ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT
GROUNDWATER SUSTAINABILITY AGENCY

849 Allen Road Bakersfield, CA 93314
(661)589-6045
www.rrbwsd.com

May 26, 2026

To: Stakeholder Advisory Group
Rosedale-Rio Bravo Water Storage District GSA
Agenda Item: 1b

From: Rachelle Echeverria

Re: SGMA Sustainable Management Criteria (SMC) - Water Quality Monitoring Update

Discussion:

As part of ongoing compliance with the Sustainable Groundwater Management Act (SGMA), this memo provides an update on groundwater quality monitoring for the Kern Subbasin's Groundwater Sustainability Plan (GSP). This includes a summary of RRBWSD's current efforts to track water quality constituents at our Representative Monitoring Wells (RMWs).

Constituents of Concern

The amended Subbasin GSP identifies the following constituents for water quality monitoring:

- Arsenic
- Nitrate
- Nitrite
- Total Dissolved Solids (TDS)
- Uranium
- 1,2,3-Trichloropropane (TCP)

RRBWSD GSA's RMW Sites

The following RMWs are being utilized to monitor groundwater quality within our management area (see attached maps):

- Frito-Lay 1
- Enos Shallow
- RRB Shop Shallow
- P. Enns Domestic
- Home Place

Taken From Amended Kern County Subbasin GSP: Table ES-1. Summary of Sustainable Management Criteria

Sustainability Indicator	Undesirable Result	Minimum Threshold	Measurable Objective
Degraded Water Quality	One of the following occurs: (1) Subbasin-wide, 15 percent of the Representative Monitoring Well for Degraded Water Quality (RMW-WQs) exceed the MT for the constituents of concern per water year based on confirmed sample and MT Exceedance investigation results[1]. (2) Annually, five percent of domestic wells have an assumed MT exceedance[1] based on radius of influence analysis around the RMW-WQ that exceeds the MT, with a cumulative maximum of 15 percent of domestic wells through 2040. (3) Mitigation[1] backstop: a GSA is unable to meet well mitigation needs.	(1) MT is set as close to the water quality objective as feasible. (2) If historical data exceeds the water quality objective, and at least five sample results are available, then the MT is set at the 80th Percentile value. (3) When clear trends are present, discretion should be applied (a) If there is an increasing trend, set the MT at the 80th Percentile of the Pre-2015 data (b) If there is a decreasing trend, MT should be set at the median value or as close to the water quality objective as is reasonable. If the 80th Percentile is within 10 percent of the drinking water MCL, the MT should be set at the water quality objective. (4) Proxy data are predominantly used to demonstrate baseline conditions; however, data may be used when the RMW-WQ and Proxy Well are similar enough to represent the same lithology/aquifer conditions.	The water quality objective.

Notes:

1. Exceedances and mitigation applications are evaluated as defined in the Exceedance Policy and Action Plans (Appendix K-1) and Mitigation Programs (Appendix G).

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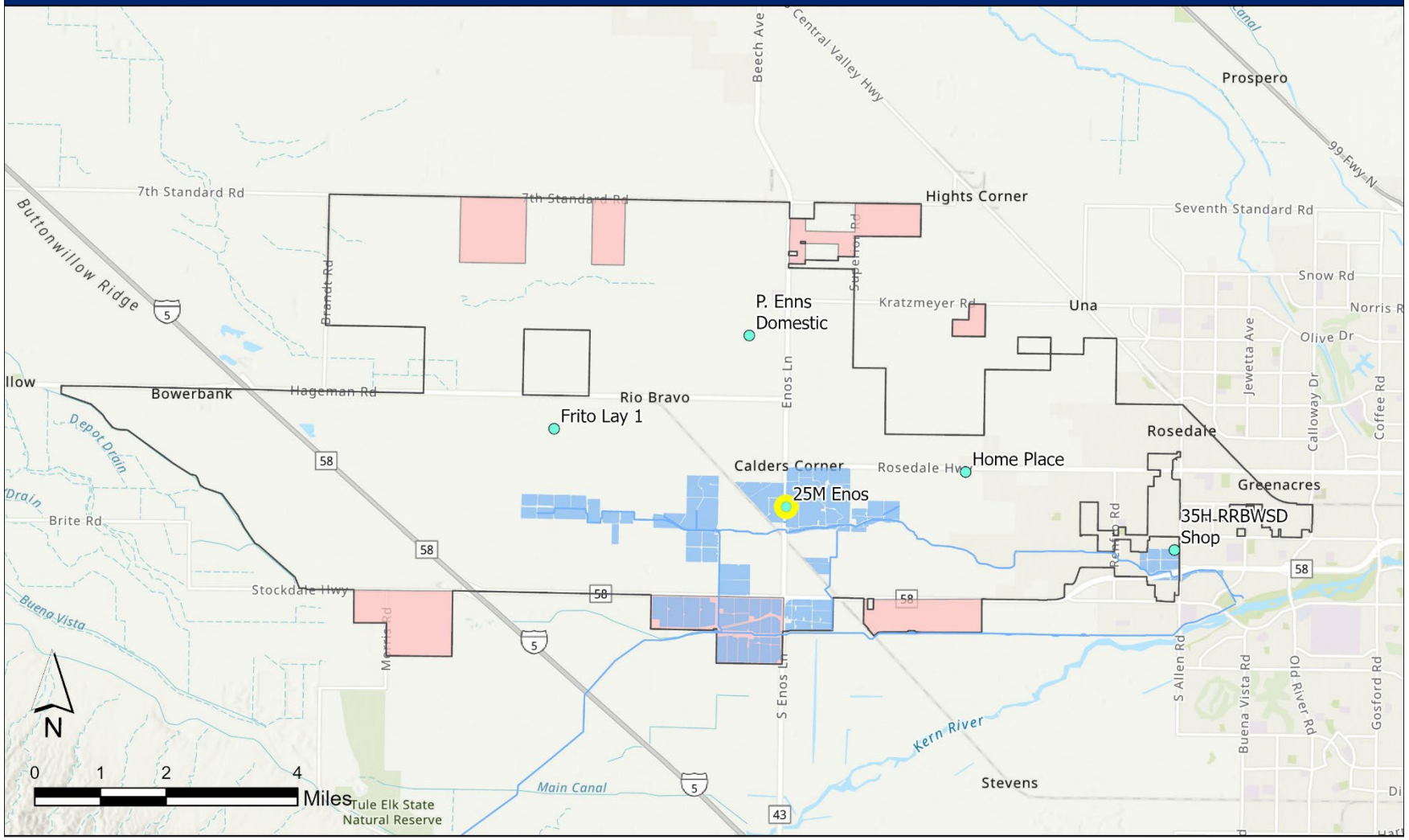

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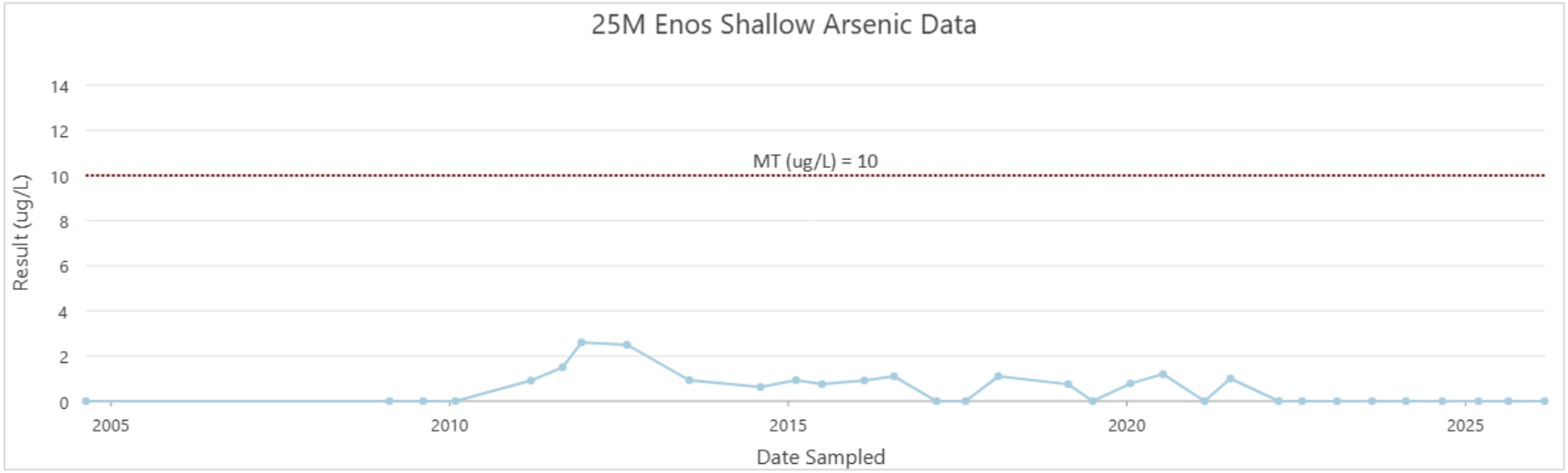
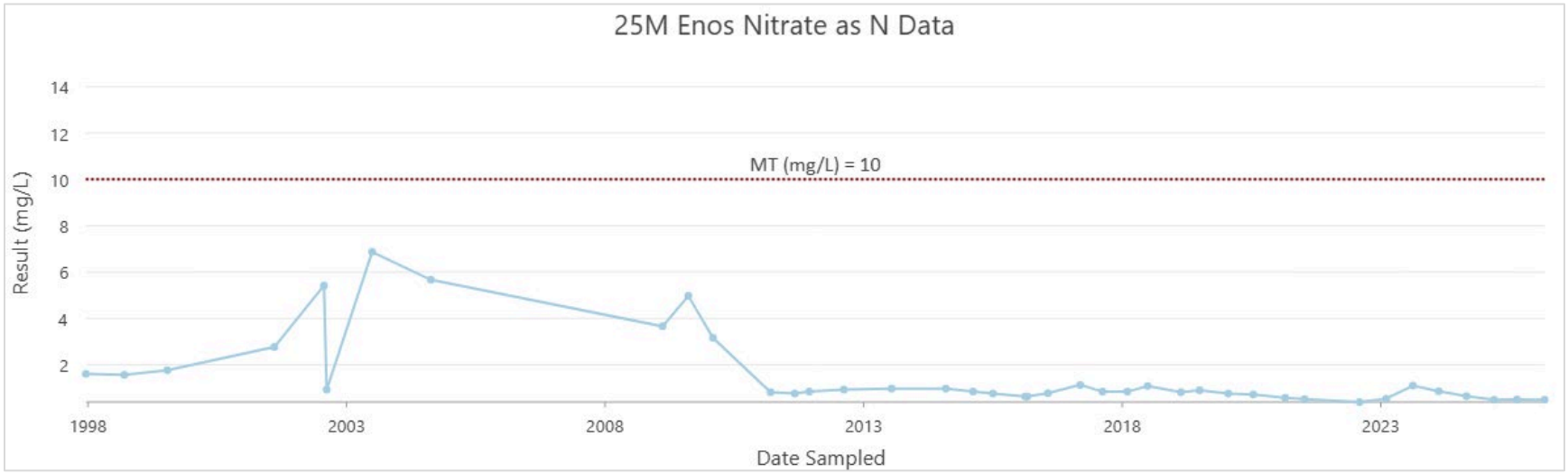
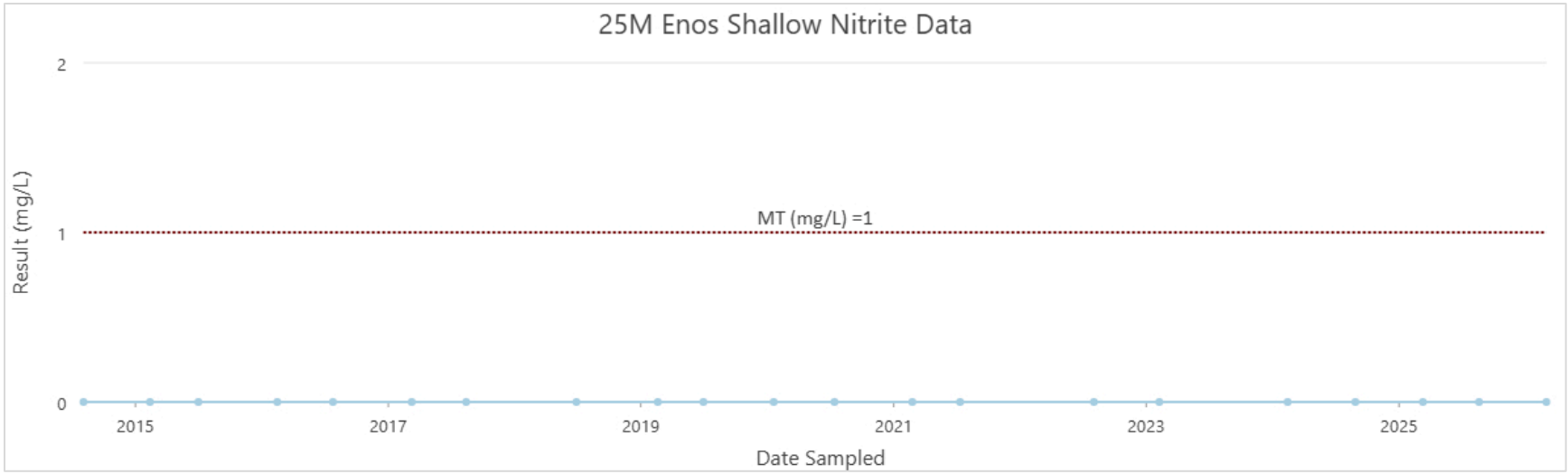

25M Enos Shallow Arsenic Data
14
12
10
8
6
4
2
0
MT (ug/L) = 10
Result (ug/L)
2005
2010
2015
2020
2025
Date Sampled


25M Enos Nitrate as N Data
14
12
10
8
6
4
2
MT (mg/L) = 10
Result (mg/L)
1998
2003
2008
2013
2018
2023
Date Sampled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1
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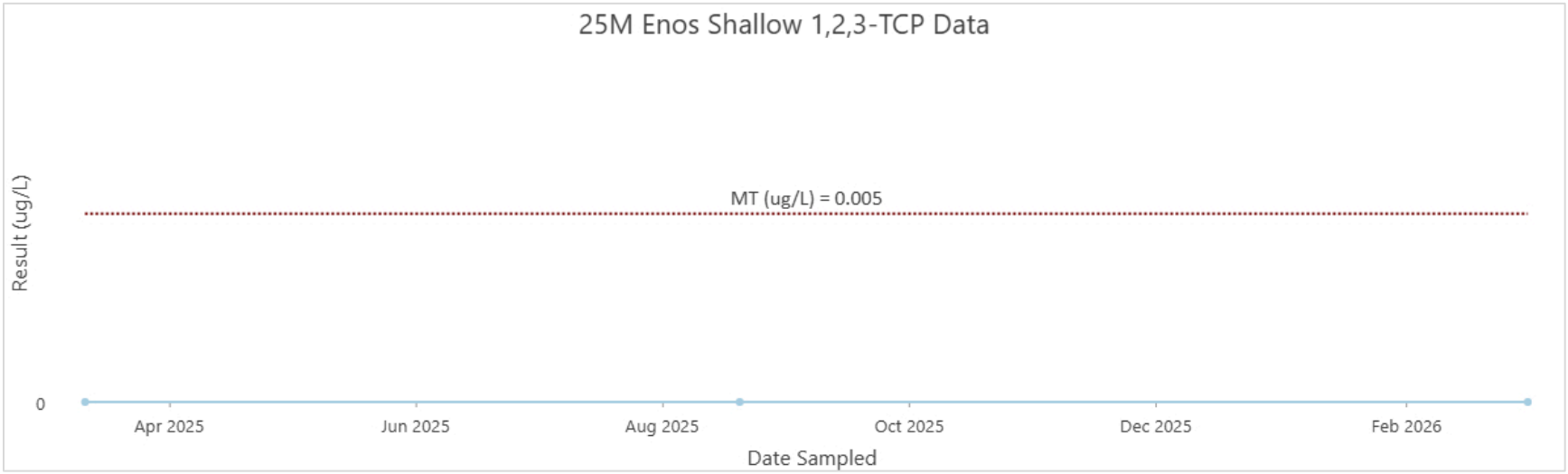
2015
2017
2019
2021
2023
2025
Date Sampled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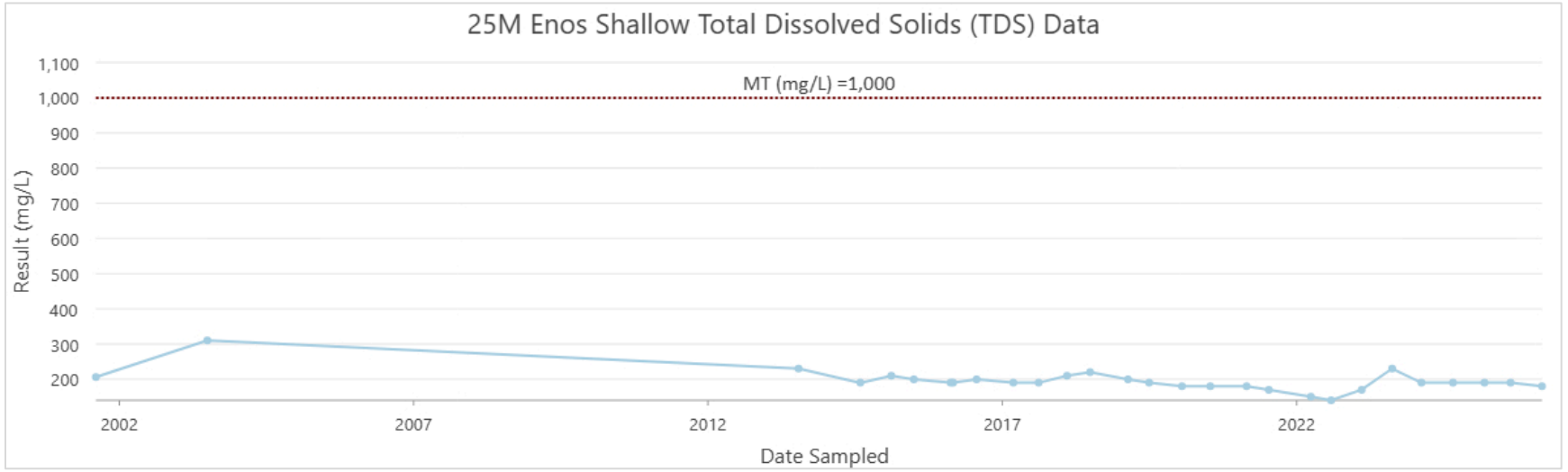
MT (ug/L) = 0.005
0
Apr 2025
Jun 2025
Aug 2025
Oct 2025
Dec 2025
Feb 2026
Date Sampled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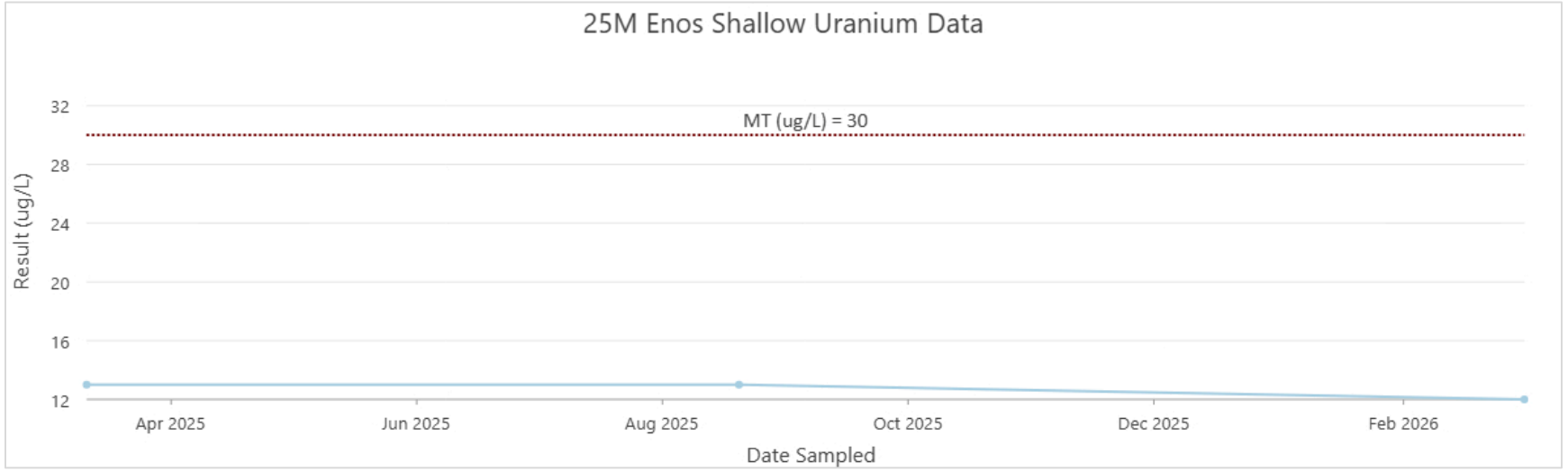
MT (mg/L) =1,000
Result (mg/L)
1,100
1,000
900
800
700
600
500
400
300
200
2002
2007
2012
2017
2022
Date Sampled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Result (ug/L)
32
28
24
20
16
12
Apr 2025
Jun 2025
Aug 2025
Oct 2025
Dec 2025
Feb 2026
Date Sampled

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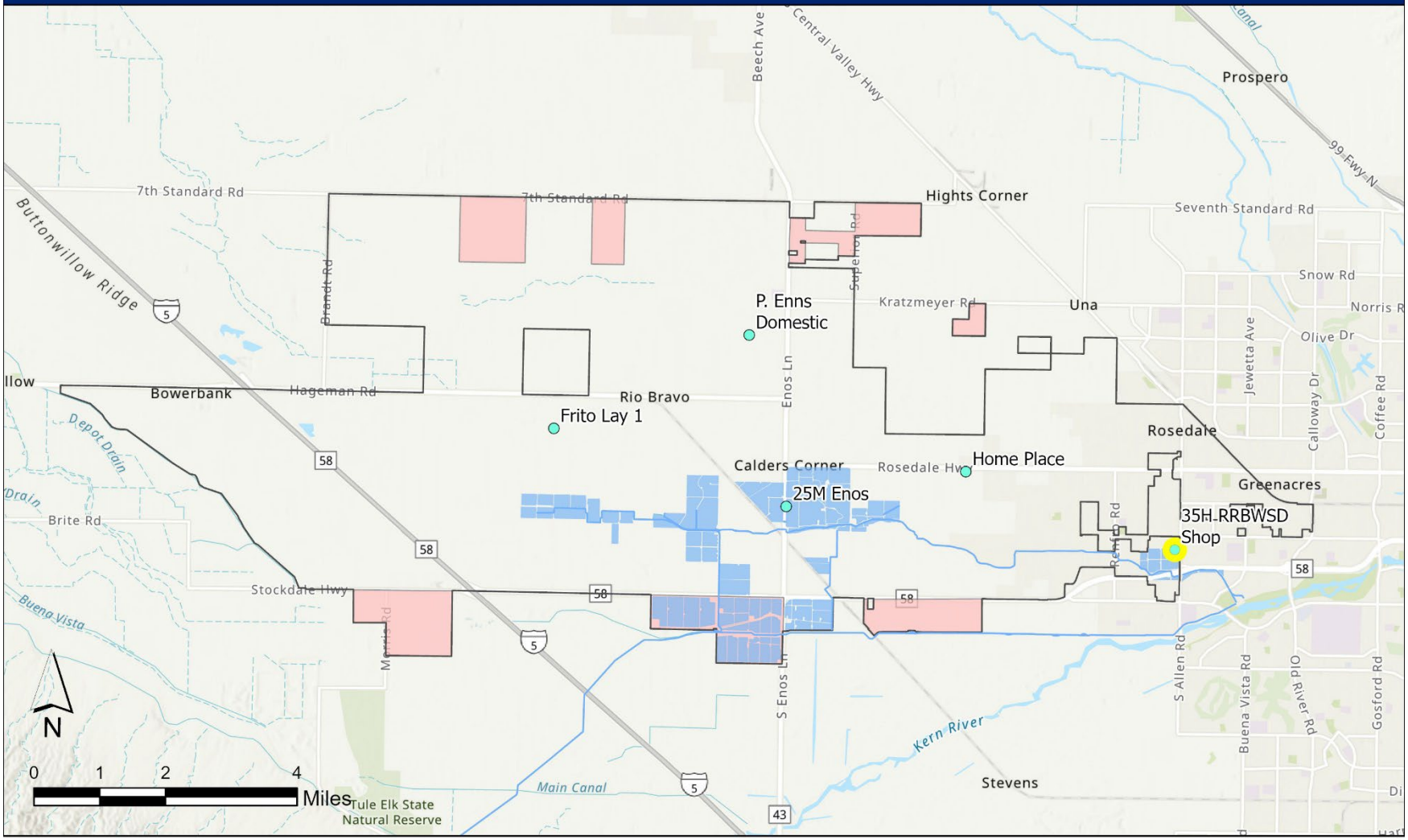
Bakersfield, CA



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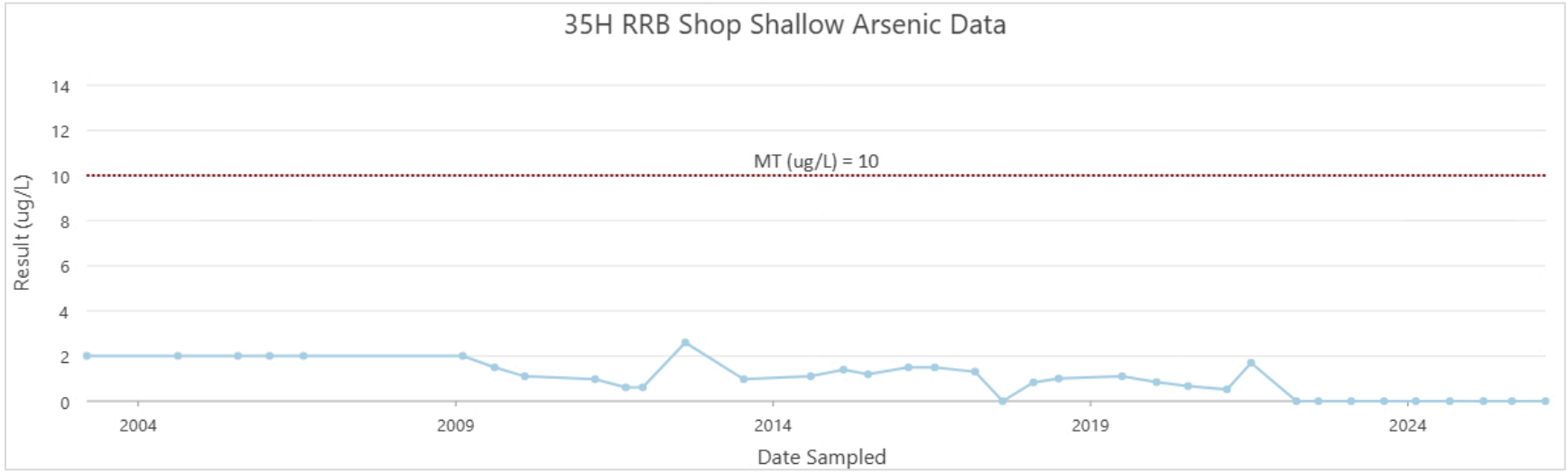
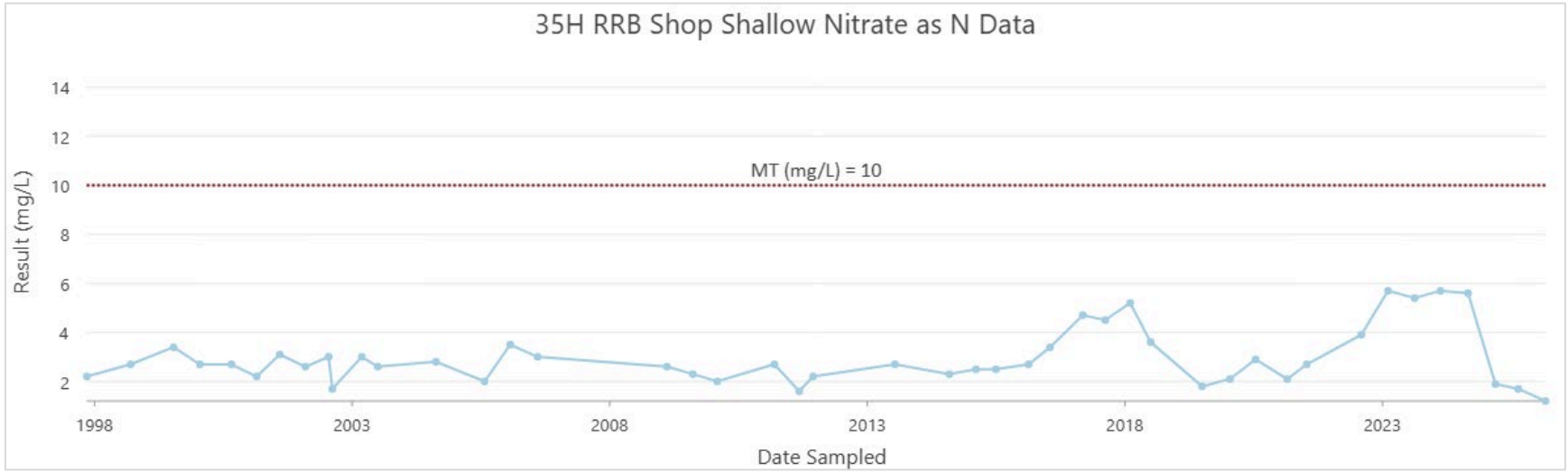
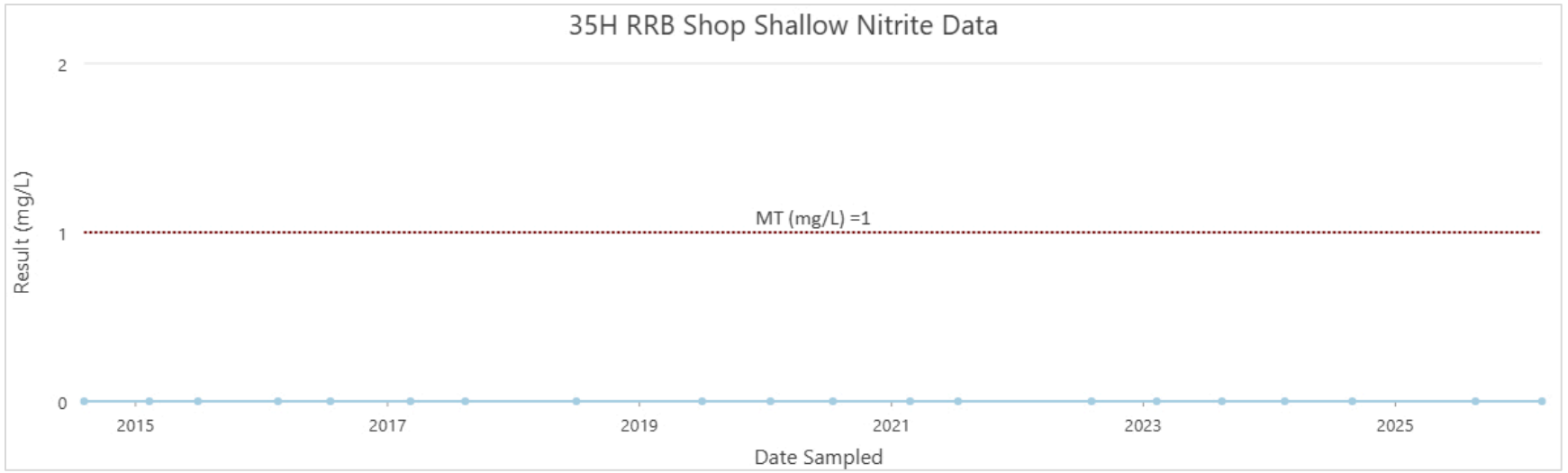

35H RRB Shop Shallow Arsenic Data
14
12
10
8
6
4
2
0
Result (ug/L)
MT (ug/L) = 10
2004
2009
2014
2019
2024
Date Sampled


35H RRB Shop Shallow Nitrate as N Data
14
12
10
8
6
4
2
Result (mg/L)
MT (mg/L) = 10
1998
2003
2008
2013
2018
2023
Date Sampled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1
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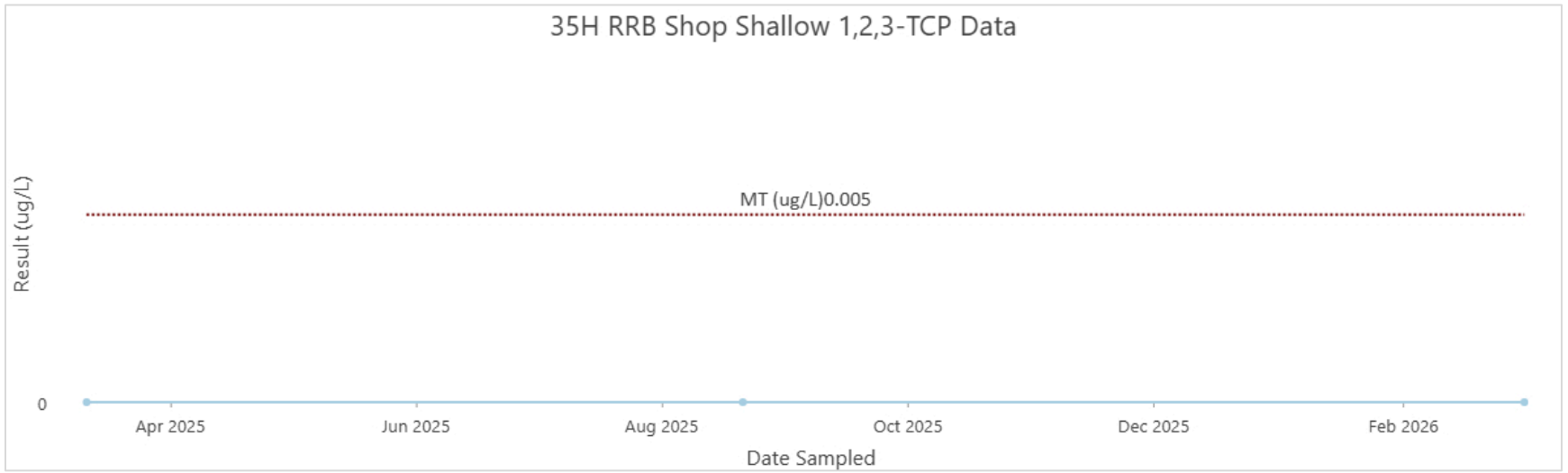
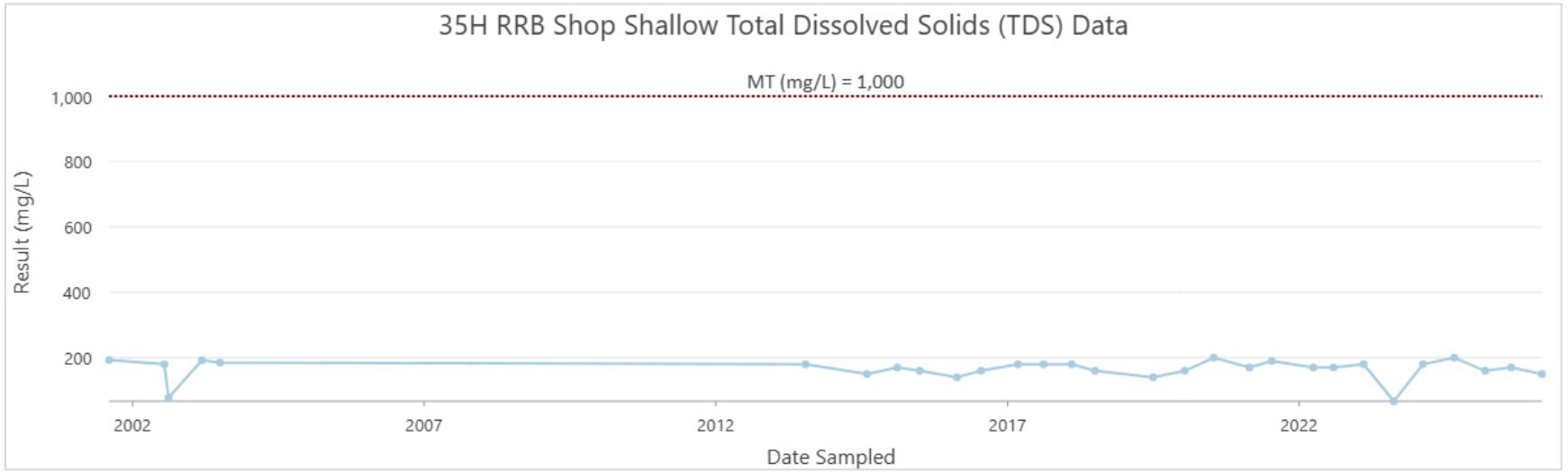
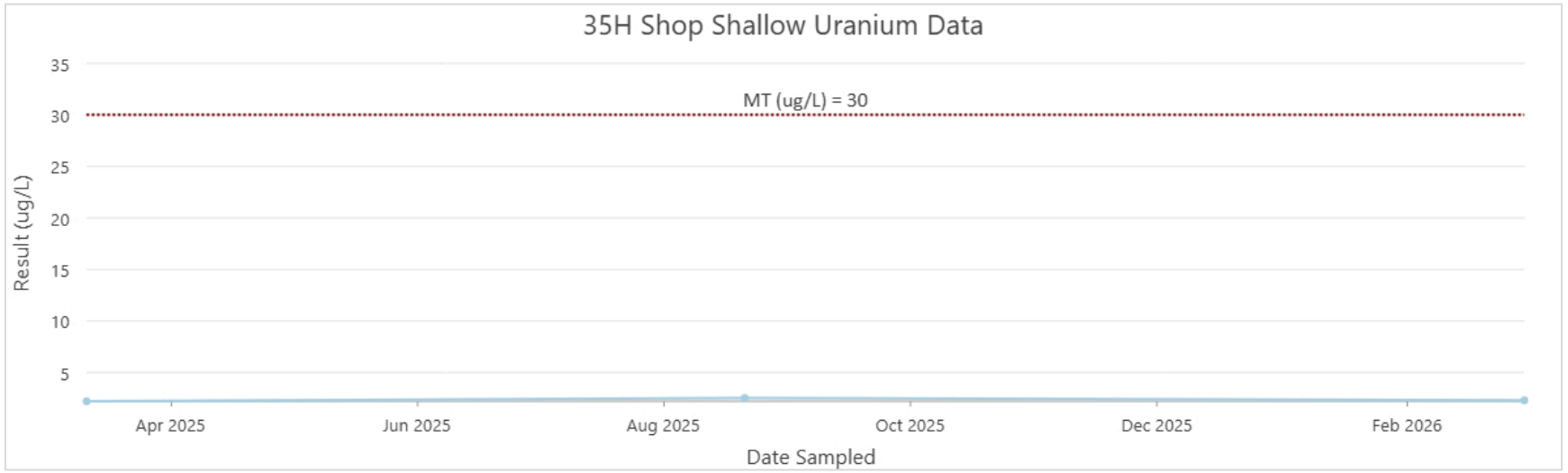
Result (mg/L)
MT (mg/L) =1
2015
2017
2019
2021
2023
2025
Date Sampled


35H RRB Shop Shallow 1,2,3-TCP Data
Result (ug/L)
MT (ug/L)0.005
0
Apr 2025
Jun 2025
Aug 2025
Oct 2025
Dec 2025
Feb 2026
Date Sampled


35H RRB Shop Shallow Total Dissolved Solids (TDS) Data
MT (mg/L) = 1,000
1,000
800
600
400
200
Result (mg/L)
2002
2007
2012
2017
2022
Date Sampled


35H Shop Shallow Uranium Data
MT (ug/L) = 30
35
30
25
20
15
10
5
Result (ug/L)
Apr 2025
Jun 2025
Aug 2025
Oct 2025
Dec 2025
Feb 2026
Date Sampled

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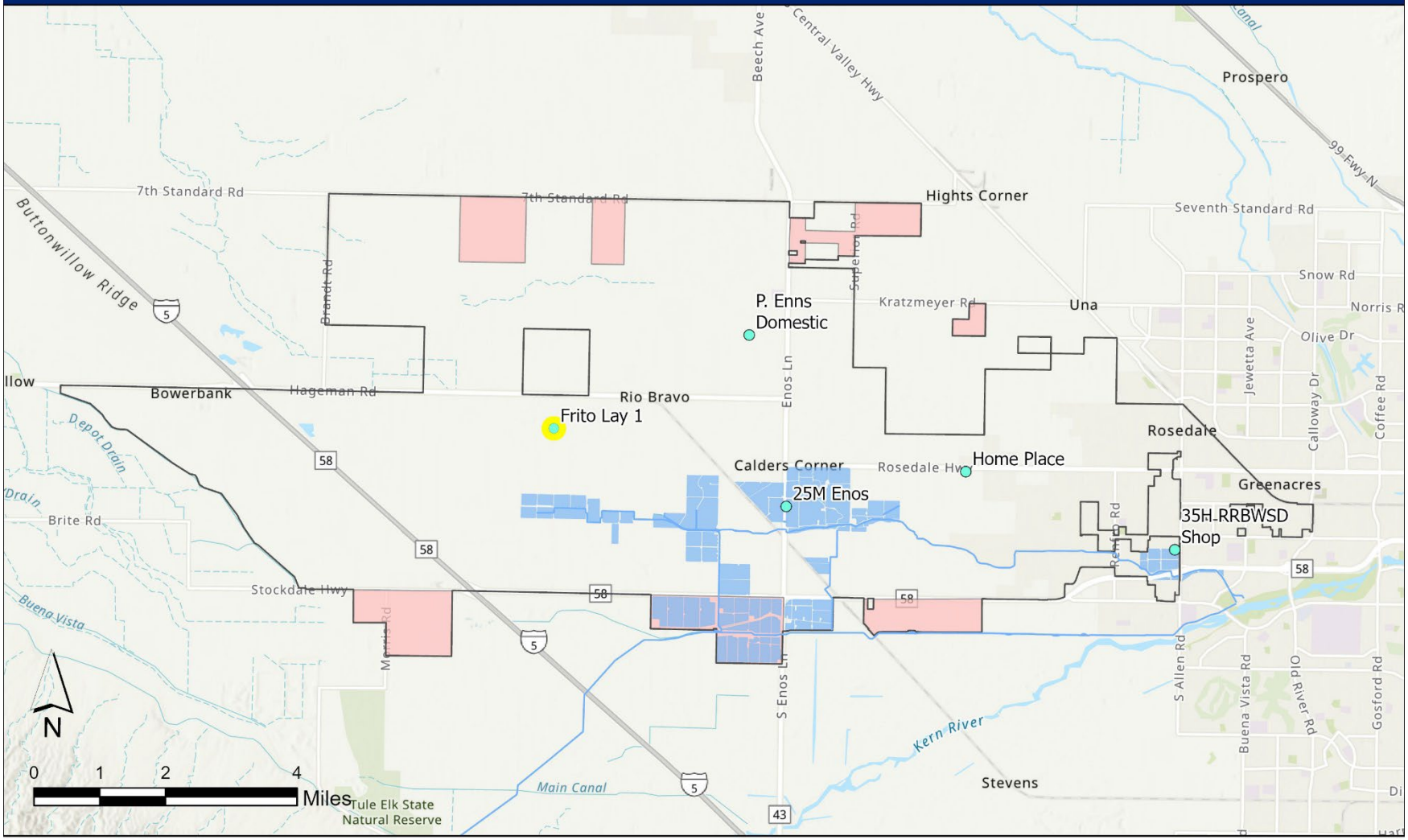

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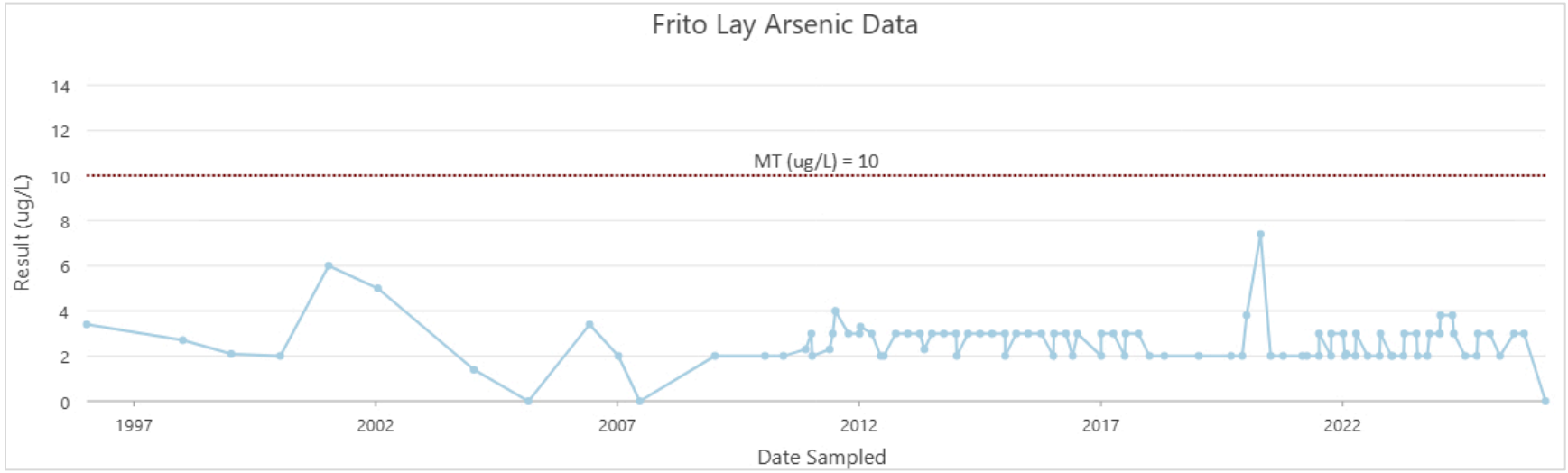
Frito Lay Arsenic Data
14
12
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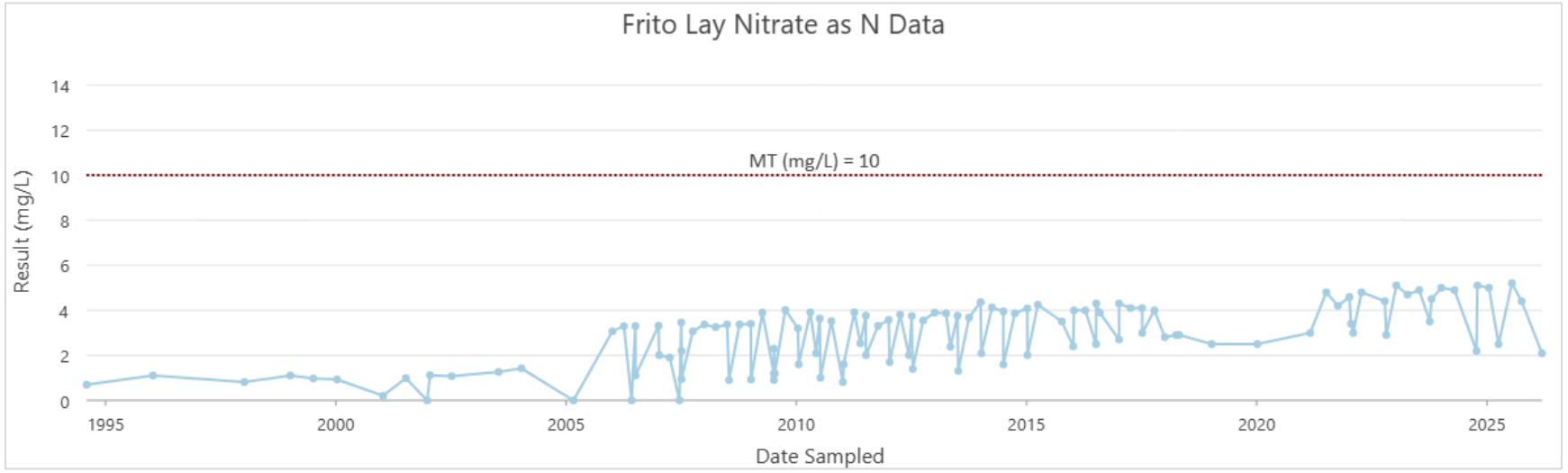
MT (ug/L) = 10
Result (ug/L)
1997
2002
2007
2012
2017
2022
Date Sampled


Frito Lay Nitrate as N Data
14
12
10
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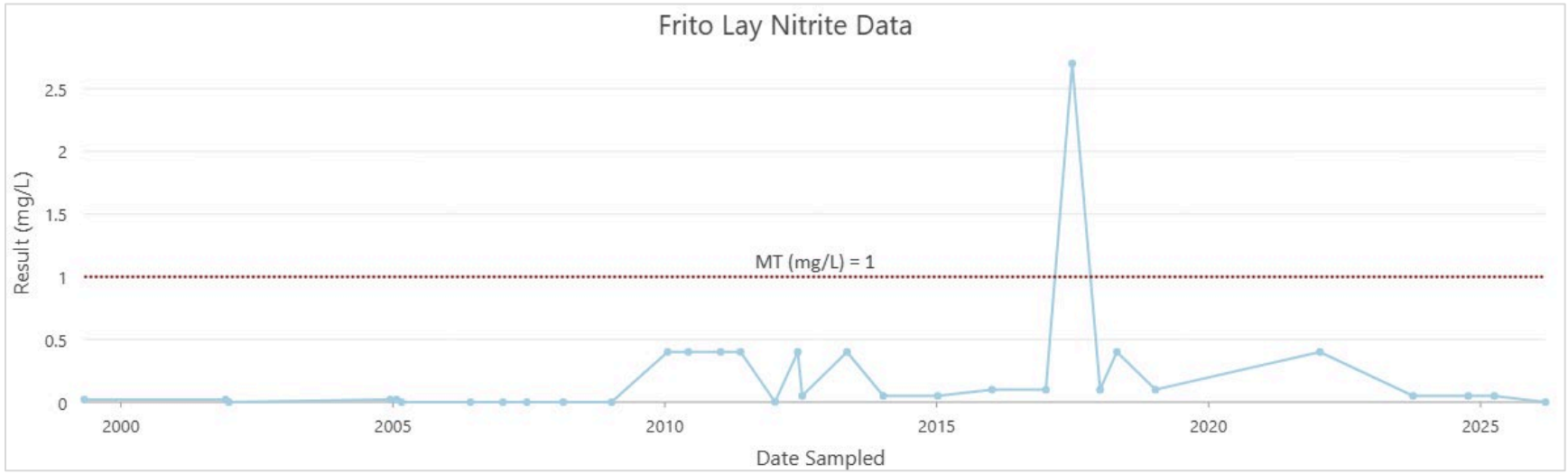
MT (mg/L) = 10
Result (mg/L)
1995
2000
2005
2010
2015
2020
2025
Date Sampled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2
1.5
1
0.5
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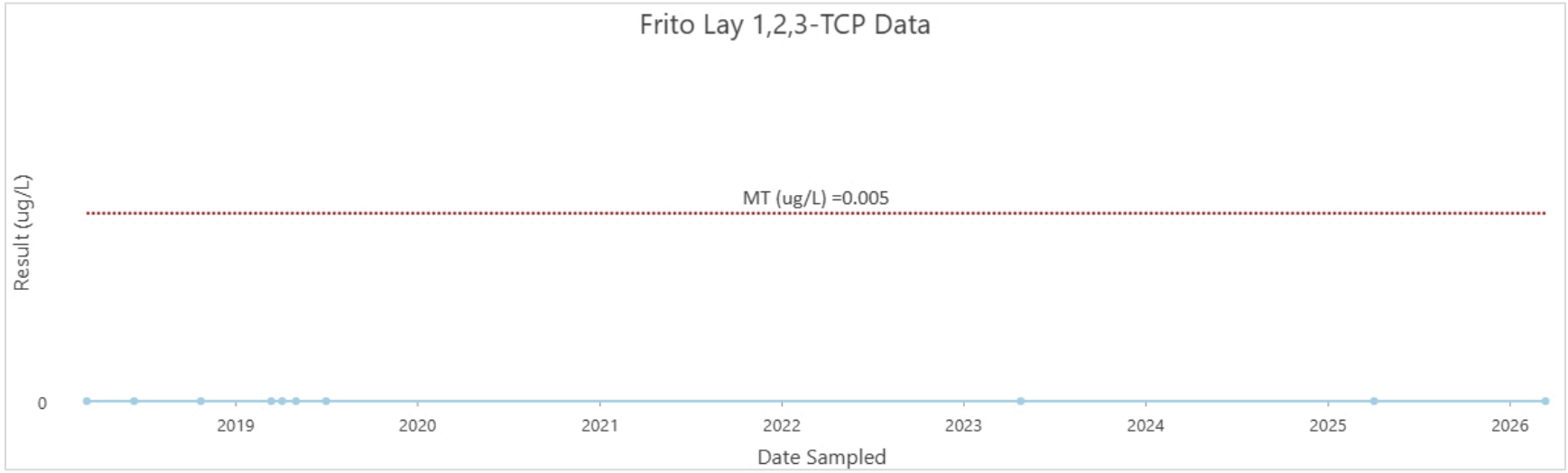
2010
2015
2020
2025
Date Sampled


Frito Lay 1,2,3-TCP Data
Result (ug/L)
MT (ug/L) =0.005
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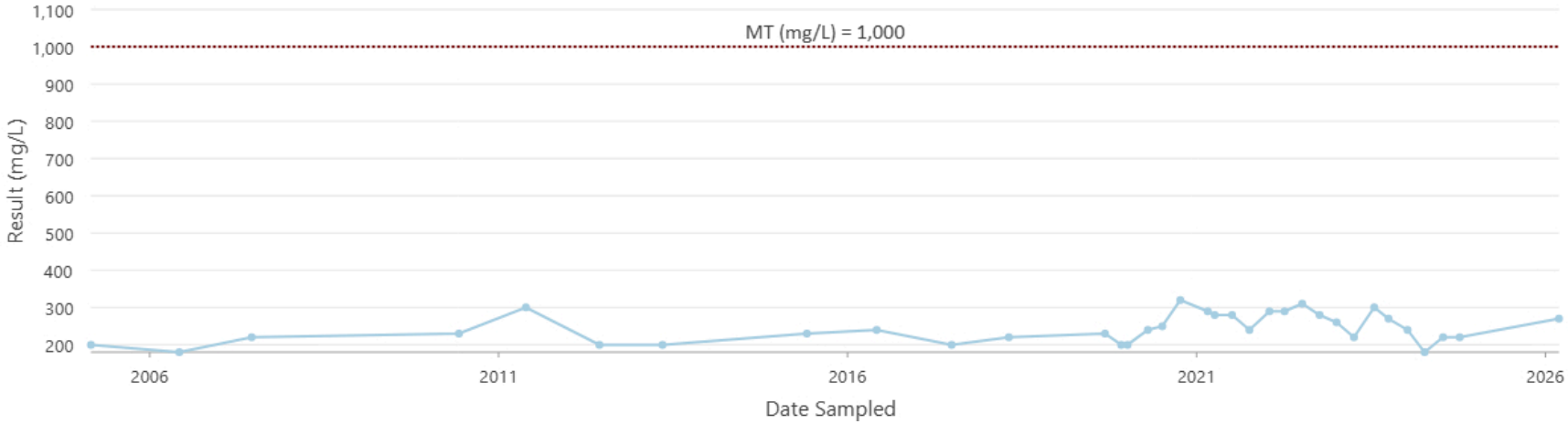
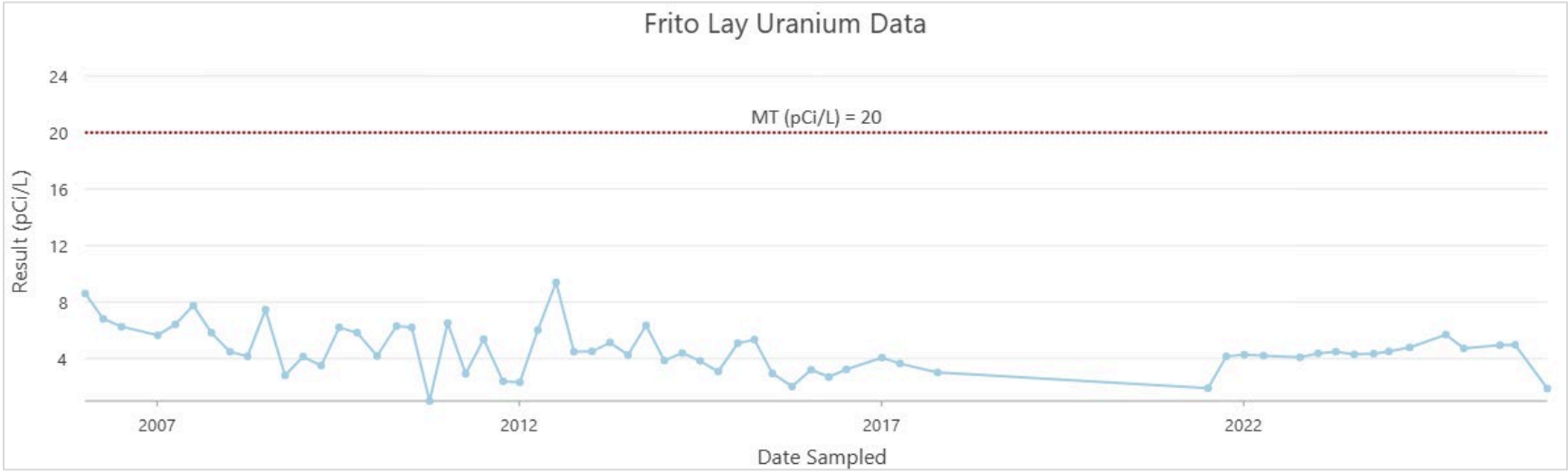
2019
2020
2021
2022
2023
2024
2025
2026
Date Sampled

Frito Lay Total Dissolved Solids (TDS) Data



Frito Lay Uranium Data



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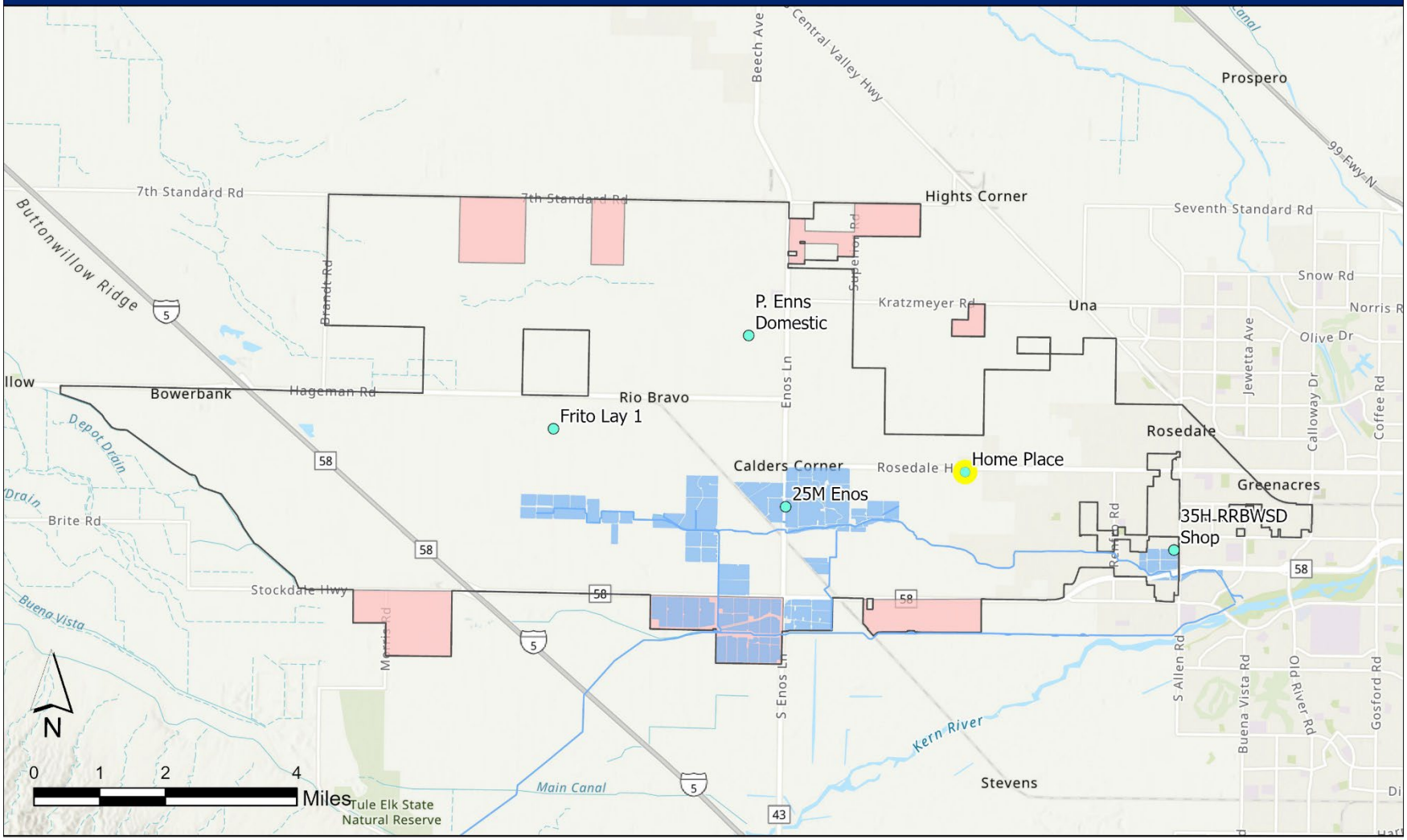

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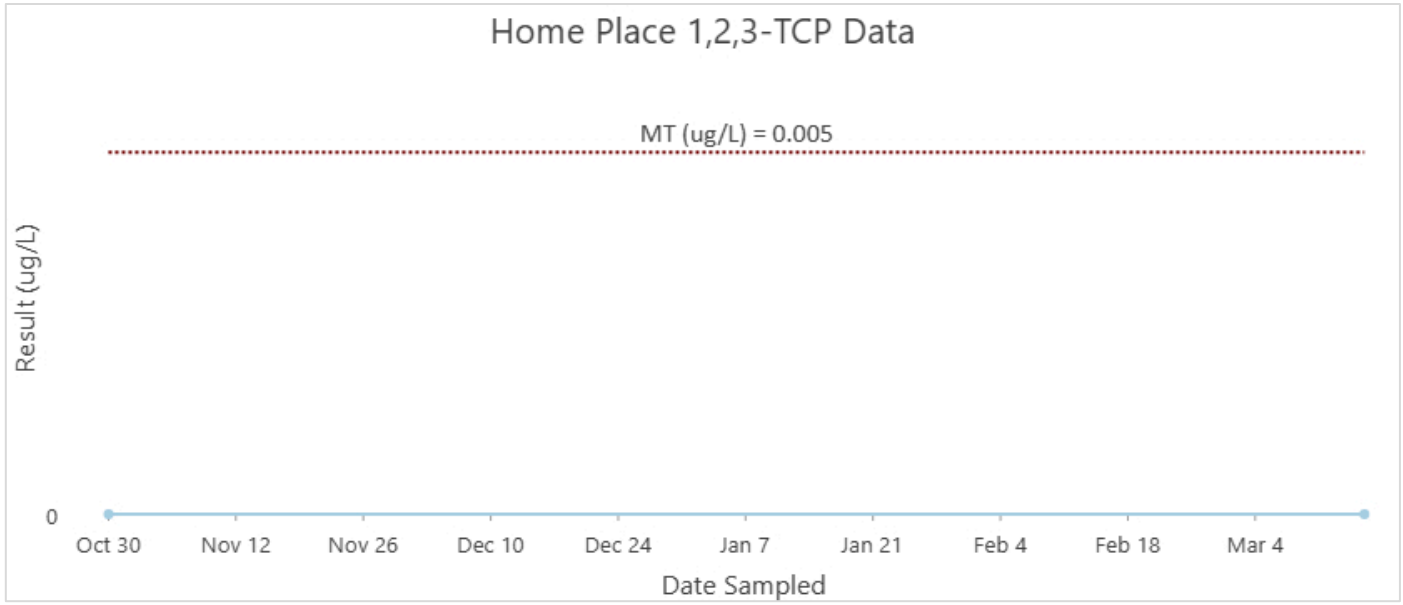
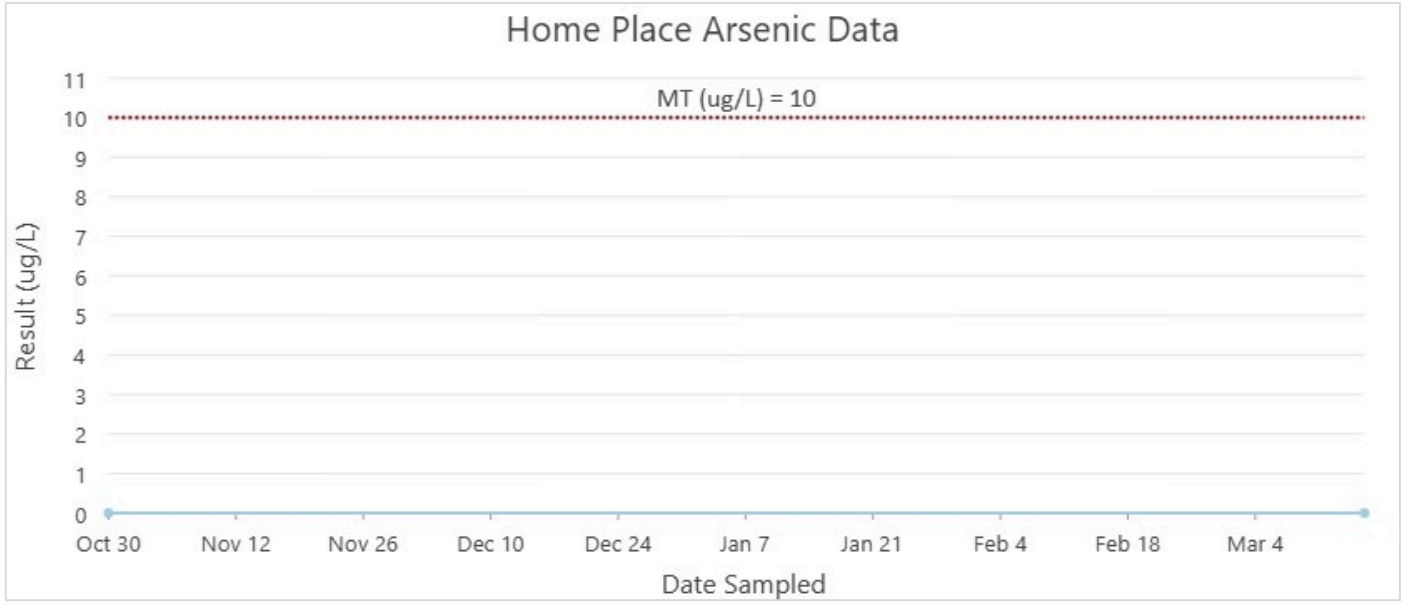

Home Place 1,2,3-TCP Data
MT (ug/L) = 0.005
Result (ug/L)
0
Oct 30
Nov 12
Nov 26
Dec 10
Dec 24
Jan 7
Jan 21
Feb 4
Feb 18
Mar 4
Date Sampled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Result (ug/L)
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10
9
8
7
6
5
4
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2
1
0
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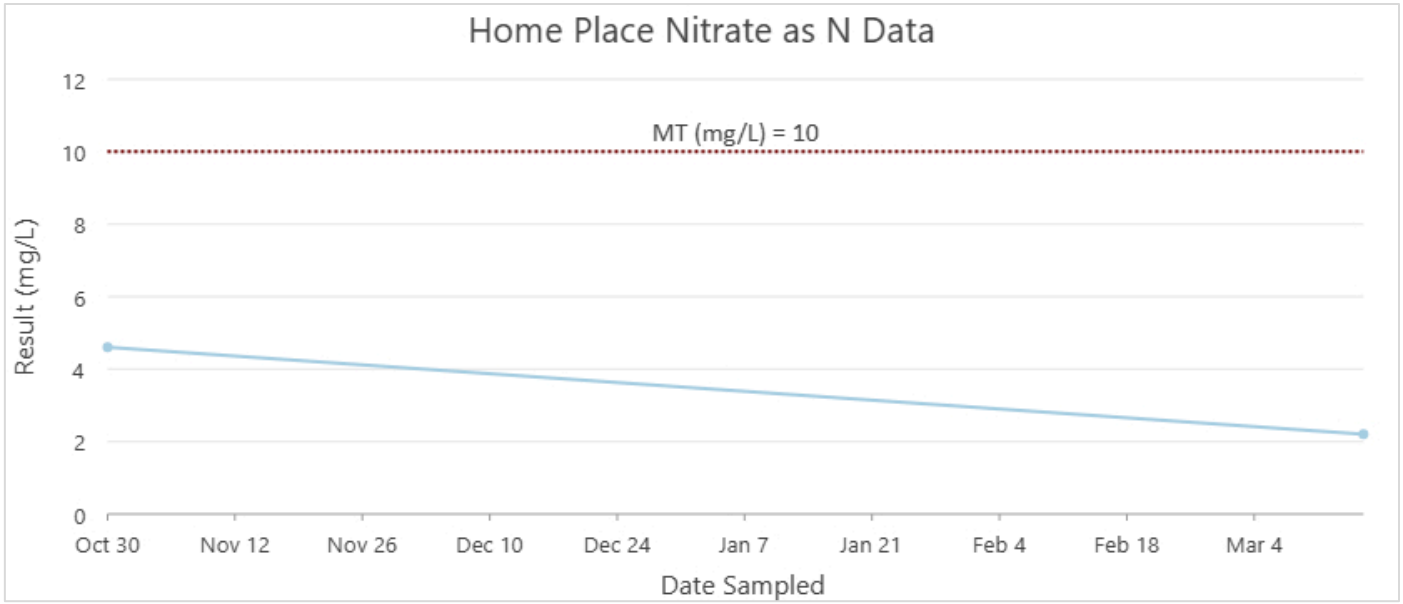
Dec 24
Jan 7
Jan 21
Feb 4
Feb 18
Mar 4
Date Sampled


Home Place Nitrate as N Data
12
10
8
6
4
2
0
MT (mg/L) = 10
Result (mg/L)
Oct 30
Nov 12
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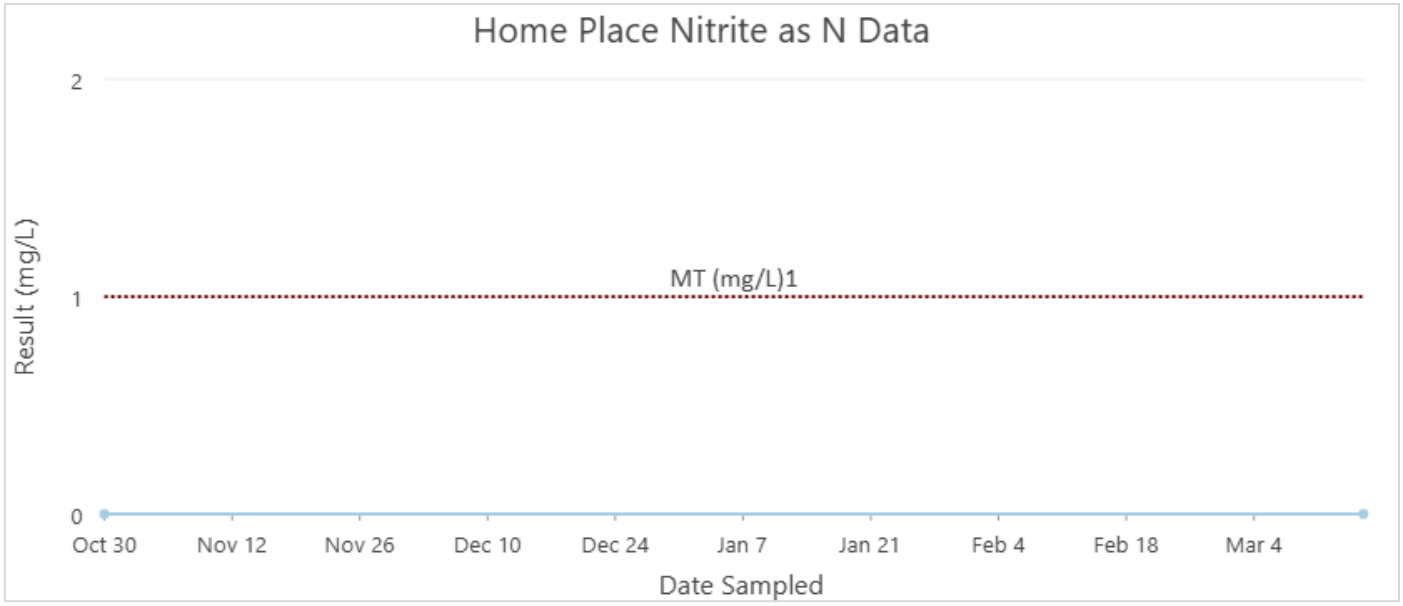
Dec 10
Dec 24
Jan 7
Jan 21
Feb 4
Feb 18
Mar 4
Date Sampled


Home Place Nitrite as N Data
2
1
0
MT (mg/L)1
Result (mg/L)
Oct 30
Nov 12
Nov 26
Dec 10
Dec 24
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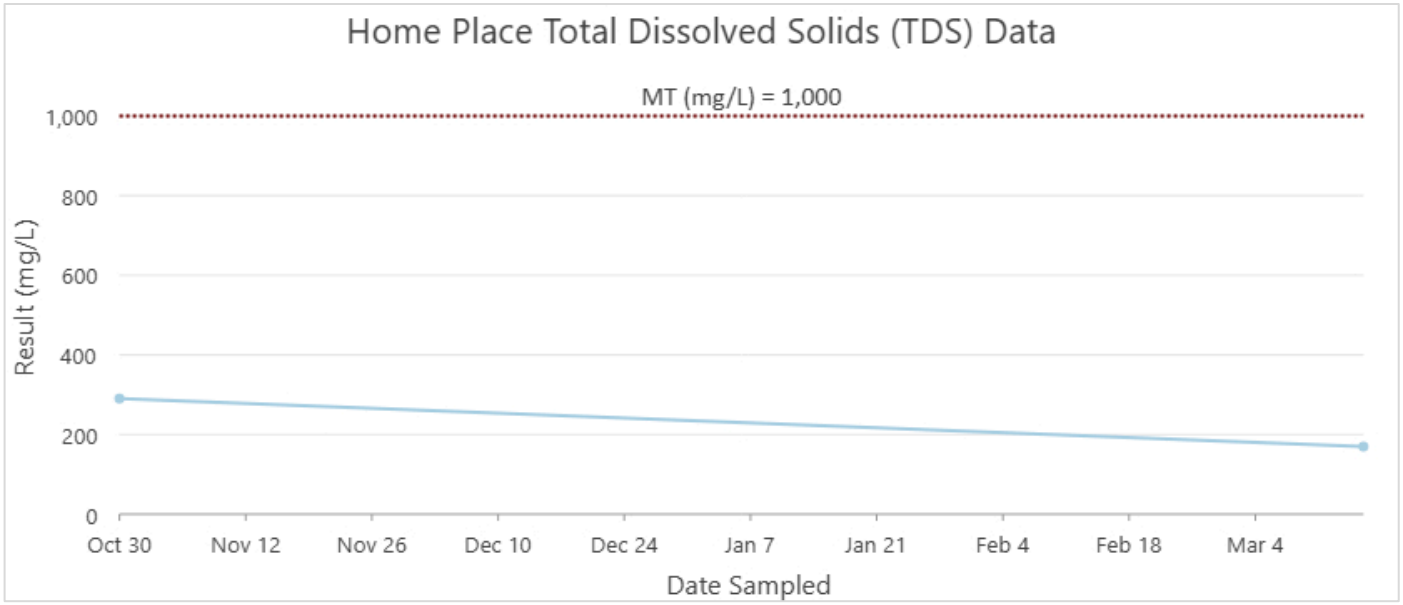
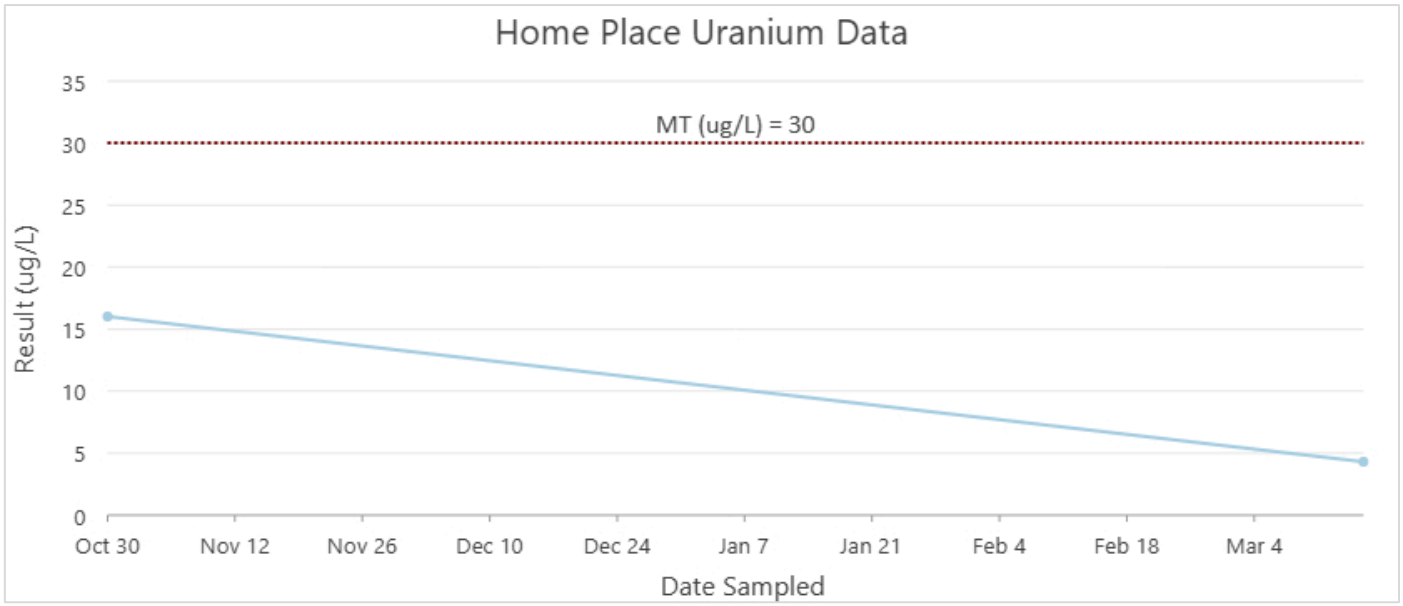
Jan 21
Feb 4
Feb 18
Mar 4
Date Sampled


Home Place Total Dissolved Solids (TDS) Data
MT (mg/L) = 1,000
1,000
800
600
400
200
0
Result (mg/L)
Oct 30
Nov 12
Nov 26
Dec 10
Dec 24
Jan 7
Jan 21
Feb 4
Feb 18
Mar 4
Date Sampled


Home Place Uranium Data
MT (ug/L) = 30
35
30
25
20
15
10
5
0
Result (ug/L)
Oct 30
Nov 12
Nov 26
Dec 10
Dec 24
Jan 7
Jan 21
Feb 4
Feb 18
Mar 4
Date Sampled

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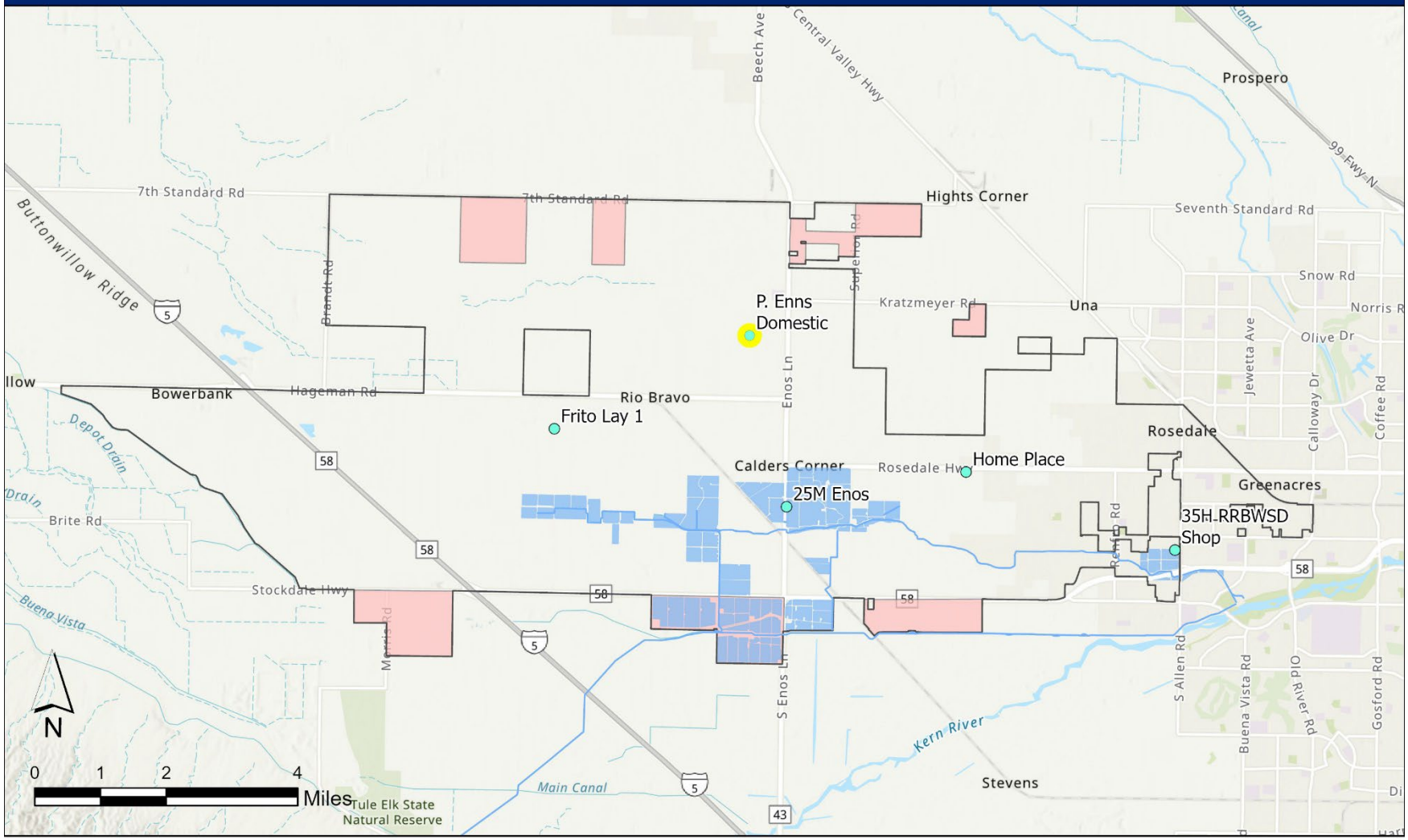

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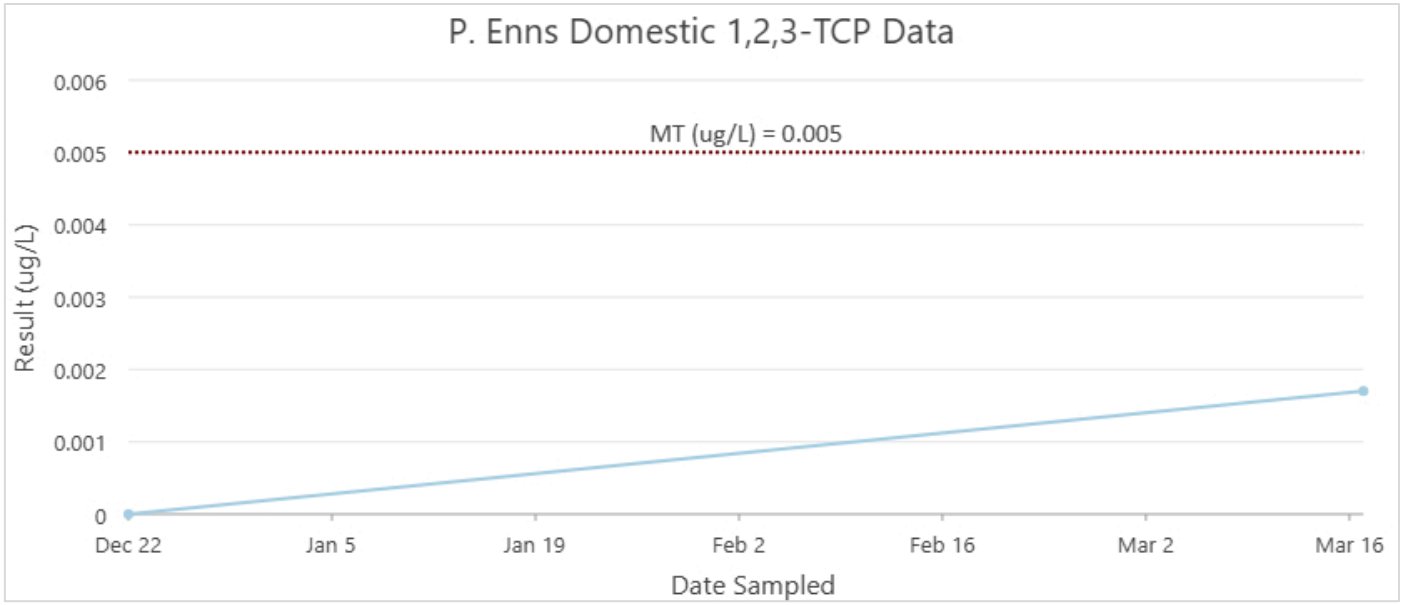
P. Enns Domestic 1,2,3-TCP Data
0.006
0.005
0.004
0.003
0.002
0.001
0
MT (ug/L) = 0.005
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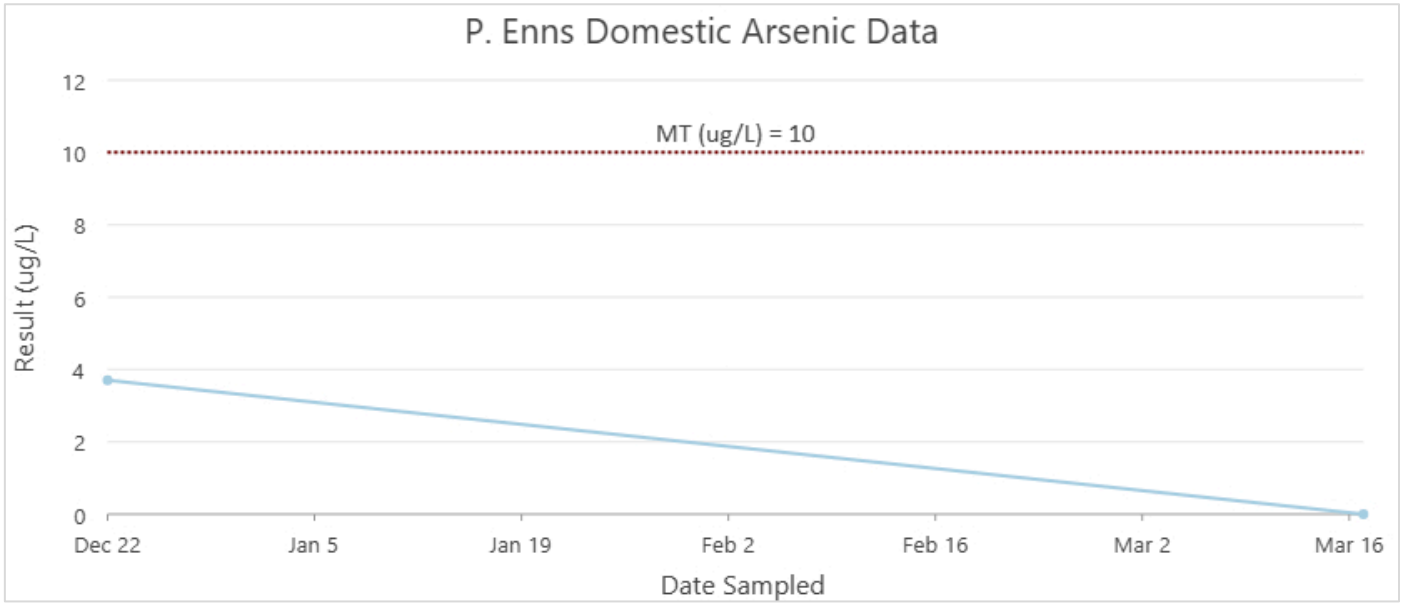
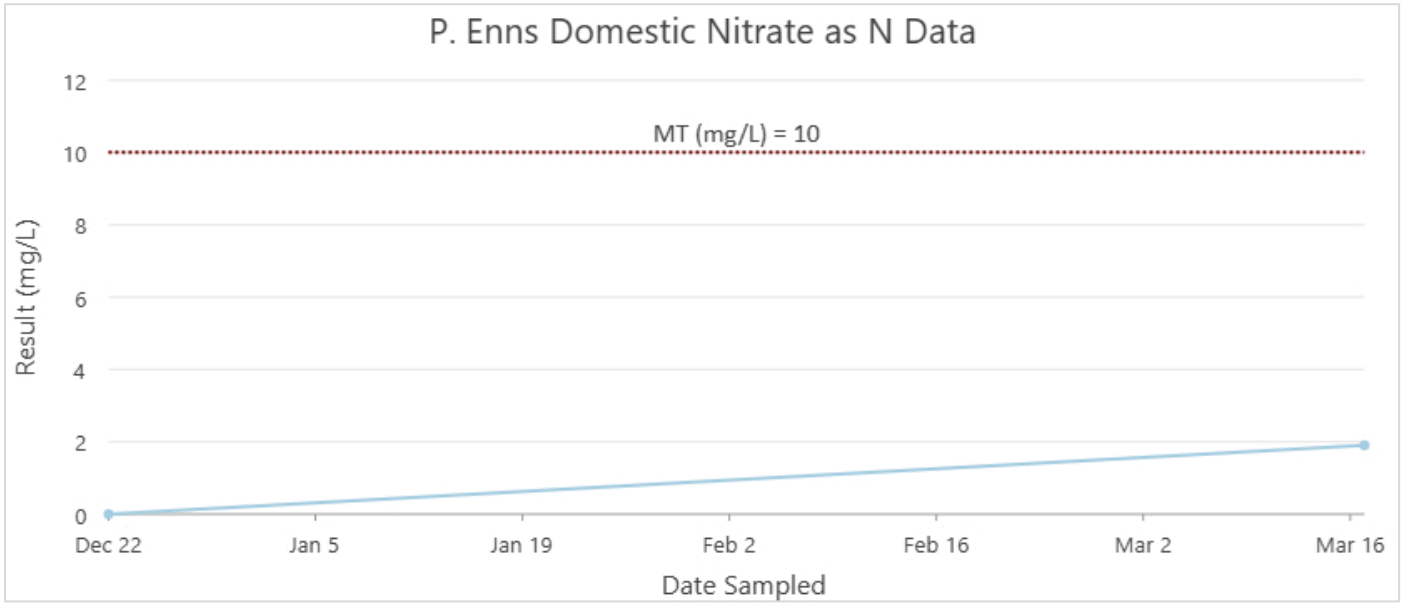
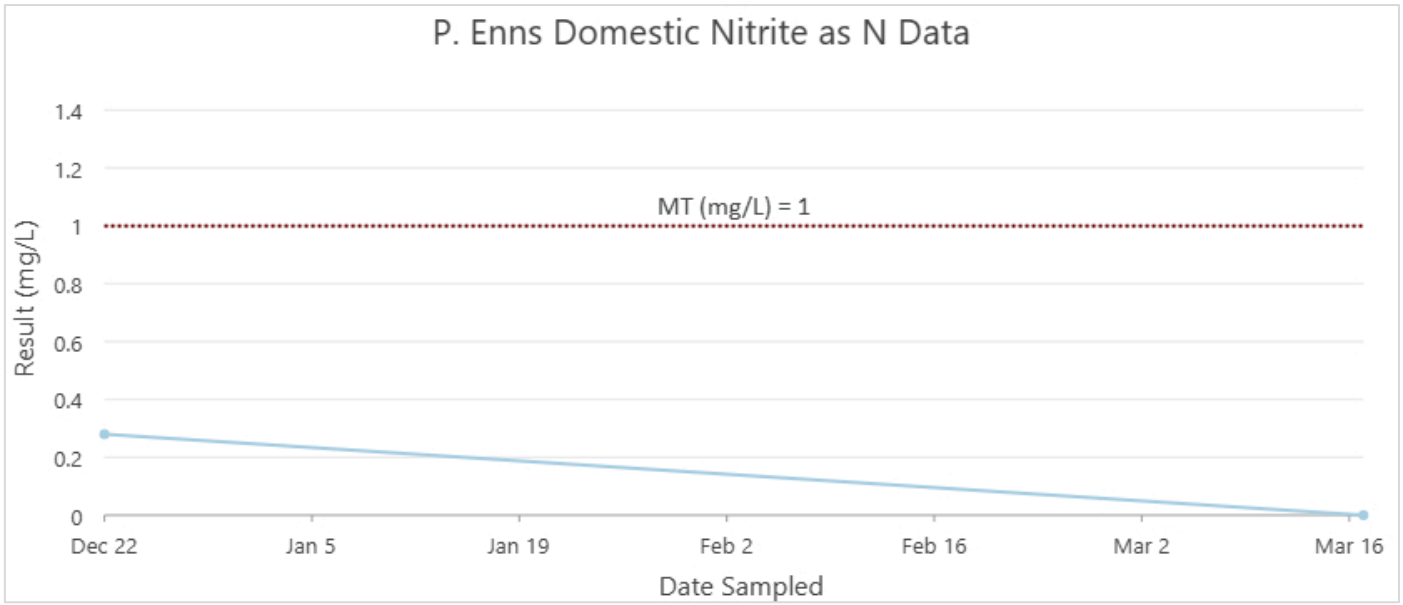
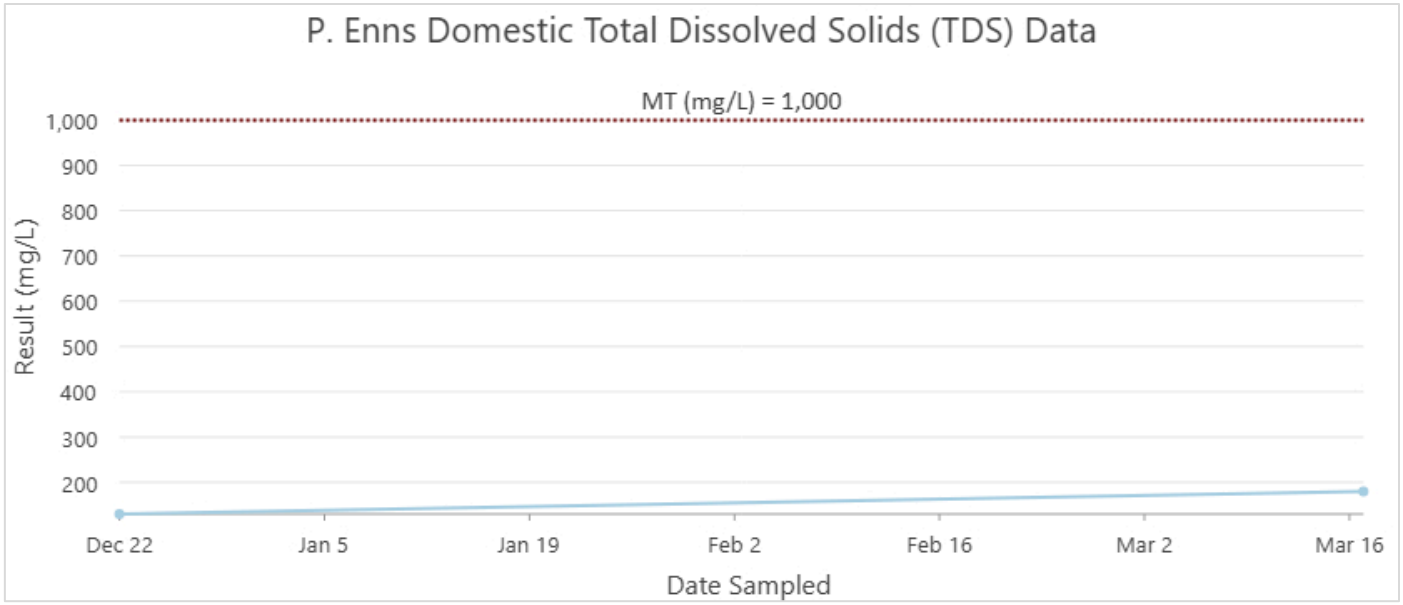
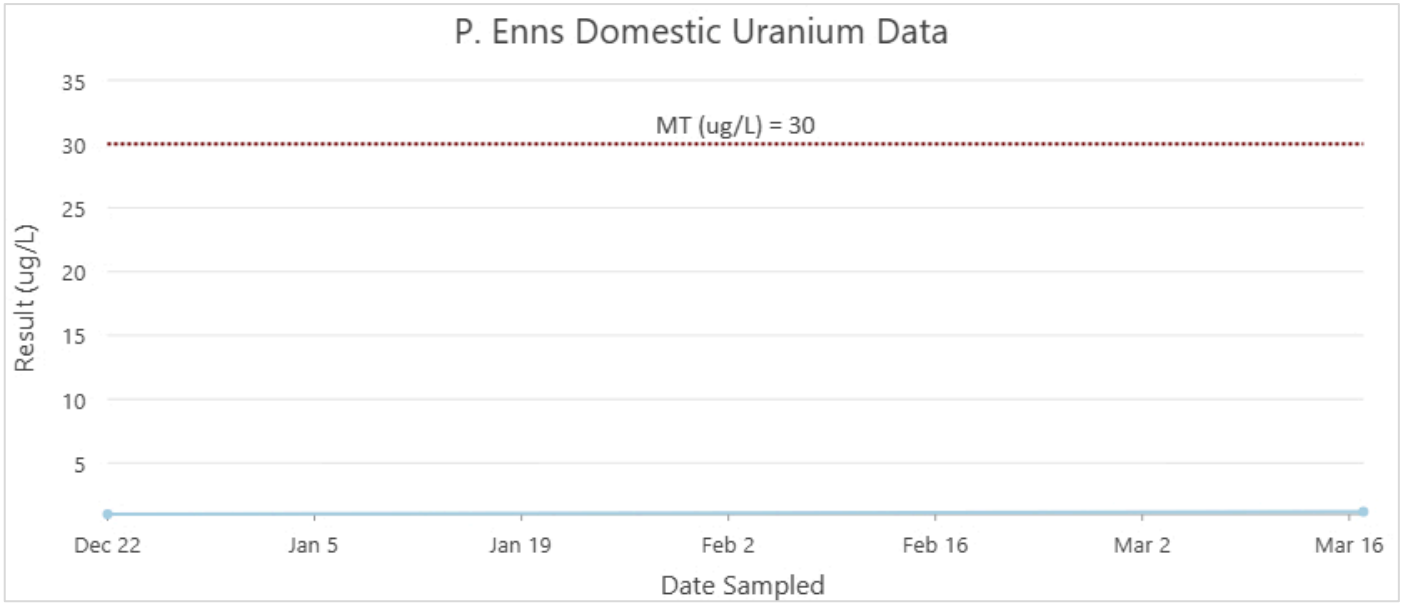
Dec 22
Jan 5
Jan 19
Feb 2
Feb 16
Mar 2
Mar 16
Date Sampled


P. Enns Domestic Arsenic Data
12
10
8
6
4
2
0
MT (ug/L) = 10
Result (ug/L)
Dec 22
Jan 5
Jan 19
Feb 2
Feb 16
Mar 2
Mar 16
Date Sampled


P. Enns Domestic Nitrate as N Data
12
10
8
6
4
2
0
MT (mg/L) = 10
Result (mg/L)
Dec 22
Jan 5
Jan 19
Feb 2
Feb 16
Mar 2
Mar 16
Date Sampled


P. Enns Domestic Nitrite as N Data
1.4
1.2
1
0.8
0.6
0.4
0.2
0
MT (mg/L) = 1
Result (mg/L)
Dec 22
Jan 5
Jan 19
Feb 2
Feb 16
Mar 2
Mar 16
Date Sampled


P. Enns Domestic Total Dissolved Solids (TDS) Data
MT (mg/L) = 1,000
1,000
900
800
700
600
500
400
300
200
Result (mg/L)
Dec 22
Jan 5
Jan 19
Feb 2
Feb 16
Mar 2
Mar 16
Date Sampled


P. Enns Domestic Uranium Data
35
MT (ug/L) = 30
30
25
20
15
10
5
Result (ug/L)
Dec 22
Jan 5
Jan 19
Feb 2
Feb 16
Mar 2
Mar 16
Date Sampled