



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
fax: (304) 926-0452

Jim Justice , Governor
Austin Caperton , Cabinet Secretary
www.dep.wv.gov

Monday, June 19, 2017
WELL WORK PERMIT
Not Available / Plugging

TRIAD HUNTER, LLC (A)
125 PUTNAM ST

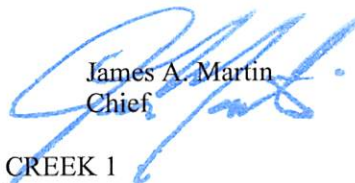
MARIETTA, OH 45750

Re: Permit approval for HART CREEK 1
47-073-02532-00-00

This well work permit 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 any additional specific 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 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.

Per 35 CSR 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- 0450.



James A. Martin
Chief

Operator's Well Number: HART CREEK 1
Farm Name: WV PULP & PAPER
U.S. WELL NUMBER: 47-073-02532-00-00
Not Available / Plugging
Date Issued: 6/19/2017

Promoting a healthy environment.

06/23/2017

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. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. 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.
3. Well work activities shall not constitute a hazard to the safety of persons.

WW-4B
Rev. 2/01

1) Date April 5th, 2017
2) Operator's
Well No. Hart Creek #1
3) API Well No. 47-073 - 02532

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

- 4) Well Type: Oil / Gas / Liquid injection ___ / Waste disposal ___ /
(If "Gas, Production ___ or Underground storage ___) Deep ___ / Shallow ___
- 5) Location: Elevation 674' GL 603' Watershed Middle Ohio North (McKim Creek)
District McKim County Pleasants Quadrangle Ellenboro (75)
- 6) Well Operator Triad Hunter 7) Designated Agent Kim Arnold
Address 125 Putnam St. Address P.O Box 154
Marietta, OH 45750 Waverly, WV 26184
- 8) Oil and Gas Inspector to be notified Name Derek Haught 9) Plugging Contractor Name Patchwork Oil & Gas, LLC
Address PO Box 85 Address PO Box 168
Smithville, WV 26178 Davisville, WV 26142

10) Work Order: The work order for the manner of plugging this well is as follows:

ORIGINAL WELL WAS 073-91857.

See attached

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WV Department of
Environmental Protection

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector [Signature] Date 5-4-17

06/23/2017

OPEN HOLE

1. MIRU Service rig, pull rods and tubing out of hole (if any), clean hole to TD COW RUN \approx 616'
2. Run 2 3/8 8rd tubing to a minimum of 50' below the producing pay zone, pump and set cement plug using Class A cement to a minimum of 50' above the producing pay zone, pump 6% gel ahead of cement. (Minimum 100' bottom plug) IF PRODUCIN PAY IS COW RUN,
THE PLUG WOULD B 670-570
3. Tag cement top to ensure plug meets minimum, add cement if necessary. Find free point on casing, cut and remove casing and pull out of hole.
4. Run 2 3/8 8rd tubing to a minimum of 50' below the cut casing. Pump and set cement plug using Class A Cement to a minimum of 50' above cut casing, pump 6% gel ahead of cement. (Minimum of 100' casing cut plug)
5. Tag cement top to ensure plug meets minimum, add cement if necessary.
6. Pull and set 2 3/8 8rd tubing a minimum of 50' below elevation depth. Pump and set cement plug with Class A Cement to a minimum of 50' above elevation depth, pump 6% gel ahead of cement. (Minimum 100' elevation plug)
7. Tag cement top to ensure plug meets minimum, add cement if necessary.
8. Pull and set 2 3/8 8rd tubing to a minimum of 100' below surface, pump Class A cement to surface. (Minimum 100' surface and fresh water strata plug)
9. Erect 3' x 6'' with identification and fill with cement.
10. RDMO service rig, all surface equipment and disposals.
11. Reclaim location and lease road.
12. Prepare release forms.

DAH
5-4-17

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Select County: (073) Pleasants (Check All)

Enter Permit #: 02532

Get Data Reset

Location Production Plugging
 Owner/Completion Stratigraphy Sample
 Pay/ShowWater Logs Btm Hole Loc

- [Table Descriptions](#)
- [County Code Translations](#)
- [Permit Numbering Series](#)
- [Usage Notes](#)
- [Contact Information](#)
- [Disclaimer](#)
- [WVGES Main](#)
- ["Pipeline-Plus" New](#)

WV Geological & Economic Survey: **Well: County = 73 Permit = 02532** Report Time: Tuesday, February 28, 2017 8:08:51 AM

Well Reassignment Information: Reassigned From

OLD_COUNTY	OLD_PERMIT	NEW_COUNTY	NEW_PERMIT
73	91857	73	2532

Location Information: [View Map](#)

API	COUNTY	PERMIT	TAX_DISTRICT	QUAD_75	QUAD_15	LAT_DD	LON_DD	UTME	UTMN
4707302532	Pleasants	2532	McKim	Ellenboro	St Marys	39.373079	-81.11573	490031.6	4358185.2

There is no Bottom Hole Location data for this well

Owner Information:

API	CMP_DT	SPUD_DT	SUFFIX	STATUS	SURFACE_OWNER	WELL_NUM	CO_NUM	LEASE	LEASE_NUM	MINERAL_OWN	OPERATOR_AT_COMPLETION	PROP_VD	PROP_TRGT_FM	TFM_EST_PR
4707302532	-/-	-/-		Original Loc. Completed	West Virginia Pulp & Paper	1		Hart Creek		Paul Wilson et ux	Triad Resources, Inc.			

Completion Information:

API	CMP_DT	SPUD_DT	ELEV	DATUM	FIELD	DEEPEST_FM	DEEPEST_FMT	INITIAL_CLASS	FINAL_CLASS	TYPE	RIG	CMP_MTHD	TVD	TMD	NEW_FTG	G_BEF	G_AFT	O_BEF	O_AFT
4707302532	-/-	-/-		671	Ground Level					not available	unknown	unknown							

Comment: -/- N well

There is no Pay data for this well

Production Gas Information: (Volumes in Mcf)

API	PRODUCING_OPERATOR	PRD_YEAR	ANN_GAS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DCM
4707302532	Triad Hunter LLC	2011	0	0	0	0	0	0	0	0	0	0	0	0	0
4707302532	Triad Hunter LLC	2012	0	0	0	0	0	0	0	0	0	0	0	0	0
4707302532	Triad Hunter LLC	2013	0	0	0	0	0	0	0	0	0	0	0	0	0
4707302532	Triad Hunter LLC	2014	17	0	0	0	0	3	1	2	2	3	2	2	2
4707302532	Triad Hunter LLC	2015	0	0	0	0	0	0	0	0	0	0	0	0	0

Production Oil Information: (Volumes in Bbl) ** some operators may have reported NGL under Oil

API	PRODUCING_OPERATOR	PRD_YEAR	ANN_OIL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DCM
4707302532	Triad Hunter LLC	2011	2	0	0	0	0	0	0	0	0	0	0	0	2
4707302532	Triad Hunter LLC	2012	2	0	0	0	0	0	0	0	0	0	0	0	2
4707302532	Triad Hunter LLC	2013	0	0	0	0	0	0	0	0	0	0	0	0	0
4707302532	Triad Hunter LLC	2014	0	0	0	0	0	0	0	0	0	0	0	0	0
4707302532	Triad Hunter LLC	2015	0	0	0	0	0	0	0	0	0	0	0	0	0

Production NGL Information: (Volumes in Bbl) ** some operators may have reported NGL under Oil

API	PRODUCING_OPERATOR	PRD_YEAR	ANN_NGL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DCM
4707302532	Triad Hunter LLC	2013	0	0	0	0	0	0	0	0	0	0	0	0	0
4707302532	Triad Hunter LLC	2014	0	0	0	0	0	0	0	0	0	0	0	0	0
4707302532	Triad Hunter LLC	2015	0	0	0	0	0	0	0	0	0	0	0	0	0

There is no Stratigraphy data for this well

There is no Wireline (E-Log) data for this well

There is no Plugging data for this well

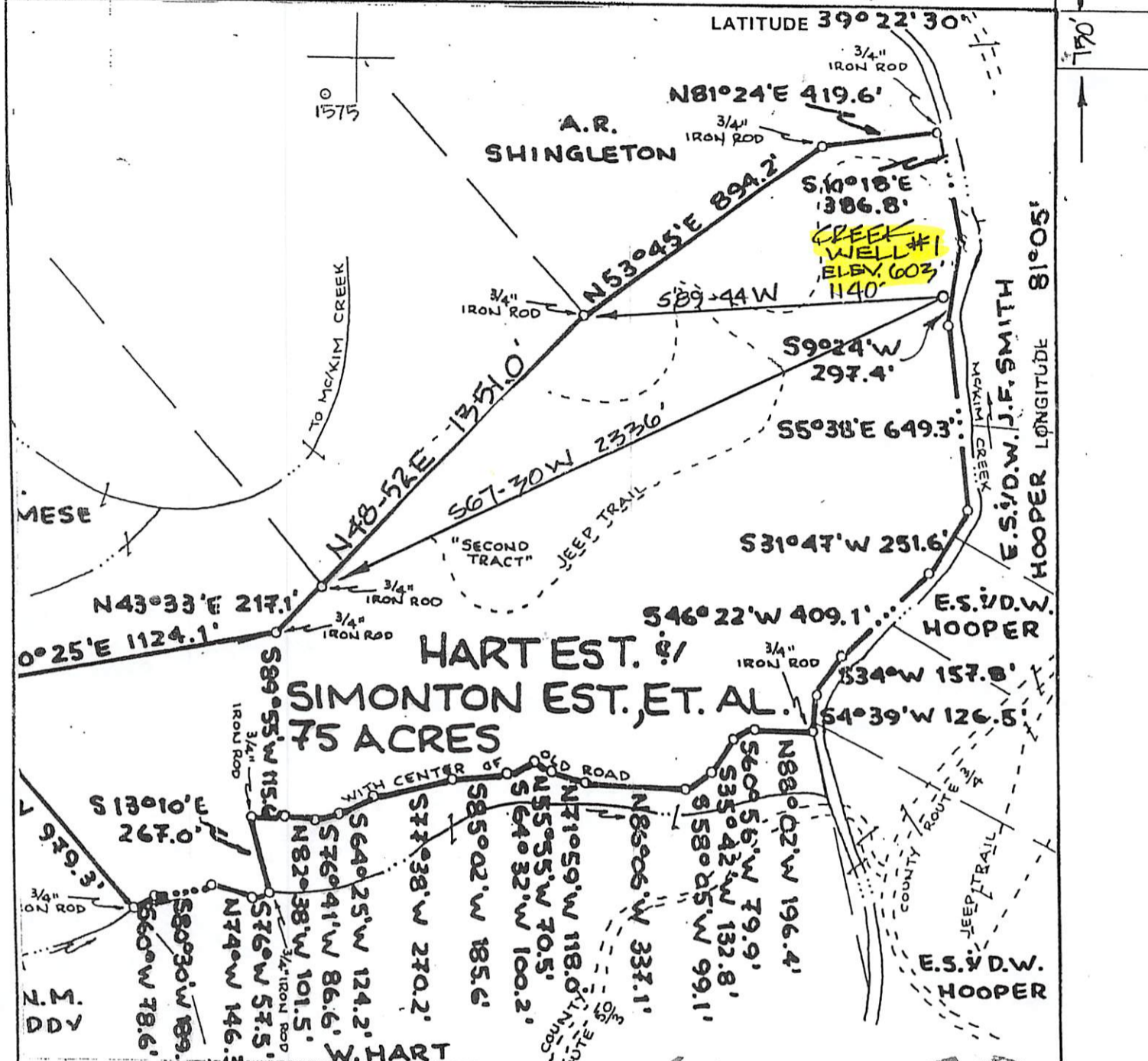
There is no Sample data for this well

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06/23/2017
2/28/2017

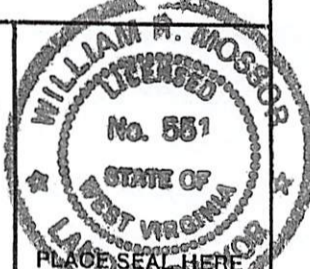
MAY 11 2017

9470'



FILE NO. _____
DRAWING NO. _____
SCALE 1" = 500'
MINIMUM DEGREE OF ACCURACY 1:200
PROVEN SOURCE OF ELEVATION API 47-073-1575
ELEV. 838'

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) _____
R.P.E. _____ P.S. 55



STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS		DATE <u>3 JUNE 2017</u> OPERATOR'S WELL NO. <u>CREEK WELL #1</u> API WELL NO. <u>47-073</u>	
WELL TYPE: OIL <input checked="" type="checkbox"/> GAS <input checked="" type="checkbox"/> LIQUID INJECTION _____ WASTE DISPOSAL _____ (IF "GAS,") PRODUCTION <input checked="" type="checkbox"/> STORAGE _____ DEEP _____ SHALLOW <input checked="" type="checkbox"/>		STATE COUNTY PERMIT <u>47</u> <u>073</u> _____	
LOCATION: ELEVATION <u>603</u> WATER SHED <u>MCKIM</u> <u>CREEK</u> DISTRICT <u>MCKIM</u> COUNTY <u>PLEASANTS</u> QUADRANGLE <u>ELLENBORO</u>		COUNTY NAME _____ PERMIT _____	
SURFACE OWNER <u>WESTVACO</u> ACREAGE <u>55.11</u> OIL & GAS ROYALTY OWNER <u>HART EST, SIMONTON</u> LEASE ACREAGE <u>75</u>			
PROPOSED WORK: DRILL _____ CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE _____ PLUG OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) <u>CLEAN OUT</u>			
PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____ TARGET FORMATION <u>COW RUN</u> ESTIMATED DEPTH <u>616'</u>		DATE <u>06/23/2017</u>	
WELL OPERATOR <u>WILLOW RUN ENER</u> DESIGNATED AGENT <u>JOHN P. RIGGS</u> ADDRESS <u>P.O. BOX 551</u> ADDRESS <u>P.O. BOX 551</u> <u>ST. MARYS, WV 26170</u> <u>ST. MARYS, WV 26170</u>		PERMIT _____	

FORM WW-6

WW-4A
Revised 6-07

1) Date: APRIL 5TH, 2017
2) Operator's Well Number
HART CREEK #1
3) API Well No.: 47 - 073 - 02532

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>Heartwood Forestland Fund IV Limited Partnership</u>	Name _____
Address <u>3001 Emerson Ave.</u>	Address _____
<u>Parkersburg, WV 26105</u>	
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name _____
	Address _____
(c) Name _____	Name _____
Address _____	Address _____
6) Inspector <u>Derek Haught</u>	(c) Coal Lessee with Declaration
Address <u>PO Box 85</u>	Name _____
<u>Smithville, WV 26178</u>	Address _____
Telephone <u>304-206-7613</u>	

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

Well Operator Triad Hunter, LLC
 By: Mike Horan *Mike Horan*
 Its: Senior V.P Appalachian Operations
 Address 125 Putnam Street
Marietta, OH 45750
 Telephone 740-374-2940

Subscribed and sworn before me this 25 day of April, 2017
Pamela K. Nicholson
 My Commission Expires 8-9-2020
 Notary Public
 Pamela K. Nicholson, Notary Public
 In and For The State of Ohio
 My Commission Expires 8-9-2020



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 depprivacyoffier@wv.gov.

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WW-9
(5/16)

API Number 47 - 073 -02532
Operator's Well No. Hart Creek #1

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name TRIAD HUNTER, LLC OP Code 494494833

Watershed (HUC 10) OUTLET MIDDLE ISLAND CREEK Quadrangle ELLENBORO (75)

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

Will a pit be used? Yes No

If so, please describe anticipated pit waste: _____

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

Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain Fluids will be disposed of by plugging contractor)

DAH
5-4-17
ANY WELL EFFLUENT WILL BE DISPOSED OF OFF-SITE IN A PROPER FASHION.
gwm

Will closed loop system be used? If so, describe: Yes, all flowback materials will be contained in a blowback tank.

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. n/a

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

Additives to be used in drilling medium? n/a

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

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

-Landfill or offsite name/permit number? n/a

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, 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 _____

Company Official (Typed Name) Mike Horan

Company Official Title Senior V.P Appalachian Operations

Subscribed and sworn before me this 25th day of April, 20 17

Pamela K. Nicholson

My commission expires 8-9-2020



06/23/2017
Pamela K. Nicholson, Notary Public
In and For The State of Ohio
My Commission Expires 8-9-2020

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Form WW-9

Operator's Well No. Hart Creek #1

Proposed Revegetation Treatment: Acres Disturbed One (1) Prevegetation pH 5.5
 Lime Two (2) Tons/acre or to correct to pH 6.5
 Fertilizer type 10-20-20
 Fertilizer amount 500 lbs/acre
 Mulch (50 bales) 2.5 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
		Orchard Grass	30%
		Rye (Annual & BT)	35%
		Timothy (Climax)	25%
		Clover (Med. Red)	10%

Attach:
 Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

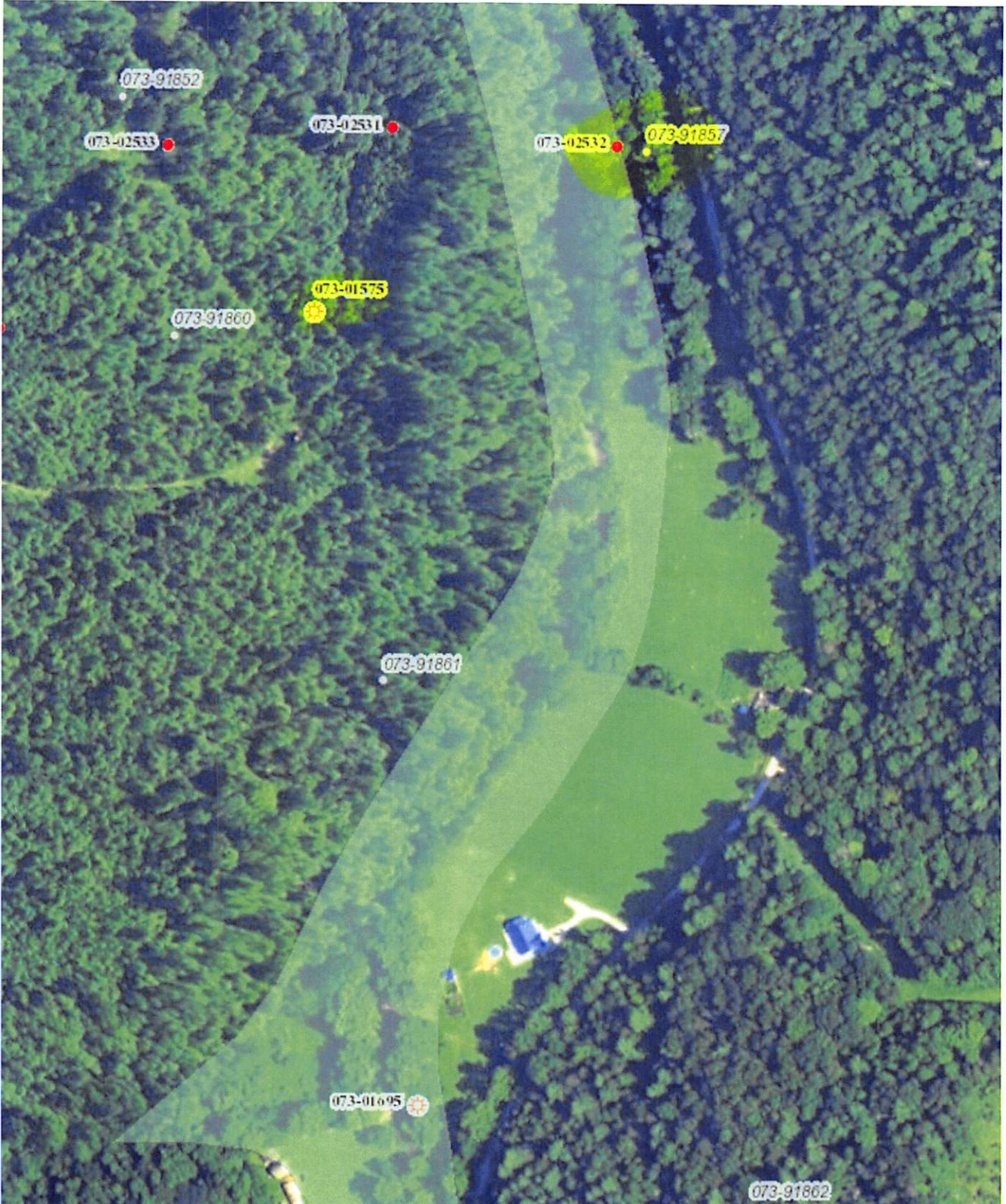
Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]
 Comments: _____

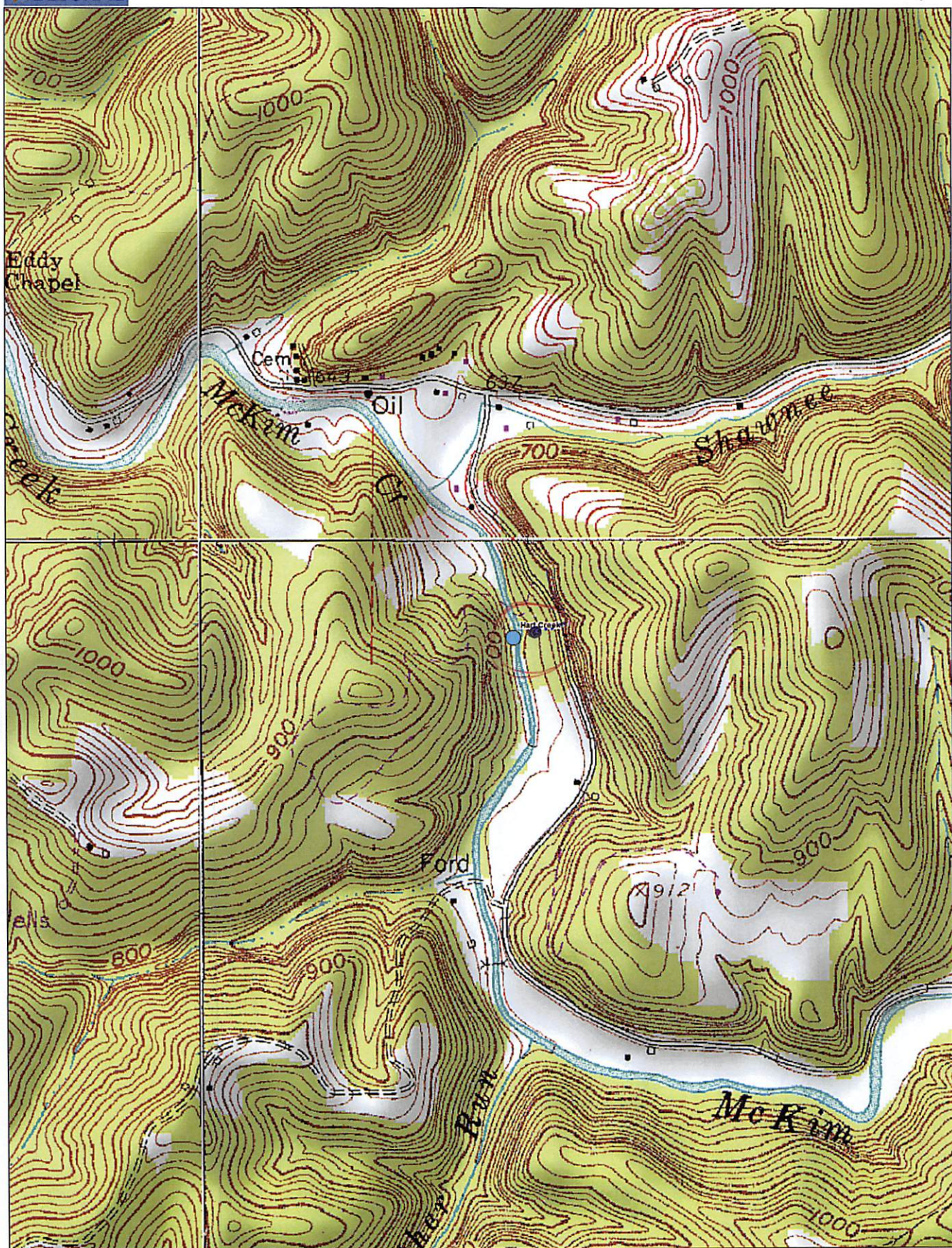
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Title: Oil & Gas Inspector Date: 5-4-17
 Field Reviewed? Yes No

73 02532A



06/23/2017



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 www.delorme.com

Received
 Office of Oil & Gas

Scale 1 : 12,000
 0 200 400 600 800 1000 ft
 0 100 200 300 400 500 m
 1" = 1,000.0 ft Data Zoom 14-1

DmH
 5-4-17

MAY 11 2017

06/23/2017

WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas

WELL LOCATION FORM: GPS

API: 47-073-02532 WELL NO.: Hart Creek #1

FARM NAME: WV Pulp & Paper

RESPONSIBLE PARTY NAME: Triad Hunter, LLC

COUNTY: Pleasants DISTRICT: McKim

QUADRANGLE: Ellenboro

SURFACE OWNER: Heartwood Forestland Fund IV Limited Partnership

ROYALTY OWNER: _____

UTM GPS NORTHING: 4358185.2

UTM GPS EASTING: 490031.6 GPS ELEVATION: 671' 603'

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:
Survey grade GPS _____: Post Processed Differential _____
Real-Time Differential _____

Mapping Grade GPS X: Post Processed Differential X
Real-Time Differential _____

4. Letter size copy of the topography map showing the well location.

I the undersigned, hereby certify this data 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 Office of Oil and Gas.

Signature Mik Hoa Title U.P. Operations Date 4/24/14

06/23/2017

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