



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

April 04, 2016

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-2104891, issued to EQT PRODUCTION COMPANY, 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 penalties 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: DAVIS 1A-W595
Farm Name: DAVIS, WILLIAM G.
API Well Number: 47-2104891
Permit Type: Plugging
Date Issued: 04/04/2016

Promoting a healthy environment.

04/08/2016

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.

Form WW-4 (B)
Permit Copy
(Rev 2/01)

Date: March 8, 2016
Operator's Well
Well No. 155401 (Davis #1A-W595)
API Well No.: 47 021 - 04891

CK# 204 22
400.00

**STATE OF WEST VIRGINIA
DIVISION 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) Elevation: 766 ft. Watershed: Leading Creek
Location: DeKalb County: Gilmer Quadrangle: Glenville 7.5'
District:

6) Well Operator EQT Production Company
120 Professional Place
Address: Bridgeport, WV 26330

7) Designated Agent: Rex C. Ray
Address: 120 Professional Place
Bridgeport, WV 26330

8) Oil & Gas Danny Mullins
Name: 220 Jackacres Road
Address: Buckhannon, WV 26201

9) Plugging Contractor:
Name: HydroCarbon Well Service
Address: PO BOX 995
Buckhannon, WV 26201

10) Work Order: The work order for the manner of plugging this well is as follows:
See Attachment for details and procedures.

OK JWM

OFFICE USE ONLY

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

Work order approved by inspector _____ Date _____

Received
Office of Oil & Gas
MAR 14 2016

PLUGGING PROGNOSIS

W.G.Davis 1A-595
 155401
 District, DeKalb
 Gilmer, WV
 API # 47-021-04891
 BY: R. Green
 DATE: 2/5/16

CURRENT STATUS:

TD @ 6114'
 Elevation @ 766'

8 5/8" csg @ 841' (CTS)
 4 1/2" csg @ 6035' (705 sks)
 Perforations 2829' to 3600' (24 holes), 3728' to 4273' (20 holes), 4344' to 4782' (18 holes), 4990' to 6031' (23 holes) .
 Freshwater, @ 72' & 170'
 Saltwater @ None reported
 Gas shows @ 2809', 3825', 4714', and 5239'
 Oil shows @ none reported
 Coal @ 311'

1. Notify state inspector, Danny Mullins, 304-932-6844, 24 hrs. prior to commencing operations.
2. RIH wireline, check TD @ 6030'.
3. TIH tbg to 6030', set 1100' C1A cement plug, 6030' to 4930', WOC 4hrs, Tag TOC, add additional C1A cement if necessary.
4. TOOH tbg to 4930', gel hole 4930' to 4830'.
5. TOOH tbg to 4830' set, 500' C1A cement plug 4830' to 4330', WOC 4hrs, Tag TOC, add additional C1A cement if necessary.
6. TOOH tbg to 4330', set 650' C1A cement plug 4330' to 3680', WOC 4hrs, Tag TOC, add additional C1A cement if necessary.
7. TOOH tbg to 3680', set 900' C1A cement plug 3680' to 2780', WOC 4hrs, Tag TOC, add additional C1A cement if necessary.
8. TOOH tbg to 2780', gel hole, 2780' to 2600'. TOOH tbg .
9. Free point 4 1/2" casing, cut casing at free point, (Bond log shows TOC @ 2600') TOOH casing.
10. Set 100' C1A cement plug 50' in/out of casing cut, perforate all freshwater, saltwater, coal, oil and gas shows below cut. Do not omit any plugs.
11. Gel hole from casing cut plug to 900'.
12. TOOH tbg to 900', set 200' C1A cement plug 900' to 700'. (8 5/8" casing seat).
13. TOOH tbg to 700' gel hole 700' to 250'.
14. TOOH tbg to 250', set 250' C1A cement plug 250' to surface.
15. Erect monument with API#, date plugged, company name, and company 6 digit ID #.
16. Reclaim location, road to WV-DEP specifications.

Received
 Office of Oil & Gas

MAR 14 2016

04/08/2016

RECEIVED

WR-35

FEB 27 91

18-Sep-90
API # 47- 21-04891

State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas

Received
Office of Oil & Gas

Well Operator's Report of Well Work

MAR 14 2016

Farm name: DAVIS, WILLIAM G. Operator Well No.: DAVIS 1A-595

LOCATION: Elevation: 766.00 Quadrangle: GLENVILLE

District: DEKALB County: GILMER
Latitude: 9880 Feet South of 39 Deg. 0 Min. 0 Sec.
Longitude 5180 Feet West of 80 Deg. 50 Min. 0 Sec.

Company: WACO OIL & GAS CO., INC.
1297 N. LEWIS ST.
GLENVILLE, WV 26351-0000

Agent: STEPHEN E. HOLLOWAY

Inspector: CRAIG DUCKWORTH
Permit Issued: 09/19/90
Well work Commenced: 10/08/90
Well work Completed: 10/13/90
Verbal Plugging _____
Permission granted on: _____
Rotary x Cable _____ Rig
Total Depth (feet) 6114
Fresh water depths (ft) _____
72', 170'
Salt water depths (ft) _____
None
Is coal being mined in area (Y/N)? N
Coal Depths (ft): None

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8-5/8"	841	841	C. T.S.
4-1/2"		6,035	705 Sk.

OPEN FLOW DATA

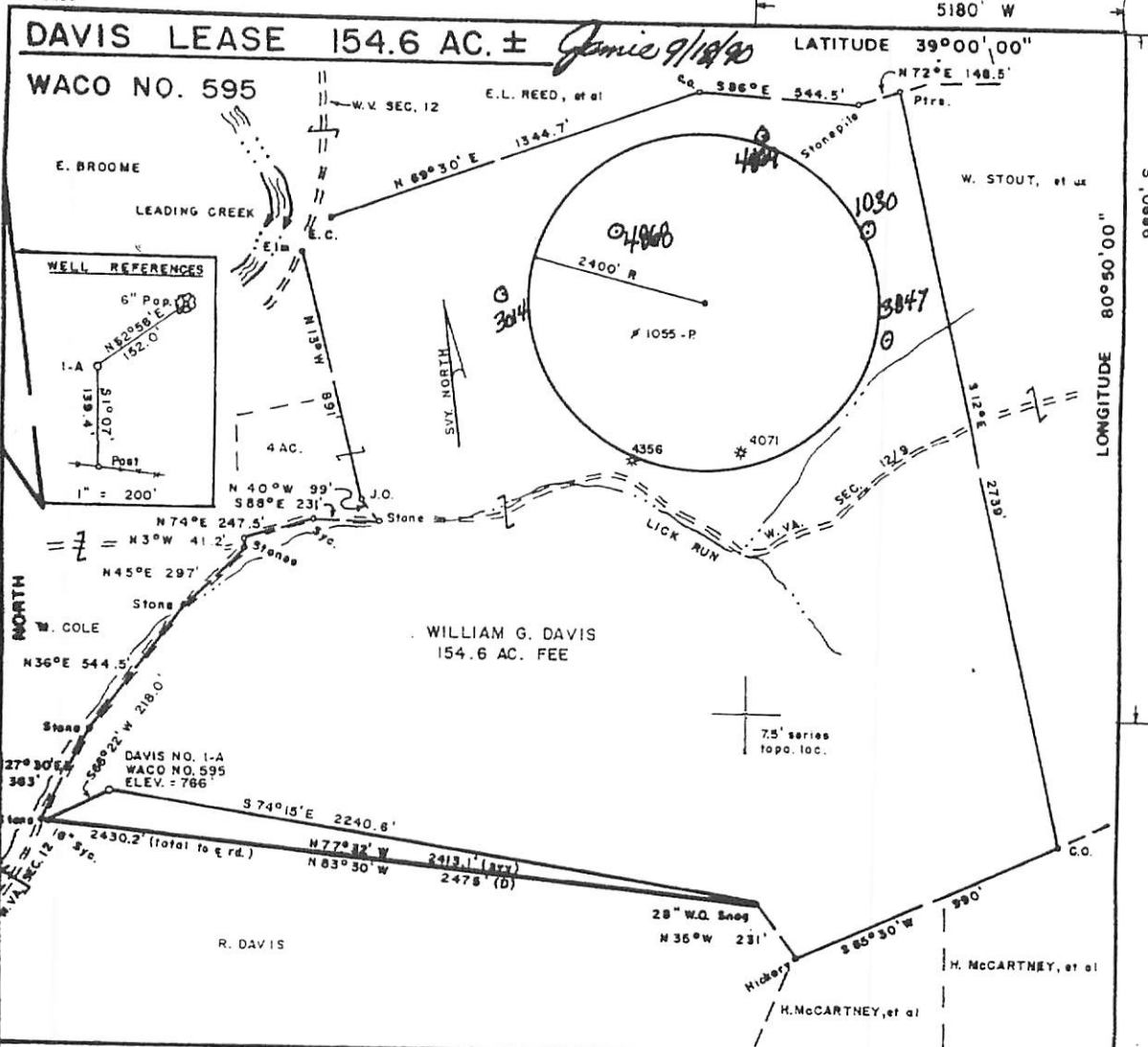
Producing formation Shale, Elk, Alexander, Benson Pay zone depth (ft) see treatment
 Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
 Final open flow 1750 MCF/d Final open flow _____ Bbl/d
 Time of open flow between initial and final tests 4 Hours
 Static rock Pressure 1525 psig (surface pressure) after 48 Hours

Second producing formation Riley, Balltown, Specialty Pay zone depth (ft) see treatment
 Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
 Final open flow _____ MCF/d Final open flow _____ Bbl/d
 Time of open flow between initial and final tests _____ Hours
 Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED 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.

Daniel R. Chapman

04/08/2016



FILE NO. _____

DRAWING NO. _____

SCALE 1" = 500'

MINIMUM DEGREE OF ACCURACY 1/200

PROVEN SOURCE OF ELEVATION Top of Knob 2500' ±

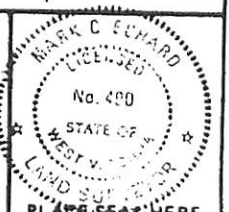
S. of Loc Elev. = 999'

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.

Mark C. Echard

(SIGNED) MARK C. ECHARD

R.P.E. _____ L.L.S. 490



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FORM IV-6 (8-78)



DATE MARCH 26, 19 90

OPERATOR'S WELL NO. DAVIS NO. 1-A

API WELL NO. WACO NO. 595

47-021-4891

STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS LIQUID INJECTION ___ WASTE DISPOSAL ___

(IF "GAS,") PRODUCTION STORAGE ___ DEEP ___ SHALLOW

LOCATION: ELEVATION 766' WATER SHED LICK RUN OF LEADING CREEK

DISTRICT DEKALB COUNTY GILMER

QUADRANGLE GLENNVILLE 7.5'

SURFACE OWNER WILLIAM G. DAVIS ACREAGE 154.6

OIL & GAS ROYALTY OWNER WILLIAM G. DAVIS LEASE ACREAGE 154.6

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) _____

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___

TARGET FORMATION MARCELLUS ESTIMATED DEPTH 5900' ±

WELL OPERATOR WACO OIL & GAS CO. INC. DESIGNATED AGENT STEPHEN E. HOLLOWAY

ADDRESS P.O. BOX 397 ADDRESS P.O. BOX 397

GLENNVILLE, W.V. 26351 GLENNVILLE, W.V. 26351

Received
Office of Oil & Gas
MAR 14 2016

WW-4-A
Revised 6/07

- 1) Date: March 8, 2016
- 2) Operator's Well Number
155401 (Davis #1A-W595)
- 3) API Well No.: 47 021 - 04891
State County Permit

**STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL & GAS
NOTICE AND APPLICATION TO PLUG AND ABANDON WELL**

<p>4) Surface Owner(s) to be served:</p> <p>(a) Name <u>Willard G. Davis</u> Address <u>4383 Lost Creek Romines Mill</u> <u>Lost Creek, WV 26385</u></p> <p>(b) Name _____ Address _____</p> <p>(c) Name _____ Address _____</p> <p>6) Inspector <u>Danny Mullins</u> Address <u>220 Jackacres Road</u> <u>Buckhannon, WV 26201</u> Telephone <u>(304) 932-6844</u></p>	<p>5) (a) Coal Operator: Name <u>None</u> Address _____</p> <p>(b) Coal Owner(s) with Declaration Name <u>Willard G. Davis</u> <u>4383 Lost Creek Romines Mill</u> Address <u>Lost Creek, WV 26385</u></p> <p>(c) Coal Lessee with Declaration Name <u>None</u> Address _____</p>
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TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

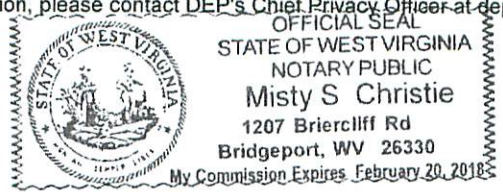
- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
 - (2) The plat (surveyor's map) showing the well location on Form WW-6.
- The reason you received these documents is that you have 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 Division 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:	<u>EQT Production Company</u>
By:	<u>Victoria J. Roark</u>
Its:	<u>Permitting Supervisor</u>
Address:	<u>PO Box 280</u> <u>Bridgeport, WV 26330</u>
Telephone:	<u>(304) 848-0076</u>

Subscribed and sworn before me this 9th day of March, 2016
Misty S. Christie Notary Public
My Commission Expires: 2/20/18

The Office of Oil & Gas processes your personal information, such as name, address and phone number, as 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 depprivacyofficer@wv.gov.



Received
Office of Oil & Gas
MAR 14 2016
04/08/2016

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL & GAS
CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE**

Operator Name: EQT PRODUCTION COMPANY OP ID: _____

Watershed: Leading Creek Quadrangle: Glenville 7.5'

Elevation: 766 ft. County: Gilmer District: DeKalb

Description of anticipated Pit Waste: Formation Fluids

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

Will synthetic liner be used in the pit? Yes Is so, what ml.? 20 / 10 ml

Proposed Disposal Method for Treated Pit Wastes:

- Land Application
- Underground Injection - UIC Permit Number _____
- Reuse (at API Number) _____
- Offsite Disposal Permit #. _____
- Other: Explain _____

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

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

Additives to be used? _____

Will closed loop system be used? _____

Drill Cuttings disposal method? Leave in pit, landfill, remove offsite, etc. _____

If left in pit and plan to solidify what medium will be used? Cement, Lime, sawdust _____

Landfill or offsite name/permit number? _____

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 Division of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any terms 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 *Victoria Roark*

Company Official (Typed or Printed) Victoria Roark

Company Official Title Permitting Supervisor-WV

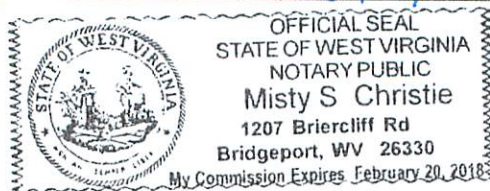
Subscribed and sworn before me this 9th day of March, 2016

Misty S. Christie Notary Public

My Commission Expires 2/20/18

Received
Office of Oil & Gas

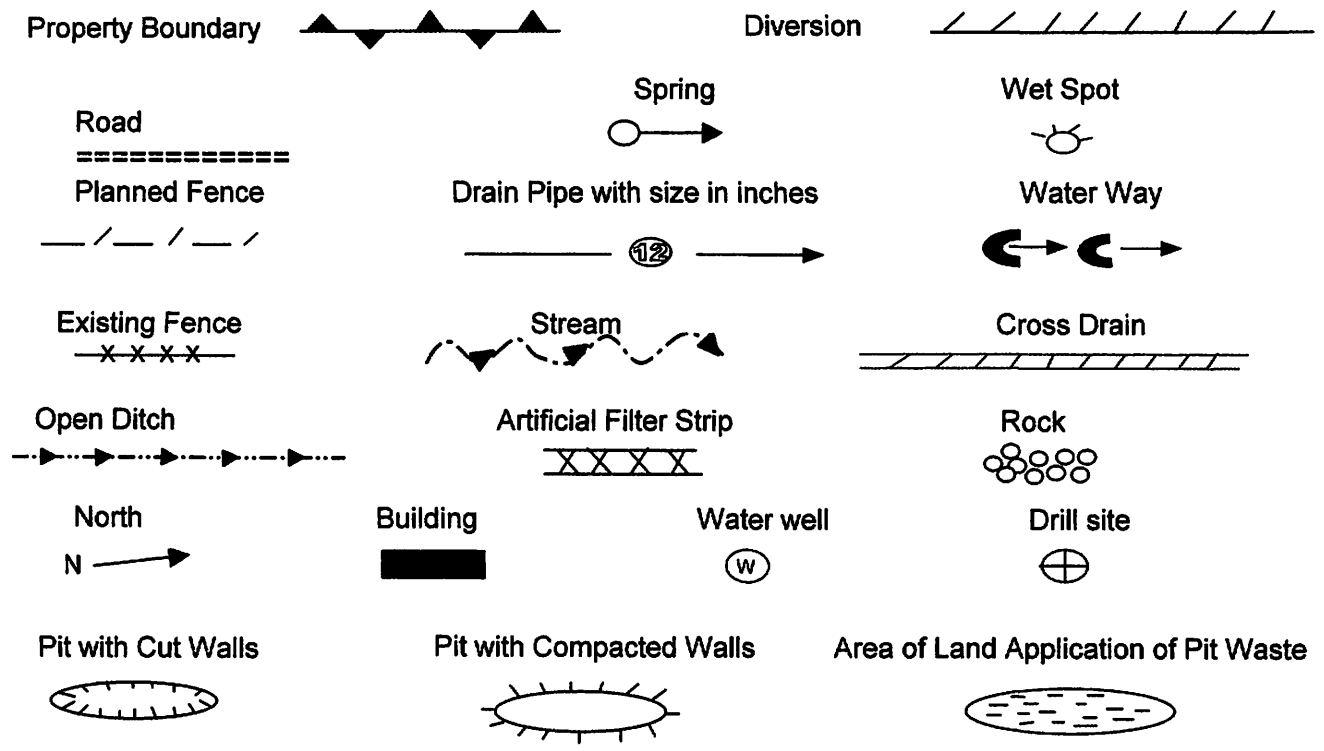
MAR 14 2016



04/08/2016

OPERATOR'S WELL NO.:
155401 (Davis #1A-W595)

LEGEND



Proposed Revegetation Treatment: Acres Disturbed: 1± Prevegetation pH

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20) or equivalent 1/3 ton lbs/acre (500 lbs minimum)

Mulch 2 Tons/acre or hydroseed.

SEED MIXTURES

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
Red Fescue	40	Red Fescue	15
Alsike Clover	5	Alsike Clover	5
Annual Rye	15		

ATTACH:
 Drawing(s) of road, location, pit and proposed area for land application.
 Photocopies section of involved 7.5' topographic sheet.

Plan approved by: _____

Comments: _____

Title: _____ Date: _____
 Field Reviewed? Yes No

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 Office of Oil & Gas
 MAR 14 2016

2104891P

Topo Quad: Glenville 7.5'

Scale: 1" = 2000'

County: Gilmer

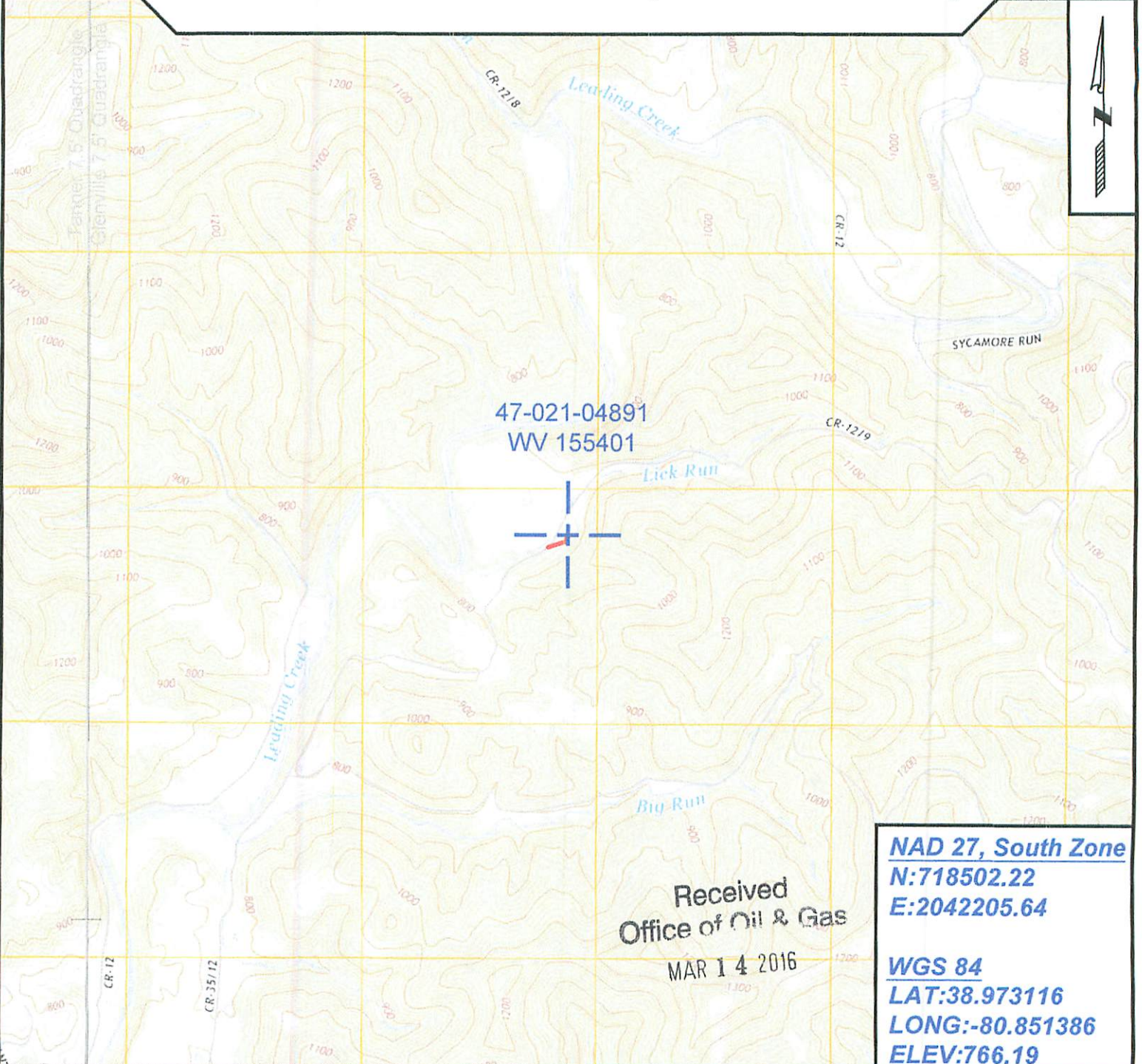
Date: February 25, 2016

District: DeKalb

Project No: 25-19-00-07

47-021-04891 WV 155401 (Davis #1A-W595)

Topo



NAD 27, South Zone
N:718502.22
E:2042205.64

WGS 84
LAT:38.973116
LONG:-80.851386
ELEV:766.19



SURVEYING AND MAPPING SERVICES PERFORMED BY:
ALLEGHENY SURVEYS, INC.

1-800-482-8606
 237 Birch River Road
 Birch River, WV 26610
 PH: (304) 649-8606
 FAX: (304) 649-8608

PREPARED FOR:
EQT Production Company

P.O. Box 280
 Bridgeport, WV 26330

04/08/2016

WW-7
8-30-06



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

API: 47-021-04891 WELL NO.: WV 155401 (Davis #1A-W595)

FARM NAME: William G. Davis

RESPONSIBLE PARTY NAME: EOT Production Company

COUNTY: Gilmer DISTRICT: DeKalb

QUADRANGLE: Glenville 7.5'

SURFACE OWNER: Willard G. Davis

ROYALTY OWNER: Lynna S. Davis, et al.

UTM GPS NORTHING: 4313804

UTM GPS EASTING: 512874 GPS ELEVATION: 233 m (766 ft)

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:

- Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
- Accuracy to Datum – 3.05 meters
- Data Collection Method:

Survey grade GPS : Post Processed Differential
Real-Time Differential

Mapping Grade GPS : Post Processed Differential
Real-Time Differential

- 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.

Received
Office of Oil & Gas

MAR 14 2016


Signature

PS# 2180
Title

2/26/16
Date



POTENTIAL WATER SAMPLE DATA SHEET

CLIENT: EQT PRODUCTION COMPANY
 LEASE NAME AND WELL No. Davis #1A-W595 - WV 155401 - API No. 47-021-04891

POTENTIAL SAMPLE LOCATIONS

Site: 1 Spacing: 780 +/- Owner: Larry B. Chapman
 Address: P.O. Box 357, Glenville, WV 26351 Phone No. _____
 Comments: Pond

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 Office of Oil & Gas
 MAR 14 2016

BIRCH RIVER OFFICE
 237 Birch River Road
 Birch River, WV 26610
phone: 304-649-8606
fax: 304-649-8608

BRIDGEPORT OFFICE
 172 Thompson Drive
 Bridgeport, WV 26330
phone: 304-848-5035
fax: 304-848-5037

ALUM CREEK OFFICE
 P.O. Box 108 • 1413 Childress Rd
 Alum Creek, WV 25003
phone: 304-756-2949
fax: 304-756-2948

MARTINSBURG OFFICE
 25 Lights Addition Drive
 Martinsburg, WV 25404
phone: 304-901-2162
fax: 304-901-2182

04/08/2016

Topo Quad: Glenville 7.5'

Scale: 1" = 2000'

County: Gilmer

Date: February 25, 2016

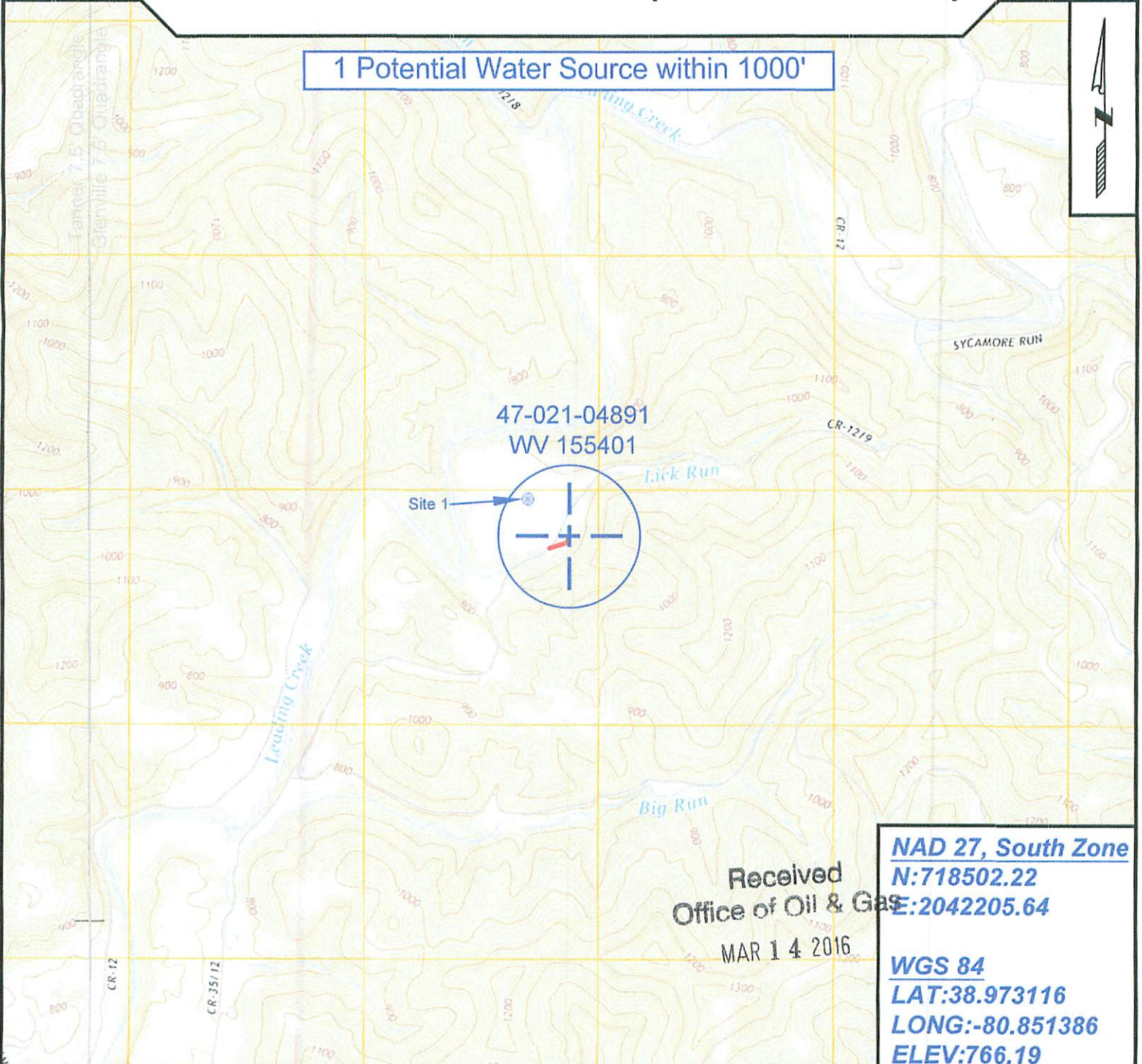
District: DeKalb

Project No: 25-19-00-07

Water

47-021-04891 WV 155401 (Davis #1A-W595)

1 Potential Water Source within 1000'



47-021-04891
WV 155401

Site 1

Received
Office of Oil & Gas

MAR 14 2016

NAD 27, South Zone
N:718502.22
E:2042205.64

WGS 84
LAT:38.973116
LONG:-80.851386
ELEV:766.19



SURVEYING AND MAPPING SERVICES PERFORMED BY:
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Birch River, WV 26610
PH: (304) 649-8606
FAX: (304) 649-8608

PREPARED FOR:
EQT Production Company
P.O. Box 280
Bridgeport, WV 26330
04/08/2016