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west virginia department of environmental protection

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

Harold D. Ward, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Tuesday, October 24, 2023  
WELL WORK PLUGGING PERMIT  
Horizontal 6A Plugging

EQT PRODUCTION COMPANY  
400 WOODLIFF DR.

CANONSBURG, PA 15317

Re: Permit approval for HOWELL 8H  
47-103-02795-00-00


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.

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. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, 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

A handwritten signature in blue ink, appearing to read 'James A. Martin', is written over a white background.

Operator's Well Number:  
Farm Name: HOWELL, CAHRLES L. AND   
U.S. WELL NUMBER: 47-103-02795-00-00  
Horizontal 6A Plugging  
Date Issued: 10/24/2023

Promoting a healthy environment.

10/27/2023

# 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

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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.
4. 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.

1) Date October 4, 2023  
2) Operator's  
Well No. Howell 8H  
3) API Well No. 47-103 - 02795

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 \_\_\_ or Underground storage \_\_\_) Deep \_\_\_ / Shallow X

5) Location: Elevation 1,303' Watershed Turkey Run of Fishing Creek  
District Greene County Wetzel Quadrangle Porter's Falls 7.5'

6) Well Operator EQT Production Company 7) Designated Agent Joseph C. Mallow  
Address 400 Woodcliff Drive Address 427 Midstate Drive  
Canonsburg PA 15317 Clarksburg, WV 26301

8) Oil and Gas Inspector to be notified 9) Plugging Contractor  
Name Steve McCoy Name R&J  
Address 13016 Indian Creek Address 1087 Raccoon Road  
Jacksonburg, WV 26377 Hueysville, KY 41640

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

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

Work order approved by inspector Stephen Mccoy Digitally signed by Stephen Mccoy  
Date: 2023.10.05 07:52:45 -0400 Date \_\_\_\_\_

WR-35  
Rev. 8/23/13

API 47- 103 - 02795 Farm name Howell, Charles and Ruth Well number #8H

PRODUCING FORMATION(S)	DEPTHS	
	TVD	MD
Not perforated or stimulated		

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface \_\_\_\_\_ psi Bottom Hole \_\_\_\_\_ psi DURATION OF TEST \_\_\_\_\_ hrs

OPEN FLOW Gas \_\_\_\_\_ mcfpd Oil \_\_\_\_\_ bpd NGL \_\_\_\_\_ bpd Water \_\_\_\_\_ bpd  
GAS MEASURED BY  Estimated  Orifice  Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
Sandstone/Shale	0	1,060	0	1,060	Fresh Water - mist @ 96'
Coal	1,060	1,063	1,060	1,063	
Sandstone/Shale	1,063	2,146	1,063	2,146	Interbedded
Little Lime	2,146	2,220	2,146	2,220	Lime Stone
Big Lime	2,220	2,253	2,220	2,253	Lime Stone
Injun	2,253	2,296	2,253	2,296	Sandstone
Shale	2,296	2,440	2,296	2,440	Shale
TD		2,440		2,440	Total Depth

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Please insert additional pages as applicable.

Drilling Contractor Nomac Drilling  
Address 171 Locust Ave. City Mount Morris State PA Zip 15349

Logging Company Scientific Drilling  
Address 116 Vista Drive City Charleroi State PA Zip 15022

Cementing Company BJ Services / Schlumberger  
Address 2228 Philippi Pike / 1178 US Hwy 33 East City Clarksburg / Weston State WV Zip 26301 / 26452

Stimulating Company N/A  
Address \_\_\_\_\_ City \_\_\_\_\_ State WV Zip \_\_\_\_\_

Please insert additional pages as applicable.

Completed by W. Lee Hornsby Telephone 304-225-1600  
Signature W. Lee Hornsby Title Drilling Engineer Date 5/27/2015 (original 2/3/2015)

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

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10/27/2023

WR-35  
Rev. 8/23/13

API 47- 103 - 02795 Farm name Howell, Charles and Ruth Well number #8H

### PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
	Not	Stimulated			

Please insert additional pages as applicable.

### STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
		Not	Stimulated					

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Please insert additional pages as applicable.

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05/05/2015  
10/27/2023

WR-35  
Rev. 8/23/13

API 47-103 - 02795 Farm name Howell, Charles and Ruth Well number #8H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	24"	20"	90'	New	LS		Y - GTS
Surface	17.5"	13.375"	1,307' KB 1,292' GL	New	J55	118' & 194'	Y - CTS
Coal	17.5"	13.375"	1,307' KB 1,292' GL	New	J55	118' & 194'	Y - CTS
Intermediate 1	12.25"	9.625"	2,404'	New	J55		Y - CTS
Intermediate 2							
Intermediate 3							
Production							
Tubing							
Packer type and depth set							

Comment Details Circulated 40 bbls cement to surface on 13.375" string and 40 bbls of cement to surface on the 9.625" string.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	Type 1	34	15.6	1.18	40	Surface	24.0
Surface	Class "A"	1,005	15.6	1.19	1,196	Surface	8.0
Coal	Class "A"	1,005	15.6	1.19	1,196	Surface	8.0
Intermediate 1	Lead-Flex Seal Tail-Class "A"	Lead-410 Tail-420	Lead-15.0 Tail-15.5	Lead-1.26 Tail-1.19	Lead-516 Tail-500	Surface	12.0
Intermediate 2							
Intermediate 3							
Production							
Tubing							

Drillers TD (ft) 2,440 MD / 2,440 TVD Loggers TD (ft) N/A

Deepest formation penetrated Weir Sandstone Plug back to (ft) 2,185

Plug back procedure In order to prevent a potential collision with the Howell #3H wellbore it was decided stop drilling @ 2,440' MD/TVD. TOOH and laid down bit and then TBH with open ended drill pipe. 100 sacks of Class "A" cement was pumped down the DP at a density of 1.17 cft/sx for a solid cement plug from TD to 2,185' MD/TVD. TOC is 219' inside the 9.625".

Kick off depth (ft) N/A

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Check all wireline logs run  caliper  density  deviated/directional  induction  
 neutron  resistivity  gamma ray  temperature  sonic

OCT 10 2023

Well cored  Yes  No Conventional Sidewall Were cuttings collected  Yes  No

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DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING Surface/Coal casing had bow spring centralizers placed on joints 2, 5, 8, 11, 14, 17, 20, 23, 26, 29 and 32. Intermediate casing had bow spring centralizers placed on joints 2, 5, 8, 11, 14, 17, 20, 23, 26, 29, 32, 35, 38, 41, 44, 47 and 50.

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WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS \_\_\_\_\_

MAY 29 2015

WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS \_\_\_\_\_

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WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED \_\_\_\_\_

06/05/2015  
10/27/2023

State of West Virginia  
Department of Environmental Protection - Office of Oil and Gas  
Well Operator's Report of Well Work

API 47-103-02795 County Wetzel District Green  
 Quad Porters Falls Pad Name Howell Field/Pool Name Mary  
 Farm name Howell, Charles and Ruth Well Number #8H  
 Operator (as registered with the OOG) Stone Energy Corporation  
 Address 1300 Fort Pierpont Drive City Morgantown State WV Zip 26508

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
 Top hole Northing 4,382,920.4 Easting 517,668.7  
 Landing Point of Curve Northing N/A Easting N/A  
 Bottom Hole Northing 4,382,918.7 Easting 517,667.3

Elevation (ft) 1,300 GL Type of Well  New  Existing Type of Report  Interim  Final  
 Permit Type  Deviated  Horizontal  Horizontal 6A  Vertical Depth Type  Deep  Shallow  
 Type of Operation  Convert  Deepen  Drill  Plug Back  Redrilling  Rework  Stimulate  
 Well Type  Brine Disposal  CBM  Gas  Oil  Secondary Recovery  Solution Mining  Storage  Other \_\_\_\_\_  
 Type of Completion  Single  Multiple Fluids Produced  Brine  Gas  NGL  Oil  Other \_\_\_\_\_  
 Drilled with  Cable  Rotary

Drilling Media Surface hole  Air  Mud  Fresh Water Intermediate hole  Air  Mud  Fresh Water  Oil  Gas  
 Production hole  Air  Mud  Fresh Water  Brine  
 Mud Type(s) and Additive(s)  
N/A

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Date permit issued 9/26/2012 Date drilling commenced 4/5/2013 Date drilling ceased 4/20/2013  
 Date completion activities began N/A Date completion activities ceased N/A  
 Verbal plugging (Y/N) N Date permission granted \_\_\_\_\_ Granted by \_\_\_\_\_

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 96 Open mine(s) (Y/N) depths N  
 Salt water depth(s) ft None Reported Void(s) encountered (Y/N) depths N  
 Coal depth(s) ft 1,060 Cavern(s) encountered (Y/N) depths N  
 Is coal being mined in area (Y/N) N

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MAY 29 2013  
Reviewed by:  
AL 5/27/15  
06/05/2015  
W.S. W3169  
10/27/2023

4710302795

Howell 8H  
Wetzel Co., WV  
HZ Marcellus well  
API # 47-1030-2795

DATE: 6/15/2023

**CURRENT STATUS: (All Depths Based off GL)**

20" conductor @ 90' Cemented to Surface  
13 3/8" surface @ 1,292' Cemented to Surface  
9 5/8" intermediate casing @ 2,404' Cemented to Surface, basket @ 118', 194'.

Total Depth : 2,440'  
TVD: 2,440'  
Production Casing: 0 psi  
Production Annulus: 0 psi  
Intermediate Annulus: 0 psi

Elevation: 1,300'  
Water 96'  
Coal: 1,060'  
Oil: NA  
Gas: NA

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1. Notify Inspectors Stephen McCoy (681) 344 3265 prior to beginning operations.
2. Check and record pressure on all casing, notify engineer of recorded pressure.
3. Blow well down and/or kill if necessary.
4. Load well with Fresh Water.
5. RIH with segmented bond log and pull log TD to surface. Share top of Cement with EQT rep and WVDEP for confirmation. (If cement is not to surface, plan to pull 9 5/8" casing).
6. TIH w/tubing to 2440' set Class A or CL cement plug from 2440' to 2304' (100' above 9 5/8" casing set depth). Let cement cure.
7. TIH with tubing to 2304' and pump 6% gel to 742'
8. TIH w/tubing to 1342' set Class A or CL cement plug from 1342' to 850' (13 3/8" casing set depth, covers elevation depth and coal). Let cement cure.
9. TIH w/tubing to 250' set Class A or CL cement plug from 250' to surface (fresh water).
10. Remove any surface wellhead equipment.
11. Cut, weld and cap well. Install 6" monument or greater per DEP regulation.

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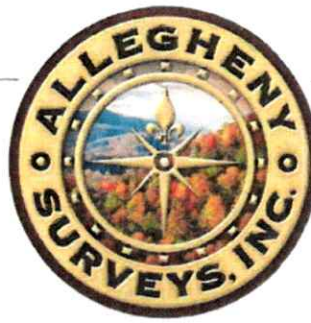
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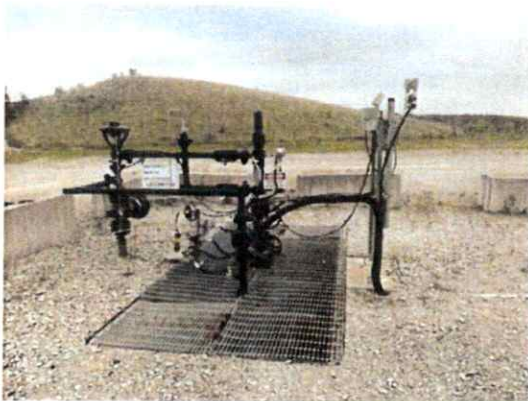
Stephen McCoy Digitally signed by Stephen  
McCoy  
Date: 2023.10.27 09:22:23 -0400

10/27/2023

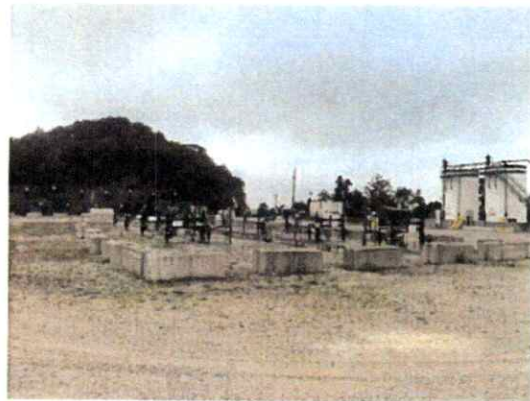




**Site Pictures  
Howell 8H  
47-103-02795**



**Howell 8H Well Pad Site**



**Howell 8H Well Pad Site**



**Howell 8H Well Pad Site**

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**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

**CHARLESTON OFFICE**  
301 RH Boulevard Suite 5  
Charleston, WV 25309  
phone 304-756-2949 fax 304-756-2948

**ALLEGHENYSURVEYS.COM**

4710302795

WW-4A  
Revised 6-07

1) Date: October 4, 2023  
2) Operator's Well Number  
Howell 8H  
3) API Well No.: 47 - 103 - 02795

**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>Charles L &amp; Ruth C Howell (Surface &amp; Access)</u>	Name _____
Address <u>678 Lowman Ridge Rd</u>	Address _____
<u>Pine Grove, WV 26419</u>	_____
(b) Name <u>EQT Production Company (Access)</u>	(b) Coal Owner(s) with Declaration
Address <u>400 Woodcliff Drive</u>	Name <u>Charles L &amp; Ruth C Howell</u>
<u>Canonsburg, PA 15317</u>	Address <u>678 Lowman Ridge Rd</u>
	<u>Pine Grove, WV 26419</u>
(c) Name _____	Name _____
Address _____	Address _____
	_____
6) Inspector <u>Stephen McCoy</u>	(c) Coal Lessee with Declaration
Address <u>13016 Indian Creek</u>	Name _____
<u>Jacksonburg, WV 26377</u>	Address _____
Telephone <u>601-344-3265</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.

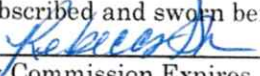
The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverse side. However, you are not required to take any action at all.

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.

Commonwealth of Pennsylvania - Notary Seal  
**Rebecca Shrum, Notary Public**  
 Beaver County  
 My commission expires March 9, 2024  
 Commission number 1267706  
 Member, Pennsylvania Association of Notaries

Well Operator EQT Production Company  
 By: Erin Spine   
 Its: Manager - Subsurface Permitting  
 Address 400 Woodcliff Drive  
Canonsburg PA 15317  
 Telephone (724) 271-7380

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Subscribed and sworn before me this 4th day of October 2023  
  
 My Commission Expires March 9, 2024  
 \_\_\_\_\_ Notary Public

**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](mailto:deprivacyofficer@wv.gov).

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**CHARLES L & RUTH C HOWELL**  
**678 LOWMAN RIDGE RD**  
**PINE GROVE WV 26419**

PS Form 3800, A

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 WV 26419

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**EQT PRODUCTION COMPANY**  
**400 WOODCLIFF DRIVE**  
**CANONSBURG PA 15317**

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4710302795



EQT PRODUCTION COMPANY  
400 Woodcliff Drive | Canonsburg, PA 15317

October 4, 2023

Mr. Taylor Brewer  
West Virginia Department of Environmental Protection  
Office of Oil and Gas  
601 57th Street SE  
Charleston, WV 25304

Re: Class L Cement Variance Request  
Howell 8H Well  
Permit Number 47-103-02795  
Green District, Wetzel County

Dear Mr. Brewer,

EQT Production Company (EQT) has been notified by our cement providers that they will no longer be providing Class A cement. As a result of this, EQT is requesting the option to utilize Class L cement, if necessary, in place of Class A cement for its cement jobs.

The variance request from Legislative Rule 35CSR4 Section 11.5, related to the use of Class L Cement, was approved by the Office of Oil and Gas on September 13, 2022. A copy of the variance is included with this request.

If you have any questions, please do not hesitate to contact me at 724-746-9073.

Sincerely,

A handwritten signature in blue ink, appearing to read 'J. Zavatchan'.

John Zavatchan  
Project Specialist - Permitting

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Office of Oil and Gas  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304  
Phone (304) 926-0450

Harold D. Ward, Cabinet Secretary  
dep.wv.gov

**BEFORE THE OFFICE OF OIL AND GAS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
STATE OF WEST VIRGINIA**

**IN THE MATTER OF A VARIANCE FROM )  
LEGISLATIVE RULE 35CSR4 ) ORDER NO. 2022-13  
SECTION 14.1. AND LEGISLATIVE RULE )  
35CSR8 SECTION 20.1, )  
RELATING TO THE CEMENTING )  
OF OIL AND GAS WELLS )**

**REPORT OF THE OFFICE**

In response to industry requests, the West Virginia Department of Environmental Protection, Office of Oil and Gas has reviewed the proposed use of American Petroleum Institute (API) Class L cement to be used in place of API Class A cement for well plugging.

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**FINDINGS OF FACT**

1. On July 28, 2022, Diversified Gas & Oil Co. (DGO) submitted a variance request from Legislative Rule 35CSR4 for the use of API Class L cement in place of API Class A cement, relating to the plugging of conventional wells.
2. Laboratory analysis submitted by DGO on July 28, 2022, indicates API Class L cement is comparable to API Class A cement and thereby satisfies the requirements of the West Virginia Code.
3. Contemporaneously, the Chief of the Office of Oil and Gas also chose to consider a variance to Legislative Rule 35CSR8 Section 20.1., for the use of API Class L cement in place of API Class A cement, relating to the plugging of horizontal wells.

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10/27/2023

4. On August 18, 2022, the Office of Oil and Gas provided public notice of acceptance of public comments on the variance consideration. During the 20-day public comment period, no comments were received.

### CONCLUSIONS OF LAW

Pursuant to Article 6 and Article 6A, Chapter 22 of the Code of West Virginia, the Office of Oil and Gas has jurisdiction over the subject matter, and the persons interested therein, and jurisdiction to promulgate the hereinafter prescribed Order.

Pursuant to Legislative Rule 35CSR4, Section 18 and Legislative Rule 35CSR8, Section 14, the Chief of the Office of Oil and Gas may grant a variance from any requirement of these rules.

### ORDER

It is ordered that the Class L cement product approved and monogrammed by API is approved for use in place of API Class A cement for well plugging subject to the provisions of Legislative Rule 35CSR4 and Legislative Rule 35CSR8.

Dated this, the 13th day of September, 2022.

IN THE NAME OF THE STATE OF WEST VIRGINIA

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



James Martin, Chief  
Office of Oil and Gas

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Office Of Oil and Gas

OCT 10 2022

WV Department of  
Environmental Protection

WW-9  
(5/16)

API Number 47 - 103 - 02795  
Operator's Well No. Howell 8H

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

Operator Name EQT Production Company OP Code 306686

Watershed (HUC 10) Turkey Run of Fishing Creek Quadrangle Porters Falls 7.5'

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 \_\_\_\_\_)

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

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. \_\_\_\_\_

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

Additives to be used in drilling medium? \_\_\_\_\_

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

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

-Landfill or offsite name/permit number? \_\_\_\_\_

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 

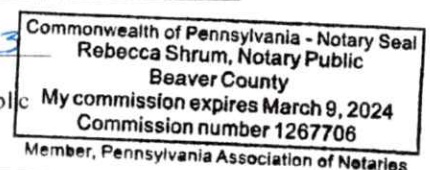
Company Official (Typed Name) Erin Spine

Company Official Title Manager - Subsurface Permitting

Subscribed and sworn before me this 4th day of October, 20 23

 Notary Public

My commission expires March 9, 2024



10/27/2023

Proposed Revegetation Treatment: Acres Disturbed 1± Prevegetation pH \_\_\_\_\_

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type (10-20-20) or equivalent

Fertilizer amount 1/3 ton lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

**Temporary**

**Permanent**

Seed Type	lbs/acre
Red Fescue	40
Aslike Clover	5
Annual Rye	15

Seed Type	lbs/acre
Red Fescue	15
Aslike Clover	5

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: Stephen Mccoy Digitally signed by Stephen Mccoy  
Date: 2023.10.05 07:31:53 -04'00'

Comments: Properly reclaim all disturbed areas to DEP standards.

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Environmental Protection

Title: \_\_\_\_\_ Date: \_\_\_\_\_

Field Reviewed? (  ) Yes (  ) No



**EQT Production Water plan**  
**Offsite disposals**

4710302795

**Waste Management - Meadowfill Landfill**

Rt. 2, Box 68 Dawson Drive  
Bridgeport, WV 26330  
304-326-6027  
Permit #SWF-1032-98  
Approval #100785WV

**Waste Management - Northwestern Landfill**

512 E. Dry Road  
Parkersburg, WV 26104  
304-428-0602  
Permit #SWF-1025 WV-0109400  
Approval #100833WV

10/27/2023

4710302795

Topo Quad: Porters Falls 7.5'

Scale: 1" = 2000'

County: Wetzel

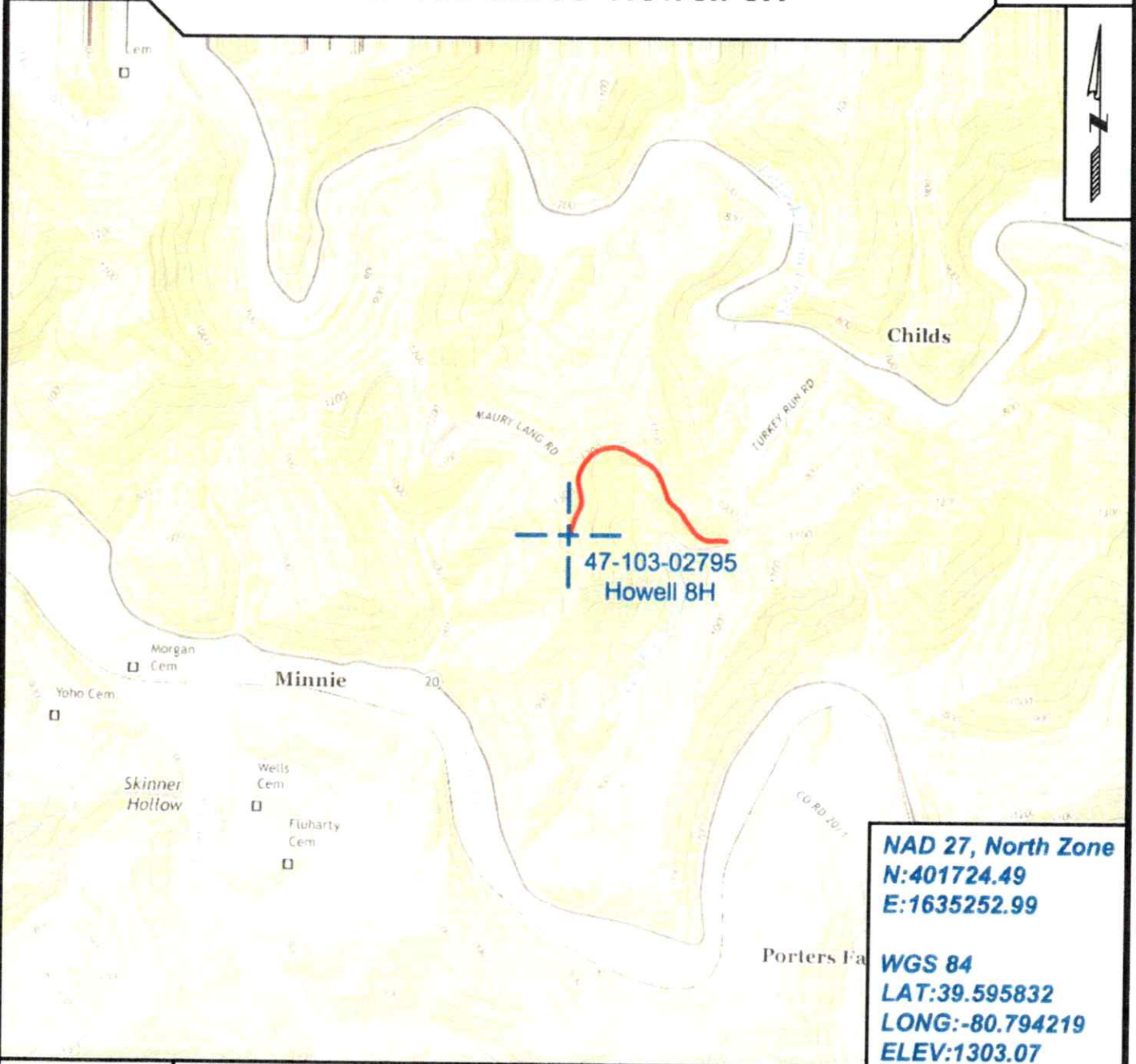
Date: September 28, 2023

District: Green

Project No: 40-34-00-09

# 47-103-02795 Howell 8H

Topo



**NAD 27, North Zone**  
**N:401724.49**  
**E:1635252.99**

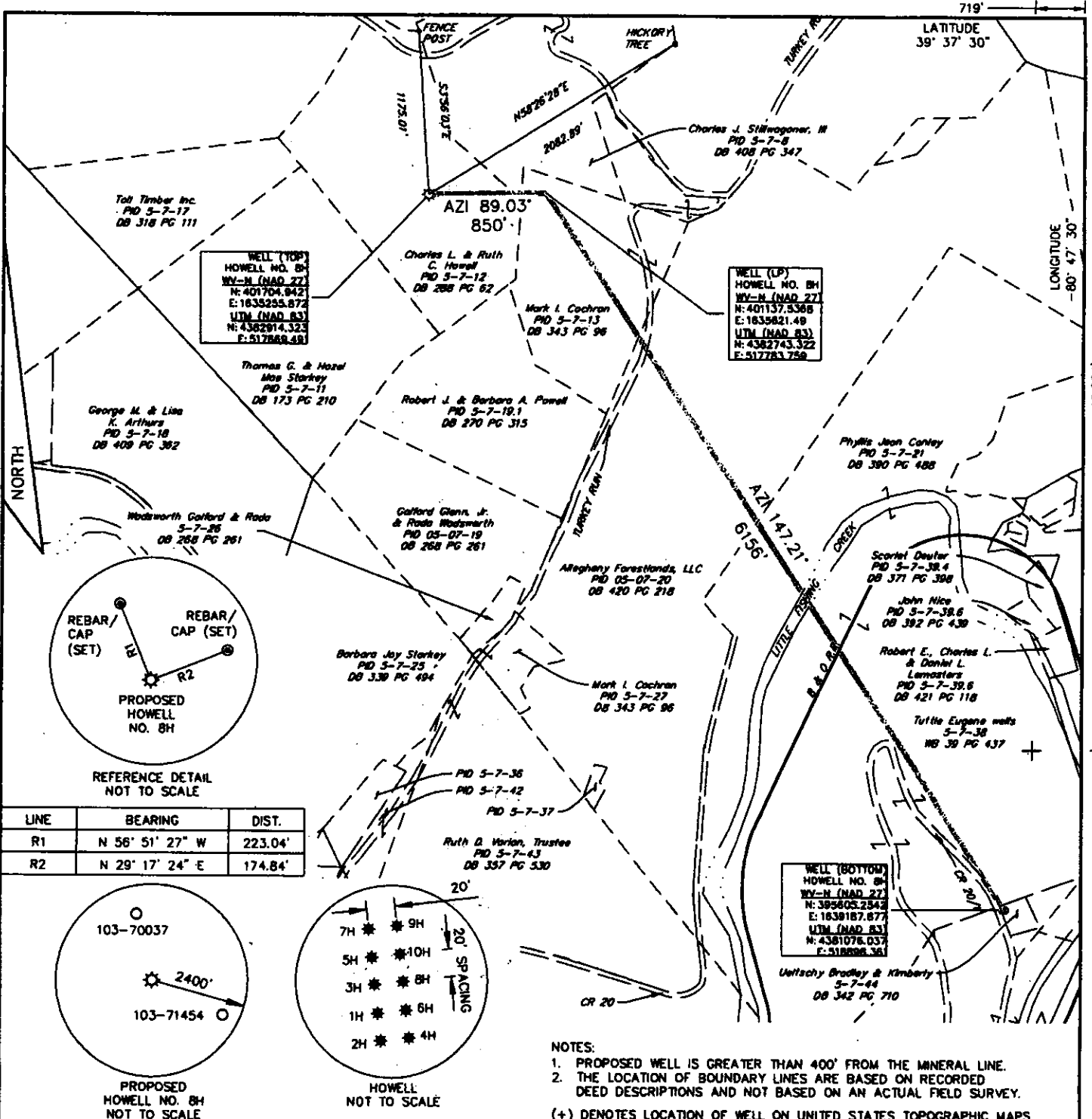
**WGS 84**  
**LAT:39.595832**  
**LONG:-80.794219**  
**ELEV:1303.07**



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**  
 2400 Ansys Drive  
 Canonsburg, PA 15317

10/27/2023



File name: C:\Chil 30 Projects\005461\0461\Plan Sets\Permit\G0054610461\_0461.dwg Layout: PLAT 8H May 30, 2012 - 2:30pm cfohey FORM WW-6

10.624' LONGITUDE -80 47 30' LATITUDE 39 37 30' 719'

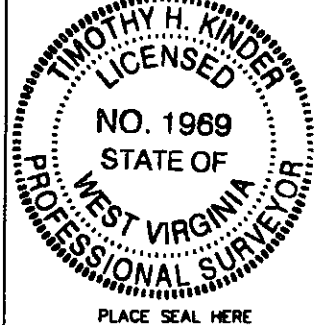
NOTES:  
 1. PROPOSED WELL IS GREATER THAN 400' FROM THE MINERAL LINE.  
 2. THE LOCATION OF BOUNDARY LINES ARE BASED ON RECORDED DEED DESCRIPTIONS AND NOT BASED ON AN ACTUAL FIELD SURVEY.  
 (+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.



260 Scott Avenue, Suite 1  
 Morgantown, WV 26508  
 (304) 284-9222  
 Fax: (304) 284-9223  
 hrg@hrg-inc.com  
 www.hrg-inc.com

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 ENVIRONMENTAL PROTECTION.

(SIGNED) *[Signature]*  
 R.P.E. \_\_\_\_\_ I.L.S. \_\_\_\_\_ 1969



FILE NO. R005461.0461  
 DRAWING NO. WELL NO. 8H PLAT  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1 : 2500  
 PROVEN SOURCE OF ELEVATION GPS (SURVEY GRADE)

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



DATE MAY 30, 2012  
 OPERATOR'S WELL NO. HOWELL NO. 8H  
 API WELL NO. \_\_\_\_\_

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
 LOCATION: ELEVATION 1342 WATERSHED: FISHING CREEK  
 DISTRICT: GREEN COUNTY: WETZEL  
 QUADRANGLE: PORTERS FALLS, WV  
 SURFACE OWNER: CHARLES L. & RUTH C. HOWELL ACREAGE: ±51  
 OIL & GAS ROYALTY OWNER: SEE TABLE ATTACHED LEASE ACREAGE: ±1780  
 LEASE NO. \_\_\_\_\_  
 PROPOSED WORK: DRILL X CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE X  
 PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ PLUG AND ABANDON \_\_\_  
 CLEAN OUT AND REPLUG \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

47 - 103 - 02795 H6A  
 STATE COUNTY PERMIT

10/27/2023

TARGET FORMATION: MARCELLUS SHALE ESTIMATED DEPTH: TVD-6930' MD-13670'  
 WELL OPERATOR: STONE ENERGY CORPORATION DESIGNATED AGENT: TIM MCGREGOR  
 ADDRESS: P.O. BOX 52807 ADDRESS: 6000 HAMPTON CENTER, SUITE B  
LAFAYETTE, LA 70508 MORGANTOWN, WV 26505

WETZEL COUNTY PERMIT

4710302795

WW-7  
8-30-06



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

API: 47-103-02795 WELL NO.: Howell 8H

FARM NAME: Howell

RESPONSIBLE PARTY NAME: EQT Production Company

COUNTY: Wetzel DISTRICT: Green

QUADRANGLE: Porters Falls 7.5'

SURFACE OWNER: Charles L. & Ruth C. Howell

ROYALTY OWNER: \_\_\_\_\_

UTM GPS NORTHING: 4382920

UTM GPS EASTING: 517669 GPS ELEVATION: 397 m (1303 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:

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.

Ben H. Stah  
Signature

P.S. 2092  
Title

10-3-2023  
Date

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Environmental Protection

10/27/2023

4710302795



400 Woodcliff Dr | Canonsburg, PA 15317  
[www.eqt.com](http://www.eqt.com)

**Via Email**

October 5, 2023

West Virginia Department of Environmental Protection  
Office of Oil and Gas  
Attn: Jeff McLaughlin  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304

**RE: Application for a Permit to Plug & Abandon  
Howell 8H  
API 47-103-02795  
Green District, Wetzel County, WV**

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Office Of Oil and Gas

OCT 10 2023

WV Department of  
Environmental Protection

WVDEP Recipient,

Attached is EQT Production Company's application for a permit to plug and abandon for the well referenced above.

EQT Production trusts that if any portion of the submitted documentation is found to be inadequate for processing the permit, notification will be made to our land department at your earliest convenience. It is EQT Production's intent to cooperate fully to provide any additional requested documentation and clarification in a timely manner such that permitting proceeds in a predictable and logical manner.

Sincerely,

Becky Shrum  
Project Specialist - Permitting  
[bshrum@eqt.com](mailto:bshrum@eqt.com)  
412-660-0654

10/27/2023

4710302795



1300 Fort Pierpont Drive – Suite 201  
Morgantown, WV 26508  
Telephone: (304) 225-1600

5/28/2015

Mr. James Martin, Chief  
WV Office of Oil and Gas  
601, 57<sup>th</sup> Street, SE  
Charleston, WV 25304-2345

Dear Mr. Martin;

Attached, please find revised "WR-34 – Discharge Monitoring Report and "WR-35 – Well Operator's Report of Well Work" for the well listed below and operated by Stone Energy Corporation, Operator ID 494490923. The attachments are for:

<u>Well Name</u>	<u>API Number</u>
Howell #8H	47-103-02795

Should you require additional information or have any questions please feel free to contact me at 304-225-1777.

Sincerely,

A handwritten signature in blue ink, appearing to read "W. Lee Hornsby".

W. Lee Hornsby  
Drilling Engineer, Appalachia  
Stone Energy Corporation

Attachments  
xc: Well Files

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06/05/2015  
10/27/2023



Project: Mary Prospect  
 Site: Howell Pad  
 Well: Howell 8H  
 Wellbore: OH  
 Design: As Drilled



WELL DETAILS: Howell 8H

ANNOTATIONS

TVD	MD	Inc	Az	+N-S	+E-W	VSc	Departure	Annotation
100.4	100.4	0.94	267.07	0.0	-0.8	-0.5	0.8	First SDI Gyro Survey
2420.5	2420.5	0.26	163.20	-5.6	-4.8	1.3	11.2	Last SDI Gyro Survey

Ground Level	1302.0	Longitude	80° 47' 39.823 W
Easting	1635253.62	Latitude	39° 35' 44.716 N

PROJECT DETAILS: Mary Prospect

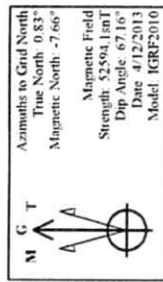
REFERENCE INFORMATION

Geodetic System: US State Plane 1927 (Exact solution)  
 Datum: NAD 1927 (NADCON CONUS)  
 Ellipsoid: Clarke 1866  
 Zone: West Virginia North 4701  
 System Datum: Mean Sea Level

Co-ordinate (N/E) Reference: Well Howell 8H, Grid North  
 Vertical (TVD) Reference: GL 1302' & KB 15' @ 1317' (Nomac 23.7)  
 Section (VS) Reference: Slot - (0.0N, 0.0E)  
 Measured Depth Reference: GL 1302' & KB 15' @ 1317' (Nomac 23.7)  
 Calculation Method: Minimum Curvature

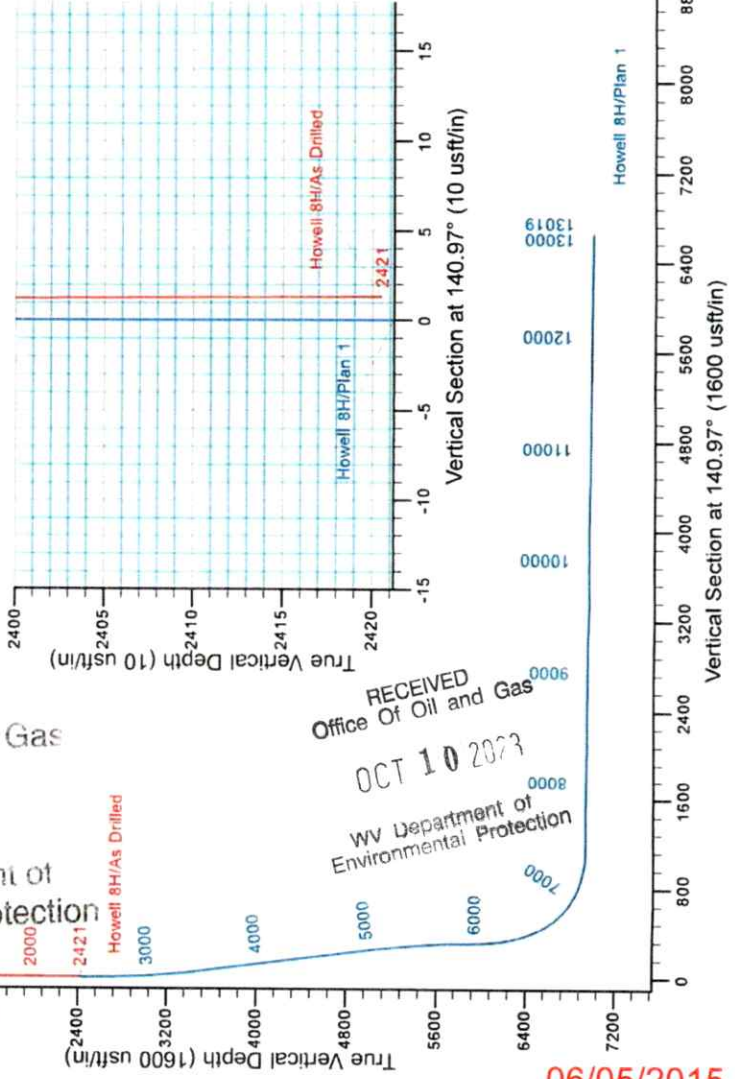
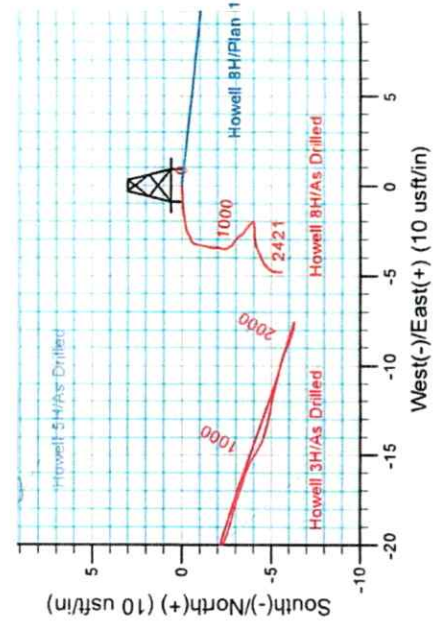
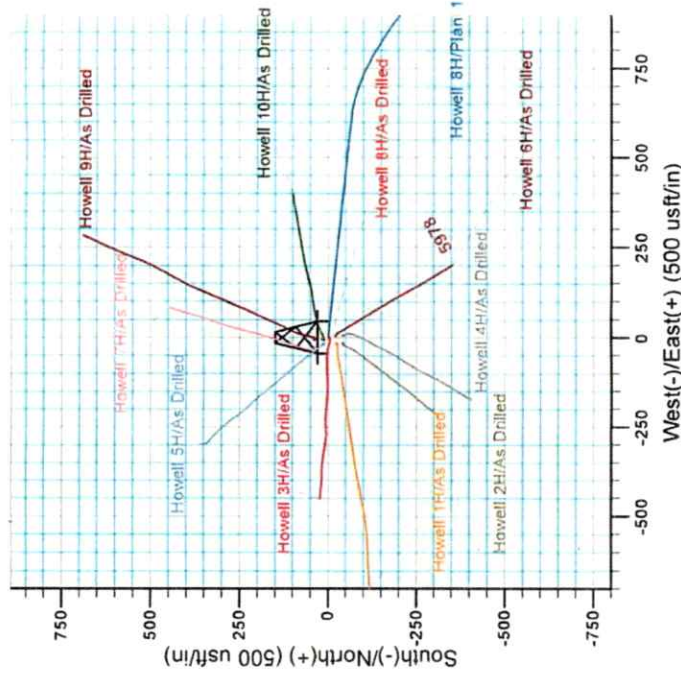
LEGEND

- Howell 1H, OH, As Drilled V0
- Howell 6H, OH, As Drilled V0
- Howell 2H, OH, As Drilled V0
- Howell 7H, OH, As Drilled V0
- Howell 9H, OH, As Drilled V0
- Howell 5H, OH, As Drilled V0
- Howell 10H, OH, As Drilled V0
- Howell 4H, OH, As Drilled V0
- Howell 3H, OH, As Drilled V0
- Howell 8H, OH, Plan 1 V0
- As Drilled



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# Stone Energy

Mary Prospect  
Howell Pad  
Howell 8H

OH

Design: As Drilled

## Standard Survey Report

24 April, 2013

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Scientific Drilling

06/05/2015  
10/27/2023



4710302795



Scientific Drilling International  
Survey Report



Company: Stone Energy  
Project: Mary Prospect  
Site: Howell Pad  
Well: Howell 8H  
Wellbore: OH  
Design: As Drilled

Local Co-ordinate Reference: Well Howell 8H  
TVD Reference: GL 1302' & KB 15' @ 1317.0usft (Nomac 237)  
MD Reference: GL 1302' & KB 15' @ 1317.0usft (Nomac 237)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: Northeast District

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Project	Mary Prospect, West Virginia		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	West Virginia North 4701		

OCT 10 2023  
WV Department of  
Environmental Protection

Site	Howell Pad				
Site Position:		Northing:	401,702.68 usft	Latitude:	39° 35' 44.492 N
From:	Map	Easting:	1,635,235.83 usft	Longitude:	80° 47' 40.046 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.83 °

Well	Howell 8H					
Well Position	+N/-S	0.0 usft	Northing:	401,725.01 usft	Latitude:	39° 35' 44.716 N
	+E/-W	0.0 usft	Easting:	1,635,253.62 usft	Longitude:	80° 47' 39.823 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	1,302.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/12/2013	-8.49	67.16	52,594

Design	As Drilled				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	140.97	

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MAY 29 2013

Survey Program	Date 4/24/2013				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.0	2,420.5	Survey 1 - Gyro (OH)	SDI Standard Keeper 103	SDI Standard Wireline Keeper ver 1.0.3	

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Environmental Protection

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
100.4	0.94	267.07	100.4	0.0	-0.8	-0.5	0.94	0.94	0.00	
<b>First SDI Gyro Survey</b>										
126.1	0.74	267.25	126.1	-0.1	-1.2	-0.7	0.78	-0.78	0.70	
150.7	0.60	264.10	150.7	-0.1	-1.5	-0.9	0.59	-0.57	-12.80	
176.1	0.69	260.34	176.1	-0.1	-1.8	-1.0	0.39	0.35	-14.79	
200.1	0.49	268.25	200.1	-0.1	-2.0	-1.2	0.90	-0.83	32.93	
226.0	0.51	258.89	226.0	-0.2	-2.2	-1.3	0.32	0.08	-36.11	
250.6	0.36	259.83	250.6	-0.2	-2.4	-1.4	0.61	-0.61	3.83	
276.0	0.30	245.57	275.9	-0.3	-2.6	-1.4	0.40	-0.24	-56.23	
300.9	0.31	235.35	300.9	-0.3	-2.7	-1.4	0.22	0.04	-40.96	

06/05/2015  
10/27/2023



Scientific Drilling International

Survey Report



Company: Stone Energy  
 Project: Mary Prospect  
 Site: Howell Pad  
 Well: Howell 8H  
 Wellbore: OH  
 Design: As Drilled

Local Co-ordinate Reference: Well Howell 8H  
 TVD Reference: GL 1302' & KB 15' @ 1317.0usft (Nomac 237)  
 MD Reference: GL 1302' & KB 15' @ 1317.0usft (Nomac 237)  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature  
 Database: Northeast District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
325.7	0.27	232.31	325.7	-0.4	-2.8	-1.4	0.17	-0.16	-12.27
350.2	0.16	242.75	350.2	-0.4	-2.9	-1.5	0.47	-0.45	42.53
375.6	0.33	258.39	375.5	-0.5	-3.0	-1.5	0.72	0.67	61.74
401.0	0.24	243.54	401.0	-0.5	-3.1	-1.5	0.45	-0.35	-58.37
425.6	0.25	230.61	425.5	-0.6	-3.2	-1.6	0.23	0.04	-52.65
450.2	0.23	215.17	450.2	-0.6	-3.2	-1.5	0.27	-0.08	-62.64
475.6	0.11	150.27	475.6	-0.7	-3.2	-1.5	0.82	-0.47	-255.91
500.9	0.13	198.37	500.9	-0.8	-3.2	-1.5	0.39	0.08	189.67
525.6	0.14	197.01	525.6	-0.8	-3.3	-1.4	0.04	0.04	-5.51
550.2	0.18	196.56	550.2	-0.9	-3.3	-1.4	0.16	0.16	-1.83
575.6	0.14	206.04	575.6	-0.9	-3.3	-1.4	0.19	-0.16	37.23
601.0	0.06	167.53	601.0	-1.0	-3.3	-1.3	0.40	-0.32	-151.73
625.6	0.19	196.02	625.6	-1.0	-3.3	-1.3	0.57	0.53	115.86
650.3	0.14	186.07	650.3	-1.1	-3.3	-1.2	0.23	-0.20	-40.30
675.7	0.17	197.44	675.7	-1.2	-3.4	-1.2	0.17	0.12	44.80
701.2	0.19	186.18	701.2	-1.2	-3.4	-1.2	0.16	0.08	-44.17
725.8	0.09	172.94	725.8	-1.3	-3.4	-1.1	0.42	-0.41	-53.80
750.5	0.11	224.26	750.5	-1.3	-3.4	-1.1	0.36	0.08	207.61
776.5	0.09	181.28	776.5	-1.4	-3.4	-1.1	0.29	-0.08	-165.24
800.1	0.13	193.72	800.1	-1.4	-3.4	-1.0	0.20	0.17	52.82
826.1	0.13	182.17	826.1	-1.5	-3.4	-1.0	0.10	0.00	-44.37
850.7	0.10	201.28	850.7	-1.5	-3.4	-1.0	0.20	-0.12	77.53
876.2	0.23	191.78	876.2	-1.6	-3.4	-0.9	0.52	0.51	-37.33
900.4	0.23	194.97	900.4	-1.7	-3.5	-0.9	0.05	0.00	13.19
925.3	0.20	176.12	925.3	-1.8	-3.5	-0.8	0.31	-0.12	-77.73
951.2	0.27	164.69	951.2	-1.9	-3.5	-0.7	0.32	0.27	1.00
975.5	0.08	205.53	975.4	-2.0	-3.5	-0.7	0.89	-0.78	68.09
1,001.0	0.22	187.07	1,001.0	-2.0	-3.5	-0.6	0.57	0.55	68.09
1,025.7	0.28	201.53	1,025.7	-2.1	-3.5	-0.5	0.35	0.24	72.44
1,050.1	0.20	185.39	1,050.1	-2.2	-3.5	-0.5	0.43	-0.33	58.82
1,076.3	0.22	191.78	1,076.3	-2.3	-3.5	-0.4	0.12	0.08	66.00
1,100.1	0.20	177.65	1,100.1	-2.4	-3.5	-0.4	0.23	-0.08	24.06
1,126.1	0.22	156.80	1,126.1	-2.5	-3.5	-0.3	0.30	0.08	159.08
1,150.7	0.12	130.27	1,150.7	-2.6	-3.5	-0.2	0.51	-0.41	-80.08
1,176.1	0.20	144.69	1,176.1	-2.6	-3.4	-0.1	0.35	0.31	-107.73
1,200.2	0.20	164.96	1,200.2	-2.7	-3.4	-0.1	0.29	0.00	56.75
1,225.0	0.18	139.45	1,225.0	-2.8	-3.4	0.0	0.35	-0.08	83.97
1,250.0	0.19	101.66	1,250.0	-2.8	-3.3	0.1	0.48	0.04	-102.86
1,275.5	0.27	132.86	1,275.5	-2.8	-3.2	0.2	0.57	0.31	-151.28
1,301.0	0.23	119.97	1,301.0	-2.9	-3.1	0.3	0.27	-0.16	122.50
1,325.2	0.28	143.07	1,325.2	-3.0	-3.0	0.4	0.47	0.21	-50.57
1,350.8	0.31	130.86	1,350.7	-3.1	-3.0	0.5	0.27	0.12	89.42
1,375.9	0.21	120.60	1,375.9	-3.1	-2.9	0.6	0.44	-0.40	-47.75
									-40.84

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4710302795



Scientific Drilling International  
Survey Report



Company: Stone Energy  
Project: Mary Prospect  
Site: Howell Pad  
Well: Howell 8H  
Wellbore: OH  
Design: As Drilled

Local Co-ordinate Reference: Well Howell 8H  
TVD Reference: GL 1302' & KB 15' @ 1317.0usft (Nomac 237)  
MD Reference: GL 1302' & KB 15' @ 1317.0usft (Nomac 237)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: Northeast District

Office of Oil and Gas  
MAY 29 2013  
WV Department of Environmental Protection

Survey

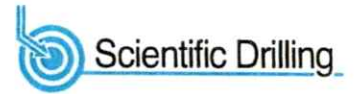
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,400.9	0.39	156.00	1,400.9	-3.3	-2.8	0.8	1.00	0.72	141.43
1,425.2	0.23	138.75	1,425.2	-3.4	-2.7	0.9	0.76	-0.66	-71.08
1,450.8	0.38	124.26	1,450.8	-3.4	-2.6	1.0	0.65	0.59	-56.56
1,476.4	0.36	125.22	1,476.4	-3.5	-2.5	1.2	0.08	-0.08	3.74
1,501.5	0.32	131.71	1,501.5	-3.6	-2.4	1.3	0.22	-0.16	25.90
1,525.4	0.34	132.26	1,525.4	-3.7	-2.3	1.5	0.08	0.08	2.30
1,551.0	0.33	129.18	1,551.0	-3.8	-2.2	1.6	0.08	-0.04	-12.05
1,575.4	0.15	147.75	1,575.4	-3.9	-2.1	1.7	0.79	-0.74	76.08
1,600.5	0.14	123.67	1,600.5	-3.9	-2.0	1.8	0.24	-0.04	-95.94
1,625.6	0.06	139.30	1,625.6	-4.0	-2.0	1.8	0.33	-0.32	62.25
1,650.7	0.17	241.57	1,650.7	-4.0	-2.0	1.8	0.76	0.44	407.29
1,675.7	0.13	279.66	1,675.7	-4.0	-2.1	1.8	0.42	-0.16	152.18
1,700.9	0.21	261.27	1,700.8	-4.0	-2.2	1.8	0.38	0.32	-73.18
1,726.0	0.14	288.69	1,726.0	-4.0	-2.2	1.7	0.43	-0.28	109.07
1,751.2	0.20	263.35	1,751.1	-4.0	-2.3	1.7	0.38	0.24	-100.76
1,776.2	0.17	243.11	1,776.2	-4.0	-2.4	1.6	0.28	-0.12	-80.73
1,801.7	0.23	268.87	1,801.7	-4.0	-2.5	1.6	0.42	0.24	100.94
1,826.6	0.16	299.18	1,826.6	-4.0	-2.6	1.5	0.49	-0.28	121.82
1,850.4	0.20	252.36	1,850.3	-4.0	-2.6	1.5	0.62	0.17	-197.22
1,875.9	0.18	283.42	1,875.9	-4.0	-2.7	1.4	0.40	-0.08	121.42
1,900.2	0.32	256.10	1,900.1	-4.0	-2.8	1.4	0.74	0.58	-112.85
1,925.2	0.16	279.41	1,925.2	-4.0	-2.9	1.3	0.73	-0.64	92.94
1,950.2	0.21	254.49	1,950.2	-4.1	-3.0	1.3	0.37	0.20	-99.68
1,975.8	0.15	237.39	1,975.8	-4.1	-3.1	1.2	0.31	-0.23	-66.85
2,000.1	0.31	264.60	2,000.0	-4.1	-3.2	1.2	0.78	0.66	112.25
2,025.1	0.24	279.13	2,025.0	-4.1	-3.3	1.1	0.39	-0.28	58.10
2,050.2	0.45	239.10	2,050.2	-4.1	-3.4	1.1	1.22	0.84	-159.29
2,075.1	0.34	263.92	2,075.1	-4.2	-3.6	1.0	0.81	-0.44	99.56
2,100.1	0.44	240.66	2,100.0	-4.3	-3.7	1.0	0.74	0.40	-93.26
2,126.0	0.43	239.92	2,126.0	-4.4	-3.9	0.9	0.04	-0.04	-2.85
2,151.4	0.40	248.96	2,151.4	-4.4	-4.1	0.9	0.28	-0.12	35.59
2,176.0	0.36	241.17	2,176.0	-4.5	-4.2	0.8	0.27	-0.16	-31.68
2,200.1	0.42	242.55	2,200.0	-4.6	-4.4	0.8	0.25	0.25	5.74
2,225.1	0.30	234.22	2,225.1	-4.7	-4.5	0.8	0.52	-0.48	-33.23
2,251.2	0.21	220.92	2,251.1	-4.7	-4.6	0.8	0.41	-0.35	-51.11
2,275.9	0.25	218.17	2,275.8	-4.8	-4.6	0.8	0.17	0.16	-11.13
2,300.5	0.24	213.41	2,300.4	-4.9	-4.7	0.8	0.09	-0.04	-19.35
2,325.1	0.25	201.61	2,325.0	-5.0	-4.7	0.9	0.21	0.04	-47.97
2,350.7	0.47	190.07	2,350.7	-5.1	-4.8	1.0	0.90	0.86	-45.04
2,375.6	0.38	189.07	2,375.6	-5.3	-4.8	1.1	0.36	-0.36	-4.01
2,400.4	0.28	179.17	2,400.4	-5.5	-4.8	1.2	0.46	-0.40	-39.90
2,420.5	0.26	163.20	2,420.5	-5.6	-4.8	1.3	0.39	-0.10	-79.55

Last SDI Gyro Survey

4710302795



Scientific Drilling International  
Survey Report



Company: Stone Energy  
Project: Mary Prospect  
Site: Howell Pad  
Well: Howell 8H  
Wellbore: OH  
Design: As Drilled

Local Co-ordinate Reference: Well Howell 8H  
TVD Reference: GL 1302' & KB 15' @ 1317.0usft (Nomac 237)  
MD Reference: GL 1302' & KB 15' @ 1317.0usft (Nomac 237)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: Northeast District

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
100.4	100.4	0.0	-0.8	First SDI Gyro Survey
2,420.5	2,420.5	-5.6	-4.8	Last SDI Gyro Survey

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

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Environmental Protection

WW-4B

4710302795

API No. 47-103-02795

Farm Name Howell

Well No. Howell 8H

**INSTRUCTIONS TO COAL OPERATORS  
OWNERS AND LESSEE**

The well operator named on the obverse side of WW-4 (B) is about to abandon the well described in the enclosed materials and will commence the work of plugging and abandoning said well on the date the inspector is notified. Which date shall not be less than five days after the day on which this notice and application so mailed is received, or in due course should be received by the Department of Environmental Protection Office of Oil & Gas.

This notice and application is given to you in order that your respective representatives may be present at the plugging and filling of said well. You are further notified that whether you are represented or not the operator will proceed to plug and fill said well in the manner required by Section 24, Article 6, Chapter 22 of the Code and given in detail on obverse side of this application.

NOTE: If you wish this well to be plugged according to 22-6-24(d) then as per Regulation 35CSR4-13.9 you must complete and return to this office on form OB-16 "Request by Coal Operator, Owner, or Lessee for plugging" prior to the issuance of this plugging permit.

**WAIVER**

The undersigned coal operator \_\_\_\_/ owner \_\_\_\_/ lessee \_\_\_\_/ of the coal under this well location has examined this proposed plugging work order. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: \_\_\_\_\_

\_\_\_\_\_

By: \_\_\_\_\_

Its \_\_\_\_\_

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Office Of Oil and Gas

OCT 10

WV Department of  
Environmental Protection

10/27/2023

**SURFACE OWNER WAIVER**

4710302795

Operator's Well  
Number

Howell 8H

**INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW4-A**

The well operator named on page WW-4A is applying for a permit from the State to plug and abandon a well. (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 57<sup>th</sup> St. SE  
Charleston, WV 25304  
(304) 926-0450

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Office Of Oil and Gas  
OCT 10 2023  
WV Department of  
Environmental Protection

**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 **FIVE (5) 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.**

**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 Permit To Plug And Abandon on Forms WW-4A and WW-4B, and a survey plat.

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  
ETC.

FOR EXECUTION BY A CORPORATION,  
ETC.

_____	Date _____	Name _____
Signature		By _____
		Its _____
		Date _____

Signature

Date

10/27/2023



Kennedy, James P <james.p.kennedy@wv.gov>

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**plugging permit issued 4710302795**

1 message

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**Kennedy, James P** <james.p.kennedy@wv.gov>

Tue, Oct 24, 2023 at 11:34 AM

To: "Shrum, Becky" <BShrum@eqt.com>, Stephen E McCoy <stephen.e.mccoy@wv.gov>, slemley@wvassessor.com

To whom it may concern, a plugging permit has been issued for 4710302795.

James Kennedy

WVDEP OOG

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 **4710302795.pdf**  
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