TEP BWQ Groundwater Monitoring Field Form

Project Information			
Project:	PA 34-24 BWQ	Sample Purpose:	Rule 615: 2nd Subsequent
Site Name (Pad/Facility):	PA 34-24	Site API or Facility ID:	05-045-23894
Station Name:	Naugle 202848	Sample Date:	10/23/24
Sample Facility ID:	755923	Start Time:	1610
Field Sample ID:	Naugle 202848	End Time:	1105
Landowner Name:	Harry L. Naugle	Sample Time:	1650
Landowner Address:	PO Box 829, Rifle	Sample Team:	KSS, TBP
Well Owner:	Harry L. Naugle	Observer:	TBP
Well Permit:	202848	Lead Signature:	
Receipt Number:	0417420A	Date:	10/23/24

Station Information					
Station Description:	Hydrant right next to well.				
Approximate Distance to Well Pad (from well location):	2,020 ft				
Station Type:	Well		Water Use:	Domestic	
Sampling Location:	Hydrant				
GPS Well Location:	Zone	x	y	z	
GPS Sampling Location:	Zone	x: 39.50037	Y: -107.94208	Z: 5261	
Total Depth (ft):	185	Static Depth to Water (ft):	NM	Well diameter (in):	
Total Volume x 3 gal)	~ 230	Total Volume Purged (gal)	81		

Weather Conditions			
Sky:	Clear / Scattered / Cloudy / Overcast	Estimated Air Temp (deg F):	60
Precipitation:	None / Light / Moderate / Heavy	Precip Type: None / Rain / Sleet / Hail / Snow	
Wind:	Calm / Light / Mod / Strong	Wind Speed/Direction:	5 mph

Field Measurements

Parameter	Units	Reading	Time	Flag Code	Instrument	In-situ or Container	Comments
Water Temp	deg C	16.8	1056		YSI	Container	
pH	s.u.	6.97			YSI	Container	
Sp. Conductivity	uS/cm	5702			YSI	Container	
Conductivity	uS/cm	4844			YSI	Container	
DO Saturation	%	61.4			YSI	Container	
DO	mg/L	6.53			YSI	Container	
Baro Press	mmHg	641.0			YSI	Container	
ORP	RmV	116.9			YSI	Container	
Turbidity	NTU	3.77		AV	MicroTP	Container	11.31, 0.00, 0.00
Discharge	Gpm/Cfs	n/a					
VOCs	ppm	n/a					

Color:	Clear / White / Yellow / Brown / Green / Blue / Other	Light / Med / Dark	
Odor:	None / Mild / Mod / Strong		
Effervescence:	None / Mild / Mod / Strong	Bubbles:	None / Low / Mod / High
Sediment:	None / Light / Mod / Heavy	VOA Headspace:	None / ≤ Pea Size / ≥ Pea Size
Lab Analysis:	Rule 615		
Field Filtered:	No	Filter Size: n/a	No. Filters used: n/a

Flag Codes: AV (averaged value), E (estimated), EC (exceeds calibration range), I (insufficient sample), N/A (not applicable), NM (not measured), NS (not stabilized), OT (other flag, see comment or notes), Q (uncertain value), Y (calculated value), VAR (variable)

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Station ID: Naugle 202848 Date: _____

Landowner Comments on water quality:

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Additional information:

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Calibration Information			Date:			Location: WWL Office		
Instrument	Parameter	Units	Time	Calibration Standard Value	Calibration Standard Temp (°C)	Instrument Reading of Standard	Adjusted Reading	Comments
YSI	pH	s.u.						
YSI	pH	s.u.						
YSI	pH	s.u.						
YSI	SpC	uS/cm			See Naugle 67992-F			
YSI	SpC	uS/cm						
YSI	DO	%		Air				
YSI	ORP	RmV						
MicroTP	Turbidity	NTU		1000,10.0,0.02				

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WELL PURGING INFORMATION

Date: 10/23/24	Well ID: Naugle 202848	Project: PA 34-24 BWQ
Purge Method: Hydrant	Borehole/Casing Radius (r) (in)/(ft):	
Total Depth, ft (D_t): 185	Static Depth to Water, ft (D_w): NM	Sample/Pump Depth (ft): n/a
Water column height, h (ft): $D_t - D_w$: N/A	Total Volume x 3 (gal or ft^3):	
Total Volume (gal or ft^3): ~ 230	(1 ft^3 = 7.48 gal):	

Borehole/Casing Volume = $\pi \cdot r^2 \cdot (D_t - D_w)$ = ____ ft^3 **Or** Borehole/Casing Volume = $\pi \cdot r^2 \cdot (D_t - D_w) \cdot 7.48$ = ____ gal

With r = in, h = ft: Calculation: $\pi \cdot r^2 \cdot (D_t - D_w)$:: r^2 * h * 0.0218 = ft^3 **Or** r^2 * h * 0.1632 = gallons

Purge #	Time	Temp (°C) ±0.2°C ± 3%	DO (%)	DO (mg/L) ± 10%	SpC (uS/cm) ± 3%	Cond (uS/cm)	pH (s.u.) ± 0.1 s.u.	ORP (RmV) ± 10 RmV	Water Clarity (Poor/Mod/ Good) or NTUs ± 10% OR <5	Effervescence (None /Slight/ Mod/Heavy)	Volume Purged (gal)	Cumulative Volume Purged (gal)
1	10:19	15,1	19,4	1.90	5742	4684	6,95	147,3	0.48		8	8
2	10 22	18.2	21.4	1.95	5656	4928	6.97	153.6	0.00		24	34
3	1028	16.3	45.1	4.23	5710	4769	6.90	153.6	24.57		10	44
4	1039	16.6	56.6	4.65	5671	4774	6.98	141.0	4.90		10	54
5	1044	16.6	35.6	3.27	5676	4779	6.92	116.2	6.96		15	69
			-	Variable purge rate led us to								
				Sample after 81 gallons purged.								
			-	couldn't take off well head								
				to get static depth to water								

SP just opened @ 10:18 @ 8 gallons a minute 10:38 @ 3 gall per minute
Rate reduced @ 1024 @. 1025 Water reduced to a trickle