



December 22, 2025

Via E-mail

Pennsylvania Department of Environmental Protection
Bureau of Oil & Gas Management
400 Waterfront Drive
Pittsburgh, PA 15222

RE: Proposed Alternate Method or Material for Casing, Plugging, Venting or Equipping a Well
Sarah 17H
Permit Number 37-125-29273
Union Township, Washington County, Pennsylvania

Dear DEP Recipient,

Please find attached the following documentation:

- Completed Form 8000-PM-OOGM0024 "Proposed Alternate Method or Material for Casing, Plugging, Venting or Equipping a Well"
- Casing and Cementing Plan
- Wellbore Diagram
- Coal Party Proof of Notification

If you need further information regarding this submittal, please feel free to contact me at BShrum@EQT.com or 412-660-0654.

Best Regards,

A handwritten signature in blue ink, appearing to read 'BS', is positioned above the typed name.

Becky Shrum
Permitting Coordinator



DEP USE ONLY
Application Tracking # 1553211

Rec'd 12/22/25

Proposed Alternate Method or Material for Casing, Plugging, Venting or Equipping a Well

Well Operator EQT Production Company		DEP ID# 146983	Well Permit or Registration Number 37-125-29273	
Address 2200 Energy Drive			Well Farm Name Sarah	
City Canonsburg	State PA	Zip Code 15317	Well # 17H	Serial #
Phone 412-660-0654	Fax 412-395-2974	County Washington		Municipality Union Twp

*A proposed alternate method is subject to provisions in §3221 of the 2012 Oil and Gas Act, 58 Pa. C.S. §3221 Section 13 of the Coal and Gas Resource Coordination Act, 58 P.S. §513 and 25 PA Code §§78.75-78.75a (relating to Alternate Methods.) **Attach proof of notification of coal operator(s).***

Describe in reasonable detail using a written description and / or diagram:

- 1. the proposed alternate method or materials, and**
- 2. the manner in which the alternative will satisfy the goals of the laws and regulations.**

EQT Production plans to set fresh water casing at approximately 265' RKB, or 14' below the expected deepest fresh water depth of 251' RKB on the Sarah Pad. The expected fresh water depth is determined by analyzing offset oil and gas wells within 5,000' of pad and water wells/surface water within 2,500' of pad. EQT identified the 3920 Bedell Rd #2 water well which is producing from a depth of 20' and is 1,375' from the Sarah location. This water source, once corrected for elevation, is at a depth of 251' at the Sarah Pad. The state regulations require casing to be set at least 50' below the deepest fresh water which would be at 301'. EQT anticipates encountering an open Pittsburgh Coal mine at 302'. EQT is concerned with the variability of the top of the mine and the competency of the formation as the top of the mine is approached. By shortening the fresh water casing, EQT will ensure that the fresh water and mine are not comingled and the fresh water is isolated.

Optional: Approval by Coal Owner or Operator		Signature of Applicant / Well Operator	
Signature	Date	Signature 	Date 11/25/25
Print or Type Signer's Name and Title		Print or Type Signer's Name and Title Regional Manager - Permitting	

If optional approval is signed by coal owner or operator, the 15-day objection period may be waived.

DEP USE ONLY		
Approved by (DEP Manager) 	Conditions <input type="checkbox"/> YES, See Attached <input checked="" type="checkbox"/> NO	Date 1/14/2026

Casing and Cementing Plan Through the Equitrans Gas Storage Zone

Pad: Sarah

EQT Production plans to set fresh water casing at approximately 265' RKB, or 14' below the expected deepest fresh water depth of 251' RKB on the Sarah Pad. The expected fresh water depth is determined by analyzing offset oil and gas wells within 5,000' of pad and water wells/surface water within 2,500' of pad. EQT identified the 3920 Bedell Rd #2 water well which is producing from a depth of 20' and is 1,375' from the Sarah location. This water source, once corrected for elevation, is at a depth of 251' at the Sarah Pad. The state regulations require casing to be set at least 50' below the deepest fresh water which would be at 301'. EQT anticipates encountering an open Pittsburgh Coal mine at 302'. EQT is concerned with the variability of the top of the mine and the competency of the formation as the top of the mine is approached. By shortening the fresh water casing, EQT will ensure that the fresh water and mine are not co-mingled and the fresh water is isolated.

EQT plans to drill a 12 3/8" hole to a depth of approximately 2,821' through the gas storage zone, which runs from an approximate depth of 2,678' to 2,721'. EQT will dust drill the 12 3/8" hole until a water/oil influx or to a depth 100' above the Gas Storage Zone (whichever occurs first). At this time, EQT will foam drill to TD of the hole section in order to properly clean the wellbore and minimize the potential for gas to flow. EQT will use BOPs designed to control anticipated storage zone pressures. The depth of the Storage Zone(s) is determined from examination of open hole logs and offset wells, and may be adjusted to preserve the integrity of the storage zone. EQT then plans to run a string of 9 5/8" casing from the surface to at least 100' below the deepest storage zone. EQT will then cement the 9 5/8" to surface. The tail cement blend will contain additives designed to reduce potential for gas migration. The tail blend will cover from the casing shoe to at least 500' above the top of the storage zone. EQT will WOC until the cement reaches the required compressive strength outlined in the EQT-Equitrans Gas Storage Agreement prior to drilling out the float equipment and new formation, which will meet and exceed the requirements of §78.85 *Cement Standards* and §78.87 *Gas Storage Reservoir Protective Casing and Cementing Procedures*. Please refer to the attached diagram for more detail.

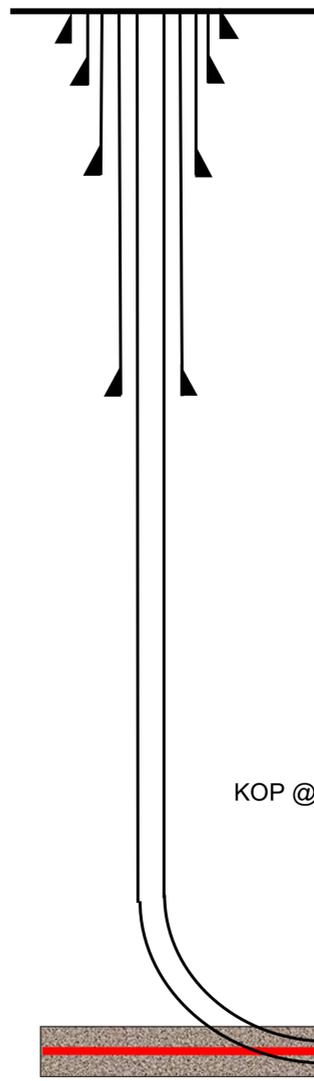
Note: All depths shown are estimations with reasonable accuracy and are subject to change with more geological analysis and further planning. In order to further protect the gas storage zone and provide the most adequate cement job possible, the cementing program is also subject to change for job quality purposes.

EQT Production Company

Well: **Sarah 17H**
 County: **Washington**
 Quad: **Glassport**

Site: **Sarah**
 State: **Pennsylvania**
 Elevation: **1130 GL, 1143 KB**

Formation Tops	TVD (ft)	
Conductor	53	
Base Fresh Water	251	
Sewickley Coal	259	263
Fresh Water String	265	
Pittsburgh Coal	302	307
Pittsburgh Coal String	357	
Big Lime	1486	1530
Burgoon	1530	1693
Berea	1693	1813
Gantz	2110	2283
Fifty foot	2283	2547
STORAGE ZONE	2678	2721
Thirty foot	2547	2616
Gordon	2616	2689
Fourth Sand	2689	2725
Intermediate Casing	2821	
Bayard	2807	3602
Upper Speechley	3602	3662
Speechley	3662	3812
Balltown	3812	4265
Bradford	4265	4498
Benson	4498	4597
Alexander	5389	5792
Elk	5792	6826
Sonyea	6826	7027
Middlesex	7027	7092
Genesee	7092	7205
Genesee	7205	7223
Tully	7223	7285
Hamilton	7285	7481
Marcellus	7481	7559
Production Casing	29517	MD



Casing and Cementing					
Type	Conductor	Fresh Water	Coal	Intermediate	Production
Hole Size (in)	30.000	24.000	17.500	12.375	8.500
Casing Size, OD (in)	26.000	18.625	13.375	9.625	5.500
Depth, MD (ft)	53	265	357	2821	29517
Casing Wall Thickness (in)	0.312	0.435	0.380	0.352	0.361
Weight (lbs/ft)	85.60	87.50	54.50	36.00	20.00
Grade	A252	J-55	J-55	J-55	P-110
New or Used	New	New	New	New	New
Burst (psi)	1000	2250	2730	3520	14360
Cement Class	A / L	A / L	A / L	A / H / L	A / H / L
Cement Yield	1.04 - 1.20	1.04 - 1.20	1.04 - 1.20	1.04 - 1.20	1.04 - 2.10
Top of Cement (Planned) TVD	Surface	Surface	Surface	Surface	500' inside 9.625" casing
Method	Displacement	Displacement	Displacement/ Balanced/1" Grout	Displacement	Displacement
Est. Cement Volume (cu ft)	45	400	300	1100	6400
Possible Additives	N/A	Calcium Chloride Flake/LCM	Calcium Chloride, Flake/LCM	Calcium Chloride, Flate/LCM, Fluid Loss, Defoamer, Dispersant, POZ, Bonding Agent, Extender, Retarder	Calcium Carbonate, Fluid Loss, Extender, Dispersant, Viscosifier, Defoamer, POZ, Bonding Agent, Retarder, Anti- Settling/Suspension Agent

- * FW depth determined by analyzing offset O&G wells within 5,000' of pad and water wells/surface water within 2,500' of pad.
- * Cement covering coal zones has Medium Sulfate Resistance characteristics (C3A <8% per mill reports).
- * FW, Coal, and Intermediate wellbores will be conditioned with air and/or foam at TD of hole section.
- * FW, Coal, Intermediate strings will have centralizers installed on the shoe joint and in intervals no greater than every 150' to surface.
- * Gas storage blends contain additives designed to reduce potential for gas migration.
- * Gas storage blend will be in place from 9 5/8" casing shoe to inside 13 3/8" shoe.
- * Air/Foam/Fluid drill through gas storage zone to minimize potential for gas flow.
- * 8.5" wellbore will be conditioned with mud at TD of hole section.
- * Centralizers on 5.5" will be spaced every other joint from production casing shoe to landing point and one centralizer spaced every joint from landing point to 500' above KOP.

Land curve @
7545 TVD
9517 MD

Est. TD @
7545 TVD
29517 MD

Lateral Length (ft): **20000**
 Max Anticipated Reservoir Pressure (psi): **2988**

Proposed Well Work:

- *Drill and complete a new horizontal well in the Marcellus formation.
- *Drill the vertical to KOP.
- *Kick off and drill curve. Drill lateral in the Marcellus. Cement casing.

Dear Customer,

The following is the proof-of-delivery for tracking number: 886404396167

Delivery Information:

Status:	Delivered	Delivered To:	Shipping/Receiving
Signed for by:	C.Claire	Delivery Location:	275 TECHNOLOGY DRSTE 101
Service type:	FedEx 2Day		
Special Handling:	Deliver Weekday; No Signature Required		CANONSBURG, PA, 15317
		Delivery date:	Nov 26, 2025 09:17

Shipping Information:

Tracking number:	886404396167	Ship Date:	Nov 25, 2025
		Weight:	0.5 LB/0.23 KG

Recipient:
CONSOLIDATION COAL COMPANY,
275 TECHNOLOGY DRIVE SUITE 101
CANONSBURG, PA, US, 15317

Shipper:
Alicia Wischmann, KEYSTONE CONSULTANTS, LLC
680 Andersen Drive
Suite 400
PITTSBURGH, PA, US, 15220

Reference	Sarah Notifications
Purchase Order	002
Invoice	00233.25.25
Department Number	mapping



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December 01, 2025

Dear Customer,

The following is the proof-of-delivery for tracking number: 886404486570

Delivery Information:

Status:	Delivered	Delivered To:	Residence
Signed for by:	Signature Not Req	Delivery Location:	134 OYSTER POINT ROW
Service type:	FedEx 2Day		
Special Handling:	Deliver Weekday; Residential Delivery; No Signature Required		CHARLESTON, SC, 29412
		Delivery date:	Nov 28, 2025 14:47

Shipping Information:

Tracking number:	886404486570	Ship Date:	Nov 25, 2025
		Weight:	0.5 LB/0.23 KG

Recipient:
CYNTHIA BRANCH,
134 OYSTER POINT ROW
CHARLESTON, SC, US, 29412

Shipper:
Alicia Wischmann, KEYSTONE CONSULTANTS, LLC
680 Andersen Drive
Suite 400
PITTSBURGH, PA, US, 15220

Reference	Sarah Notifications
Purchase Order	002
Invoice	00233.25.25
Department Number	mapping

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December 01, 2025

Dear Customer,

The following is the proof-of-delivery for tracking number: 886404546742

Delivery Information:

Status:	Delivered	Delivered To:	Residence
Signed for by:	Signature not required	Delivery Location:	200 WINDEMERE RD
Service type:	FedEx 2Day		
Special Handling:	Deliver Weekday; Residential Delivery; No Signature Required		SYRACUSE, NY, 13205
		Delivery date:	Nov 28, 2025 16:11

Shipping Information:

Tracking number:	886404546742	Ship Date:	Nov 25, 2025
		Weight:	0.5 LB/0.23 KG

Recipient:
SUSAN DEMPSTER,
200 WINDEMERE RD
SYRACUSE, NY, US, 13205

Shipper:
Alicia Wischmann, KEYSTONE CONSULTANTS, LLC
680 Andersen Drive
Suite 400
PITTSBURGH, PA, US, 15220

Reference	Sarah Notifications
Purchase Order	002
Invoice	00233.25.25
Department Number	mapping

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December 01, 2025

Dear Customer,

The following is the proof-of-delivery for tracking number: 886404628893

Delivery Information:

Status:	Delivered	Delivered To:	Residence
Signed for by:	Signature not required	Delivery Location:	3 MARSIONS WAY
Service type:	FedEx 2Day		
Special Handling:	Deliver Weekday; Residential Delivery; No Signature Required		ORLEANS, MA, 02653
		Delivery date:	Nov 29, 2025 12:50

Shipping Information:

Tracking number:	886404628893	Ship Date:	Nov 25, 2025
		Weight:	0.5 LB/0.23 KG

Recipient:
MARGOT H. BALL,
3 MARSIONS WAY
ORLEANS, MA, US, 02653

Shipper:
Alicia Wischmann, KEYSTONE CONSULTANTS, LLC
680 Andersen Drive
Suite 400
PITTSBURGH, PA, US, 15220

Reference	Sarah Notifications
Purchase Order	002
Invoice	00233.25.25
Department Number	mapping

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December 01, 2025

Dear Customer,

The following is the proof-of-delivery for tracking number: 886404675660

Delivery Information:

Status:	Delivered	Delivered To:	Residence
Signed for by:	Signature not required	Delivery Location:	5516 N KENMORE AVEAPT 206
Service type:	FedEx 2Day		
Special Handling:	Deliver Weekday; Residential Delivery; No Signature Required		CHICAGO, IL, 60640
		Delivery date:	Nov 28, 2025 11:01

Shipping Information:

Tracking number:	886404675660	Ship Date:	Nov 25, 2025
		Weight:	0.5 LB/0.23 KG

Recipient:
RYDER HILL,
5516 KENMORE AVE UNIT 206
CHICAGO, IL, US, 60640

Shipper:
Alicia Wischmann, KEYSTONE CONSULTANTS, LLC
680 Andersen Drive
Suite 400
PITTSBURGH, PA, US, 15220

Reference	Sarah Notifications
Purchase Order	002
Invoice	00233.25.25
Department Number	mapping

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December 01, 2025

Dear Customer,

The following is the proof-of-delivery for tracking number: 886404719722

Delivery Information:

Status:	Delivered	Delivered To:	Residence
Signed for by:	Signature not required	Delivery Location:	753 LITCHFIELD ST
Service type:	FedEx 2Day		
Special Handling:	Deliver Weekday; Residential Delivery; No Signature Required		PITTSBURGH, PA, 15204
		Delivery date:	Nov 26, 2025 11:22

Shipping Information:

Tracking number:	886404719722	Ship Date:	Nov 25, 2025
		Weight:	0.5 LB/0.23 KG

Recipient:
NICOLA HILL,
753 Litchfield St
PITTSBURGH, PA, US, 15204

Shipper:
Alicia Wischmann, KEYSTONE CONSULTANTS, LLC
680 Andersen Drive
Suite 400
PITTSBURGH, PA, US, 15220

Reference	Sarah Notifications
Purchase Order	002
Invoice	00233.25.25
Department Number	mapping

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December 01, 2025

Dear Customer,

The following is the proof-of-delivery for tracking number: 886404784750

Delivery Information:

Status:	Delivered	Delivered To:	Residence
Signed for by:	Signature not required	Delivery Location:	15 BOWMORE LN
Service type:	FedEx 2Day		
Special Handling:	Deliver Weekday; Residential Delivery; No Signature Required		YARMOUTH, ME, 04096
		Delivery date:	Nov 28, 2025 16:10

Shipping Information:

Tracking number:	886404784750	Ship Date:	Nov 25, 2025
		Weight:	0.5 LB/0.23 KG

Recipient:
ADORA CLARK HILL,
15 BOWMORE LN
YARMOUTH, ME, US, 04096

Shipper:
Alicia Wischmann, KEYSTONE CONSULTANTS, LLC
680 Andersen Drive
Suite 400
PITTSBURGH, PA, US, 15220

Reference	Sarah Notifications
Purchase Order	002
Invoice	00233.25.25
Department Number	mapping

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December 01, 2025

Dear Customer,

The following is the proof-of-delivery for tracking number: 886404817527

Delivery Information:

Status:	Delivered	Delivered To:	Residence
Signed for by:	Signature not required	Delivery Location:	243 SISQUISIC TRL
Service type:	FedEx 2Day		
Special Handling:	Deliver Weekday; Residential Delivery; No Signature Required		YARMOUTH, ME, 04096
		Delivery date:	Nov 28, 2025 13:57

Shipping Information:

Tracking number:	886404817527	Ship Date:	Nov 25, 2025
		Weight:	0.5 LB/0.23 KG

Recipient:
CHRISTOPHER C. HILL,
243 SISQUISIC TRL
YARMOUTH, ME, US, 04096

Shipper:
Alicia Wischmann, KEYSTONE CONSULTANTS, LLC
680 Andersen Drive
Suite 400
PITTSBURGH, PA, US, 15220

Reference	Sarah Notifications
Purchase Order	002
Invoice	00233.25.25
Department Number	mapping

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Dear Customer,

The following is the proof-of-delivery for tracking number: 886404855035

Delivery Information:

Status:	Delivered	Delivered To:	Shipping/Receiving
Signed for by:	J.Jim	Delivery Location:	2200 ENERGY DREQT
Service type:	FedEx 2Day		
Special Handling:	Deliver Weekday; No Signature Required		CANONSBURG, PA, 15317
		Delivery date:	Nov 26, 2025 09:33

Shipping Information:

Tracking number:	886404855035	Ship Date:	Nov 25, 2025
		Weight:	0.5 LB/0.23 KG

Recipient:
EQUITRANS, L.P.,
2200 ENERGY DR
CANONSBURG, PA, US, 15317

Shipper:
Alicia Wischmann, KEYSTONE CONSULTANTS, LLC
680 Andersen Drive
Suite 400
PITTSBURGH, PA, US, 15220

Reference	Sarah Notifications
Purchase Order	002
Invoice	00233.25.25
Department Number	mapping



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Dear Customer,

The following is the proof-of-delivery for tracking number: 886404884833

Delivery Information:

Status:	Delivered	Delivered To:	Shipping/Receiving
Signed for by:	H.Sanitni	Delivery Location:	46226 NATIONAL RD
Service type:	FedEx 2Day		
Special Handling:	Deliver Weekday; No Signature Required		SAINT CLAIRSVILLE, OH, 43950
		Delivery date:	Nov 26, 2025 16:08

Shipping Information:

Tracking number:	886404884833	Ship Date:	Nov 25, 2025
		Weight:	0.5 LB/0.23 KG

Recipient:
ACNR Resources, INC,
46226 National Rd
SAINT CLAIRSVILLE, OH, US, 43950

Shipper:
Alicia Wischmann, KEYSTONE CONSULTANTS, LLC
680 Andersen Drive
Suite 400
PITTSBURGH, PA, US, 15220

Reference	Sarah Notifications
Purchase Order	002
Invoice	00233.25.25
Department Number	mapping



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