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

August 07, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-4901343, issued to XTO ENERGY, INC., is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalities being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: E-510R
Farm Name: CANJAR, JOHN
API Well Number: 47-4901343
Permit Type: Plugging
Date Issued: 08/07/2015

Promoting a healthy environment.

4901343P

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.

4901343P

WW-4B
Rev. 2/01

1) Date 7/13, 2015
2) Operator's
Well No. Canjar E-510R
3) API Well No. 47 - 049 - 01343

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 X / Liquid injection ____/ Waste disposal ____/
(If "Gas, Production X or Underground storage ____) Deep ____/ Shallow X

5) Location: Elevation 1179' Watershed Tevebaugh Creek
District Lincoln County Marion Quadrangle Shinnston

6) Well Operator XTO Energy Inc
Address PO Box 1008
Jane Lew, WV 26378

7) Designated Agent Gary Beall
Address PO Box 1008
Jane Lew, WV 26378

8) Oil and Gas Inspector to be notified
Name Bill Hendershot
Address 403 James St.
Mannington, WV 26582

9) Plugging Contractor
Name
Address

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

RIH and check TD at 3980', POOH and run 2" tubing down to 3980' and circulate 6% gel back to surface, then pump cement from 3980' up to 3530', perfs at 3910 - 3655', pull tubing up to 3450' and flush tubing out and wait for cement to set up, RIH down tubing to tag cement at 3530', if ok pull tubing up to 2910' and break circulation and pump cement from 2910' up to 2503' perfs at 2851' - 2603', pull tubing up to 2500' and pump cement up to 2100', perfs at 2459 - 2253', pull tubing up to 1995' and pump cement up to 1700', perfs at 1945 - 1839', pull tubing out of well and run CBL on 4.5" casing, cement top est. to be at 1300', cut casing and break circulation with 6% gel to surface, pull casing out, then run CBL on the 7" casing, cement should be at surface, run 2" tubing back to 1350' and pump cement up to 1100', elevation at 1179', pull tubing up to 200' and pump cement to surface. If 7" needs cut and pulled, we will do it. Install well monument.

See attached

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

Work order approved by inspector Bill Hendershot Date 2-14-15

4901343 P

47-049-01343
Plugging Procedure

Cement	3980	-	3530	=	450'	in	4.5"
Cement	2910	-	2503	=	407'	in	4.5"
Cement	2500	-	2100	=	400'	in	4.5"
Cement	1995	-	1700	=	295'	in	4.5"
Cement	1350	-	1100	=	250'	in	7"
Cement	200	-	0	=	200'	in	7"

Received
Office of Oil & Gas
JUL 20 2015

4901343P

WR-35

September 24, 2004
API # 47-49-1343

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
SECTION OF OIL AND GAS

WELL OPERATOR'S REPORT OF WELL WORK

FARM NAME: CANJAR #4 OPERATOR WELL NO: E-510 R

LOCATION: ELEVATION: 1179 QUADRANGLE: Shinnston

DISTRICT: Lincoln COUNTY: MARION
LATITUDE: 8520 FEET SOUTH OF 39 DEG. 30 MIN. 00 SEC.
LONGITUDE: 7415 FEET WEST OF 80 DEG. 17 MIN. 30 SEC.

COMPANY: EXPLORATION PARTNERS, LLC

PO BOX 930
BRIDGEPORT, WV 26330

AGENT: LOUIS A. FERRARI
INSPECTOR: Randall Mick
PERMIT ISSUED: 12/22/2000
WELL WORK COMMENCED: 2/11/02
WELL WORK COMPLETED: 2/19/02
VERBAL PLUGGING
PERMISSION GRANTED ON:
ROTARY X CABLE RIG
TOTAL DEPTH (FEET) 4034'
FRESH WATER DEPTHS (FT)

SALT WATER DEPTHS (FT) N/A

IS COAL BEING MINED IN AREA (Y/N)? N
COAL DEPTHS (FT) 300-325,420-425

CASING & TUBING SIZE	USED IN DRILLING	LEFT IN WELL	CEMENT FILL UP CU. FT.
13 3/8	'	'	
9 5/8	470'	470'	110 SKS
7	1499'	1499'	194 SKS
4 ½	3988'	3988'	230 SKS

OPEN FLOW DATA
PRODUCING FORMATIONS balltown,5th sand,gordon,30',50',pocono,big injun PAY ZONES DEPTH (FT) 1815-3925
GAS: INITIAL OPEN FLOW show MCF/D OIL: INITIAL OPEN FLOW N/A BBL/
FINAL OPEN FLOW 180 MCF/D FINAL OPEN FLOW N/A BBL/
TIME OF OPEN FLOW BETWEEN INITIAL AND FINAL TESTS 24 HOUR(S)
STATIC ROCK PRESSURE 135 PSIG (SURFACE PRESSURE AFTER 24 HOUR(S)

SECOND PRODUCING FORMATION PAY SONE DEPTH (FT)
GAS: INITIAL OPEN FLOW MCF/D OIL: INITIAL OPEN FLOW N/A BBL/
FINAL OPEN FLOW MCF/D FINAL OPEN FLOW N/A BBL/
TIME OF OPEN FLOW BETWEEN INITIAL AND FINAL TESTS HOUR(S)
STATIC ROCK PRESSURE PSIG (SURFACE PRESSURE AFTER HOUR(S)

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1) DETAILS OF PERFORATE INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC., 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

RECEIVED
Office of Oil & Gas
Office of Chief
OCT 14 2004
WV Department of Environmental Protection

FOR: EXPLORATION PARTNERS, LLC

BY: LOUIS A. FERRARI
DATE: September 24, 2004

Received
Office of Oil & Gas
JUL 20 2015

MAR 1343

4901343P

FORM IV-35
(REVERSE)

DETAILS OF PERFORATED INTERVALS, FRACTURING, OR STIMULATING PHYSICAL CHANGE ETC.

I. 3655-3910,20 holes,750 gal.hcl, 200 sks 20/40, 220 bbl gelled H2O
II. 2838-2851,14 holes,500 gal. hcl, 100 sks 20/40,150 bbl gelled H2O
III. 2603-2683, 14 holes,500 gal. hcl 75 sks 20/40,160 bbl gelled H2O
IV. 2253-2459, 28 holes,750 gal. hcl 100 sks 20/40, 160 bbl gelled H2O
V. 1929-1945, 16 holes, 500 gal. hcl 150 sks 20/40, 170 bbl gelled H2O
VI. 1839-1892, 18 holes, 750 gal. hcl 175 sks 20/40, 190 bbl gelled H2O

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS-including indication of all fresh and salt water, coal and gas
dirtshale	0	30	
shale	30	300	
coal	300	325	
shale	325	420	
coal	420	425	
shale	425	1460	H2O 1380
coal	1460	1465	
shale	1465	1755	
big lime	1755	1815	
big injun	1815	1905	
shale	1905	1935	
pocono	1935	1955	
shale	1955	2265	
gantz	2265	2275	
shale	2275	2385	
50'	2385	2525	
shale	2525	2605	
30'	2605	2625	
shale	2625	2685	
gordon	2685	2735	
shale	2735	2845	
5th sand	2845	2850	
shale	2850	3735	
ball town	3735	3755	
shale	3755	3915	
Ball Town	3915	3925	
shale	3925	4034	LTD

MAR 1343

4901343P

WW-4A
Revised 6-07

1) Date: 7/13/15
2) Operator's Well Number
Canjar E-510R

3) API Well No.: 47 - 049 - 01343

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE 0F APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:
(a) Name: John & Betty Canjar
Address: 24 Crystal Lake Road
Worthington, WV 26591

(b) Name:
Address: See attached

(c) Name:
Address:

5) (a) Coal Operator
Name: Murray American Energy
Address: 46226 National Road
St. Clairsville, OH 43950

(b) Coal Owner(s) with Declaration
Name: Consol Mining Company, LLC
Address: 1000 Consol Energy Drive
Cannonsburg, PA 15317

Name:
Address:

6) Inspector: Bill Hendershot
Address: 403 James Street
Mannington, WV 26582
Telephone: 304-206-7750

(c) Coal Lessee with Declaration
Name:
Address:

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.

OFFICIAL SEAL
NOTARY PUBLIC
State of West Virginia
DIANNE RICKLES
PO Box 1008
Jane Lew, WV 26378
My Commission Expires September 26, 2018

Well Operator: XTO Energy Inc.
By: [signature]
Its: Regulatory Compliance Technician
Address: PO Box 1008
Jane Lew, WV 26378
Telephone: 304-884-6000

Subscribed and sworn before me this 13th day of July 2015
Dianne Rickles Notary Public
My Commission Expires Sept. 26, 2018

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.

Received
Office of Oil & Gas
JUL 20 2015

4901343P

47-049-01343

Surface Owners

John Canjar
24 Crystal Lake Rd.
Worthington, WV 26591

XTO ENERGY
PO BOX 53
Houston, TX 77001

Shan & Anjanette McCormick
330 Festus Ridge Rd.
Worthington, WV 26591

John R Watson Jr.
115 Baltimore St.
Mannington, WV

Bradley & Elizabeth Vandevender
PO Box 13
Four States, WV 26572

Priscilla C Hammond
PO Box 36
Four states, WV

George E Smallwood
RR 2 Box 424
Fairmont, WV

Robert & Sara White
PO Box 123
Four States, WV

Tammy Boone
PO Box 25
Four States, WV

Elizabeth, Arthur, & Angenette Woods
135 Brace Ave.
Elyria, OH

Scarlett Pitcock
PO Box 71
Four States, WV

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John Canjar
24 Crystal Lake Rd.
Worthington, WV 26591

Canjar E-510R Plugging Application

7015 0640 0007 0271 1849

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- Adult Signature Restricted Delivery $

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Total $

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Bradley & Elizabeth Vandevender
PO Box 13
Four States, WV 26572

Canjar E-510R Plugging App

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Shan & Anjanette McCormick
330 Festus Ridge Rd.
Worthington, WV 26591

Canjar E-510R Plugging Application

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Priscilla C Hammond
PO Box 36
Four states, WV 26572

Canjar E-510R Plugging Application

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John R Watson Jr.
115 Baltimore St.
Mannington, WV 26582

Plugging Application Canjar E-510R

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George E Smallwood
RR 2 Box 424
Fairmont, WV 26554

Canjar E 510R Plugging Application

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Office of Oil & Gas
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Robert & Sara White
PO Box 123
Four States, WV 26572

Conjar E-Stor Plugging Application

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Scarlett Pitcock
PO Box 71
Four States, WV 26572

Conjar E-Stor Plugging Application

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Tammy Boone
PO Box 25
Four States, WV 26572

Conjar E-Stor Plugging Application

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Murray Energy Corporation
Attn: Alex O'Neil, PE
46226 National Road
St. Clairsville, OH 43950

Conjar E-Stor Plugging Application

7014 0510 0001 6707 0285

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Elizabeth, Arthur, & Angenette Woods
135 Brace Ave.
Elyria, OH 44035

Conjar E-Stor Plugging Application

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Consol Mining Company LLC
1000 Consol Energy Drive
Cannonsburg, PA 15317

Conjar E-Stor Plugging Application

Received
Office of Oil & Gas
JUL 20 2015

4901343P

CK7735023
10000

WW-9
(2/15)

API Number 47 - 049 - 01343
Operator's Well No. Canjar E-510R

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name XTO Energy Inc. OP Code 494487940

Watershed (HUC 10) Tevebaugh Creek Quadrangle Shinnston

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: Fluids from plugging operations.

Will a synthetic liner be used in the pit? Yes ☑ No ☐ If so, what ml.? Yes - 20 mil.

Proposed Disposal Method For Treated Pit Wastes:

- ____ Land Application
- ■ Underground Injection (UIC Permit Number 4707302523, 4708505151, 4708509721)
- ____ Reuse (at API Number ____)
- ____ Off Site Disposal (Supply form WW-9 for disposal location)
- ■ Other (Explain Meadowbrook Landfill SWF#1032, RES Water Recycling -WMGR123SW005 (PA)

Will closed loop system be used? If so, describe: NA

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. NA - Plugging

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

Additives to be used in drilling medium? NA

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Any solid waste from plugging will be taken to landfill.

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

-Landfill or offsite name/permit number? Meadowbrook Landfill SWF#1032

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 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 Tim Sands

Company Official (Typed Name) Tim Sands

Company Official Title Regulatory Compliance Technician

Received
Office of Oil & Gas
JUL 20 2015

Subscribed and sworn before me this 13th day of July, 2015

Dianne Rickles Notary Public

My commission expires Sept. 26, 2018

Received
Office of Oil & Gas
JUL 20 2015

OFFICIAL SEAL
NOTARY PUBLIC
State of West Virginia
DIANNE RICKLES
PO Box 1008
Jane Lew, WV 26378
My Commission Expires September 26, 2018

4901343P

Form WW-9

Operator's Well No. Canjar E-510R

XTO Energy Inc.

Proposed Revegetation Treatment: Acres Disturbed 1.2 Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH _____

Fertilizer type Commercial Fertilizer 10-20-20

Fertilizer amount 1000 lbs/acre

Mulch 1 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Annual Ryegrass	40	Kentucky Bluegrass	20
		Redtop	3
		Birdsfoot Trefoil	10

Attach:
Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Bill Hinchman

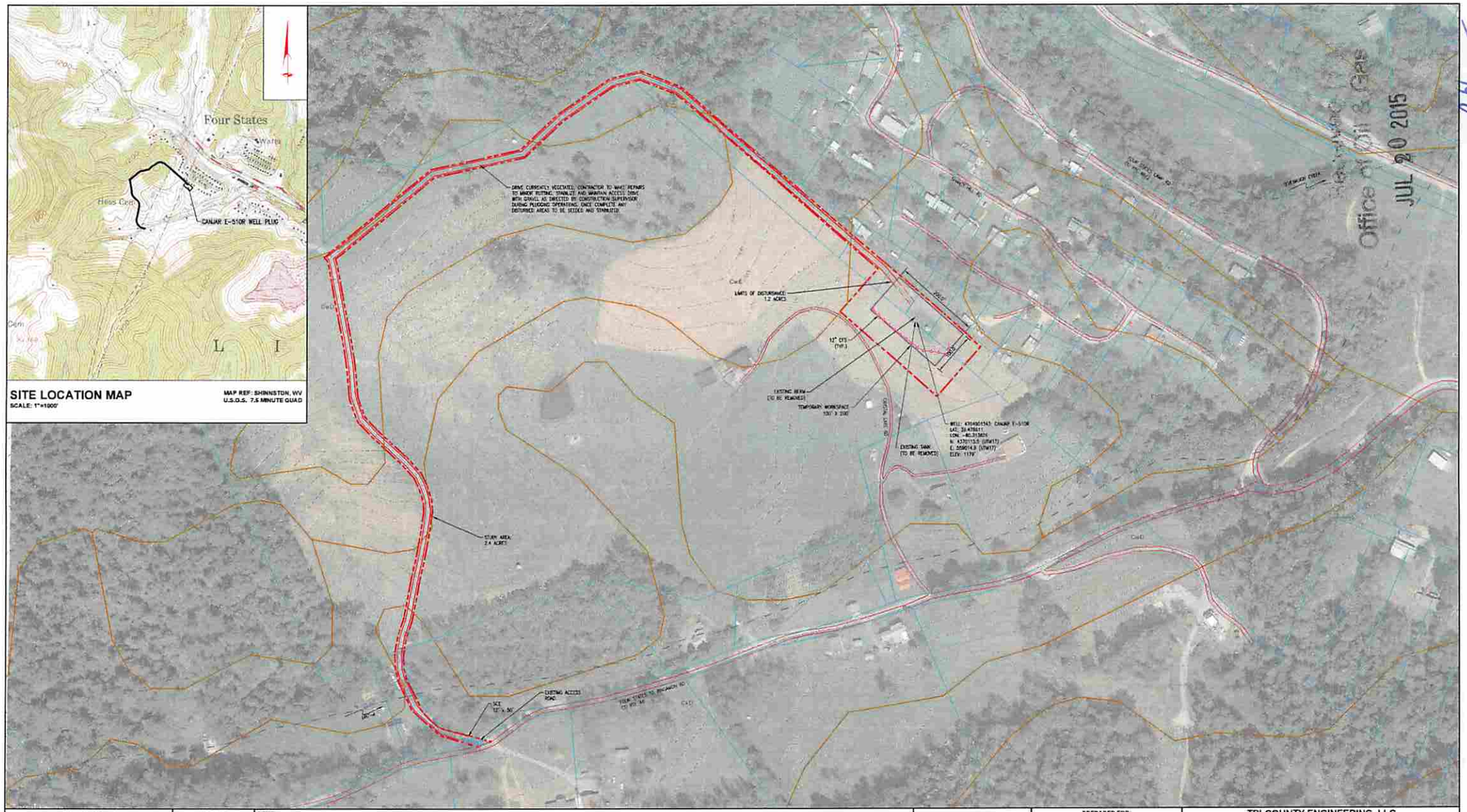
Comments: _____

Title: Environmental Inspector Date: 7-14-15

Field Reviewed? (✓) Yes (_____) No

Received
Office of Oil & Gas
JUL 20 2015

4901343P



SITE LOCATION MAP

SCALE: 1"=1000'

MAP REF: SHINNSTON, WV
U.S.G.S. 7.5 MINUTE QUAD

REVISIONS

NO.	DESCRIPTION	DATE	BY
1	-	-	-

UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE ONLY. THERE MAY BE OTHER UNDERGROUND UTILITIES THAT ARE NOT SHOWN. BEFORE ANY EXCAVATION OR CONSTRUCTION OPERATIONS BEGIN THE CONTRACTOR MUST CONTACT MISS UTILITY OF WEST VIRGINIA AND THE OWNERS OF THE UTILITIES TO VERIFY THEIR LOCATION.

LEGEND

EXISTING CONTOUR 10'
PROPERTY LINE
TEMPORARY WORKSPACE
DRIVEWAY
SET SIGN (SS)
LIMITS OF DISTURBANCE (LOD)
ACCESS ROAD - EXISTING
ACCESS ROAD - PROPOSED
CONSTRUCTION BARRIER FENCE
STUDY AREA

NOTES:
1. ELEVATIONS ARE APPROXIMATED FROM WEST VIRGINIA GIS TECHNICAL CENTER CONTOURS, AND NOT FIELD VERIFIED
2. PROPERTY LINES SHOWN ON PLANS ARE REFERENCED FROM COUNTY MAPPING AND NOT FIELD SURVEYED
3. NO IMPACTS TO WETLANDS
4. NO IMPACTS TO STREAMS

NO NORTH ZONE NAD 83 GRID

DONALD R. HEDGES REGISTERED 17819 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER
6/19/2015

PREPARED FOR:

XTO ENERGY
810 HOUSTON STREET
FORT WORTH, TX 76102

0 100' 200' 300'
GRAPHIC SCALE 1" = 100'

TRI-COUNTY ENGINEERING, LLC
An ENERCON Company
319 Pennsylvania Road
Hunker, PA 15639
Voice: (724) 835-0710 Fax: (724) 835-0676
www.tricountyeng.com

Excellence-Every project. Every day.

SEDIMENT CONTROL PLAN

CANJAR E-510R WELL PLUG

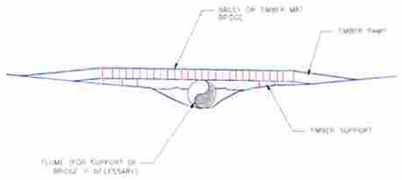
LINCOLN DISTRICT,
MARION COUNTY, WV

Drawn By: JJC			
Date: 6/18/2015	Sheet: 1 OF 3	File No: OG61-17	
Scale: AS NOTED			

GBN 7-14-15

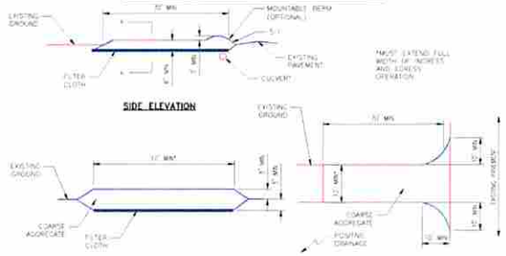
49 013430

BAILEY OR TIMBER MAT BRIDGE FOR STREAM CROSSING



NOTE:
1. REMOVE DIRT FROM BRIDGE DECK AND PLACE IN SPOIL CONTAINMENT AREA
2. ALLOWS FOR MINIMAL WETLAND IMPACT DURING CONSTRUCTION AND QUICK RESTORATION TO PRE-CONSTRUCTION CONDITIONS
3. USE WETLAND MAT FROM PALMERTON GROUP, MABEY INC., OR APPROVED EQUIVALENT

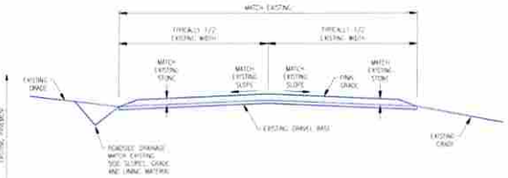
STABILIZED CONSTRUCTION ENTRANCE



INSTALLATION
1. USE 2-4 INCH STONE FOR LOW VOLUME ENTRANCES. LARGER STONE (4-6 INCH) FOR HEAVY USE OR MATERIAL DELIVERY ENTRANCES.
2. LENGTH IS AS REQUIRED, BUT NOT LESS THAN 30 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30-FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS SHOULD BE NOT LESS THAN 6 INCHES.
4. THE WIDTH SHALL BE A MINIMUM OF 10 FEET, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. GEOTEXTILE FABRIC SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO THE PLACING OF STONE.
6. ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF A CULVERT IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES SHALL BE USED.
7. IF NECESSARY, DIVERT ANY WATER RUNNING DOWN ACCESS ROAD TO A DITCH WITH A COMPOST FILTER SOCK "SEDIMENT BARRIER" LOCATED ON EITHER SIDE OF THE STABILIZED CONSTRUCTION ENTRANCE.

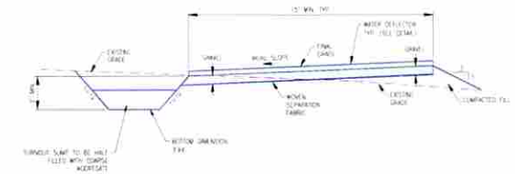
MAINTENANCE
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
2. WHEELS ON ALL VEHICLES SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. IF WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO APPROVED SEDIMENT TRAPPING DEVICE. IF THE STREET IS WASHED, PRECAUTIONS MUST BE TAKEN TO PREVENT MUDDY WATER FROM RUNNING INTO WATERWAYS OR STORM SEWERS.
3. INSPECTION AND NEEDED MAINTENANCE SHOULD BE PROVIDED DAILY BUT AT A MINIMUM EVERY SEVEN DAYS AND AFTER EVERY 4MM OR 0.5 INCH OR GREATER.

GRAVEL ROAD RESTORATION



NOTES
1. PRIOR TO STONE PLACEMENT, REGRADE EXISTING ROADWAY INTO "CROWNED" OR "SLOPE TO DITCH" CONFIGURATION TO MATCH EXISTING CONDITIONS. REMOVE WEEDS AND COMPACT SOFT SPOTS PRIOR TO STONE PLACEMENT. ALL COUTING SLOPES SHALL BE NO GREATER THAN 3H:1V.
2. PLACE GRAVEL SIZE STONE AS PRE-CONSTRUCTION CONDITIONS OR AS AGREED UPON WITH THE OWNER OF THE ROAD.

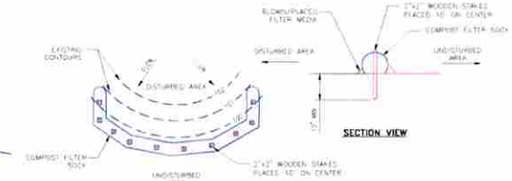
ACCESS ROAD/LOW VOLUME DRIVEWAY



INSTALLATION
1. ROADWAY SURFACE MAY BE SLOPED TO EITHER SIDE AS TOPOGRAPHY AND CONDITIONS WARRANT.
2. INSTALL WATER DEFLECTOR AS PER DETAIL ON THIS PLAN FOR POSITIVE DRAINAGE TO TURNOUT SUMP.
3. CONSTRUCT SUMPS TO HAVE A BOTTOM DIMENSION OF 3'x4' WITH A 2 FOOT DEPTH.
4. PLACE COARSE AGGREGATE IN SUMP OR VEGETATE.

MAINTENANCE
1. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE HEIGHT OF THE SUMP.
2. INSPECT AT A MINIMUM ONCE EVERY SEVEN CALENDER DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCHES OF RAIN PER 24 HOUR PERIOD.

COMPOST FILTER SOCK (SEDIMENT BARRIER)



INSTALLATION
1. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN SOCK ALIGNMENT.
2. TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.

MAINTENANCE
1. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE MESH GROUND HEIGHT IN THE SOCK AND DISPOSED OF BY SPREADING ON UPLAND AREAS, IN THE ROW OR IN A SPECIAL CONTAINMENT AREA.
2. SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
3. BIODEGRADABLE FILTER SOCK SHALL BE REPLACED AFTER 6 MONTHS. PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
4. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

MATERIALS
1. IN LIEU OF 30" REINFORCED SILT FENCE, USE A MINIMUM 18-INCH DIAMETER COMPOST FILTER SOCK.
2. AT THE END OF RUN OVERFLOWS USE AN 18-INCH DIAMETER COMPOST FILTER SOCK (SEDIMENT BARRIER).
3. IN LIEU OF SUPER SILT FENCE, USE A MINIMUM 24-INCH DIAMETER COMPOST FILTER SOCK.
4. COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS (AN BE EQUAL OR GREATER THAN STATED BELOW

MATERIAL TYPE	3 mil HDPE	5 mil HDPE
MATERIAL CHARACTERISTICS	PHOTODEGRADABLE	PHOTODEGRADABLE
SOCK DIAMETER	18"	24"
MESH OPENINGS	½"	½"
TENSILE STRENGTH	------	20 lbs
ULTRAVIOLET STABILITY % ORIGINAL STRENGTH (ASTM G-155)	% AT 1000 HR	225 AT 1000 HR
MINIMUM FUNCTIONAL LONGEVITY*	6 MONTHS	9 MONTHS

* COMPOST SHALL MEET THE FOLLOWING STANDARDS

ORGANIC MATTER CONTENT	80%-100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS AND ELONGATED
pH	5.5-8.0
MOISTURE CONTENT	35%-55%
PARTICLE SIZE	98% PASS THROUGH 1" SCREEN
SOLUBLE SALT CONCENTRATION	5.0 (5) MAXIMUM

wbtl 7-14-15

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	-	-	-

6/17/2015

PREPARED FOR:

XTO ENERGY
810 HOUSTON STREET
FORT WORTH, TX 76102

TRI-COUNTY ENGINEERING, LLC
An ENERCON Company
319 Plantersville Road
Hunter, PA 15639
Voice: (724) 635-0210 Fax: (724) 635-0678
www.tricountyeng.com

Excellence-Every project. Every day.

SEDIMENT CONTROL PLAN DETAILS

CANJAR E-510R WELL PLUG

LINCOLN DISTRICT, MARION COUNTY, WV

DRAWN BY: ZJC
DATE: 6/17/2015
SCALE: AS NOTED
SHEET: 3 OF 3
FILE NO: DG61-17

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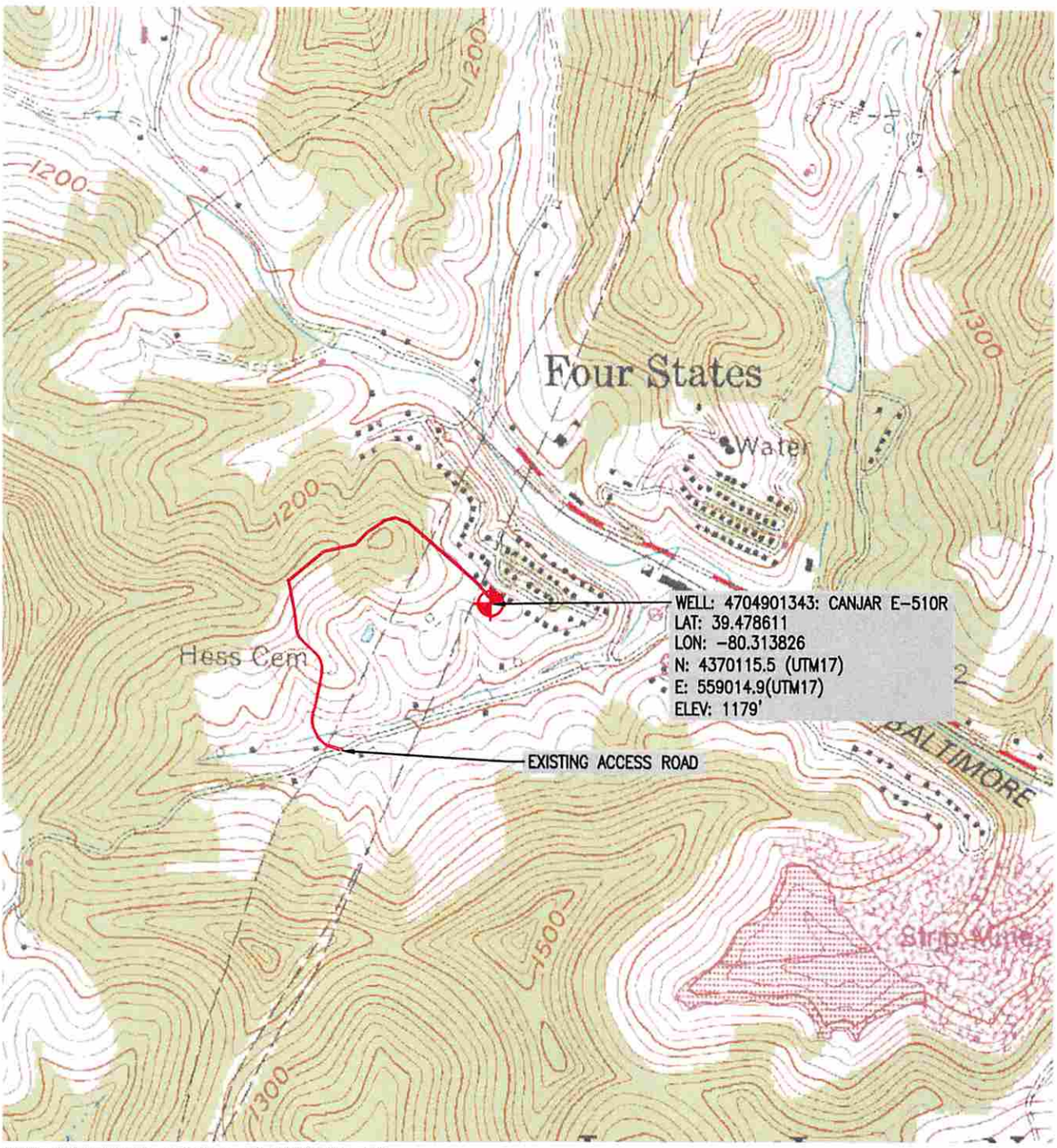

MAP REFERENCE: U.S.G.S. SHINNSTON, WV

WSRK 7-14-15

WV NORTH ZONE
SPCS GRID NORTH

XTO ENERGY
810 HOUSTON STREET
FORT WORTH, TX 76102

0' 1000'
SCALE 1" = 1000'

TRI-COUNTY ENGINEERING, LLC
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319 Paintersville Road
Hunker, PA 15639
www.tricountyeng.com
Voice: (724) 635-0210 Fax: (724) 635-0676

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LOCATION MAP

CANJAR E-510R WELL PLUG

DRAWN BY: ZJC	LINCOLN DISTRICT, MARION COUNTY, WEST VIRGINIA
DATE: 6/8/2015	SHEET: FILE NO.
SCALE: AS NOTED	1 OF 1 0G61-17

Received
Office of Oil & Gas
JUL 20 2015

4901343P

WW-7
8-30-06

West Virginia Department of Environmental Protection
Office of Oil and Gas
WELL LOCATION FORM: GPS

API: 47-049-01343 **WELL NO.:** E-510R

FARM NAME: Canjar

RESPONSIBLE PARTY NAME: XTO Energy, Inc.

COUNTY: Marion **DISTRICT:** Lincoln

QUADRANGLE: Shinnston

SURFACE OWNER: John P. Canjar

ROYALTY OWNER: See attached list

UTM GPS NORTHING: 4370115.5

UTM GPS EASTING: 559014.9 **GPS ELEVATION:** 359 meters (1178')

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	Title	Date
	Project Manager	June 19, 2015

Received
Office of Oil & Gas
JUN 22 2015

4901343P

XTO ENERGY

CK# 7735023
$100.00

WVDEP
Office of Oil & Gas
601 57th Street, SE
Charleston, WV 25304-2345

Re: Application to Plug and Abandon
Canjar E-510R
Lincoln District
Marion County, WV

To Whom It May Concern:

In accordance with Article 22-6-23 of the West Virginia State Code regarding oil and gas operations, please find the attached application for the plugging and abandonment of the subject well. Notices of our intention to plug this wellbore have been sent to the surface owner, coal owners with declarations recorded, and coal operators associated with this well. Copies of the certified mail receipts are attached for your records. If you have any questions or need additional information, please feel free to contact me at 304-884-6000.

Received
Office of Oil & Gas
JUL 20 2015

Sincerely,

Tim Sands
PO Box 1008
Jane Lew, WV 26378

I NOW

Operator: XTO ENERGY, INC.

API: 4901343

WELL No: E-510R

Reviewed by: JWM Date: 8/6/15

15 Day End of Comment: 07/27/15

CHECKLIST FOR FILING A PERMIT

Plugging Ck# 7735023

- [x] WW-4B
- [x] Inspector signature on WW-4B
- [x] Completion / Well Records of Previous Work
- [x] WW-4A (Notarized)
- [x] Certified Mail Receipts, Waivers, or Affidavits of Personal Service
- [ ] Surface Owner Waiver
- [ ] Coal Owner / Lessee /Operator Waiver
- [x] WW-9 (Page 1) (Notarized)
- [x] Inspector Signature on WW-9 (Optional)
- [x] Topographic Map of location of well
- [x] WW-7

OR

- [ ] Mylar Plat (Surface owner on plat matches WW-4A)
- [x] Bond
- [x] Company is Registered with the SOS
- [x] Worker's Compensation / Unemployment Insurance account is OK
- [x] $100.00 check (~~$0.00 if no pit)~~