"=20'". On the right is a horizontal scale with a black bar and white segments, marked with numbers 0, 20, 40, and 80. Below it is the text "SCALE: 1"=40'".

VERTICAL SCALE HORIZONTAL SCALE



TYPICAL FILL SECTION
SCALE: NTS

10-17-11

James Stacey

10-17-2011

[illegible]

Drawing Description

Project: 2119076
Designed By: MAW
Drawn By: MAW
Checked By: MAW
Scale: AS SHOWN
Plot Date: 10/14/11
Revision: 0
Drawing Number: C2.1

H14050-516

ABBREVIATIONS	ABBREVIATIONS CONT.
ADD ADDITIONAL	HP HIGH POINT
ADJ ADJUSTABLE	I/ INSIDE OF
AF/C ABOVE FINISHED CEILING/FLOOR/GRADE	ISO INSTALLED BY OTHERS
APPK APPROXIMATELY	O INSIDE DIAMETER
BIT BITUMINOUS	INCL INCLUDE(ING)
BL BUILDING LINE	INV INVERT
BM BEAM/BENCH MARK	ISO ISOLATION
BOF/P BOTTOM OF FOOTER/PIPE	LP LOW POINT
BOT BOTTOM	MAS MASONRY
BRG BEARING	MAT MATERIAL
CB CATCH BASIN	MEMB MEMBRANE
CIP CAST-IN-PLACE	MFR MANUFACTURER
CL CENTERLINE	MH MANHOLE
CLR CLEARANCE	N/C NOT IN CONTRACT
CMU CONCRETE MASONRY UNIT	NOM NOMINAL
CJ CONSTRUCTION/CONTROL JOINT	NS NEAR SIDE
CO CLEANOUT	NTS NOT TO SCALE
CONC CONCRETE	O/ OUTSIDE OF
CONST CONSTRUCTION	OC ON CENTER
CONT CONTINUOUS	OPP OPPOSITE
DBO DESIGN BY OTHERS	PLC(S) PLACE(S)
DCBO DESIGN & CONSTRUCTION BY OTHERS	PL(S) PLATE(S)
DET DETAIL	P/MT PAVEMENT
DN DOWN	QTY QUANTITY
D&R DEMOLISH & REMOVE	REINF REINFORCING
DWG DRAWING	REQD REQUIRED
EA EACH	SECT SECTION
ED EDGE DISTANCE	SP SPACE
EEL ELEVATION	SPEC SPECIFICATION(S)
EOP/W EDGE OF PAVEMENT/WALK	SQ SQUARE
EQ EQUAL	STA STATION
ES EACH SIDE	STD STANDARD
EXIST EXISTING	T&B TOP AND BOTTOM
EXT EXTERIOR	TBD TACKBOARD/TO BE DETERMINED
FBO FURNISHED BY OTHERS	TD TRENCH DRAIN
FDN FOUNDATION	TOB/T/ TOP OF BANK/FOOTER/MASONRY/PIPE
FOC/F/ FACE OF CONCRETE/ FINISH/MASONRY	S/N /RAIL(NG)/STEEL/ WALL
M FAR SIDE	TOS TOE OF SLOPE
GND GROUND	UNO UNLESS NOTED OTHERWISE
	VVF VERIFY IN FIELD

LINE/TYPE LEGEND

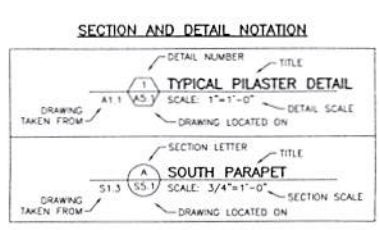
---	EDGE OF GRAVEL
---	EDGE OF PAVEMENT
---	PROPERTY LINE
---	LOT LINE
---	RIGHT-OF-WAY
---	OH TELEPHONE LINE
---	UG1 UNDERGROUND TELEPHONE LINE
---	UG2 UNDERGROUND ELECTRIC LINE
---	SS SANITARY SEWER LINE
---	S STORM SEWER LINE
---	G GAS LINE
---	W WATER LINE
---	C COMMUNICATION LINE
---	UNDERDRAIN
---	DITCH OR SVALE
---	BREAKLINE OR SLOPE LINE
---	CONSTRUCTION LIMITS (CUT)
---	CONSTRUCTION LIMITS (FILL)
---	CONSTRUCTION/CONTROL JOINT
---	BARBED WIRE FENCE
---	CHAIN LINK FENCE
---	BOUNDARY
---	CENTERLINE
---	MATCHLINE

MATERIAL LEGEND

[Pattern]	CONCRETE
[Pattern]	WELL-GRADED STONE/GRAVEL
[Pattern]	UNIFORM-GRADED STONE/GRAVEL
[Pattern]	SOIL
[Pattern]	BEDROCK
[Pattern]	GRASS
[Pattern]	WATER
[Pattern]	SAND

SYMBOL LEGEND

[Symbol]	CODED NOTE
[Symbol]	SECTION
[Symbol]	ELEVATION
[Symbol]	DETAIL
[Symbol]	SPOT ELEVATION
[Symbol]	CATCH BASIN
[Symbol]	FIRE HYDRANT
[Symbol]	GUY WIRE
[Symbol]	LIGHT POLE
[Symbol]	UTILITY POLE
[Symbol]	TELEPHONE POLE
[Symbol]	POWER POLE
[Symbol]	GAS/WATER VALVE
[Symbol]	WATER METER
[Symbol]	GAS METER
[Symbol]	UTILITY HAND-HOLE
[Symbol]	UTILITY PEDESTAL
[Symbol]	TREE (DECID/EVERGREEN)
[Symbol]	BUSH
[Symbol]	IRON REBAR (SET)
[Symbol]	IRON PIPE (FOUND)
[Symbol]	IRON PIN/REBAR (FOUND)
[Symbol]	STONE (FOUND)
[Symbol]	BOLT (FOUND)
[Symbol]	MAG NAIL (SET)
[Symbol]	NOV MARKER



Handwritten signatures and dates:
 10-17-11
 10-17-2011
 10-17-2011

TRIAD HUNTER, LLC COLLINS HORIZONTAL DRILLING SITE DEVELOPMENT WELLS 1116, 1117, 1118, 1119 TYLER COUNTY, WEST VIRGINIA

INDEX OF DRAWINGS

DRAWING NUMBER	DRAWING DESCRIPTION	REVISION
T0.1	TITLE SHEET AND GENERAL NOTES	0
C1.1	GRADING/SEDIMENT AND EROSION CONTROL PLAN	0
C2.1	PROFILES AND SECTIONS	0
C5.1	SECTIONS/DETAILS AND ESTIMATE OF QUANTITIES	0

GENERAL NOTES

- GOVERNING SPECIFICATIONS**
 1. THE GOVERNING SPECIFICATIONS FOR THE PROJECT ARE THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (WVDEP) OFFICE OF OIL AND GAS (OOG) TITLE 35 SERIES 4, WVDEP EROSION AND SEDIMENT CONTROL MANUAL OF THE OOG, THE WVDEP CONSTRUCTION STORMWATER MANUAL, AND THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, ADOPTED 2000, AS AMENDED BY THE WEST VIRGINIA DIVISION OF HIGHWAYS SUPPLEMENTAL SPECIFICATIONS, ISSUED JULY 1, 2000 (FROM HERE ON REFERRED TO AS WVDOH).
 2. ALL WORK SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF THE GOVERNING AUTHORITIES HAVING JURISDICTION, INCLUDING ALL APPLICABLE CODES, SPECIFICATIONS, STANDARDS, AND GUIDELINES ADOPTED BY SUCH AUTHORITIES.
 3. DISCREPANCIES BETWEEN THE PLANS AND VARIOUS CODES, STANDARDS, SPECIFICATIONS, ETC. SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION.
 4. THE PROJECT DRAWINGS SHALL SUPPLEMENT AND AMEND THE GOVERNING SPECIFICATIONS/OTHER REFERENCED SPECIFICATIONS AND SHALL RULE IN CASE OF CONFLICT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EITHER ACQUIRE REFERENCE SPECIFICATIONS OR CONTACT THE ENGINEER CONCERNING HOW TO ACQUIRE SUCH SPECIFICATIONS.
- PERMITS**
 1. ALL FEDERAL, STATE, AND LOCAL PERMITS ASSOCIATED WITH THE PROJECT SHALL BE OBTAINED BY THE CLIENT.
 2. PROPER PERMIT DOCUMENTATION SHALL BE KEPT ON SITE AT ALL TIMES AND ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE RESPECTIVE PERMITS. ALL PERMIT CONDITIONS SHALL BE PROPERLY COMPLETED (E.G. INSPECTION SCHEDULING).
 3. ALL PERMITS SHALL BE OBTAINED PRIOR TO COMMENCEMENT OF WORK.
- INSPECTIONS, SAMPLING, AND TESTING**
 1. ALL INSPECTIONS, SAMPLING, AND TESTING OF WORK ITEMS INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING: EXCAVATION, EMBANKMENT, SOIL COMPACTION, AND SEEDING AND MULCHING SHALL BE IN ACCORDANCE WITH THE WVDOH STANDARD SPECIFICATIONS, MANUFACTURER SPECIFICATIONS, THE PROJECT DOCUMENTS, AND AUTHORITIES HAVING JURISDICTION REQUIREMENTS. INSPECTION, SAMPLING, AND TESTING SHALL BE PERFORMED BY AN INDEPENDENT, CERTIFIED TESTING AGENCY APPROVED BY AND EMPLOYED BY SHALL DRILLING. ALL RESULTS SHALL BE PROMPTLY REPORTED TO THE ENGINEER.
- BENCH MARKS**
 1. BENCH MARK LOCATIONS SHALL BE HELD/PROTECTED THROUGHOUT THE LIFE OF THE PROJECT. IN THE EVENT A BENCH MARK IS DISTURBED, THE BENCH MARK SHALL BE RELOCATED OR REESTABLISHED AS DIRECTED BY THE ENGINEER.
- VERIFICATIONS**
 1. ALL DIMENSIONS AND SITE CONDITIONS SHALL BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- UTILITIES**
 1. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF EXISTING UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. ALL EXISTING UTILITIES WITHIN THE WORK AREA SHALL BE FIELD VERIFIED. EXTREME CARE SHALL BE TAKEN TO AVOID DAMAGE TO EXISTING UTILITIES INCLUDING, BUT NOT LIMITED TO, PROVIDING PROTECTIVE MEASURES DURING CONSTRUCTION.
- CLEARING AND GRUBBING**
 1. THE AREA WITHIN THE RESERVOIR CONSTRUCTION LIMITS SHALL BE CLEARED OF ALL TREES, BRUSH, LOGS, FENCES, RUBBISH, ETC. ALL TREES SHALL BE CLEARED AND GRUBBED WITHIN 15 FEET OF THE TOE OF ANY EMBANKMENT.
- DRAINAGE**
 1. WORKING STORM DRAINAGE SYSTEMS THROUGHOUT THE WORK AREAS SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. THE WORKING SYSTEM MAY CONSIST OF THE EXISTING STORM DRAINAGE SYSTEM, THE PROPOSED STORM DRAINAGE SYSTEM, OR A COMBINATION THEREOF. THE SITE SHALL BE GRADED TO DRAIN AND BE MAINTAINED FREE OF PONDING AT ALL TIMES. TEMPORARY DRAINS, SLUICES, PORTABLE PUMPING EQUIPMENT, ETC. SHALL BE UTILIZED AS REQUIRED. MEASURES SHALL BE TAKEN TO MINIMIZE EROSION AND NOT ALTER EXISTING DRAINAGE CONDITIONS WITH RESPECT TO NEIGHBORING AND DOWNSTREAM PROPERTIES.
 2. ALL PIPES TO REMAIN SHALL BE CONNECTED TO THE DRAINAGE SYSTEM OR HAVE POSITIVE OUTLET. ALL DRAINAGE OUTLET STRUCTURES SHALL BE FIELD ADJUSTED AS REQUIRED TO MATCH THE EXISTING GROUND AS DIRECTED BY THE ENGINEER. ALL EXISTING DRAINAGE FACILITIES SHALL BE FIELD VERIFIED.
- EROSION AND SEDIMENT CONTROL AND STORM WATER POLLUTION PREVENTION PLAN**
 1. ALL SITE WORK, EROSION AND SEDIMENT CONTROL, ETC. SHALL BE IN ACCORDANCE WITH THE WVDEP CONSTRUCTION STORMWATER MANUAL. SPECIFIC DESIGNS ARE BEYOND THE SCOPE OF THESE DRAWINGS.
 2. ALL TEMPORARY AND PERMANENT SEDIMENT AND EROSION CONTROL AND STORM WATER POLLUTION PREVENTION ACTIVITIES SHALL BE PROVIDED AS REQUIRED. ALL STATE AND FEDERAL REGULATIONS, INCLUDING THE WVDOH EROSION AND SEDIMENT CONTROL MANUAL AND WVDOH 642/ESS, SHALL BE OBSERVED. THE LOCATION AND TIMING OF ALL EROSION AND SEDIMENT CONTROL ITEMS SHALL BE FIELD ADJUSTED TO PREVENT SIGNIFICANT IMPACTS ON RECEIVING WATERS. IMPLEMENTATION OF THIS STORM WATER POLLUTION PREVENTION PLAN SHALL CONTINUE THROUGHOUT THE DURATION OF THE PROJECT OR UNTIL SUCH TIME THAT THE UP-SLOPE DISTURBED AREAS ARE STABILIZED. ALL REASONABLE ATTEMPTS SHOULD BE MADE TO MINIMIZE THE TOTAL AREA OF DISTURBED LAND. ALL AREAS THAT ARE NOT STABILIZED OR REMAIN DORMANT FOR MORE THAN 21 DAYS, BUT LESS THAN 1 YEAR, SHALL BE STABILIZED WITH ITEM #42004-001, SEED MIXTURE, TEMPORARY WITHIN 7 DAYS OF THE MOST RECENT DISTURBANCE. AREAS THAT ARE TO REMAIN DORMANT FOR MORE THAN 1 YEAR SHALL BE STABILIZED WITH PERMANENT SEEDING AND MULCHING WITHIN 7 DAYS OF THE MOST RECENT DISTURBANCE. MEASURES SHALL BE MAINTAINED/REPLACED AS REQUIRED.
 3. SEDIMENT CONTROL DEVICES SHALL BE IMPLEMENTED WITHIN 7 DAYS OF GRUBBING FOR ALL AREAS REMAINING DISTURBED FOR OVER 14 DAYS.
- WORK STOPPAGE**
 1. SEDIMENT AND EROSION CONTROL FEATURES SHALL BE OPERATED AND MAINTAINED IN AN ACCEPTABLE CONDITION.
 2. WHEN ANY EROSION OR SEDIMENT CONTROL FEATURE HAS REACHED HALF ITS CAPACITY, THE DEVICE SHALL BE CLEANED OUT AND RESTORED TO ITS ORIGINAL CONDITION.
 3. A SPILL PREVENTION, CONTROL, AND COUNTERMEASURES (SPCC) PLAN THAT IDENTIFIES SPECIFIC MEASURES THAT WILL BE IMPLEMENTED TO PREVENT AND CLEAN UP CHEMICAL AND PETROLEUM PRODUCT SPILLS THAT MAY OCCUR DURING ALL PHASES OF PROJECT CONSTRUCTION SHALL BE PREPARED. FUEL STORAGE AND REFUELING ACTIVITIES, EQUIPMENT MAINTENANCE ACTIVITIES, AND EQUIPMENT WASHING SHALL BE KEPT AT LEAST 500 FEET AWAY FROM ANY PERENNIAL OR INTERMITTENT WATERCOURSE OR WETLAND.
- SEEDING, FERTILIZING, AND MULCHING**
 1. UNLESS NOTED OTHERWISE, ALL DISTURBED SOIL AREAS ARE TO BE SEED, FERTILIZED, AND MULCHED. SEEDING, FERTILIZING, AND MULCHING WILL BE AS SPECIFIED IN WVDOH 652. AREAS 3:1 OR FLATTER SHALL RECEIVE A TYPE C-3 MIXTURE (OWNER-APPROVED LAMB MIX). AREAS STEEPER THAN 3:1 SHALL RECEIVE A TYPE L MIXTURE. DISTURBED AREAS OVER 50 FEET AWAY FROM A STREAM SHALL BE SEED, FERTILIZED, AND MULCHED WITHIN 7 DAYS OF REACHING FINAL GRADE. OTHER SUCH AREAS SHALL BE SEED, FERTILIZED, AND MULCHED WITHIN 7 DAYS OF REACHING FINAL GRADE. GRADE TESTING WILL NOT BE REQUIRED ON THESE ITEMS PURCHASED FROM A REPUTABLE DEALER. ALL DAMAGES TO PREVIOUSLY SEED AREAS SHALL BE REPAIRED.
- TREE REMOVAL**
 1. ALL TREES NOTED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OFF-SITE. TREES SHALL BE SUBSTANTIALLY REMOVED IN THEIR ENTIRETY IN ACCORDANCE WITH ITEM 301001-000 AND STRUCTURALLY BACKFILLED WITH SUITABLE MATERIAL.
- EARTHWORK**
 1. ALL TOPSOIL SHALL BE REMOVED FROM THE AREA WITHIN THE CONSTRUCTION LIMITS.
 2. SOIL DESIGNATED AS UNSUITABLE (E.G. TOPSOIL) SHALL BY NO MEANS BE USED AS FILL MATERIAL. ALL EARTHWORK SHALL BE IN DIRECT ACCORDANCE WITH OSHA REQUIREMENTS. TEMPORARY SHORING, TRENCH BOXES, SLUMP PUMPS, BORING/JACKING, UNDERPINNING, TIEBACKS, ETC. SHALL BE DESIGNED AND USED DURING CONSTRUCTION AS REQUIRED.
 3. FILL MATERIAL SHALL BE FREE OF ROOTS, STUMPS, WOOD, RUBBISH, STONES GREATER THAN 6 INCHES, FROZEN OR OBJECTS/IMMEDIATE MATERIALS. MATERIALS USED IN THE OUTER SHELL OF THE EMBANKMENT MUST HAVE THE CAPABILITY TO SUPPORT VEGETATION OF THE QUALITY REQUIRED TO PREVENT EROSION OF THE EMBANKMENT.
 4. AREAS ON WHICH THE FILL IS TO BE PLACED SHALL BE SCARIFIED PRIOR TO PLACEMENT OF FILL. ANY SOFT SPOTS SHALL BE ADEQUATELY REMOVED AND REPLACED WITH PROPERLY COMPACTED FILL. FILL MATERIAL SHALL BE PLACED IN 8 INCH THICK (BEFORE COMPACTION) LIFTS CONTINUOUS OVER THE ENTIRE LENGTH OF FILL (1/2-2% MOISTURE CONTENT & 95% COMPACTION).
 5. EXCESS EXCAVATED MATERIAL FROM THE SITE SHALL BE PLACED DOWNHILL OF THE PAD, OFF ALL NEW EMBANKMENTS, AND AT ELEVATIONS LESS THAN OR EQUAL TO THE PAD BOTTOM.
 6. ORIGINAL GROUND SLOPES STEEPER THAN 4:1 SHALL BE BENCHED IN ORDER TO PROPERLY PLACE FILL MATERIAL.
 7. WHEN FILL MATERIAL INCLUDES ROCK, THE MAXIMUM ROCK SIZE SHALL BE 6 INCHES.
 8. THE CERTIFIED TESTING AGENCY SHALL VERIFY ALL SUBGRADES HAVE BEEN COMPACTED TO AT LEAST 95% OF THE MATERIAL'S MAXIMUM DRY DENSITY (OBTAINED IN ACCORDANCE WITH ASTM STANDARD METHOD D-1558), ARE NOT FROZEN, AND ARE NEAR OPTIMUM MOISTURE CONTENT (1/2-2%). IF REQUIRED, THE AGENCY'S GEOTECHNICAL ENGINEER SHALL ALSO RECOMMEND THE LIMITS OF ADDITIONAL EXCAVATION. ALL SUBGRADES SHALL BE INSPECTED BY THE TESTING AGENCY'S REPRESENTATIVE PRIOR TO PLACEMENT OF EMBANKMENT, AGGREGATE, ETC. IF UNSUITABLE MATERIAL IS FOUND AT THE DRAWING SUBGRADE DEPTHS, ADDITIONAL EXCAVATION SHALL BE REQUIRED UNTIL SUITABLE BASES ARE ENCOUNTERED. ADDITIONAL EXCAVATIONS ARE TO BE BACKFILLED WITH PROPERLY COMPACTED ENGINEERED (CONTROLLED) FILL OR AGGREGATE BASE MATERIAL. THE AGGREGATE BASE SHALL BE ITEM 307001-000 AND BE PLACED ON A SUBGRADE PROPERLY PREPARED IN ACCORDANCE WITH WVDOH 307. ALTERNATE METHODS MUST BE APPROVED BY THE ENGINEER.
 9. TO THE BEST OF THE ENGINEER'S KNOWLEDGE, A SUBSURFACE INVESTIGATION HAS NOT BEEN CONDUCTED AND A SOILS REPORT HAS NOT BEEN PREPARED FOR THE SITE. A SUBSURFACE INVESTIGATION SHOULD BE CONDUCTED PRIOR TO CONSTRUCTION. IF NO SUBSURFACE INVESTIGATION WILL BE CONDUCTED, PICKERING ASSOCIATES SHALL ASSUME SOIL PROPERTIES/CHARACTERISTICS FROM THE USDA NRCS, THE 2003 EDITION OF THE INTERNATIONAL BUILDING CODE, AND CLIENT PROVIDED INFORMATION OBTAINED FROM TEST RESULTS/INSPECTION (IF APPLICABLE).
 10. SHEETS FOR OR TRACKED EQUIPMENT SHALL BE USED FOR COHESIVE MATERIAL COMPACTION AND A VIBRATORY DRUM FOR GRANULAR COMPACTION. REGARDLESS, A POSITIVE DRAINING SURFACE SHALL ENGINEERED OVER ALL EXPOSED MATTH FOR SMOOTH ROLLED, SEMI-IMPERVIOUS WEATHER PROTECTION DURING OFF-WORK TIMES.



PICKERING ASSOCIATES
the art of engineering
 11243 Lawrence Avenue
 Parkersburg, West Virginia 26104
 Phone: (304) 466-5100
 Fax: (304) 466-6428

Date	By	Description
10/17/11	MAW	ISSUED FOR PERMIT/CONSTRUCTION
0	MAW	TITLE SHEET AND GENERAL NOTES

TRIAD HUNTER, LLC
 TYLER COUNTY, WEST VIRGINIA
 COLLINS SITE DEVELOPMENT AND ACCESS ROAD
 TITLE SHEET AND GENERAL NOTES

Project: 2119076
Designed By: MAW
Drawn By: MAW
Checked By: MAW
Scale: NONE
Plot Date: 10/17/11
Revision: 0
Drawing Number: T0.1

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

Well Work Permit Application Addendum

(To be completed when fluid volumes used or disposed may be greater than 5000 barrels)

- 1) Well Operator Triad Hunter, LLC
- 2) Operator ID # 494494833
- 3) Operator's Well Number 1117
- 4) County Tyler
- 5) Approximate Amount of Water to be Used (bbls.) 180,000 bbls
- 6) Fracture/Drilling Water Source (estimate % of each source to be used)
- x - 100% Surface Water Groundwater Purchased Water Reused Water
- 7) Location of Surface Water Source (if applicable)
- a) County Tyler
Water Source Name Middle Island Creek
Latitude (d/m/s) 39.49995 Longitude (d/m/s) -80.90545
NAD83 or NAD27 x
- b) Anticipated month(s) of water withdrawals January 2012 - June 2012
- 8) Location of Groundwater Source (if applicable)
- a) County NA
Water Source Name/ID NA
Latitude (d/m/s) NA Longitude (d/m/s) NA
NAD83 NA or NAD27 NA
- b) Anticipated month(s) of water withdrawals NA
- 9) Location of Purchased Water Source (if applicable)
Public/Private Water System Name NA
- 10) Location of Reused Water (if applicable)
County NA
Well/Facility ID NA

11) Will Centralized Pits/Ponds Be Utilized ☒ yes ☐ no

Location (if applicable)

Latitude (d/m/s) 39.50078 Longitude (d/m/s) -80.90633

Dimensions in Feet (if applicable)

Length 375' at 2:1 slope Width 150' at 2:1 slope Depth 16'

NAD83 or NAD27 ☒

12) Water Disposal Method (estimate % each facility is to receive)

NA Land Application ☒ - 100% UIC—provide UIC permit number UIC 310 API # for wells 34-121-3995, 34-121-4098

NA POTW—provide facility name NA

NA NPDES—provide permit number NA

NA Other NA

Joe R. Stevens
10-17-11
Joe R. Stevens
10-17-11

SURFACE OWNER WAIVER

County

Tyler

Operator

Triad Hunter, LLC

Operator well number

Collins Unit #1117

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW2-A

The well operator named on page WW2A is applying for a permit from the State to do oil or gas well work. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.

WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:

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

Time Limits and methods for filing comments. The law requires these materials to be served on or before the date the operator files his Application. You have **FIFTEEN (15) 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.

Comments must be in writing. Your comments must 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.

The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

- 1) The proposed well work will constitute a hazard to the safety of persons.
- 2) The soil erosion and sediment control plan is not adequate or effective;
- 3) Damage would occur to publicly owned lands or resources;
- 4) The proposed well work fails to protect fresh water sources or supplies;
- 5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation..."

If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.

List of Water Testing Laboratories. The Office maintains a list of water testing laboratories which you can hire to test your water to establish water quality prior to and after drilling. Contact the Chief to obtain a copy.

VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application for a Well Work Permit on Form WW2-A, and attachments consisting of pages 1 through ____ including a work order on Form WW2-B, a survey plat, and a soil and erosion plan, all for proposed well work on my surface land as described therein.

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.

FOR EXECUTION BY A NATURAL PERSON

Doris S. Collins
Earl J. Collins

Signature

Date *10-26-11*

Doris S. Collins
Earl J. Collins

Print Name

Company
Name
By
Its

FOR EXECUTION BY A CORPORATION, ETC.

RECEIVED

Office of Oil and Gas

NOV 10 2011

WV Department of
Environmental Protection

Date

Signature

Date

11/07/2025

Water Management Plan

I. Withdrawal of Water

- a. Source- Middle Island Creek
- b. Location:
Latitude (d/m/s)- 39.49995 Longitude (d/m/s)- -80.90545
- c. Storage- Freshwater Impoundment
- d. Location of Storage:
Latitude (d/m/s)- 39.50078 Longitude (d/m/s)- -80.90633
- e. Size of Impoundment-
Length- 375' at 2:1 slope Width- 150' at 2:1 slope Depth- 16'
- f. Anticipated Dates of Withdrawal- January 2012 – June 2012
- g. Anticipated Volume of Withdrawal- 180,000 bbls
- h. Sufficient In-stream Flow- WVDEP Water Withdrawal tool will be used as fracking date gets closer to make sure the stream has adequate amount of water flow

II. Descriptions of How Water is to be Handled for Fracturing

- a. Water to be transferred from Middle Island Creek to the impoundment
- b. Water then transferred to location and stored in 6- 500 barrel Frac Tanks
- c. The fresh water will then have Frac Chemicals and Sand blended and pumped down the Production Casing to fracture well

List of Chemical Additives:

- Gel
- Friction Reducer
- Scale Inhibitor
- Biocide
- Surfactant

III. Description of How Frac Water will be Disposed

- a. Frac water will be separated from oil/condensate during Flow Back process
- b. Frac water will be stored in Frac Tanks on location
- c. Frac Water will be hauled and disposed in a licensed water disposal well in Noble County, Ohio API#- 34-121-3995 and 34-121-4086


10-17-11
Jamie Swanson
10-17-2011

11/07/2025