

LEGEND:

- OU-1 Boundary
- Perchlorate (mg/L)
- Potential Perchlorate Source Area (hatched where less defined)
- Perchlorate GWSL = 0.015 mg/L
- Paleochannel
- Groundwater Barrier Wall
- Inactive Recharge Trench
- Former Beta Ditch
- Active Pond
- Closed Pond
- Inactive Pond

Notes:

1. mg/L: milligrams per liter
2. GWSL: Groundwater Screening Level
3. NA: Not Available
4. WBZ: Water-Bearing Zone
5. For clarity, groundwater grab samples from the Unit 4 / Unit 5 Investigation are not shown.

LEGEND:

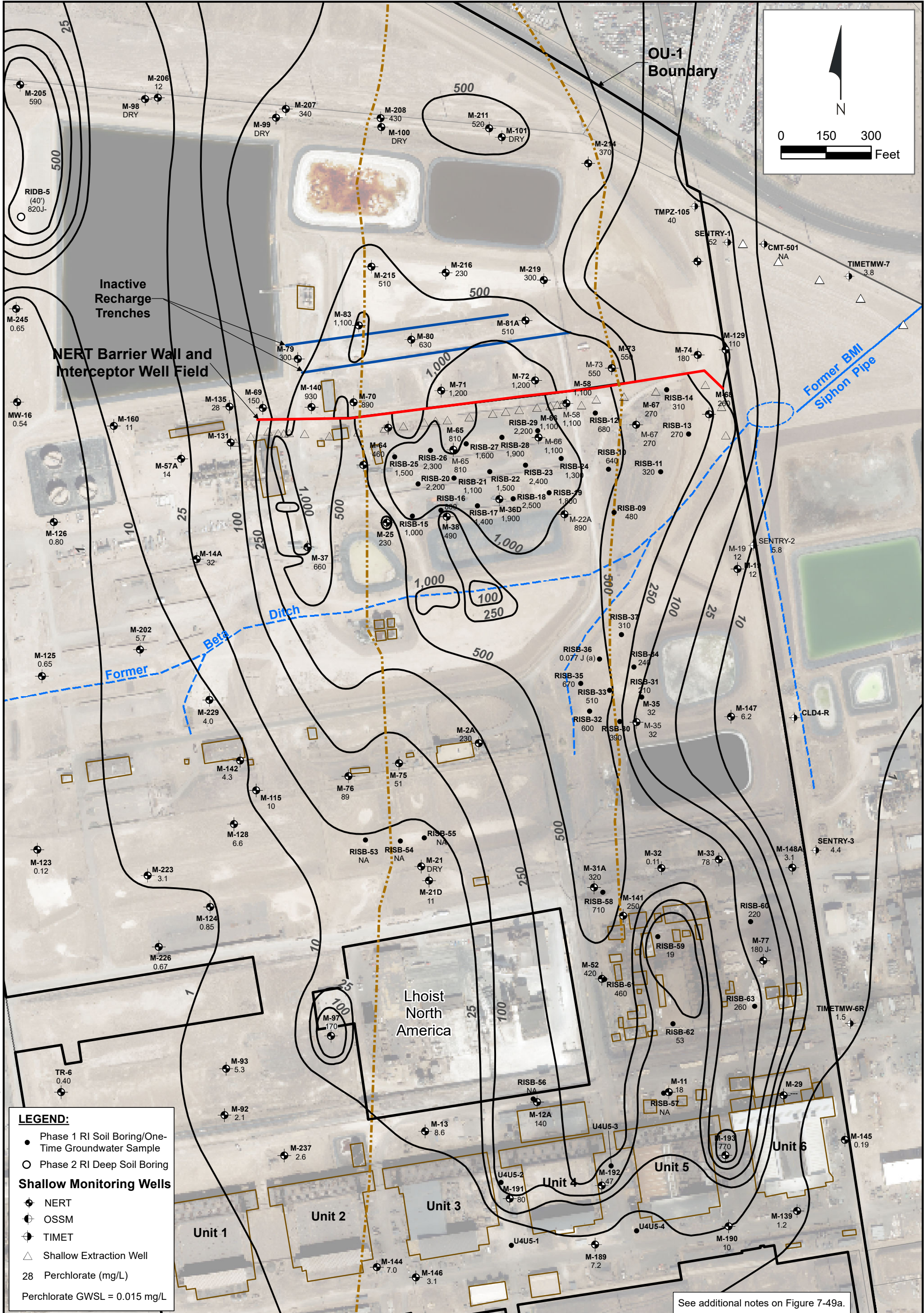
- Phase 1 RI Soil Boring/One-Time Groundwater Sample
- Phase 2 RI Deep Soil Boring (sample depth, ft bgs)
- Shallow Monitoring Wells**
 - NERT
 - OSSM
 - TIMET
 - BRC
 - Shallow Extraction Well
 - Decommissioned Well

Path: H:\LePetomane\NERT\RI OU-1 OU-2 RI Report\GIS\revision1\revision1.aprx



Perchlorate Isoconcentration Map - Shallow WBZ (0-55 ft bgs) OU-1, 2015-2018
 Nevada Environmental Response Trust Site; Henderson, Nevada

Figure
7-49a



Path: H:\LePalomane\NERT\RI_Evaluation\GIS\Chemical Maps\Fig 7-43b_RI-Evaluation-Perchlorate-iSOCON_2015-2018.mxd

LEGEND:

- Phase 1 RI Soil Boring/One-Time Groundwater Sample
- Phase 2 RI Deep Soil Boring

Shallow Monitoring Wells

- ◆ NERT
- ◆ OSSM
- ◆ TIMET
- △ Shallow Extraction Well

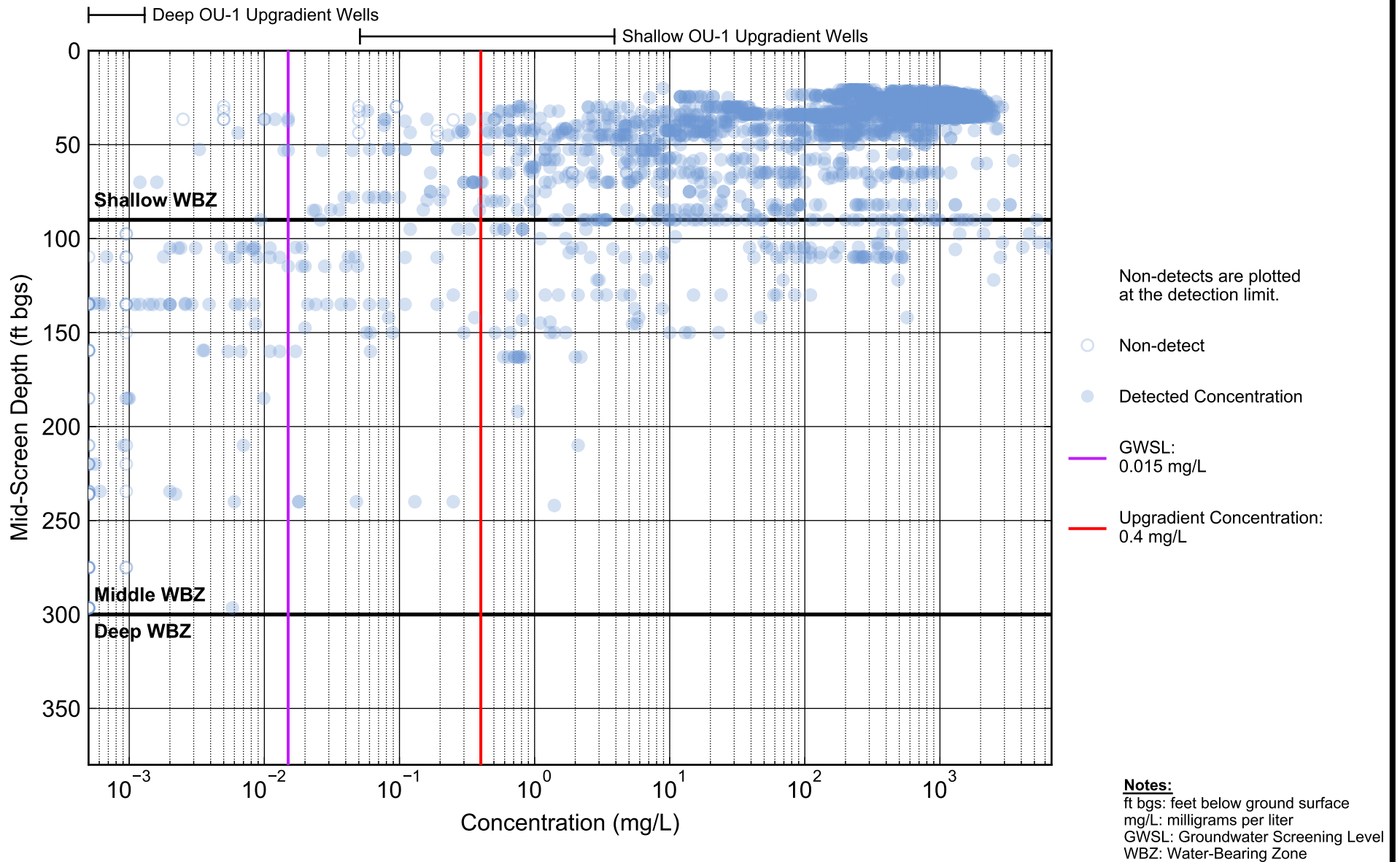
28 Perchlorate (mg/L)
Perchlorate GWSL = 0.015 mg/L

See additional notes on Figure 7-49a.



Perchlorate Isoconcentration Map - Shallow WBZ (0-55 ft bgs)
OU-1 Detail, 2015-2018
 Nevada Environmental Response Trust Site; Henderson, Nevada

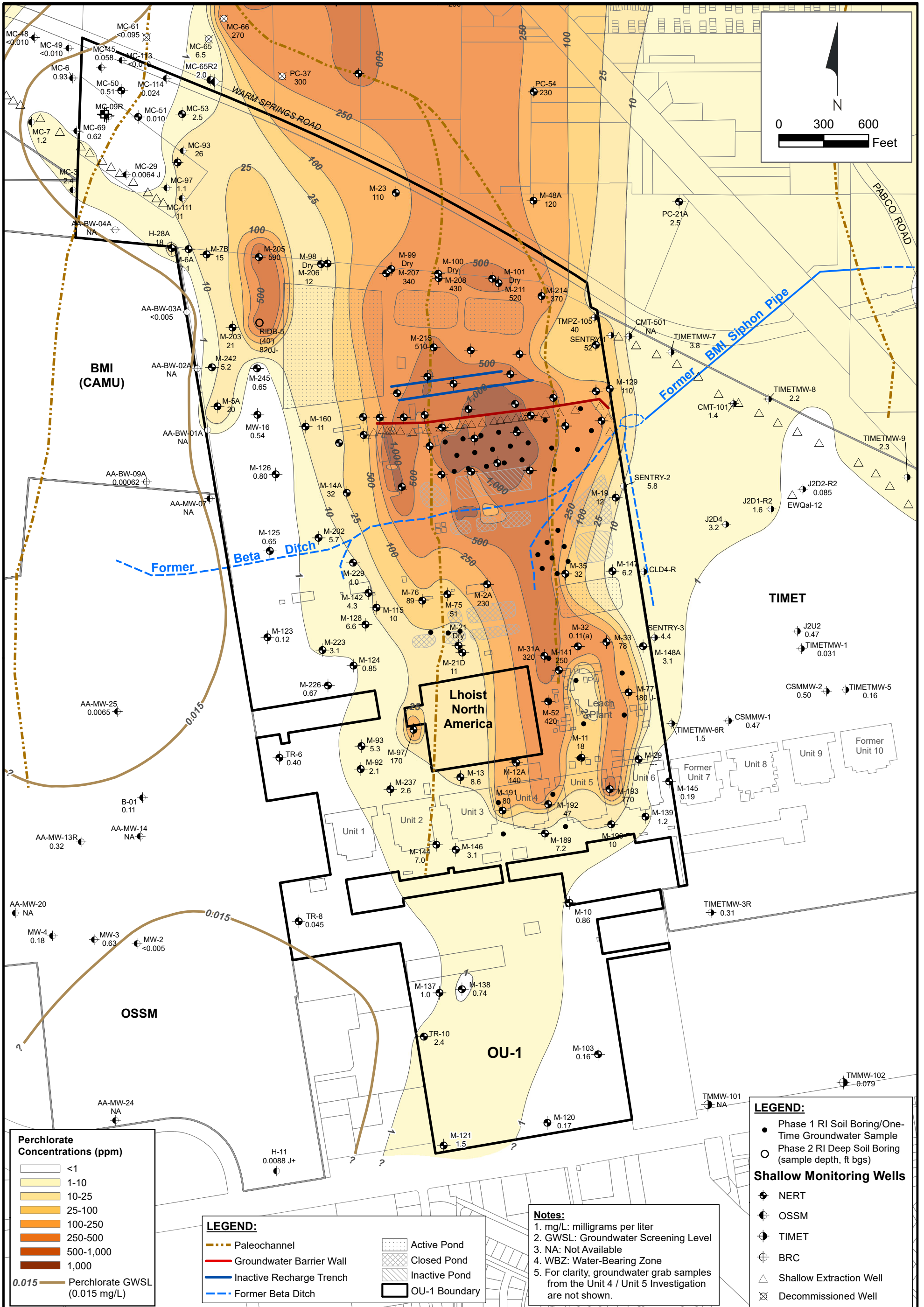
Figure
7-49b



OU-1 Perchlorate Groundwater Concentrations vs. Sample Depth
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure

7-50a



Path: H:\LePalomane\NERT\RI_Evaluation\GIS\Chemical Maps\OU-1-Perchlorate Distribution shallow WBZ.mxd



Perchlorate Distribution - Shallow WBZ (0-55 ft bgs)
OU-1, 2015-2018
 Nevada Environmental Response Trust Site; Henderson, Nevada

Figure
7-50b

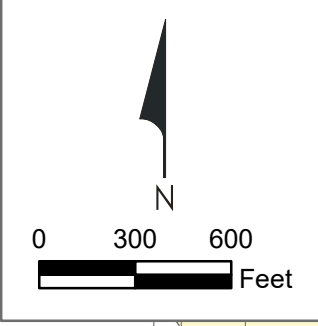
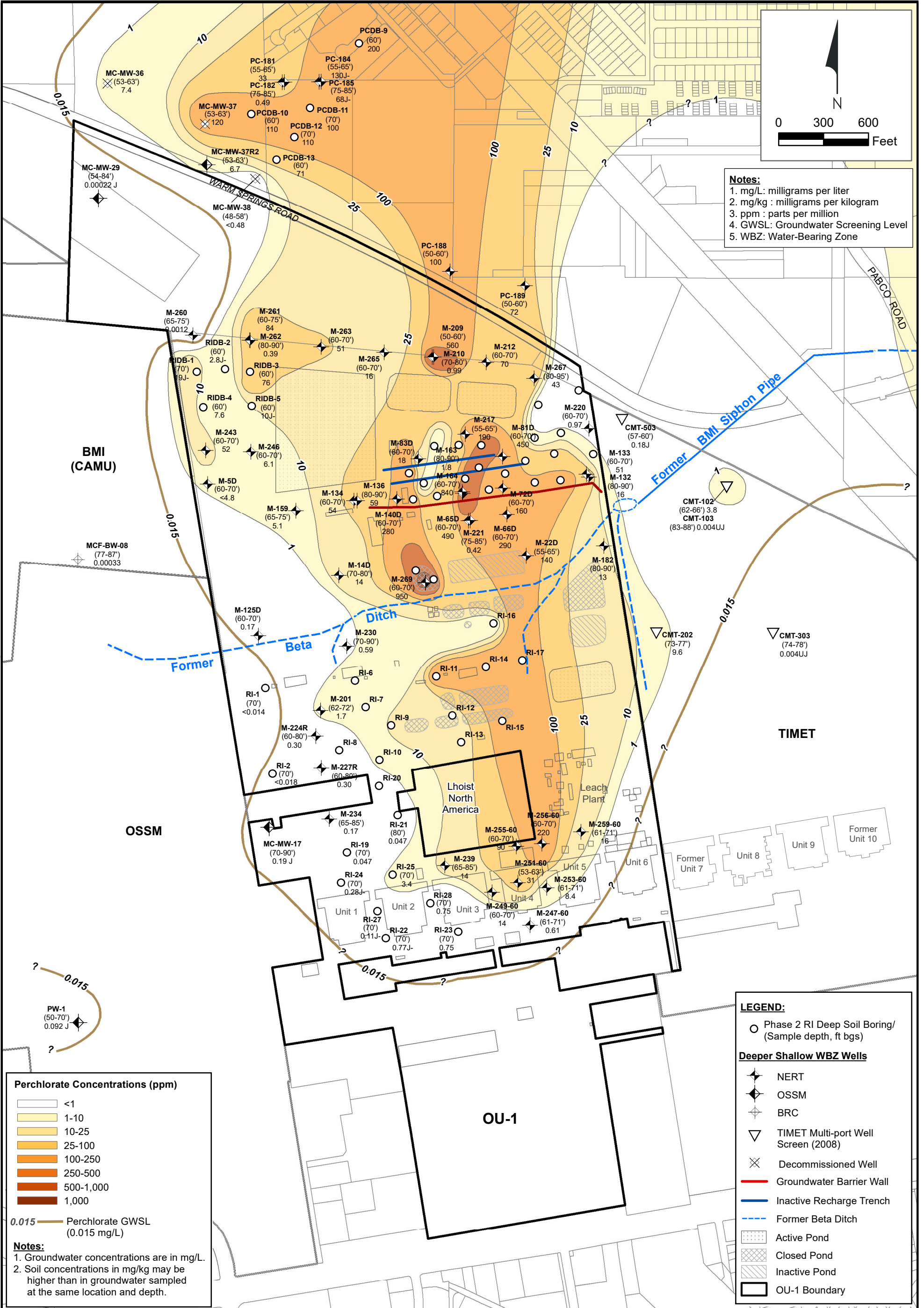
Drafter: RS

Date: 8/7/2020

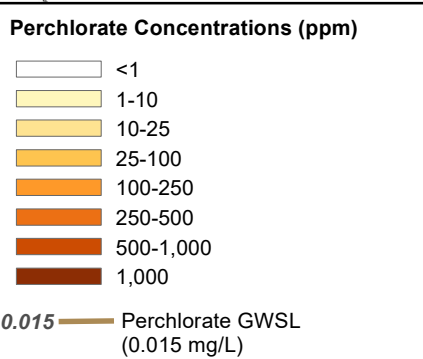
Contract Number: 169002 9369

Approved by:

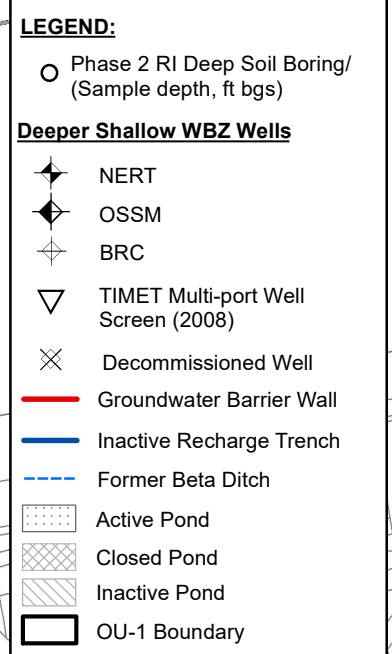
Revised:



Notes:
 1. mg/L: milligrams per liter
 2. mg/kg: milligrams per kilogram
 3. ppm: parts per million
 4. GWSL: Groundwater Screening Level
 5. WBZ: Water-Bearing Zone



Notes:
 1. Groundwater concentrations are in mg/L.
 2. Soil concentrations in mg/kg may be higher than in groundwater sampled at the same location and depth.



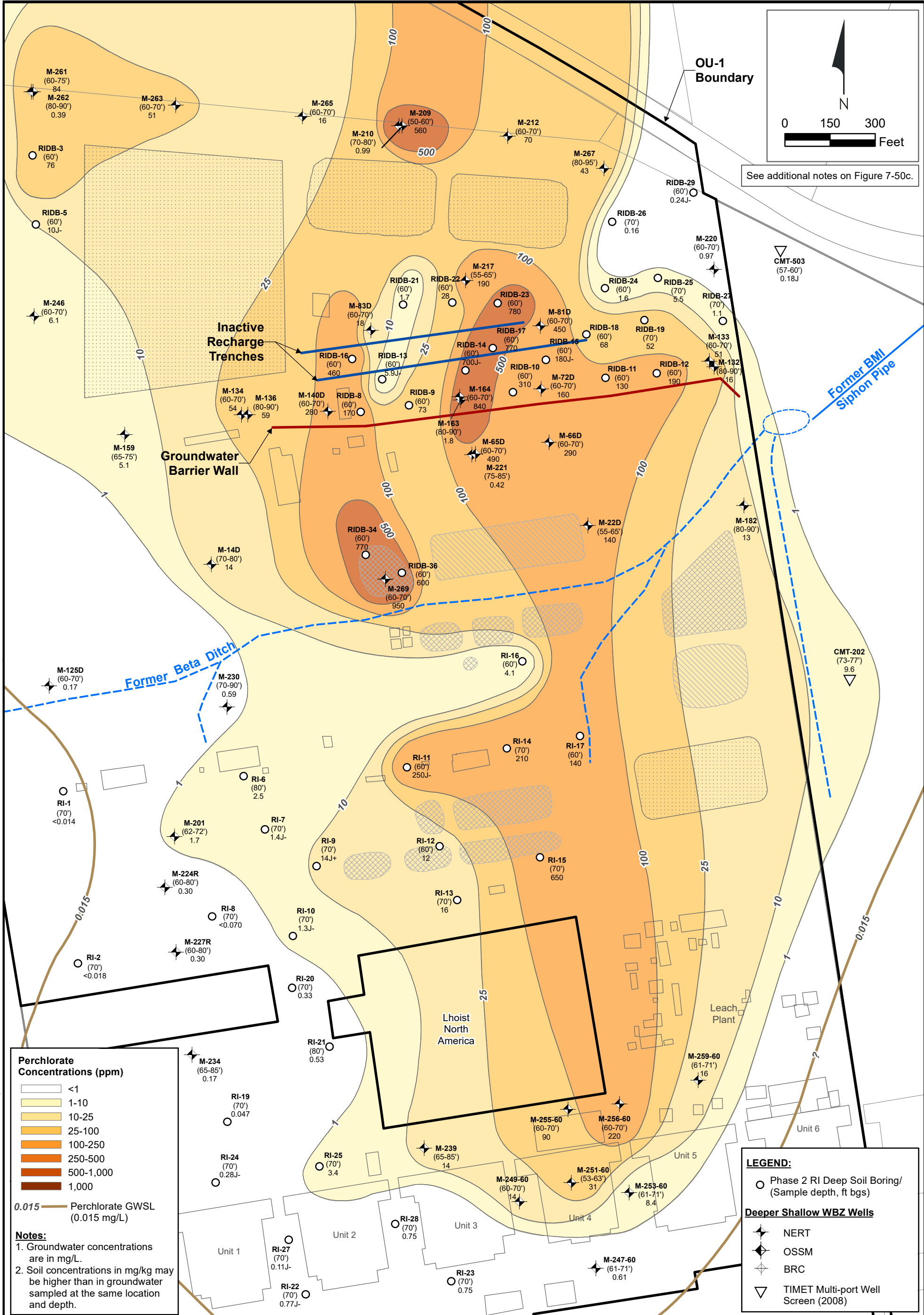
Path: H:\LePalomane\NERT\RI_Evaluation\GIS\Chemical Maps\OU-1_55-90_Perchlorate map-Sha WBZ_-2.mxd



**Perchlorate Distribution - Shallow WBZ (55-90 ft bgs)
 OU-1, 2015-2018**

Nevada Environmental Response Trust Site; Henderson, Nevada

Figure
7-50c



Path: H:\LePalomane\NERT\RI_Evaluation\GIS\Chemical Maps\Fig 7-44c_55-90_Perchlorate map-detail-2.mxd

Perchlorate Concentrations (ppm)

- <1
- 1-10
- 10-25
- 25-100
- 100-250
- 250-500
- 500-1,000
- 1,000

0.015 — Perchlorate GWSL (0.015 mg/L)

Notes:
 1. Groundwater concentrations are in mg/L.
 2. Soil concentrations in mg/kg may be higher than in groundwater sampled at the same location and depth.

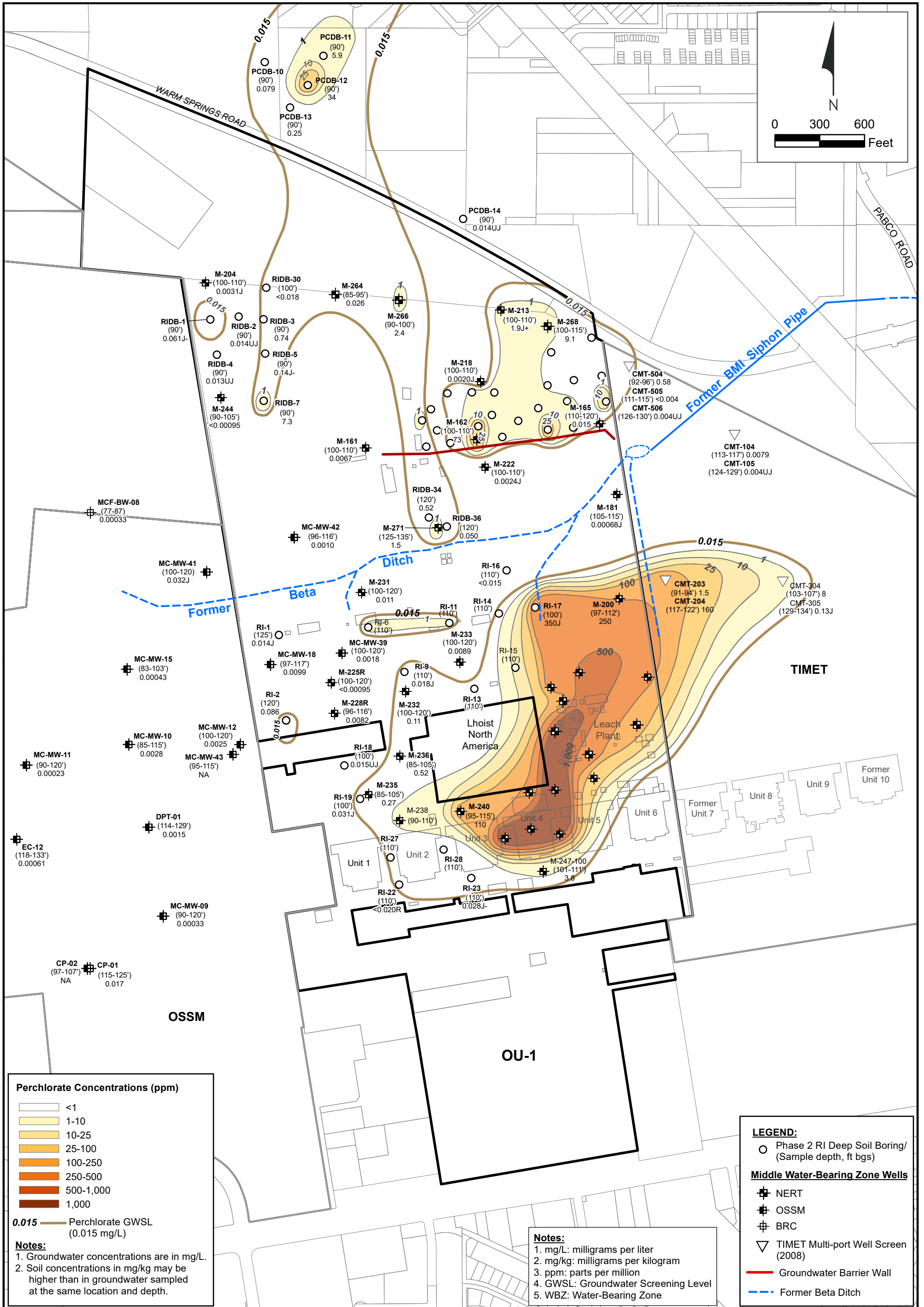
LEGEND:

- Phase 2 RI Deep Soil Boring/ (Sample depth, ft bgs)
- Deeper Shallow WBZ Wells**
- NERT
- OSSM
- BRC
- TIMET Multi-port Well Screen (2008)



**Perchlorate Distribution - Shallow WBZ (55-90 ft bgs)
 OU-1 Detail, 2015-2018**
 Nevada Environmental Response Trust Site; Henderson, Nevada

Figure
7-50d

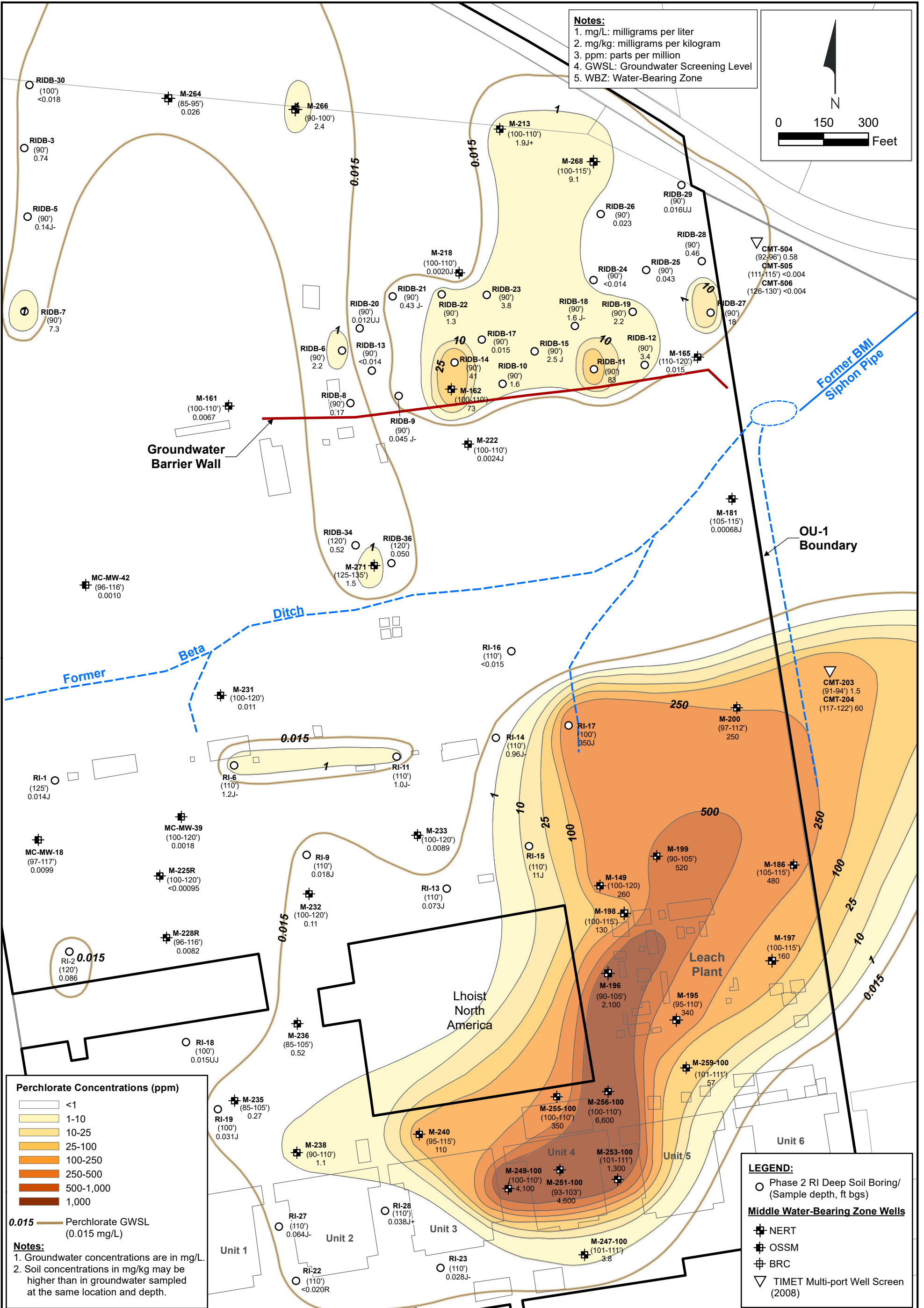
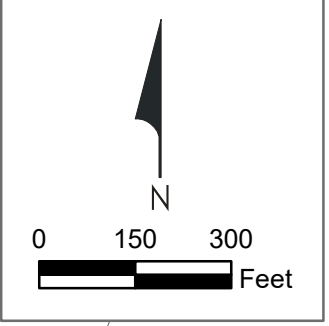


**Perchlorate Distribution - Middle WBZ (90-130 ft bgs)
 OU-1, 2015-2018**
 Nevada Environmental Response Trust Site; Henderson, Nevada

Figure
7-50e



- Notes:**
1. mg/L: milligrams per liter
 2. mg/kg: milligrams per kilogram
 3. ppm: parts per million
 4. GWSL: Groundwater Screening Level
 5. WBZ: Water-Bearing Zone



Perchlorate Concentrations (ppm)

<1
1-10
10-25
25-100
100-250
250-500
500-1,000
1,000

0.015 Perchlorate GWSL (0.015 mg/L)

Notes:

1. Groundwater concentrations are in mg/L.
2. Soil concentrations in mg/kg may be higher than in groundwater sampled at the same location and depth.

LEGEND:

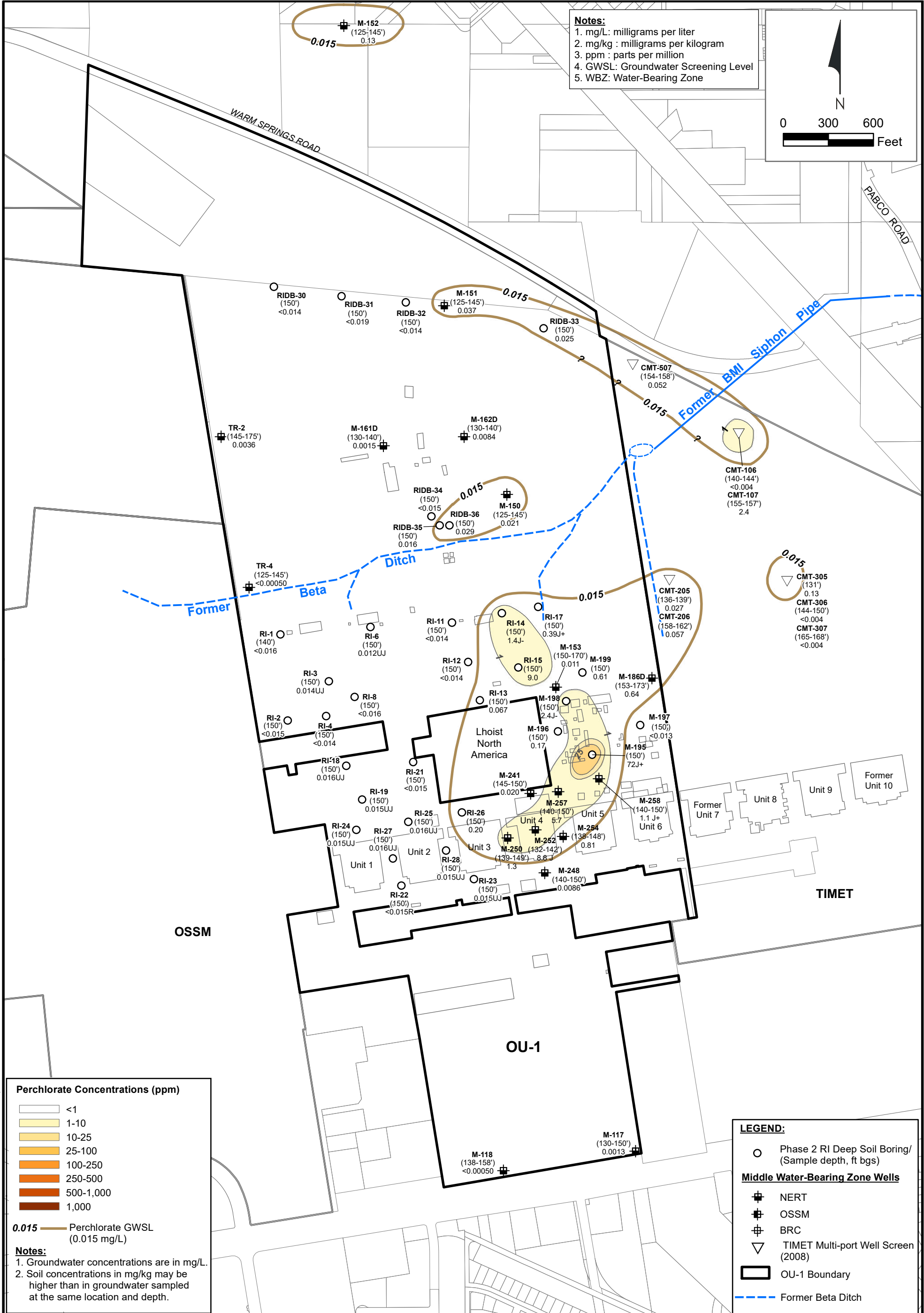
- Phase 2 RI Deep Soil Boring/ (Sample depth, ft bgs)
- Middle Water-Bearing Zone Wells**
- ⊕ NERT
- ⊕ OSSM
- ⊕ BRC
- ▽ TIMET Multi-port Well Screen (2008)

**Perchlorate Distribution - Middle WBZ (90-130 ft bgs)
OU-1 Detail, 2015-2018**
Nevada Environmental Response Trust Site; Henderson, Nevada

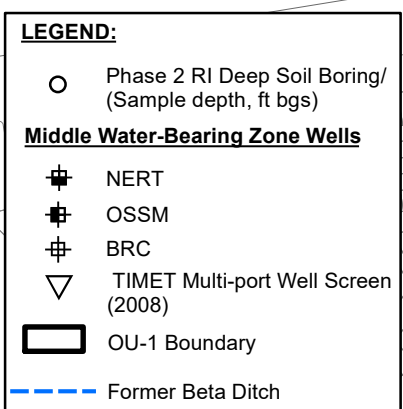
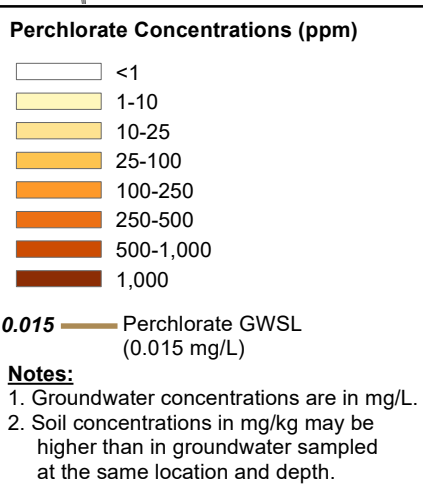
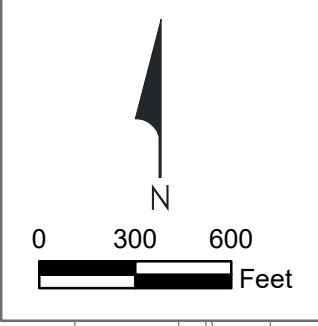


Figure
7-50f

Path: H:\LePalomane\NERT\RI_Evaluation\GIS\Chemical Maps\Fig 7-44e_Mid_WaterBearingMW_90-130-xb.mxd



Notes:
 1. mg/L: milligrams per liter
 2. mg/kg : milligrams per kilogram
 3. ppm : parts per million
 4. GWSL: Groundwater Screening Level
 5. WBZ: Water-Bearing Zone

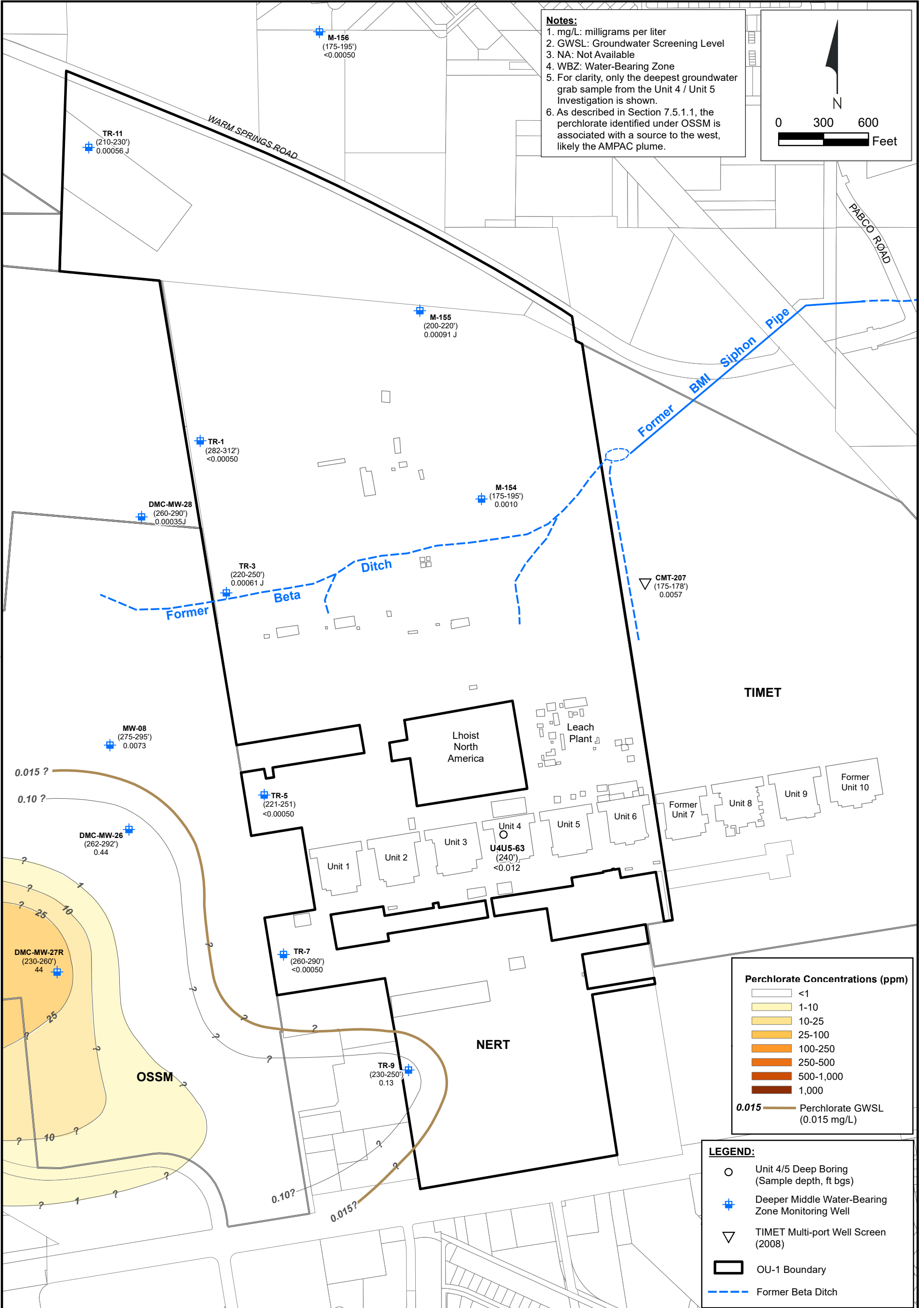


Perchlorate Distribution - Middle WBZ (130-175 ft bgs)
OU-1, 2015-2018
 Nevada Environmental Response Trust Site; Henderson, Nevada

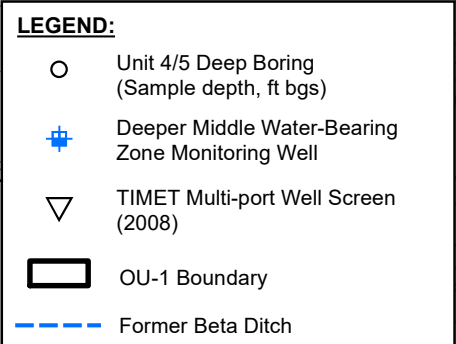
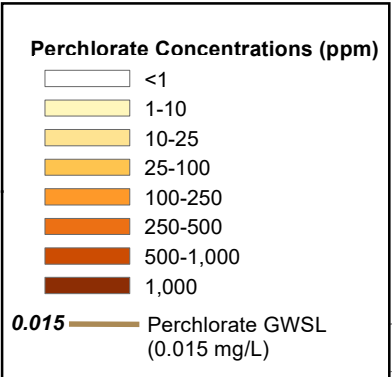
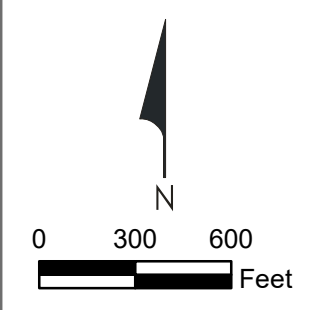
Figure
7-50g

Path: H:\LePalomane\NERT\RI_Evaluation\GIS\Chemical Maps\Fig 7-44f_DpnMiddleZone130-175ft-2.mxd





Notes:
 1. mg/L: milligrams per liter
 2. GWSL: Groundwater Screening Level
 3. NA: Not Available
 4. WBZ: Water-Bearing Zone
 5. For clarity, only the deepest groundwater grab sample from the Unit 4 / Unit 5 Investigation is shown.
 6. As described in Section 7.5.1.1, the perchlorate identified under OSSM is associated with a source to the west, likely the AMPAC plume.



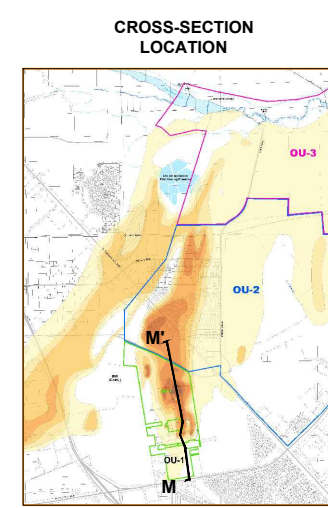
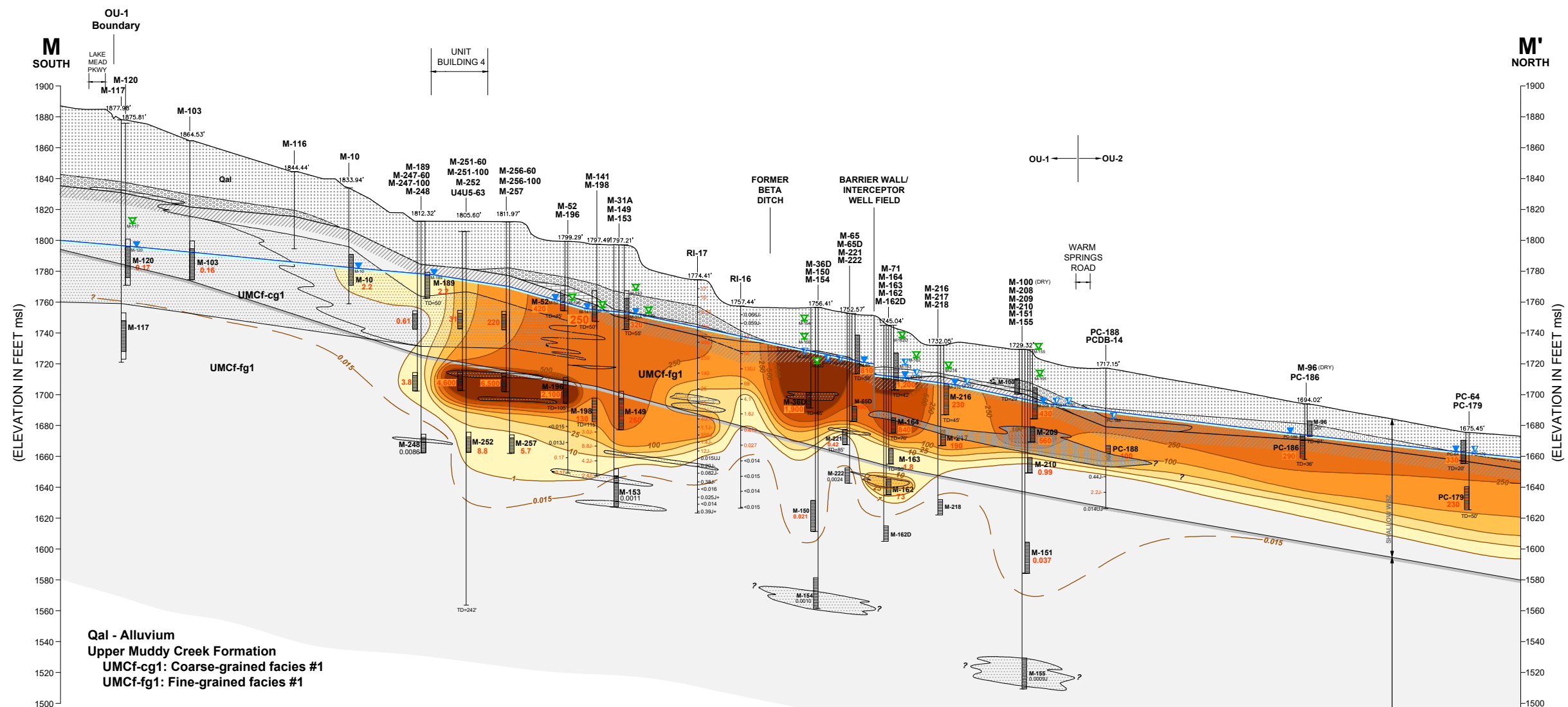
Path: H:\LePalomane\NERT\RI_Evaluation\GIS\Chemical Maps\Fig 7-44g_Dpr\MiddleZone175-300ft.mxd



**Perchlorate Distribution - Middle WBZ (175-300 ft bgs)
 OU-1, 2015-2018**
 Nevada Environmental Response Trust Site; Henderson, Nevada

Figure
7-50h

Q:\DRAWINGS\1690006943\Cross_Section\M-M-perchlorate.dwg Layout: 11x17 User: RMSO Jan 19, 2023 - 3:26pm

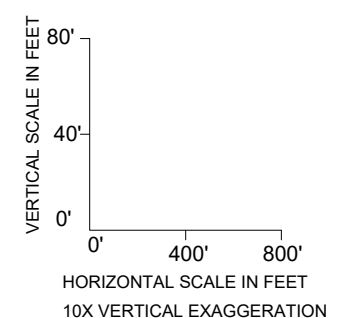


LEGEND

PERCHLORATE CONCENTRATIONS

<1 mg/L	100-250
1-10	250-500
10-25	500-1,000
25-100	>1,000 mg/L

0.015 — Perchlorate GWSL (0.015 mg/L)



NOTES:

- Stratigraphic interpretation is based in part on available boring logs from previous investigations conducted by others. Lithologic contacts are shown unbroken for clarity, but this does not imply certainty. Interpreted contact shown may be affected by projected borings. Actual subsurface conditions along the cross-section alignment may vary.
- Groundwater elevations measured October 2017 - May 2018.

STRATIGRAPHIC UNITS AND SOIL TYPES

CALICHE [Symbol]	ALLUVIUM (Qal) GRAVEL/ SANDY GRAVEL [Symbol] SILTY SAND [Symbol]	UPPER MUDDY CREEK FORMATION (UMCF) SILTY CLAY/ CLAYEY SILT [Symbol] SANDY SILT (fine to very fine sand) [Symbol] SILTY SAND/ SANDY BED [Symbol] SILTY SAND/ GRAVEL [Symbol]
----------------------------	--	--

GROUNDWATER ELEVATIONS
(feet, mean sea level datum)

Shallow Water-Bearing Zone (0-90 ft)

- Water Table Zone Well
- Deeper Shallow WBZ Well

Middle Water-Bearing Zone (90-300 ft)

- Upper Muddy Creek Formation, First Fine-Grained Unit (UMCF-fg1)

GROUNDWATER CONCENTRATIONS, 2017 - 2018

210 PERCHLORATE (mg/L)

Notes:

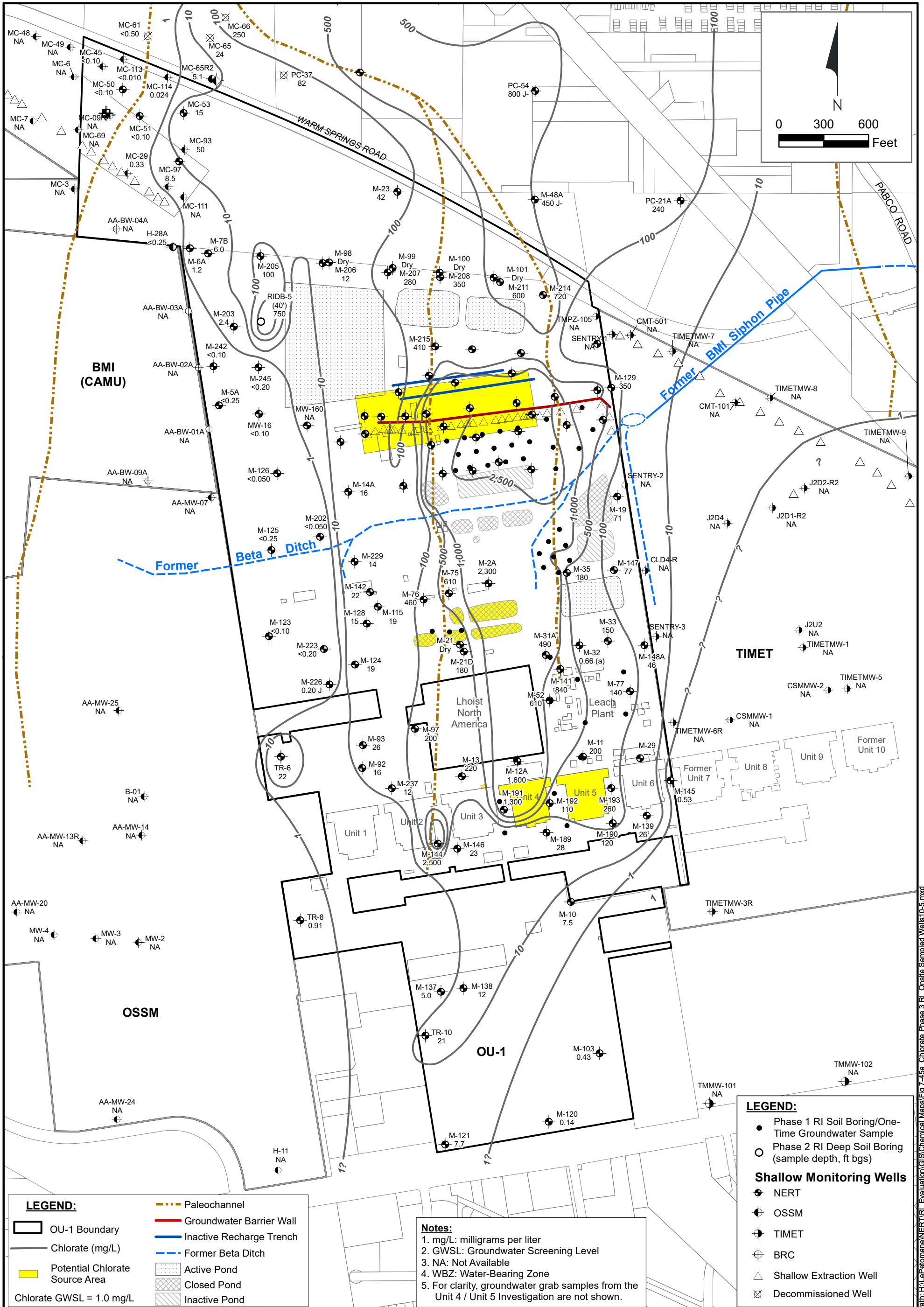
- NA - Not Analyzed
- ND - Not Detected
- NS - Not Sampled

- The federal Preliminary Remediation Goal (PRG) for perchlorate in groundwater is 0.015 mg/L.
- Soil perchlorate concentrations (mg/kg) are shown in smaller non-bold font.



Subsurface Cross-Section M-M' Showing Vertical Extent of Perchlorate in OU-1
Nevada Environmental Response Trust Site
Henderson, Nevada

Figure
7-50i



LEGEND:

- OU-1 Boundary
- Chlorate (mg/L)
- Potential Chlorate Source Area
- Chlorate GWSL = 1.0 mg/L
- Paleochannel
- Groundwater Barrier Wall
- Inactive Recharge Trench
- Former Beta Ditch
- Active Pond
- Closed Pond
- Inactive Pond

Notes:

1. mg/L: milligrams per liter
2. GWSL: Groundwater Screening Level
3. NA: Not Available
4. WBZ: Water-Bearing Zone
5. For clarity, groundwater grab samples from the Unit 4 / Unit 5 Investigation are not shown.

LEGEND:

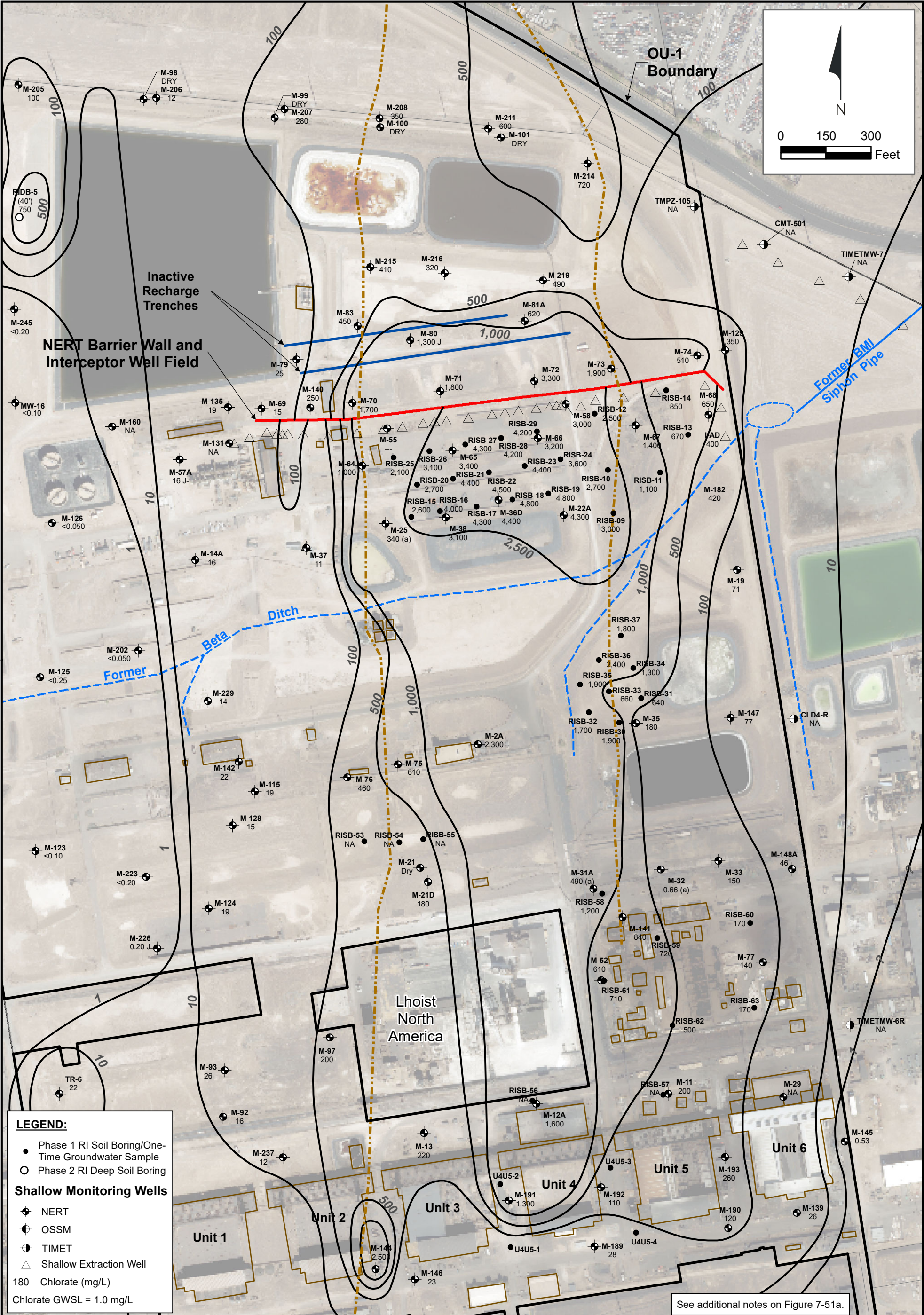
- Phase 1 RI Soil Boring/One-Time Groundwater Sample
- Phase 2 RI Deep Soil Boring (sample depth, ft bgs)
- Shallow Monitoring Wells**
- ⊕ NERT
- ⊕ OSSM
- ⊕ TIMET
- ⊕ BRC
- △ Shallow Extraction Well
- ⊗ Decommissioned Well

Chlorate Isoconcentration Map - Shallow WBZ (0-55 ft bgs) OU-1, 2015-2018
 Nevada Environmental Response Trust Site; Henderson, Nevada

Figure **7-51a**



Path: H:\Leremane\NERT\RI_Evaluation\GIS\Chemical Maps\Fig 7-45a_Chlorate Phase 3 RI_Onsite Sampled Wells(05.mxd)



Path: H:\LePalomane\NERT\RI_Evaluation\GIS\Chemical Maps\Fig 7-45b_RI-Evaluation-Chlorate-sampleloc-detail-aerial-300.mxd

LEGEND:

- Phase 1 RI Soil Boring/One-Time Groundwater Sample
- Phase 2 RI Deep Soil Boring

Shallow Monitoring Wells

- ◆ NERT
- OSSM
- ◆ TIMET
- △ Shallow Extraction Well

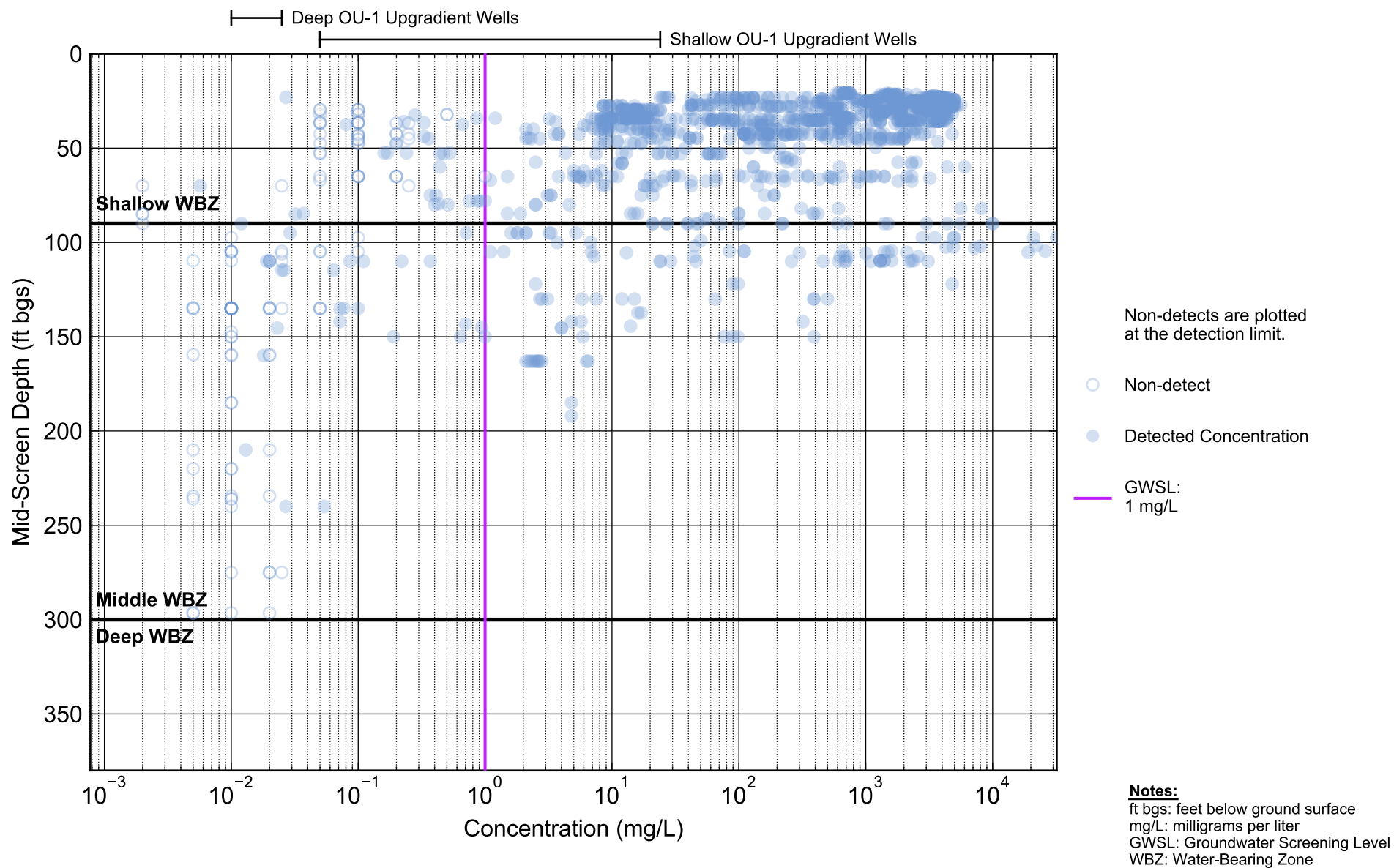
180 Chlorate (mg/L)
Chlorate GWSL = 1.0 mg/L

See additional notes on Figure 7-51a.

Chlorate Isoconcentration Map - Shallow WBZ (0-55 ft bgs)
OU-1 Detail, 2015-2018
 Nevada Environmental Response Trust Site; Henderson, Nevada

Figure
7-51b

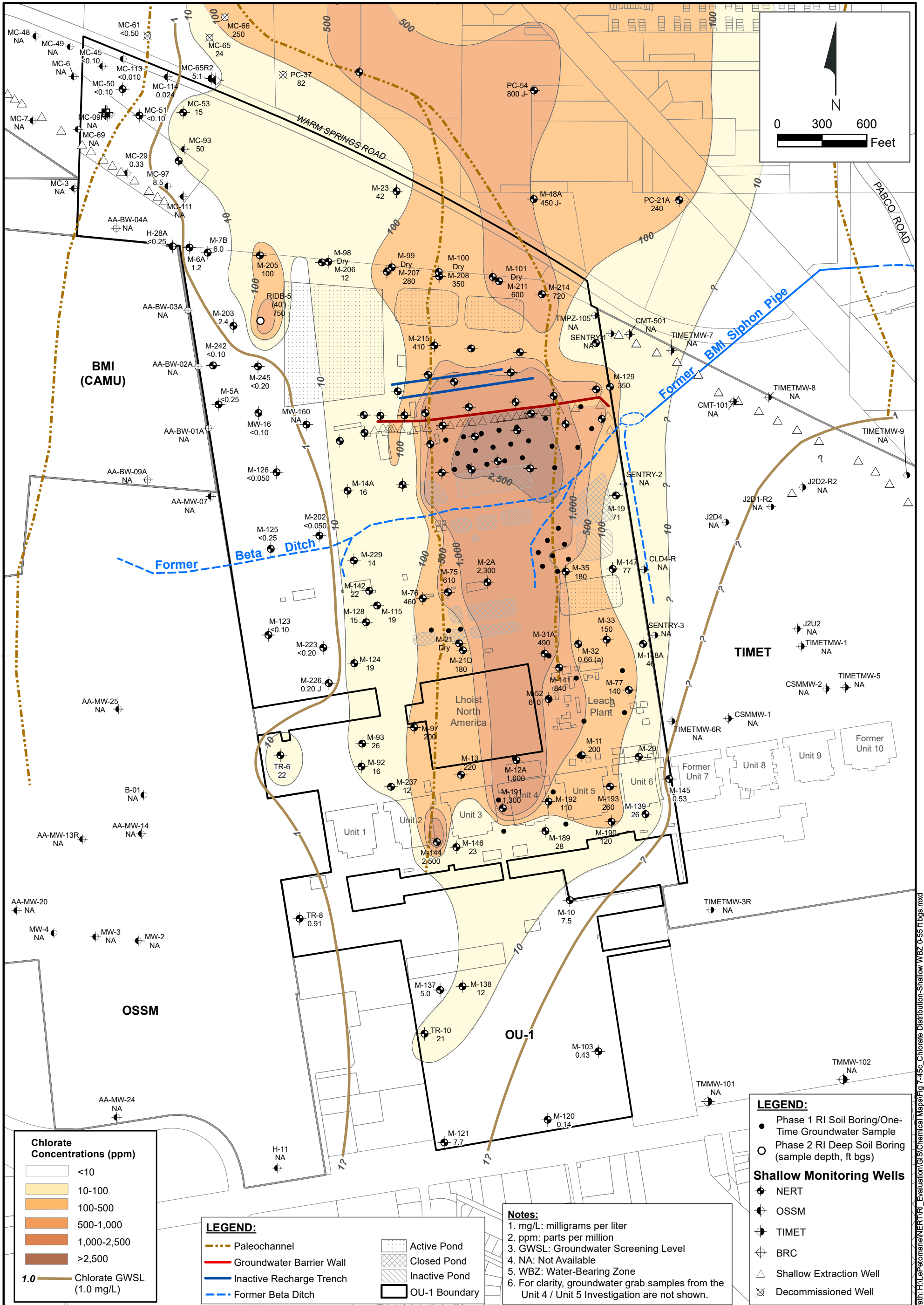




OU-1 Chlorate Groundwater Concentrations vs. Sample Depth
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure

7-51c

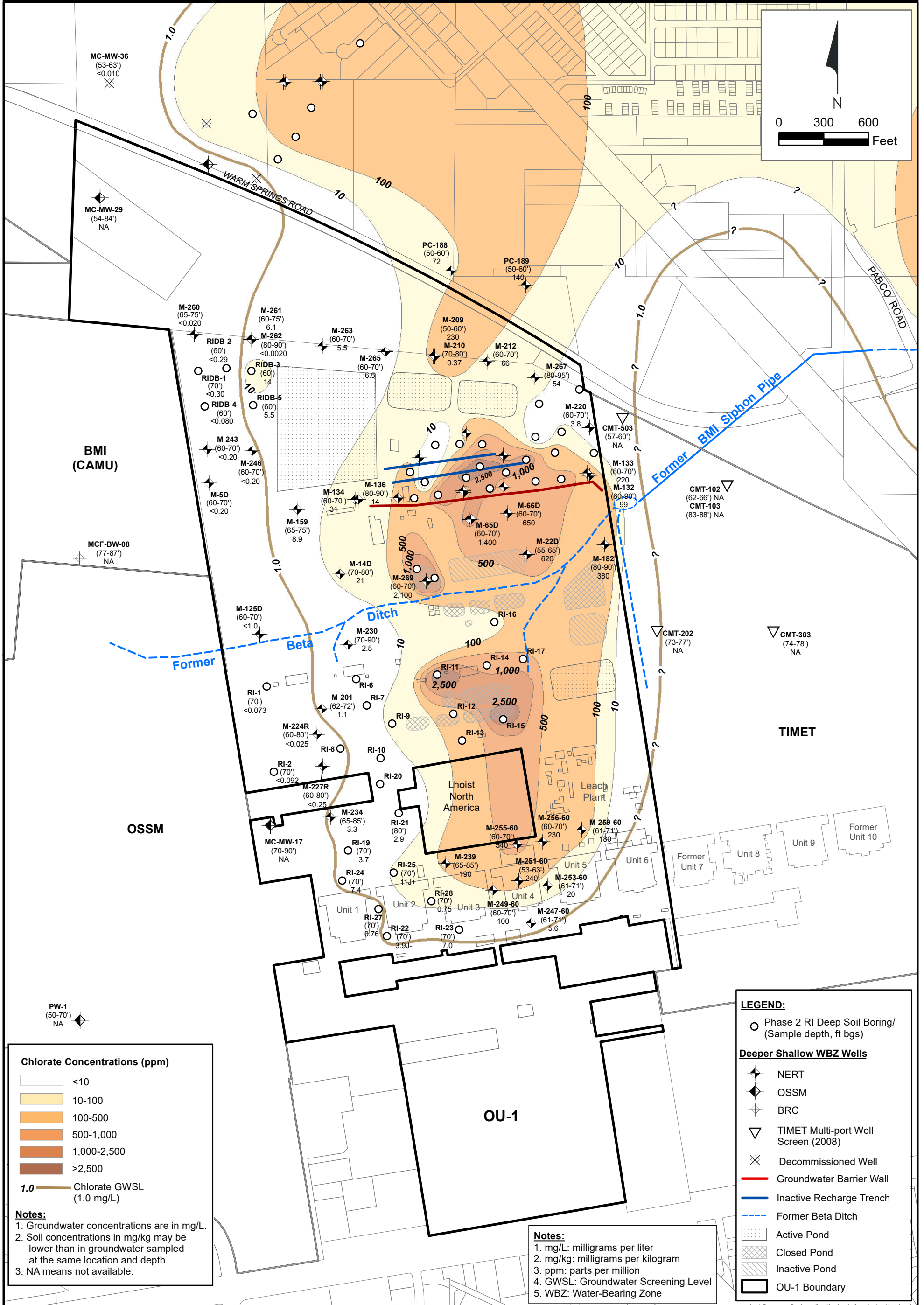


Chlorate Distribution – Shallow WBZ (0-55 ft bgs)
OU-1, 2015-2018
 Nevada Environmental Response Trust Site; Henderson, Nevada

Figure
7-51d



Path: H:\LerRemane\NERT\RP_Evaluation\GIS\Chemical Maps\Fig 7-46c_Chlorate Distribution-Shallow WBZ 0-55 ft bgs.mxd



Path: H:\LePalomane\NERT\RI_Evaluation\GIS\Chemical Maps\Fig 7-45d_OU-1_55-90_Chlorate map-Sha WBZ.mxd

Chlorate Concentrations (ppm)

<10
10-100
100-500
500-1,000
1,000-2,500
>2,500

1.0 Chlorate GWSL (1.0 mg/L)

Notes:

1. Groundwater concentrations are in mg/L.
2. Soil concentrations in mg/kg may be lower than in groundwater sampled at the same location and depth.
3. NA means not available.

Notes:

1. mg/L: milligrams per liter
2. mg/kg: milligrams per kilogram
3. ppm: parts per million
4. GWSL: Groundwater Screening Level
5. WBZ: Water-Bearing Zone

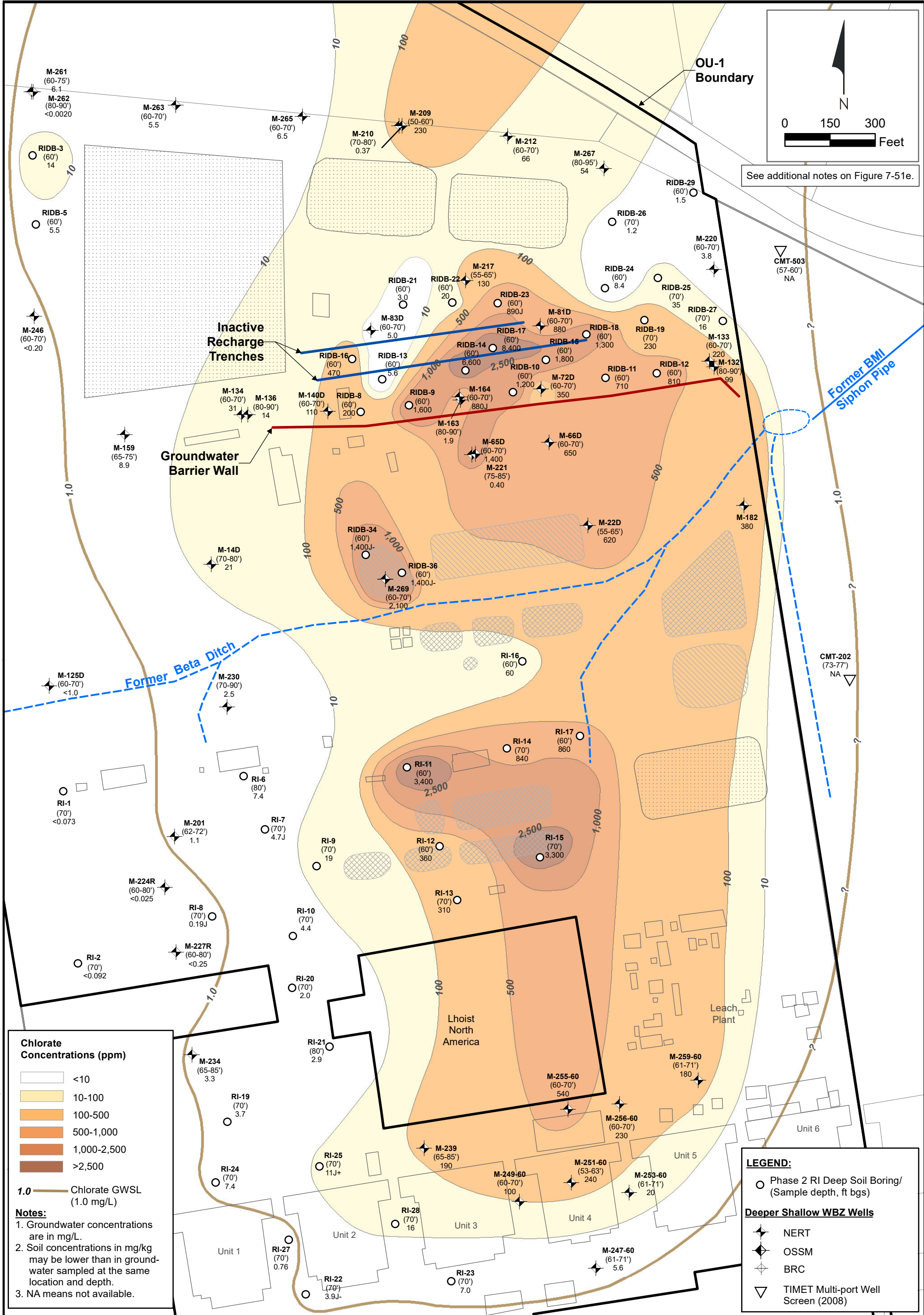
LEGEND:

- Phase 2 RI Deep Soil Boring/ (Sample depth, ft bgs)
- Deeper Shallow WBZ Wells**
- ◆ NERT
- ◆ OSSM
- ◆ BRC
- ▽ TIMET Multi-port Well Screen (2008)
- ⊗ Decommissioned Well
- Groundwater Barrier Wall
- Inactive Recharge Trench
- - - Former Beta Ditch
- ▨ Active Pond
- ▩ Closed Pond
- ▨ Inactive Pond
- ▭ OU-1 Boundary



**Chlorate Distribution - Shallow WBZ (55-90 ft bgs)
OU-1, 2015-2018**
Nevada Environmental Response Trust Site; Henderson, Nevada

Figure
7-51e



See additional notes on Figure 7-51e.

Chlorate Concentrations (ppm)

<10
10-100
100-500
500-1,000
1,000-2,500
>2,500

1.0 Chlorate GWSL (1.0 mg/L)

- Notes:**
1. Groundwater concentrations are in mg/L.
 2. Soil concentrations in mg/kg may be lower than in groundwater sampled at the same location and depth.
 3. NA means not available.

LEGEND:

○	Phase 2 RI Deep Soil Boring/ (Sample depth, ft bgs)
◆	NERT
◆	OSSM
◆	BRC
▽	TIMET Multi-port Well Screen (2008)

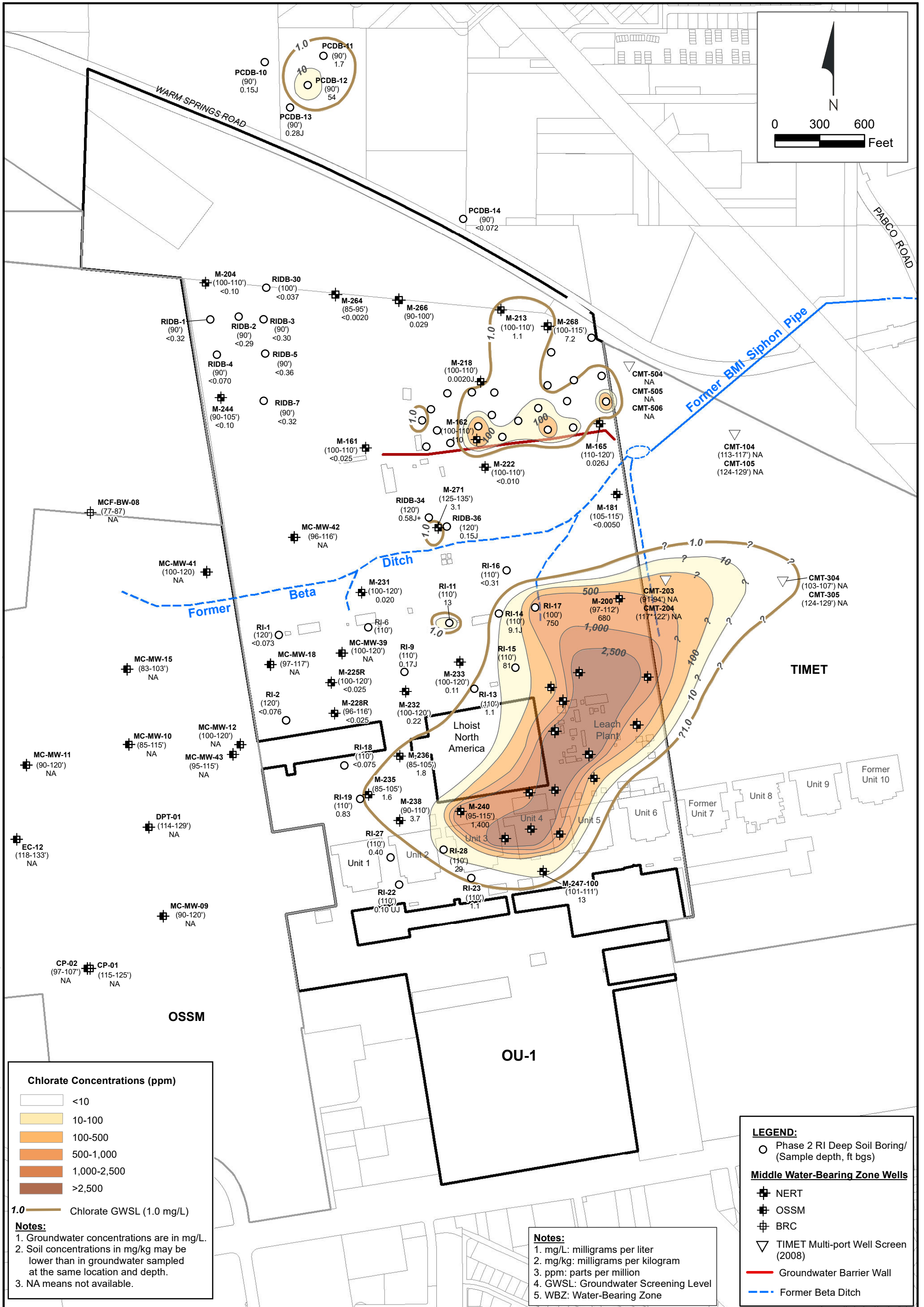
Deeper Shallow WBZ Wells



**Chlorate Distribution - Shallow WBZ (55-90 ft bgs)
OU-1 Detail, 2015-2018**
Nevada Environmental Response Trust Site; Henderson, Nevada

Figure
7-51f

Path: H:\LePalomane\NERT\RI_Evaluation\GIS\Chemical Maps\Fig 7-45e_55-90_Chlorate map-detail.mxd

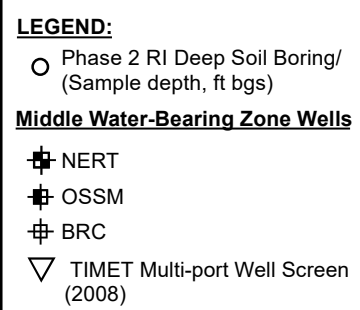
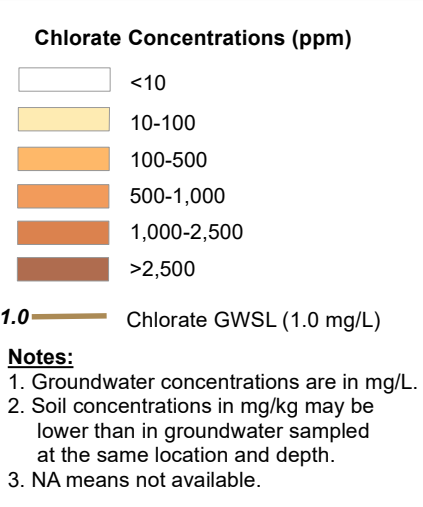
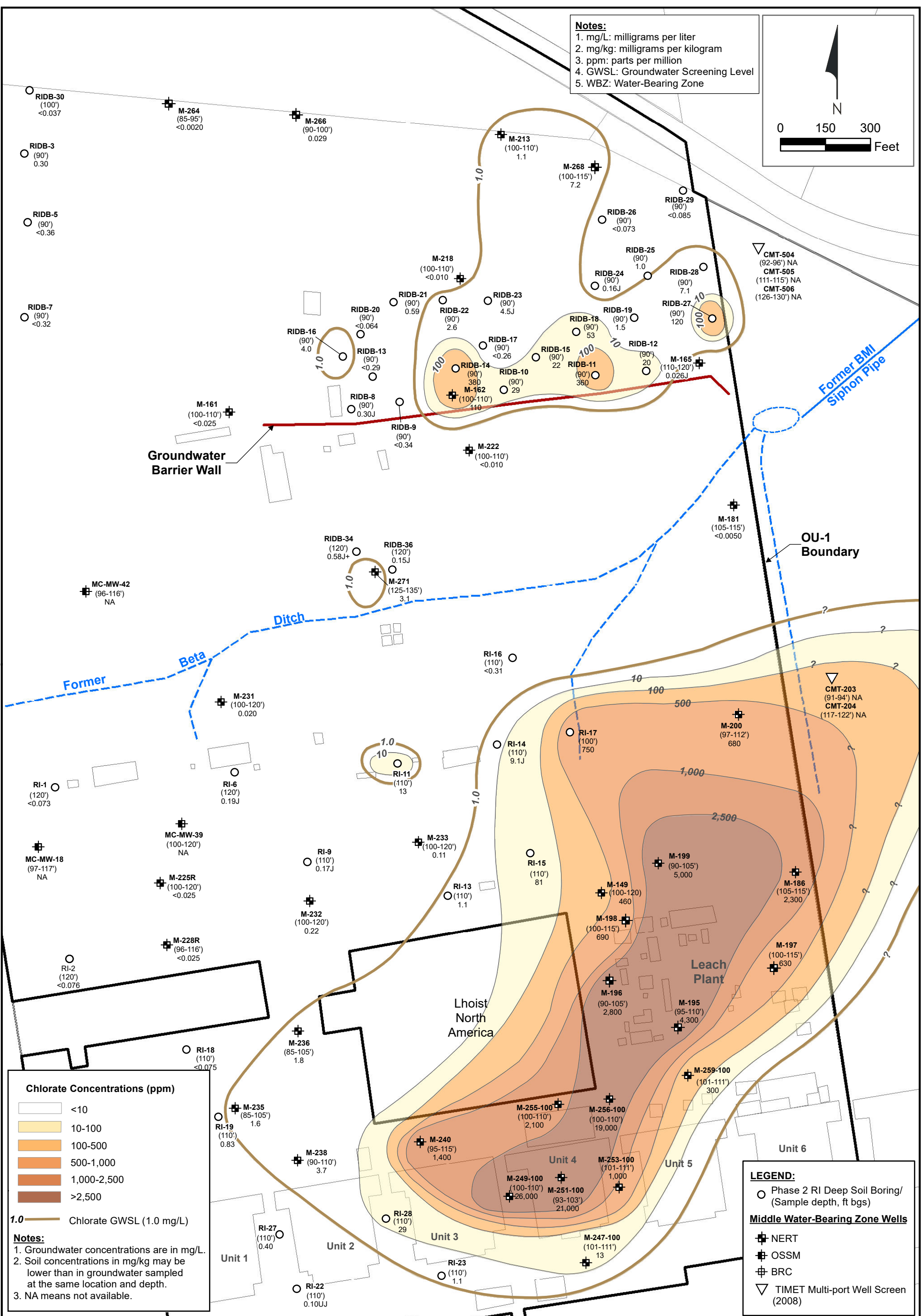
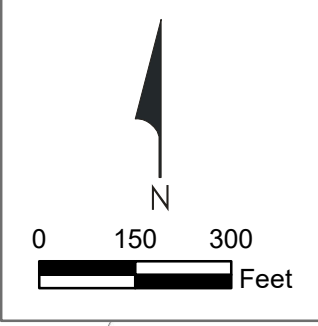


Chlorate Distribution - Middle WBZ (90-130 ft bgs)
OU-1, 2015-2018
 Nevada Environmental Response Trust Site; Henderson, Nevada

Figure
7-51g



Notes:
 1. mg/L: milligrams per liter
 2. mg/kg: milligrams per kilogram
 3. ppm: parts per million
 4. GWSL: Groundwater Screening Level
 5. WBZ: Water-Bearing Zone

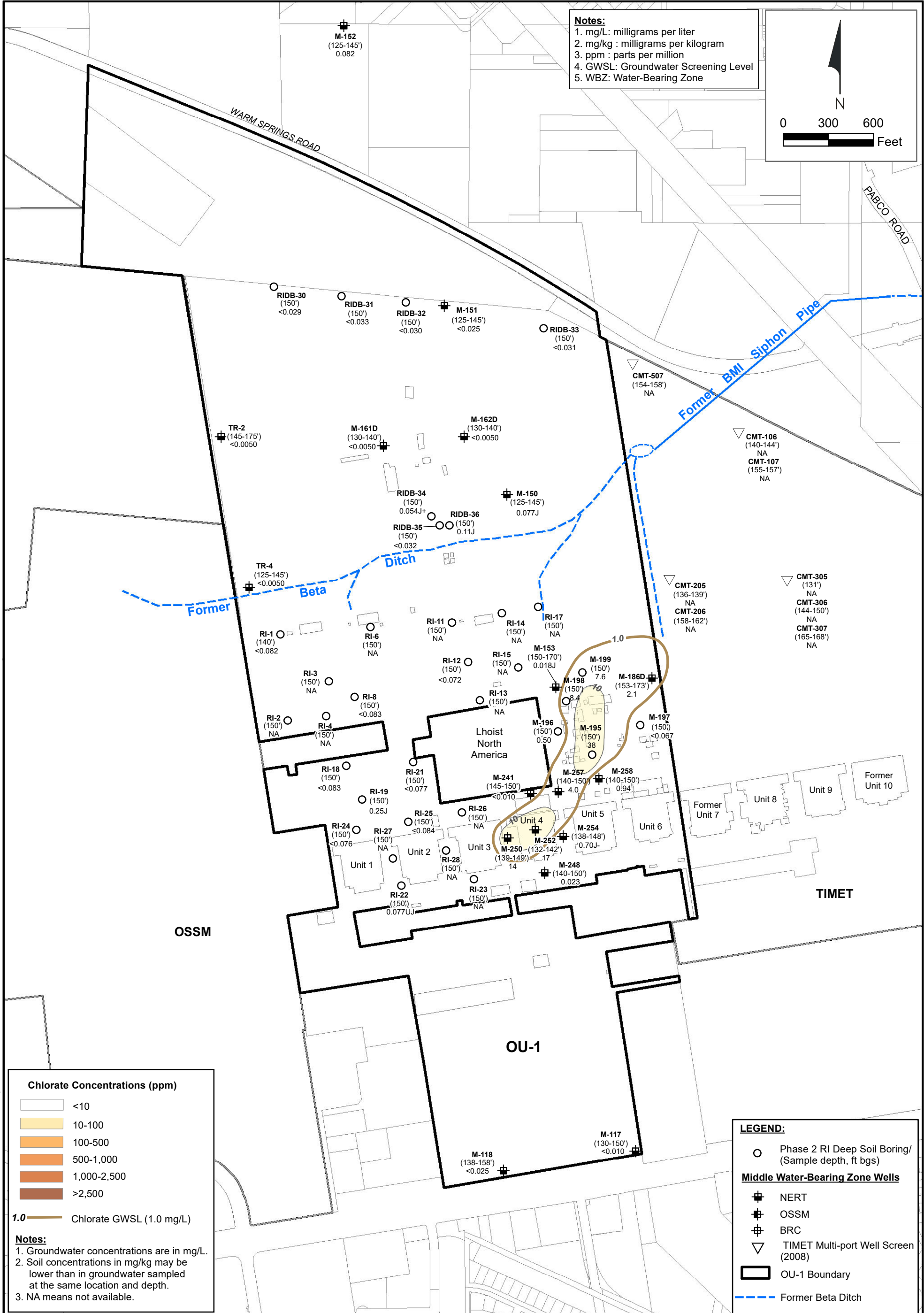


**Chlorate Distribution - Middle WBZ (90-130 ft bgs)
 OU-1 Detail, 2015-2018**
 Nevada Environmental Response Trust Site; Henderson, Nevada

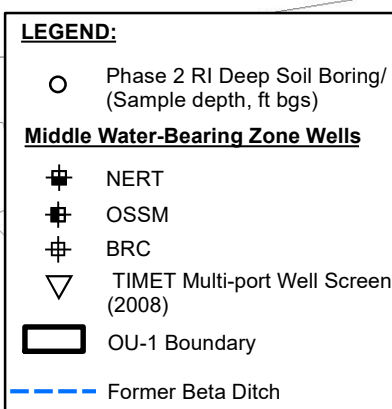
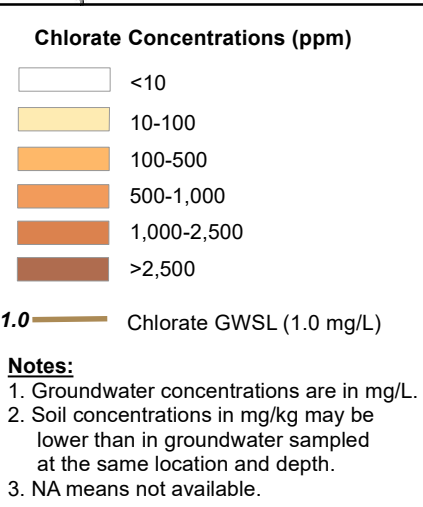
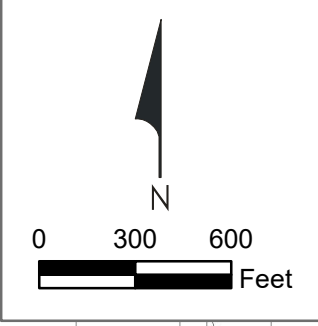
Figure
7-51h

Path: H:\LePalomane\NERT\RI_Evaluation\GIS\Chemical Maps\Fig 7-45g_Chlorate Mid_WaterBearingMW_90-130.mxd





Notes:
 1. mg/L: milligrams per liter
 2. mg/kg : milligrams per kilogram
 3. ppm : parts per million
 4. GWSL: Groundwater Screening Level
 5. WBZ: Water-Bearing Zone

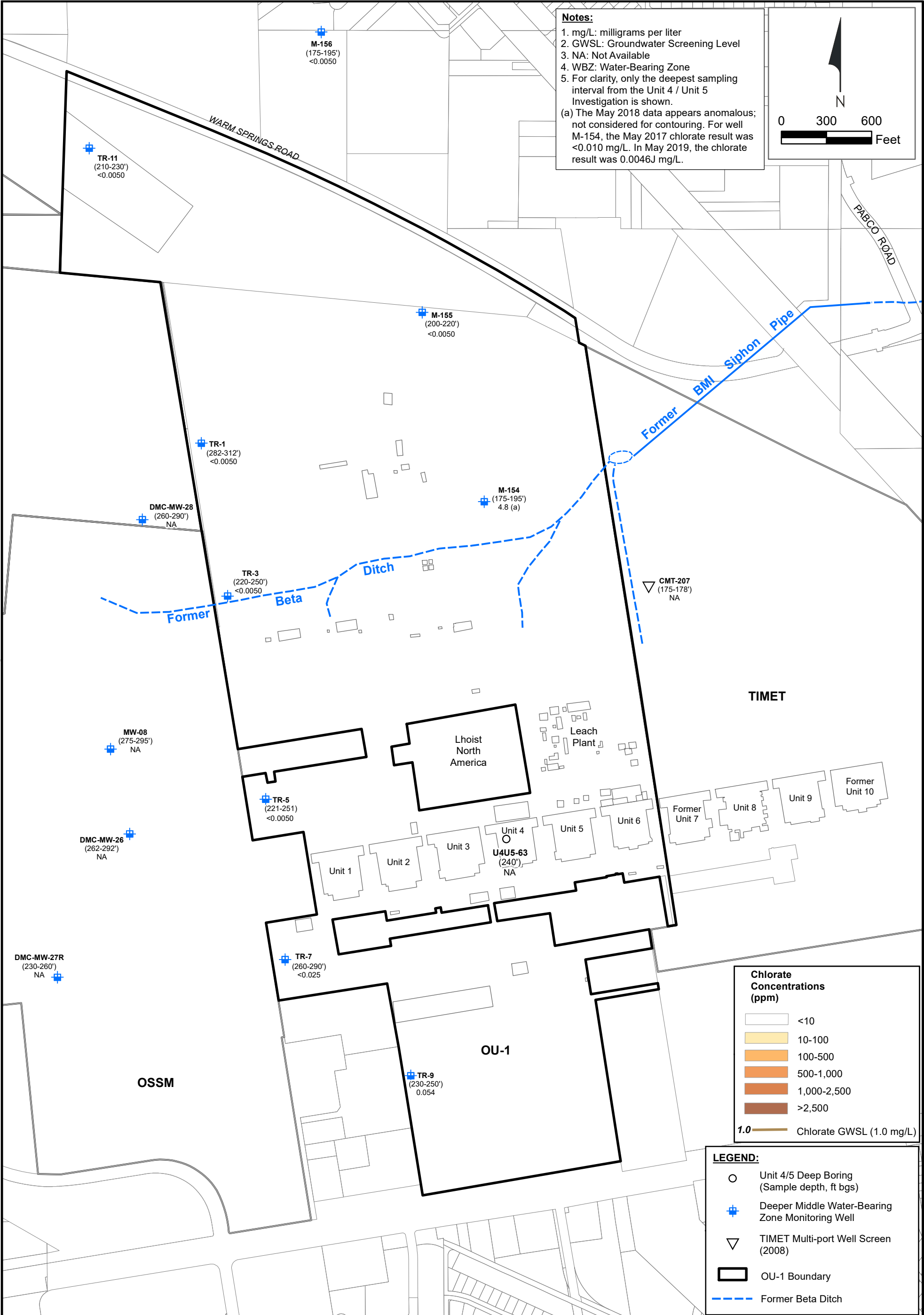


**Chlorate Distribution - Middle WBZ (130-175 ft bgs)
 OU-1, 2015-2018**
 Nevada Environmental Response Trust Site; Henderson, Nevada

Figure
7-51i



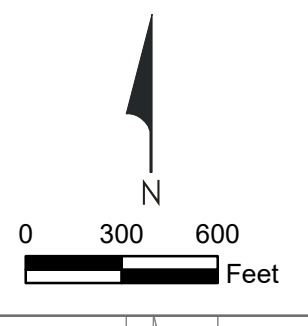
Path: H:\LePalomane\NERT\RI_Evaluation\GIS\Chemical Maps\Fig 7-45h_Chlorate_DpftMiddleZone\130-175ft.mxd



Notes:

1. mg/L: milligrams per liter
2. GWSL: Groundwater Screening Level
3. NA: Not Available
4. WBZ: Water-Bearing Zone
5. For clarity, only the deepest sampling interval from the Unit 4 / Unit 5 Investigation is shown.

(a) The May 2018 data appears anomalous; not considered for contouring. For well M-154, the May 2017 chlorate result was <0.010 mg/L. In May 2019, the chlorate result was 0.0046J mg/L.



Chlorate Concentrations (ppm)

<10
10-100
100-500
500-1,000
1,000-2,500
>2,500

1.0 — Chlorate GWSL (1.0 mg/L)

LEGEND:

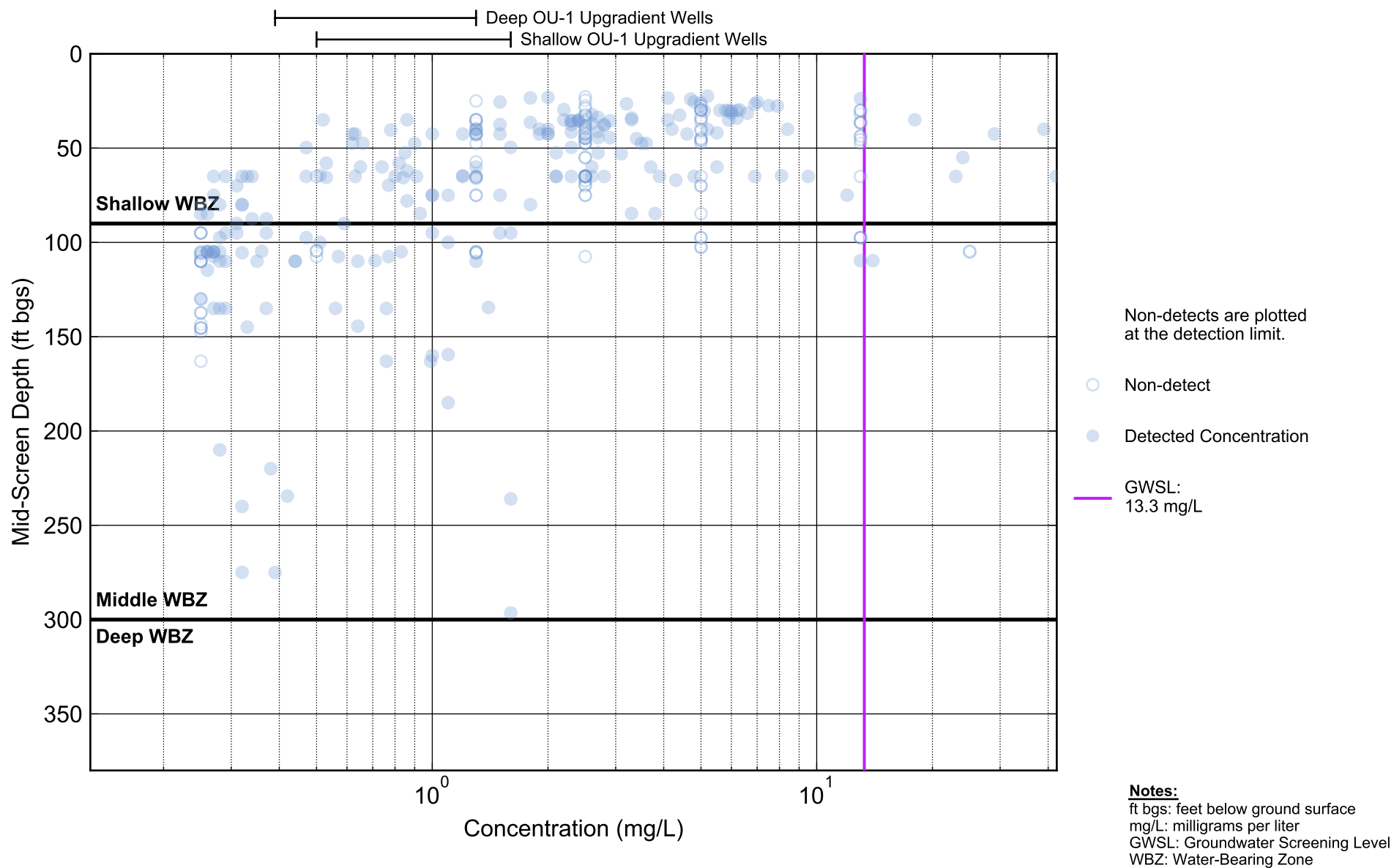
- Unit 4/5 Deep Boring (Sample depth, ft bgs)
- ⊕ Deeper Middle Water-Bearing Zone Monitoring Well
- ▽ TIMET Multi-port Well Screen (2008)
- ▭ OU-1 Boundary
- - - Former Beta Ditch

Path: H:\LePalomane\NERT\RI_Evaluation\GIS\Chemical Maps\Fig 7-45j_Chlorate Dist MiddleZone175-300ft.mxd



**Chlorate Distribution - Middle WBZ (175-300 ft bgs)
OU-1, 2015-2018**
Nevada Environmental Response Trust Site; Henderson, Nevada

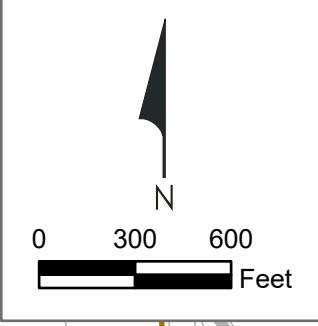
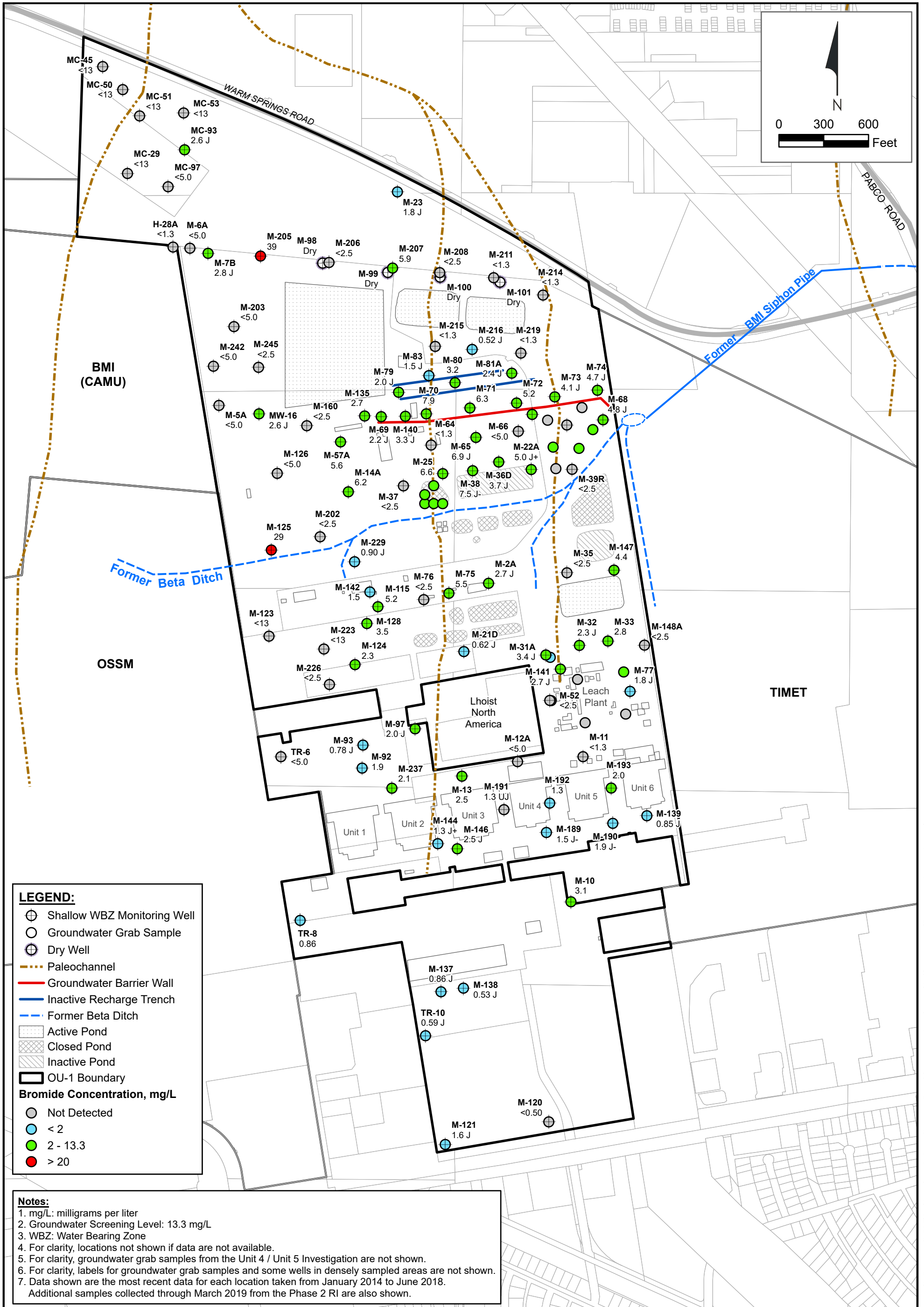
Figure
7-51j



OU-1 Bromide Groundwater Concentrations vs. Sample Depth
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure

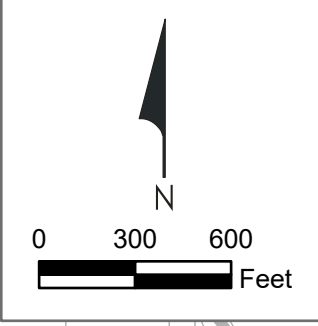
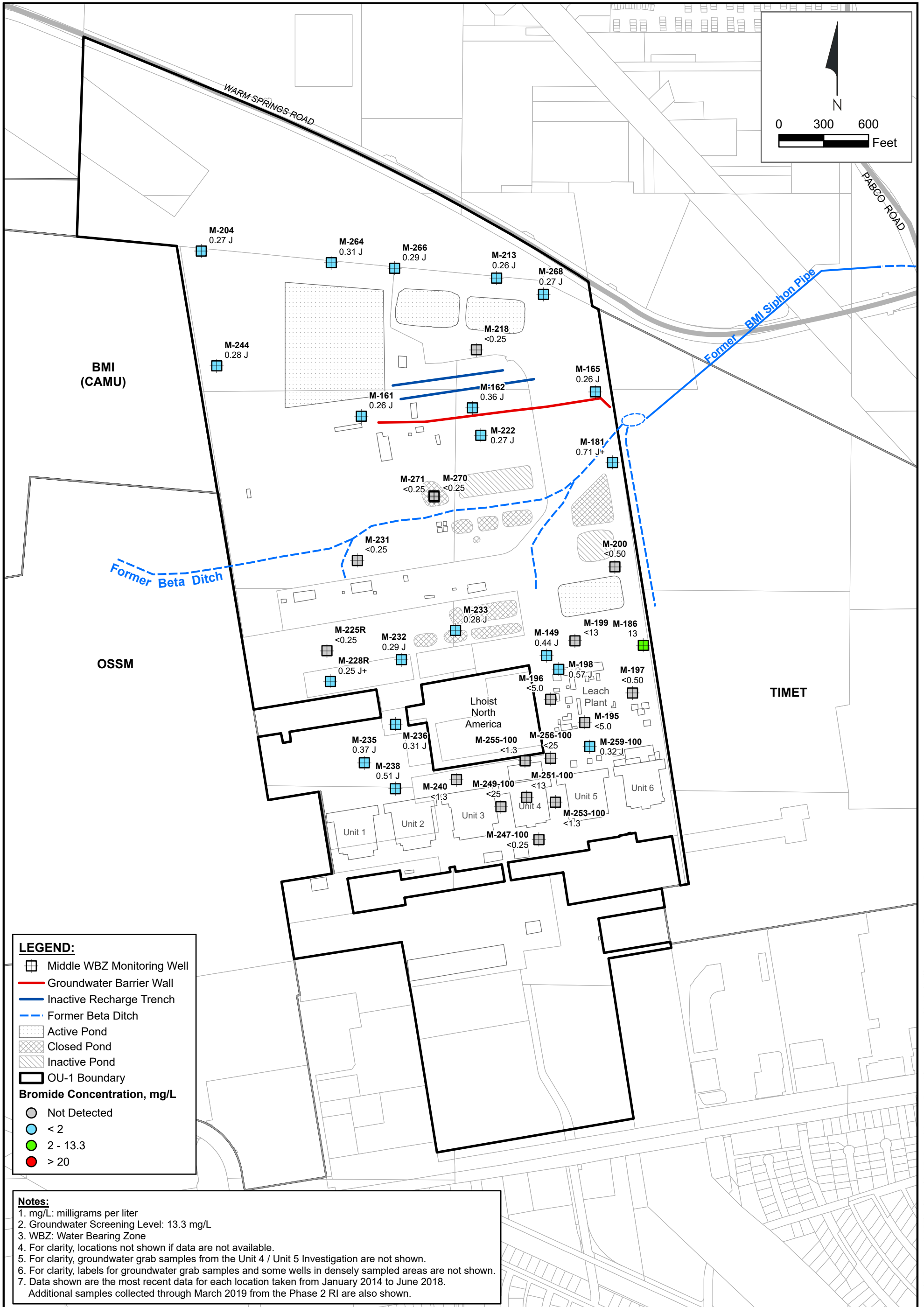
7-52a



Bromide - Shallow WBZ (0-55 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-52b

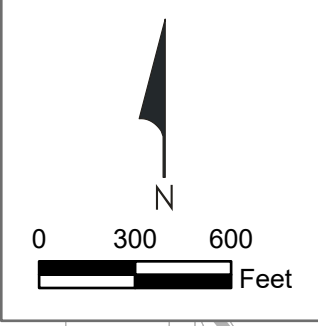
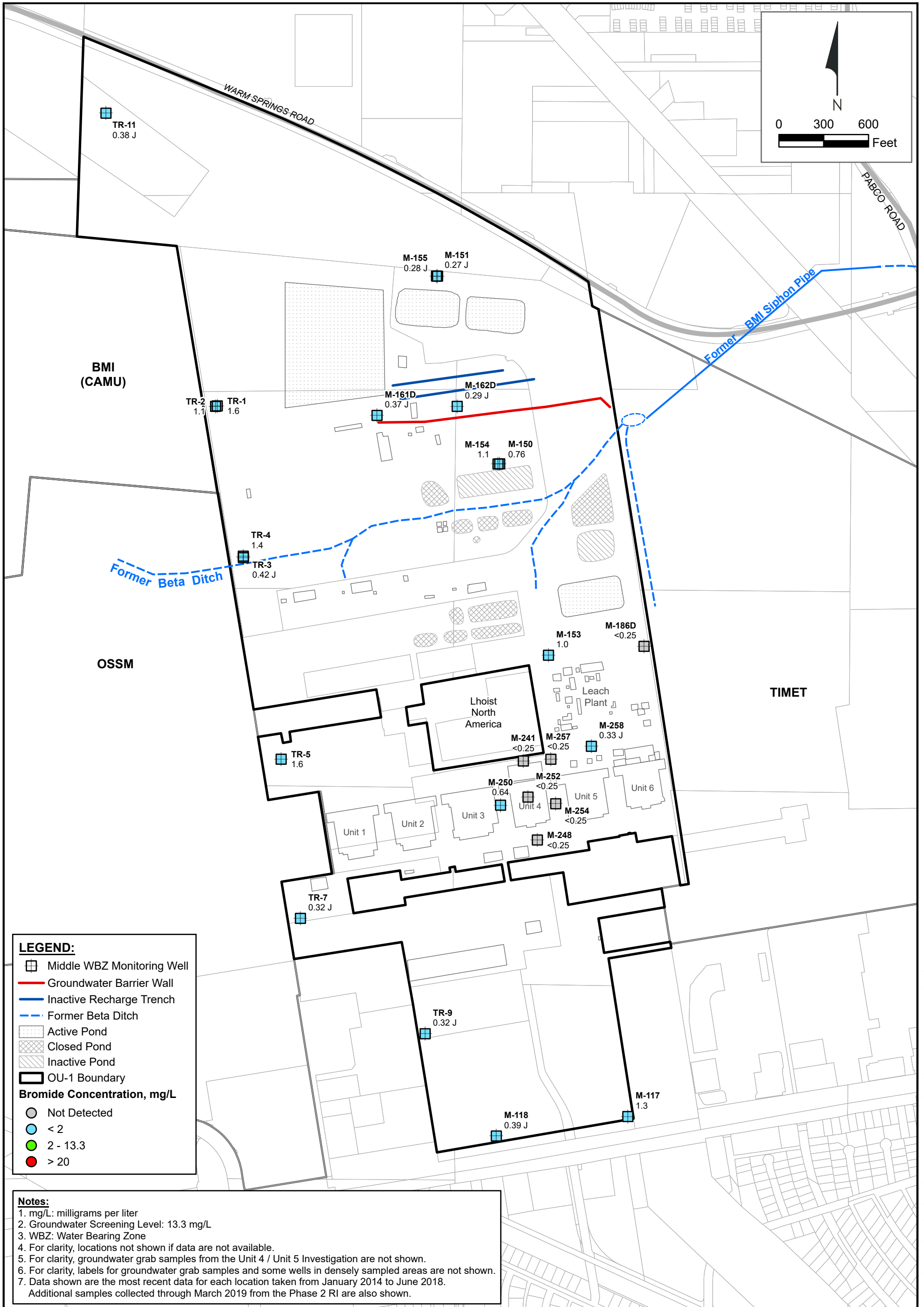
Path: H:\Petomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_1.aprx\Figure 7-52b Bromide Upper Shallow



Bromide - Middle WBZ (90-130 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-52d

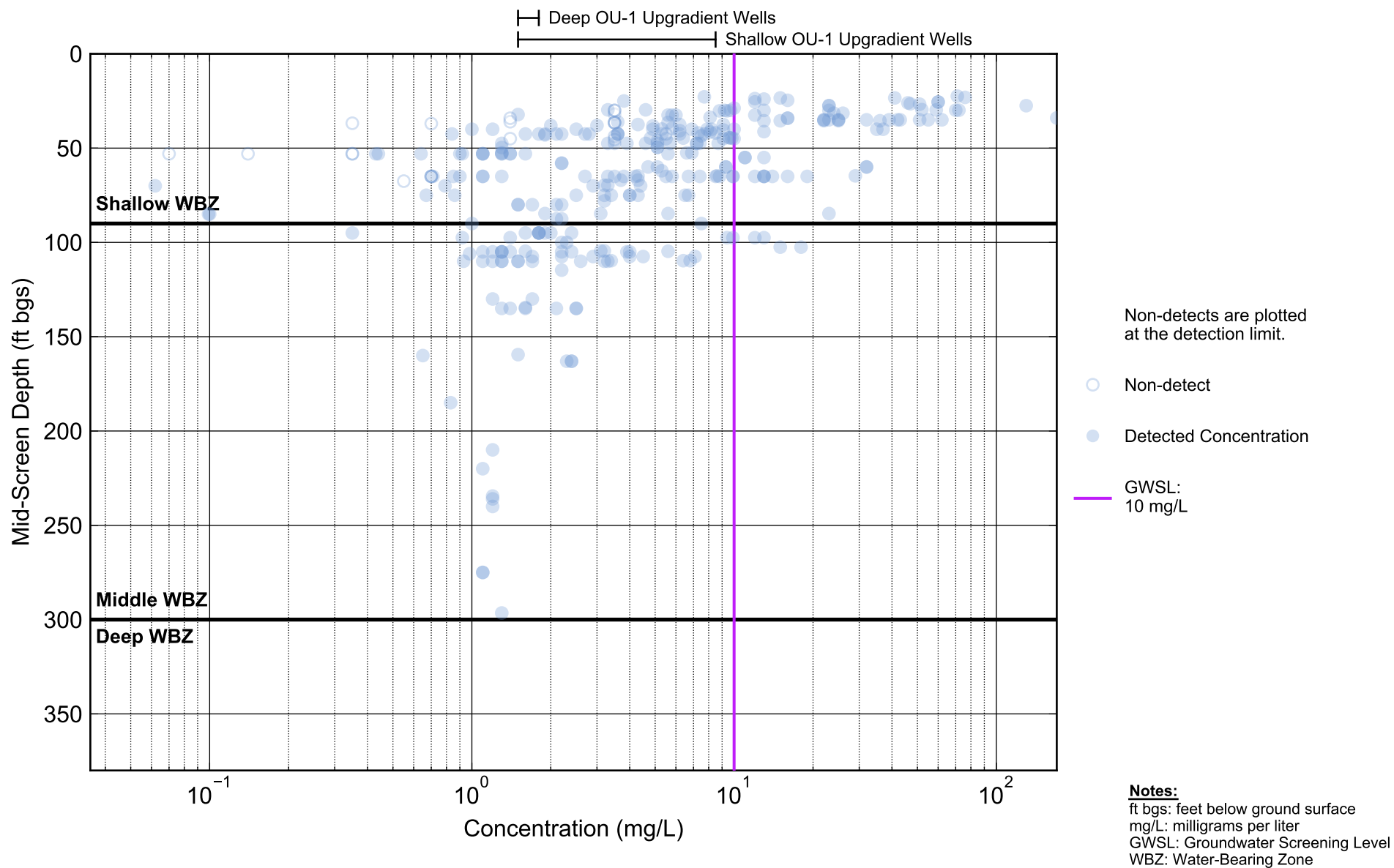
Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_1.aprx\Figure 7-52d Bromide Upper Middle



Bromide - Middle WBZ (130-300 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-52e

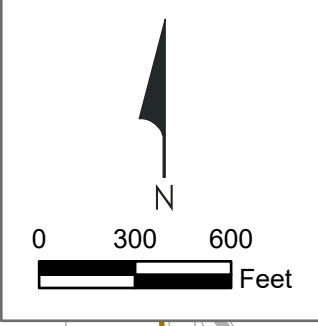
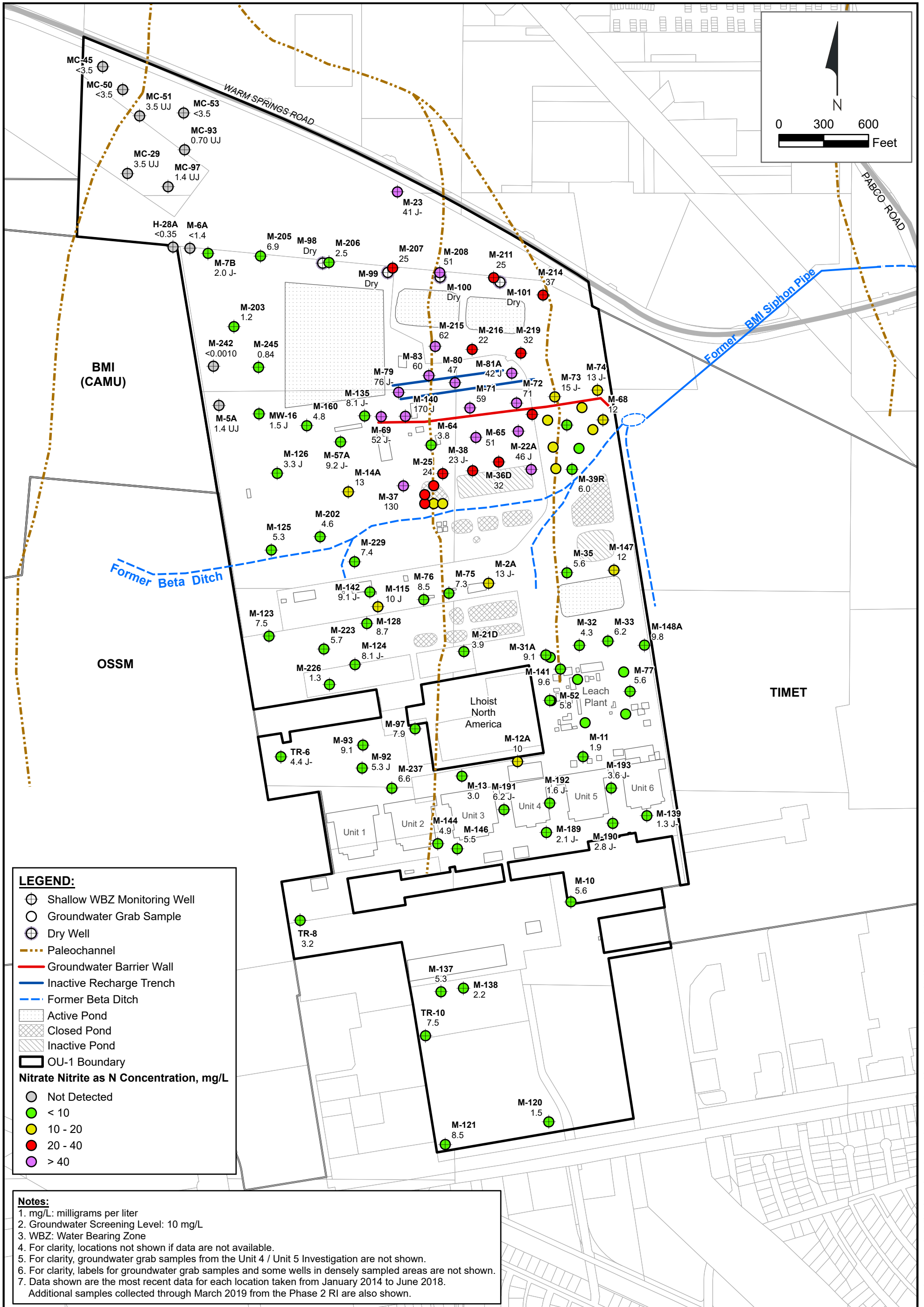
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OU-1 Nitrate Nitrite as N Groundwater Concentrations vs. Sample Depth
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure

7-53a



LEGEND:

- ⊕ Shallow WBZ Monitoring Well
- Groundwater Grab Sample
- ⊖ Dry Well
- Paleochannel
- Groundwater Barrier Wall
- Inactive Recharge Trench
- Former Beta Ditch
- ▨ Active Pond
- ▨ Closed Pond
- ▨ Inactive Pond
- ▭ OU-1 Boundary

Nitrate Nitrite as N Concentration, mg/L

- Not Detected
- < 10
- 10 - 20
- 20 - 40
- > 40

Notes:

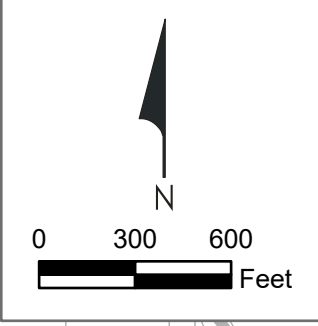
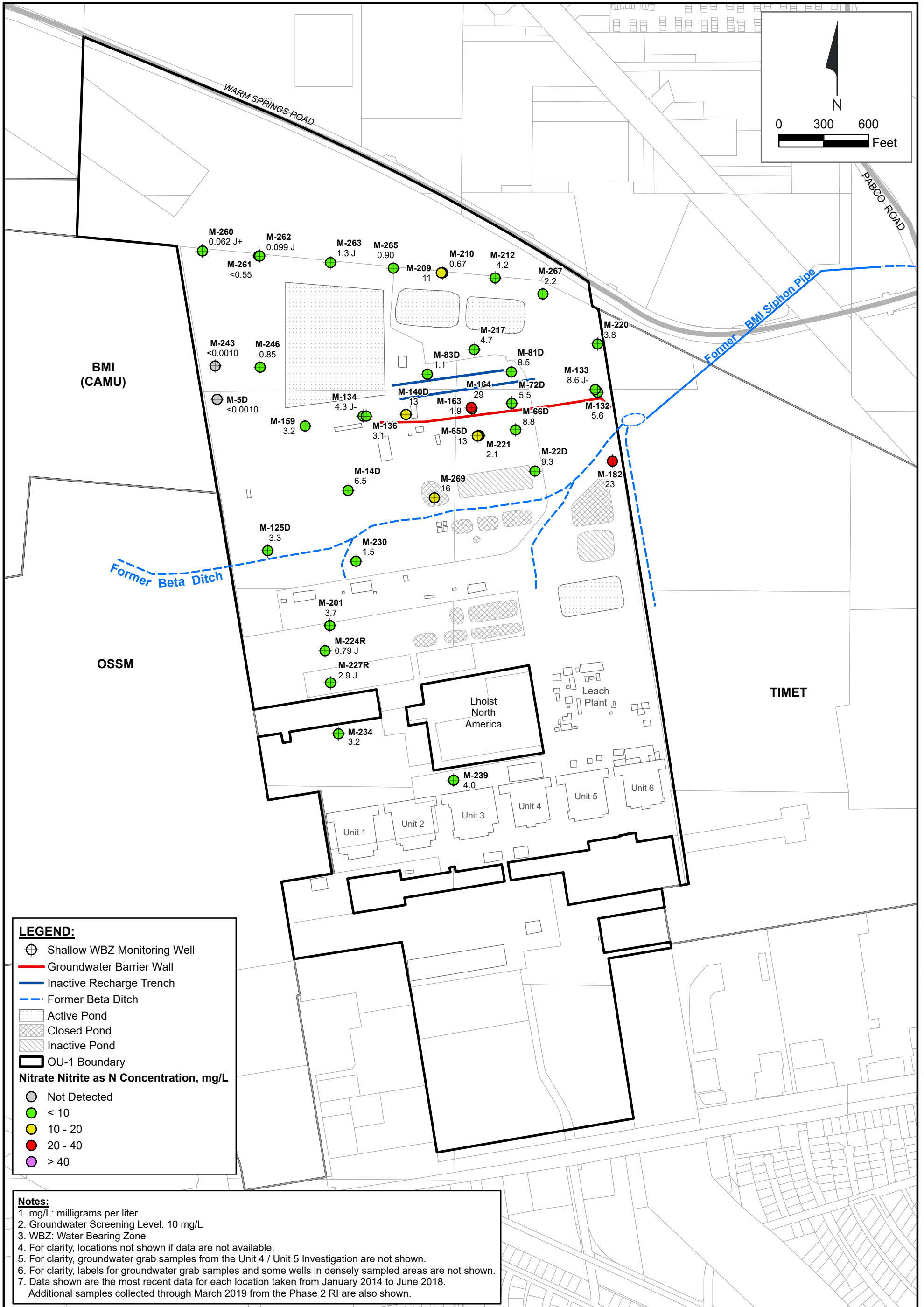
1. mg/L: milligrams per liter
2. Groundwater Screening Level: 10 mg/L
3. WBZ: Water Bearing Zone
4. For clarity, locations not shown if data are not available.
5. For clarity, groundwater grab samples from the Unit 4 / Unit 5 Investigation are not shown.
6. For clarity, labels for groundwater grab samples and some wells in densely sampled areas are not shown.
7. Data shown are the most recent data for each location taken from January 2014 to June 2018. Additional samples collected through March 2019 from the Phase 2 RI are also shown.



Nitrate Nitrite as N - Shallow WBZ (0-55 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-53b

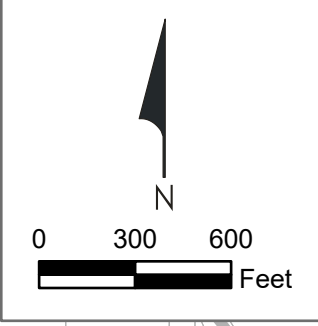
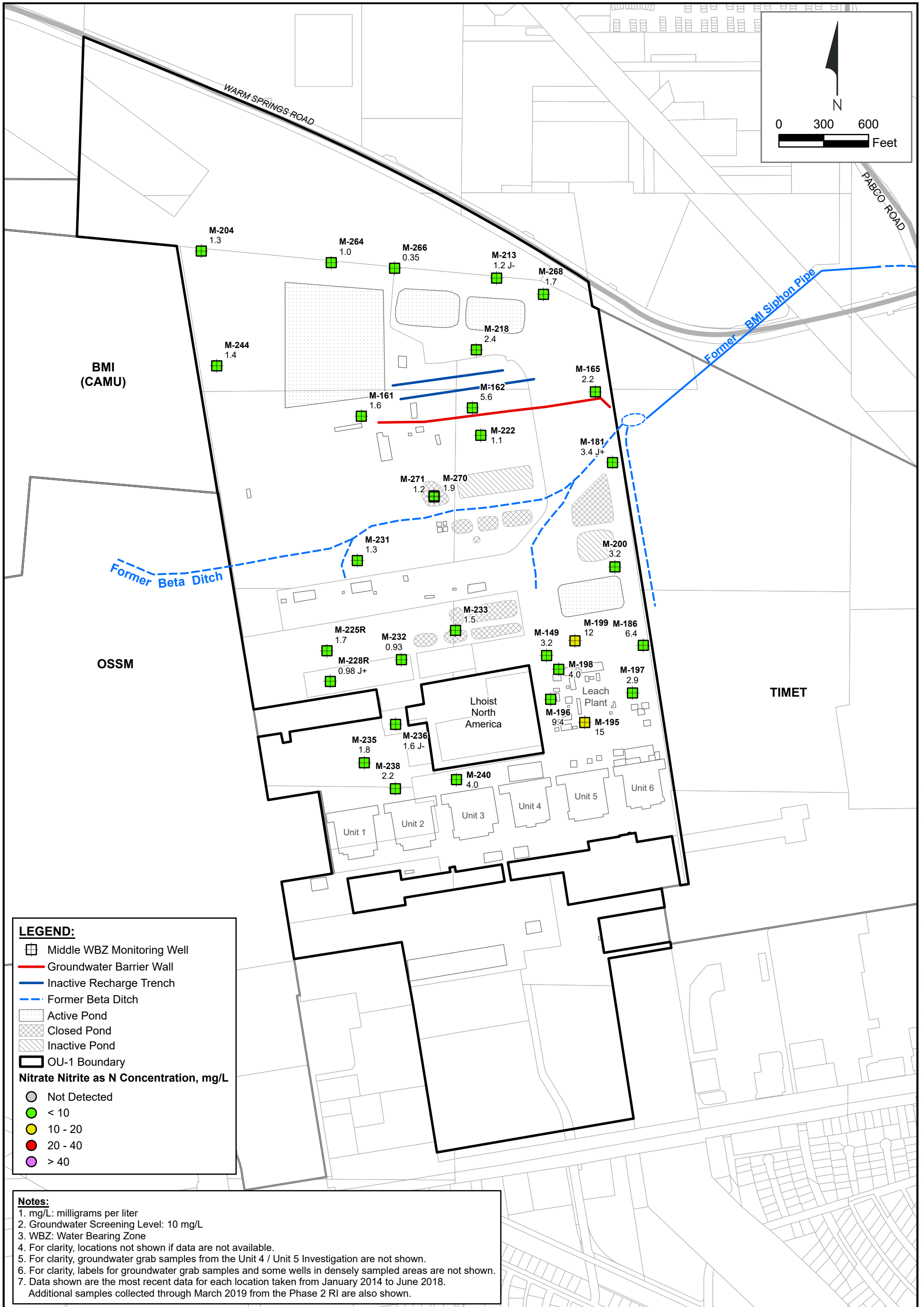
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Nitrate Nitrite as N - Shallow WBZ (55-90 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-53c

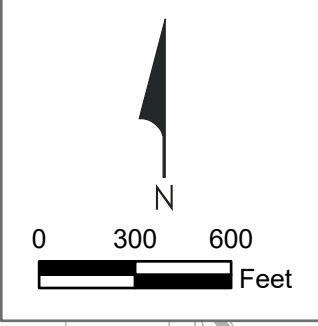
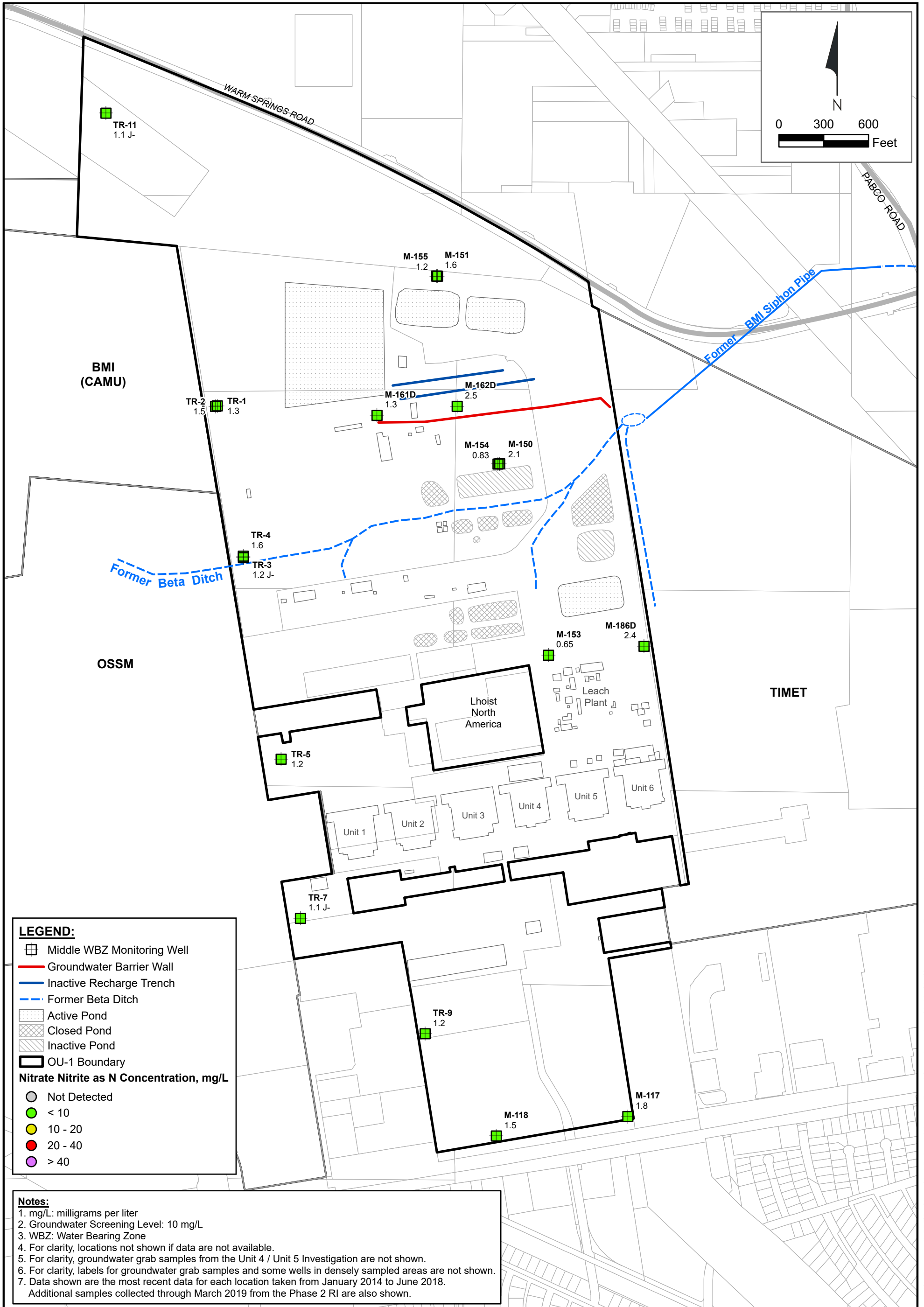
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Nitrate Nitrite as N - Middle WBZ (90-130 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-53d

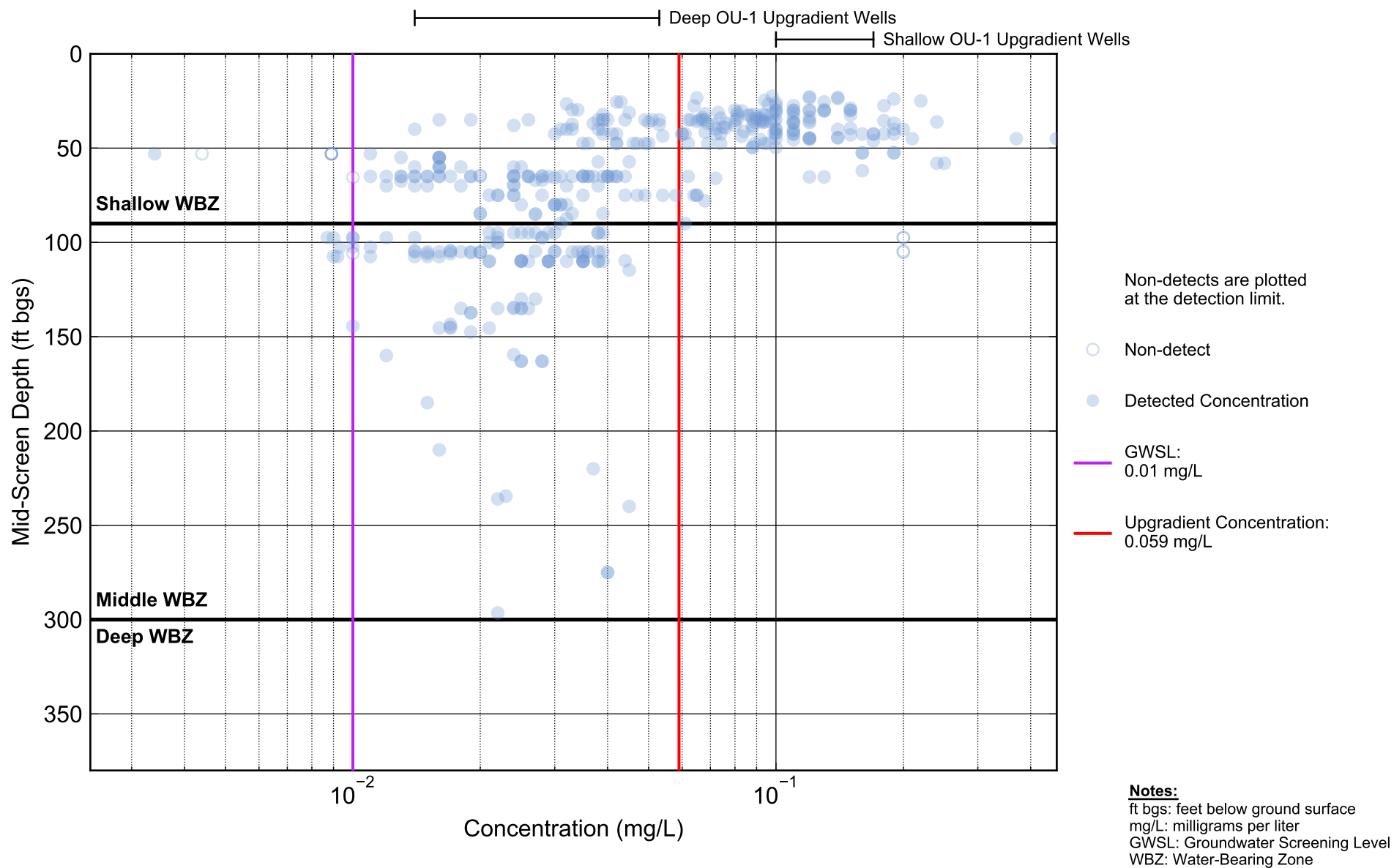
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Nitrate Nitrite as N - Middle WBZ (130-300 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-53e

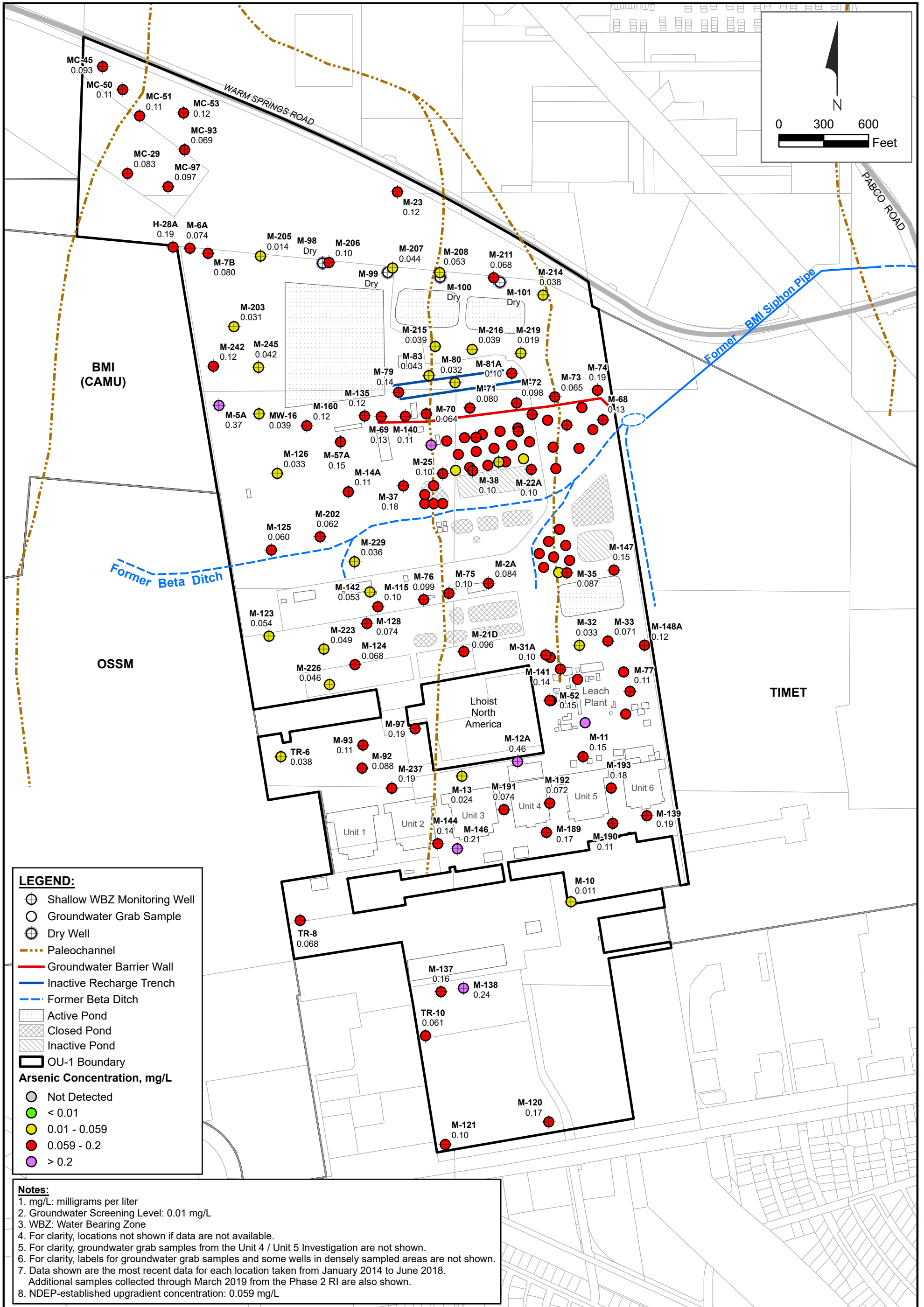
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OU-1 Arsenic Groundwater Concentrations vs. Sample Depth
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure

7-54a



Arsenic - Shallow WBZ (0-55 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-54b

Drafter: JC

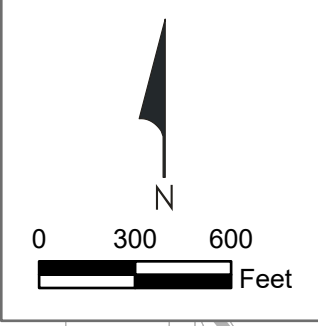
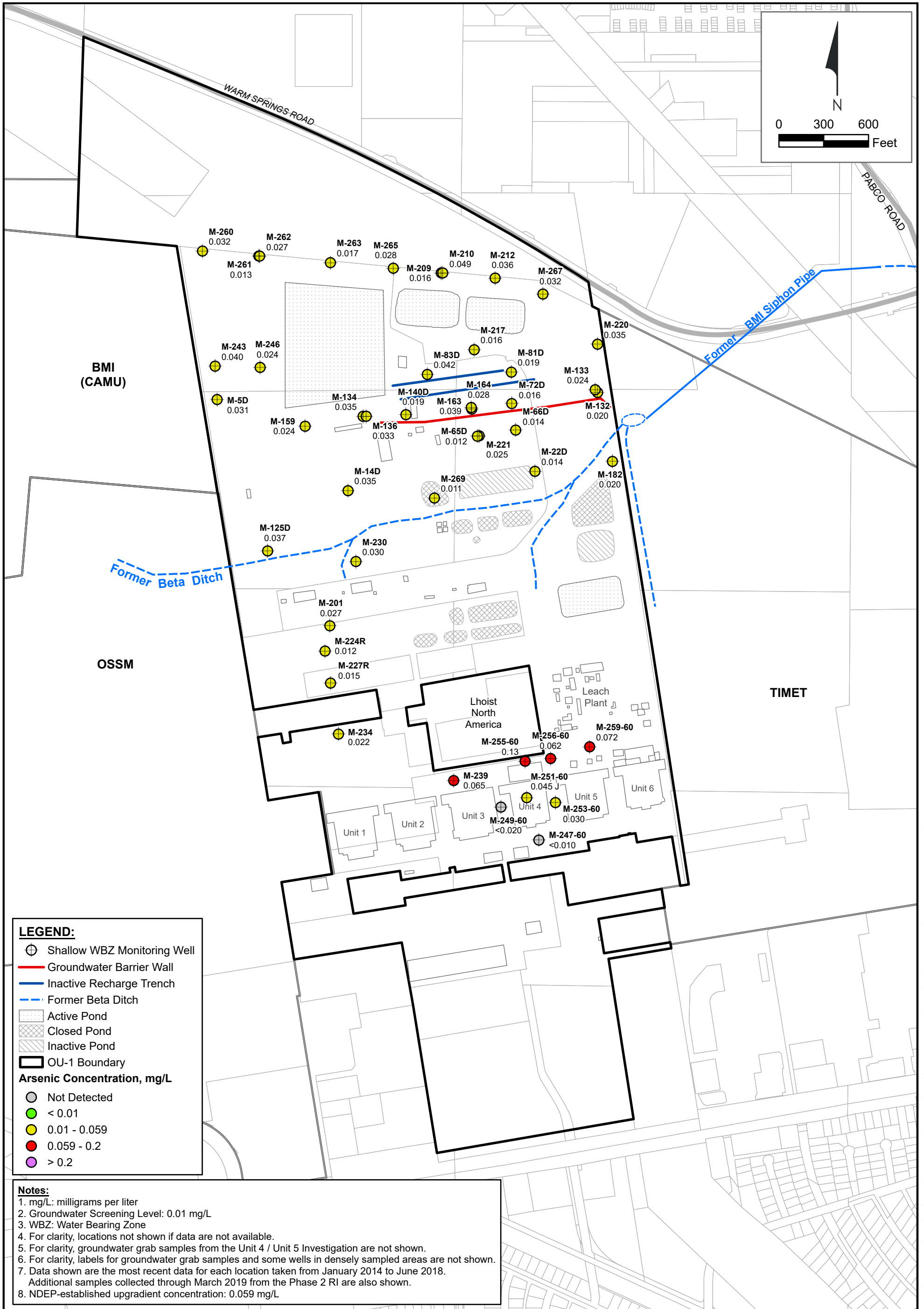
Date: 2023-01-11

Contract Number: 169002 9369

Approved by:

Revised:

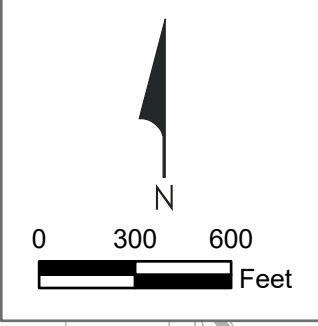
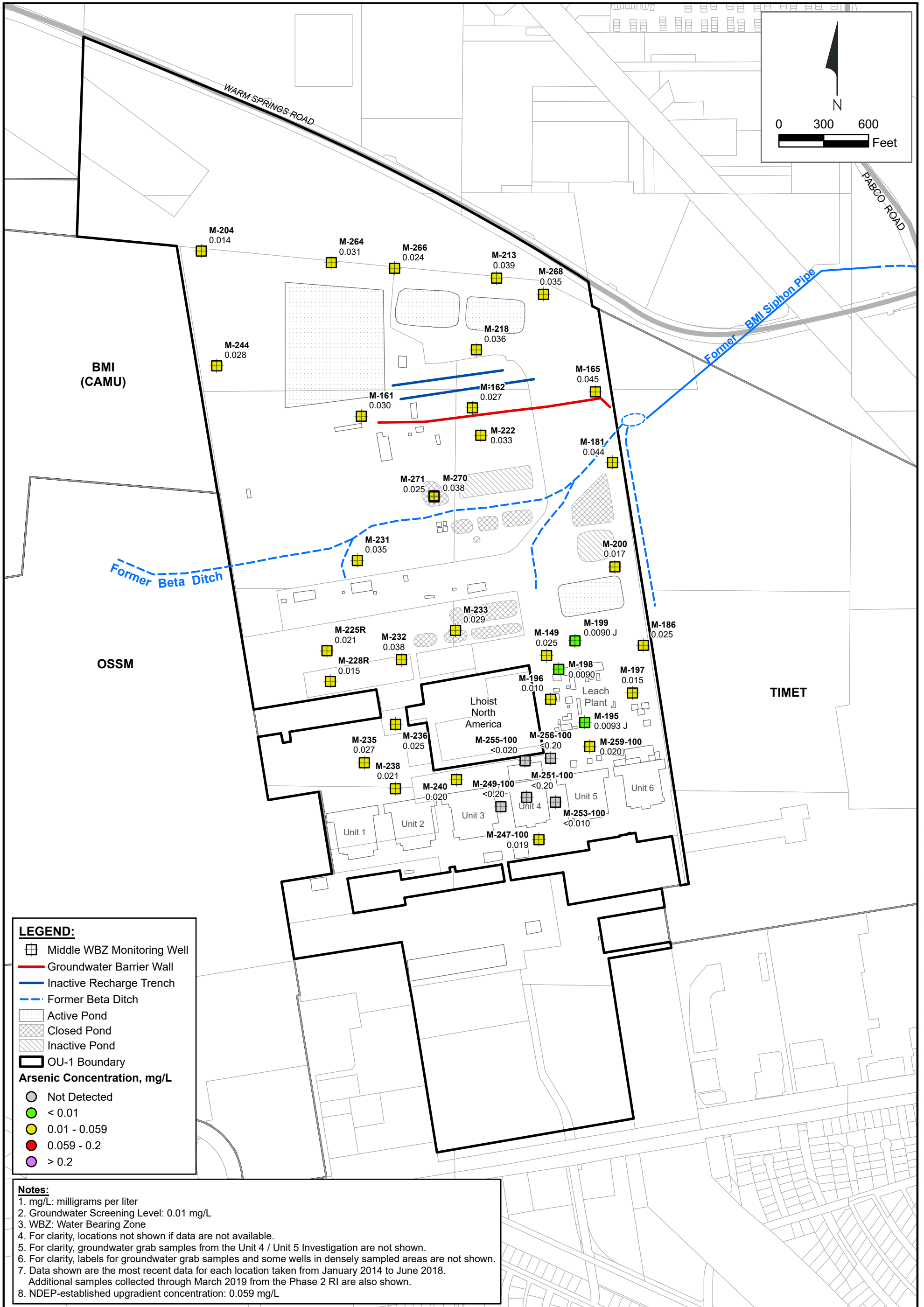
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Arsenic - Shallow WBZ (55-90 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-54c

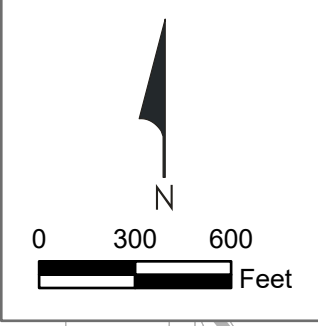
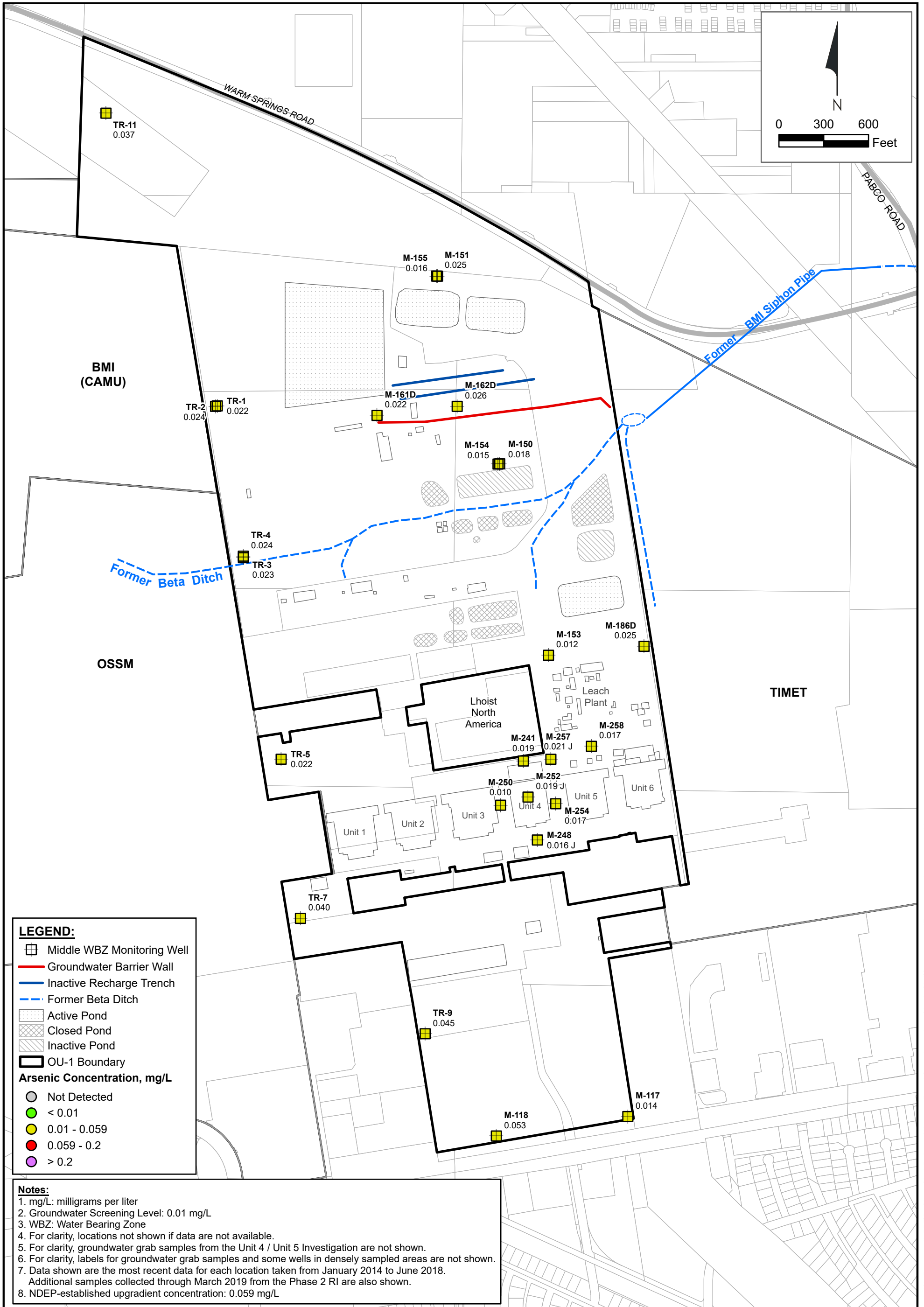
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Arsenic - Middle WBZ (90-130 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-54d

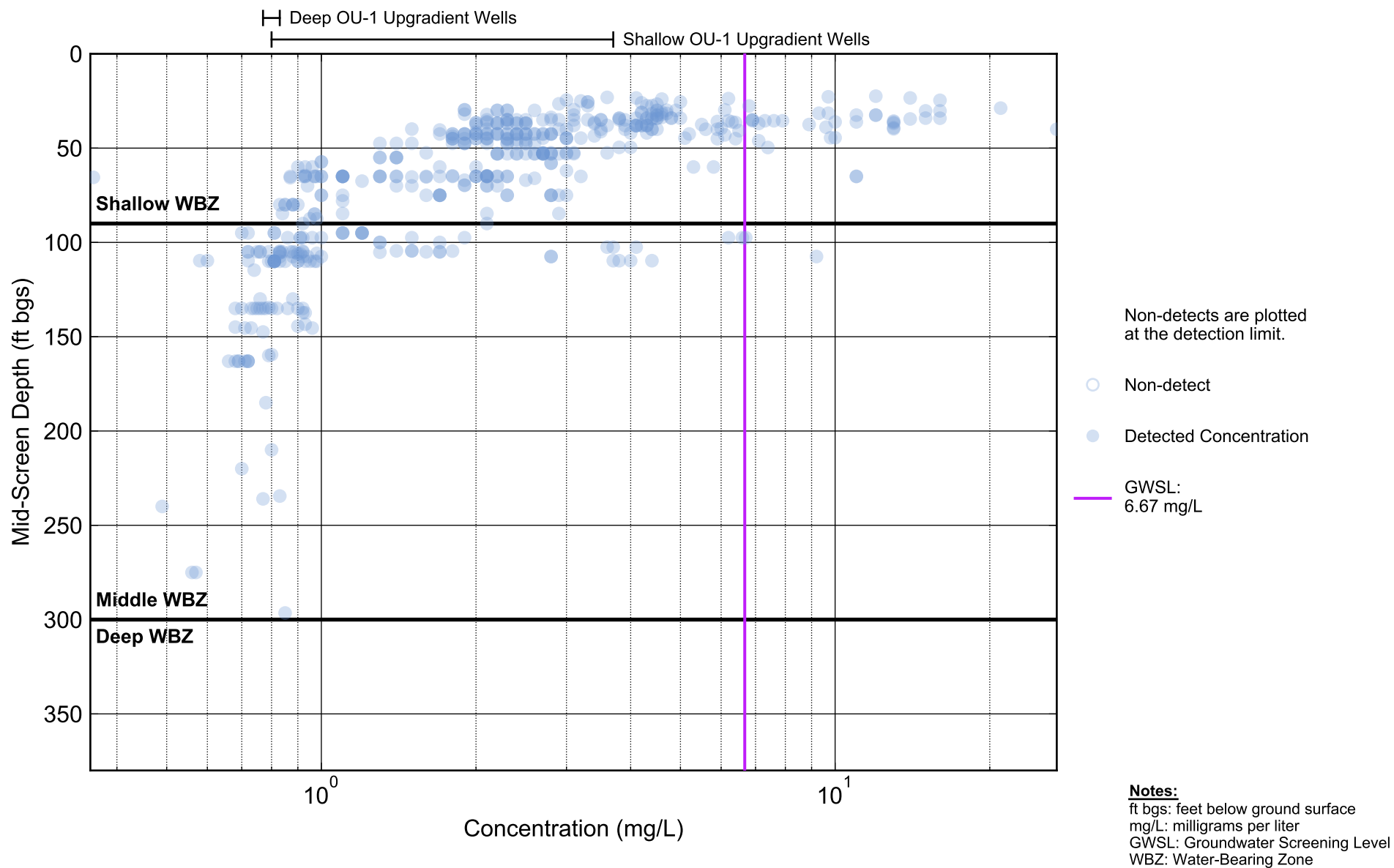
Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_1.aprx\Figure 7-54d Arsenic Upper Middle



Arsenic - Middle WBZ (130-300 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-54e

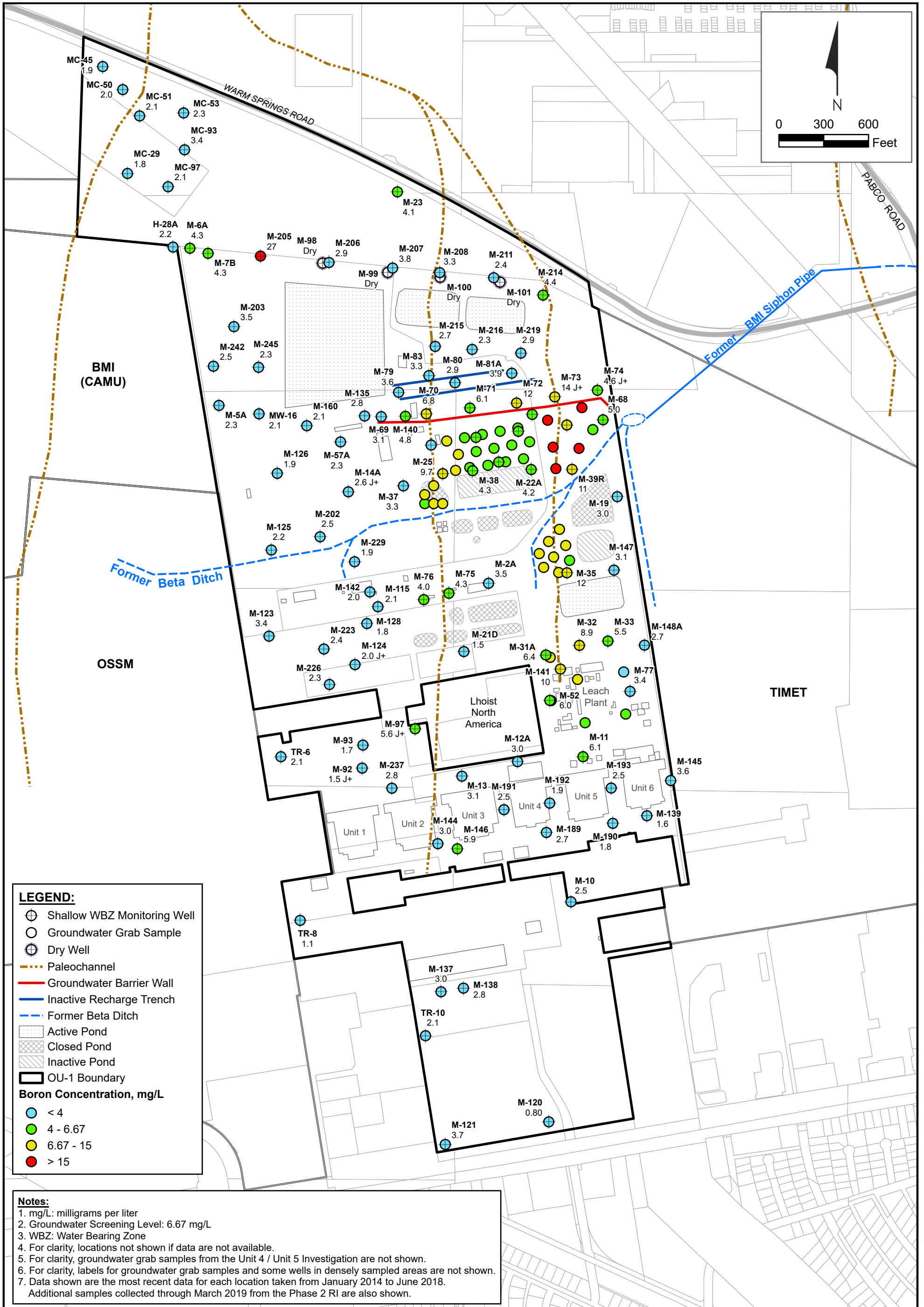
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OU-1 Boron Groundwater Concentrations vs. Sample Depth
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure

7-55a



Boron - Shallow WBZ (0-55 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-55b

Drafter: JC

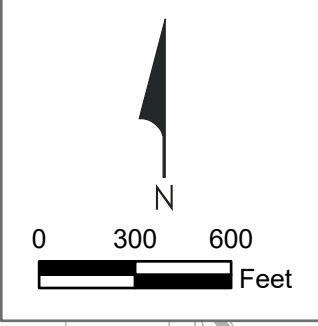
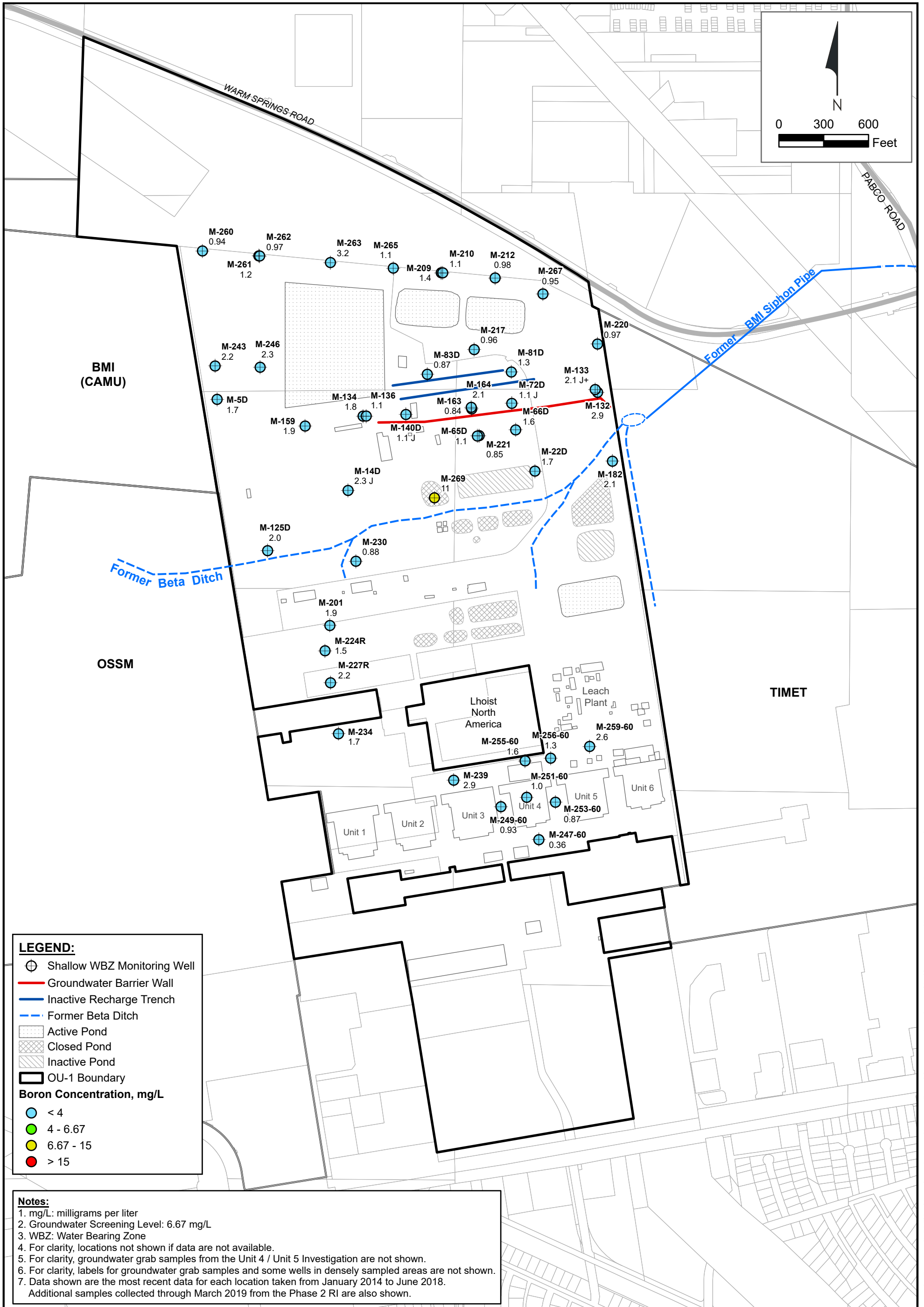
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Contract Number: 169002 9369

Approved by:

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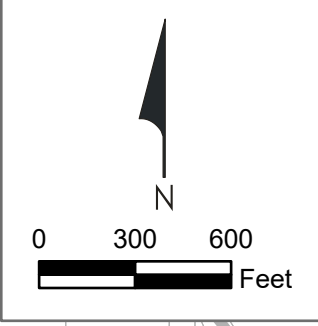
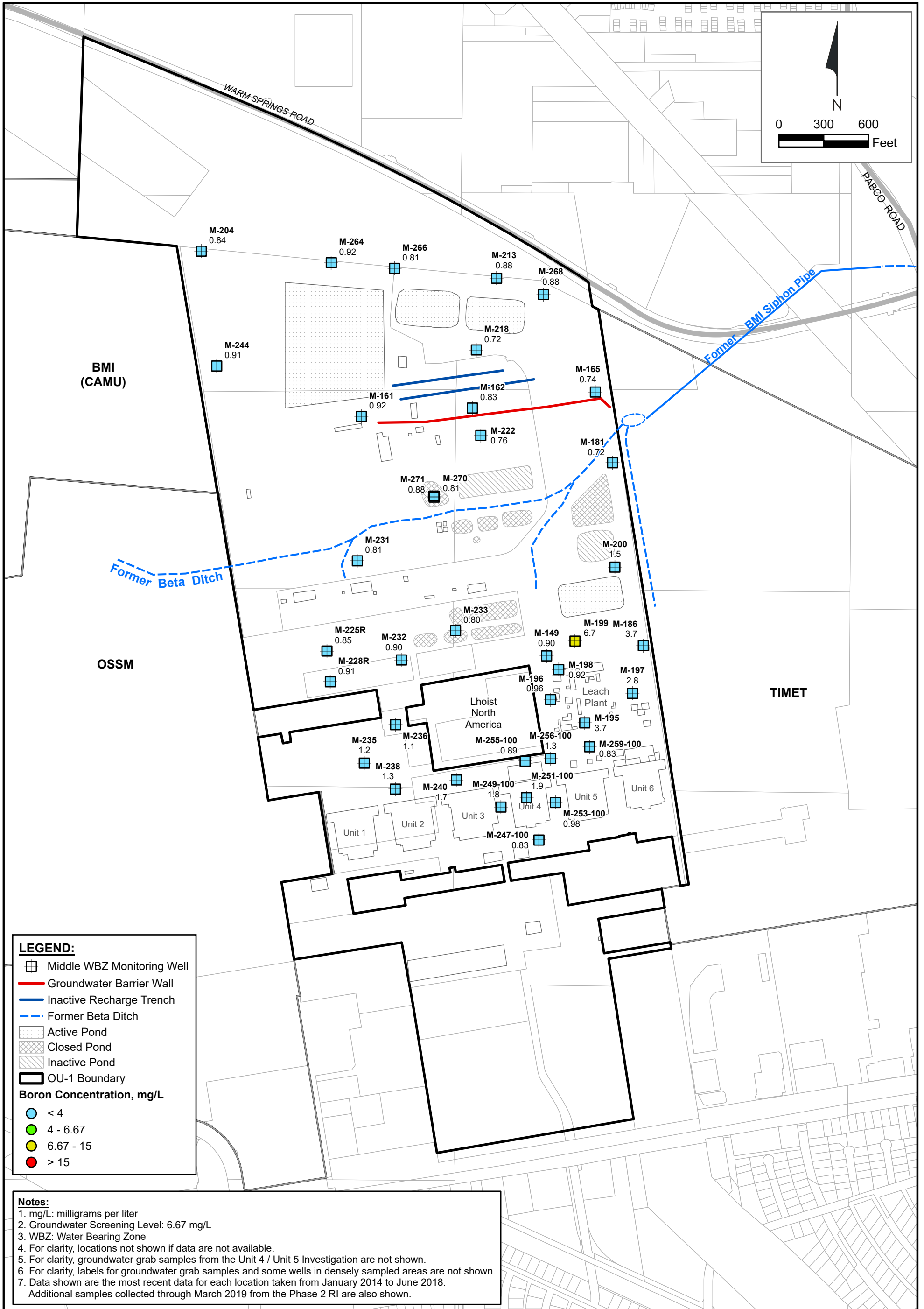
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Boron - Shallow WBZ (55-90 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-55c

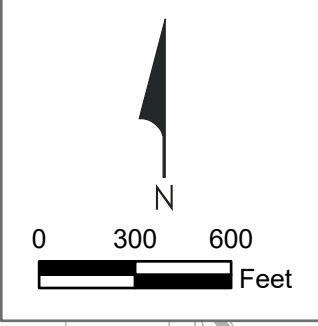
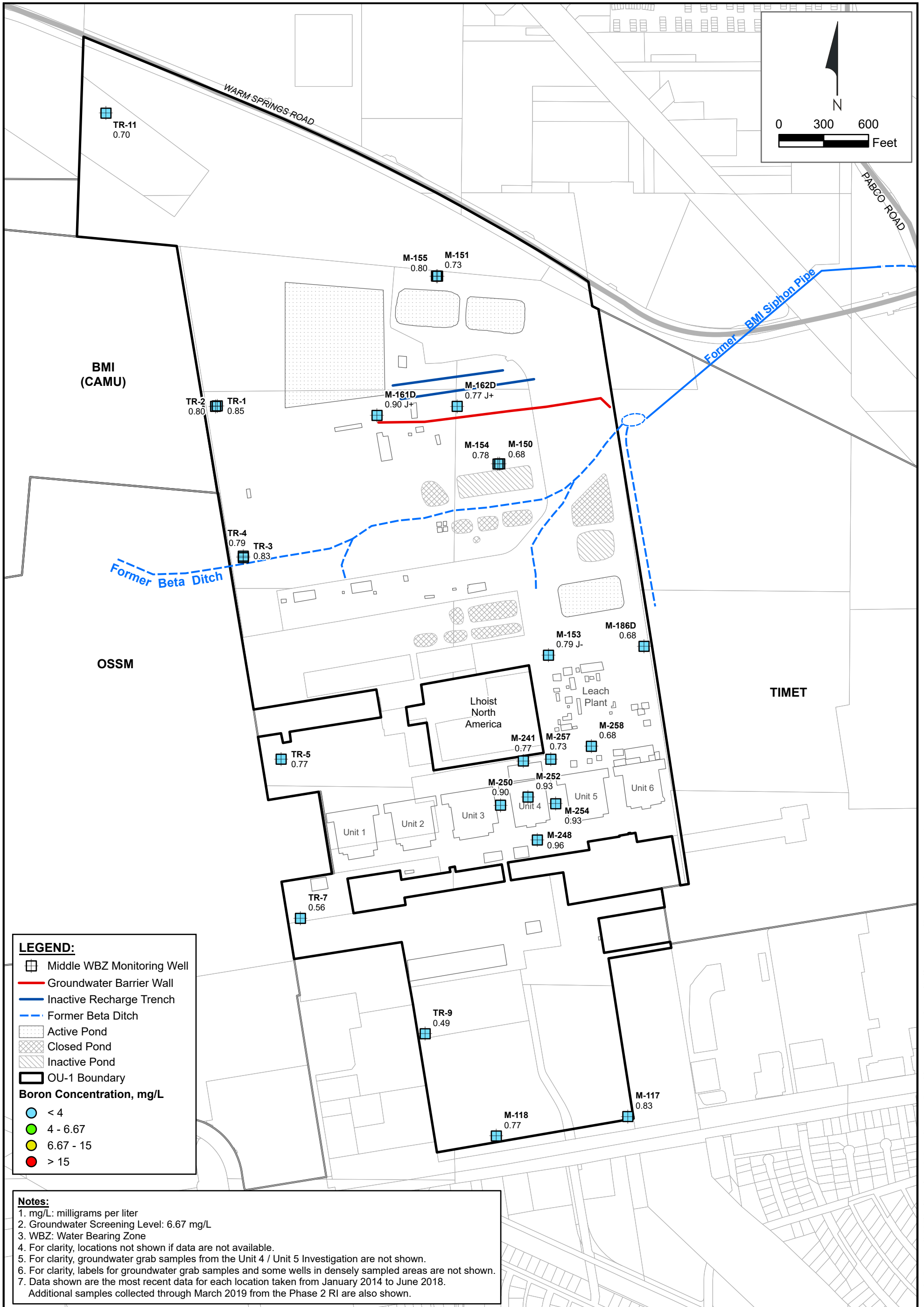
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Boron - Middle WBZ (90-130 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-55d

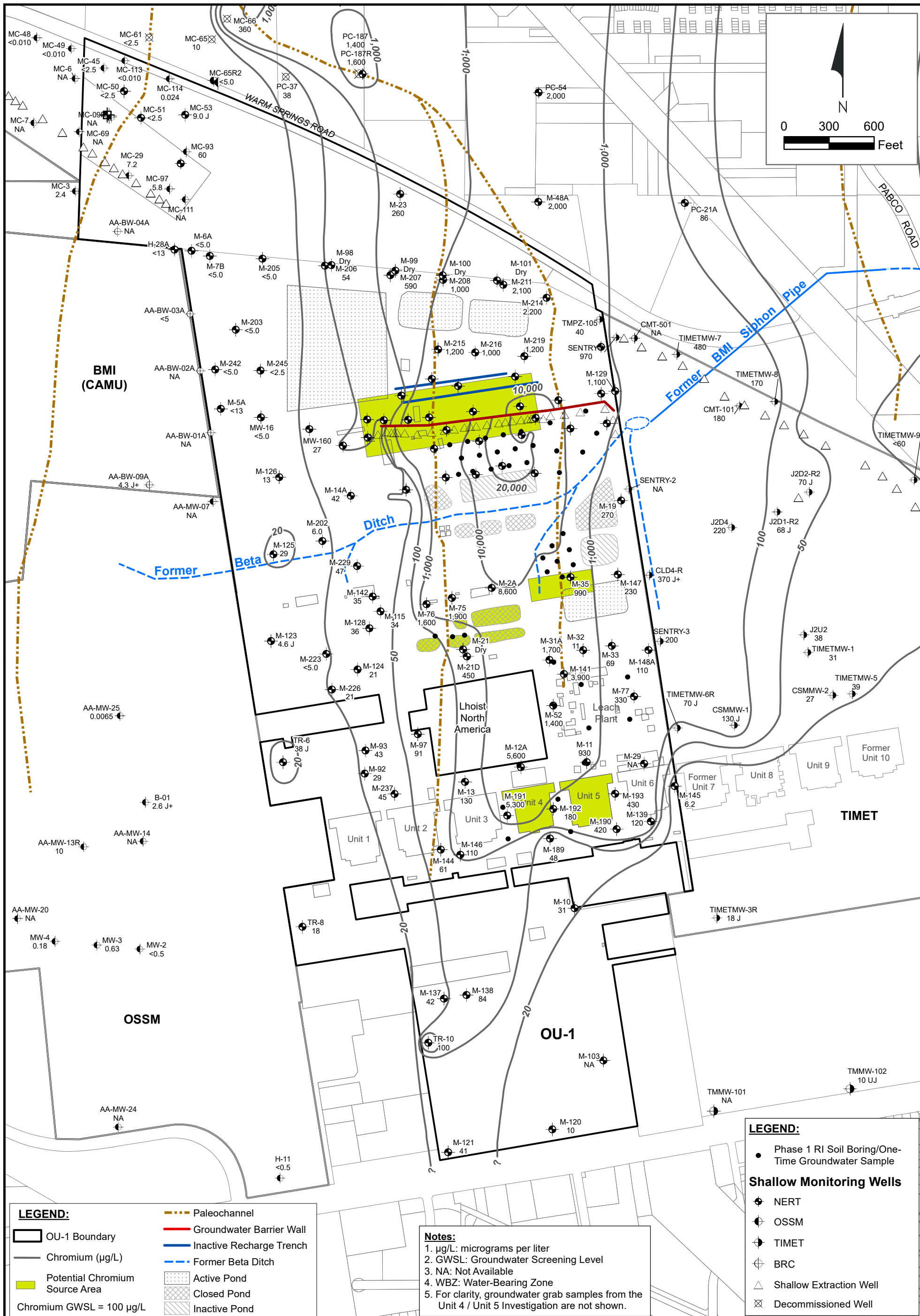
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Boron - Middle WBZ (130-300 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-55e

Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_1.aprx\Figure 7-55e Boron Lower Middle



LEGEND:

- OU-1 Boundary
- Chromium (µg/L)
- Potential Chromium Source Area
- Chromium GWSL = 100 µg/L
- Paleochannel
- Groundwater Barrier Wall
- Inactive Recharge Trench
- Former Beta Ditch
- Active Pond
- Closed Pond
- Inactive Pond

Notes:

1. µg/L: micrograms per liter
2. GWSL: Groundwater Screening Level
3. NA: Not Available
4. WBZ: Water-Bearing Zone
5. For clarity, groundwater grab samples from the Unit 4 / Unit 5 Investigation are not shown.

LEGEND:

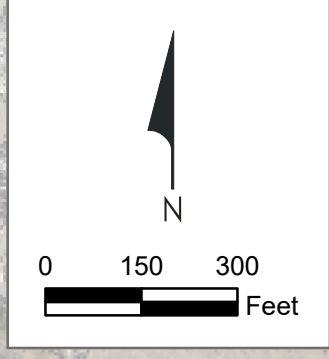
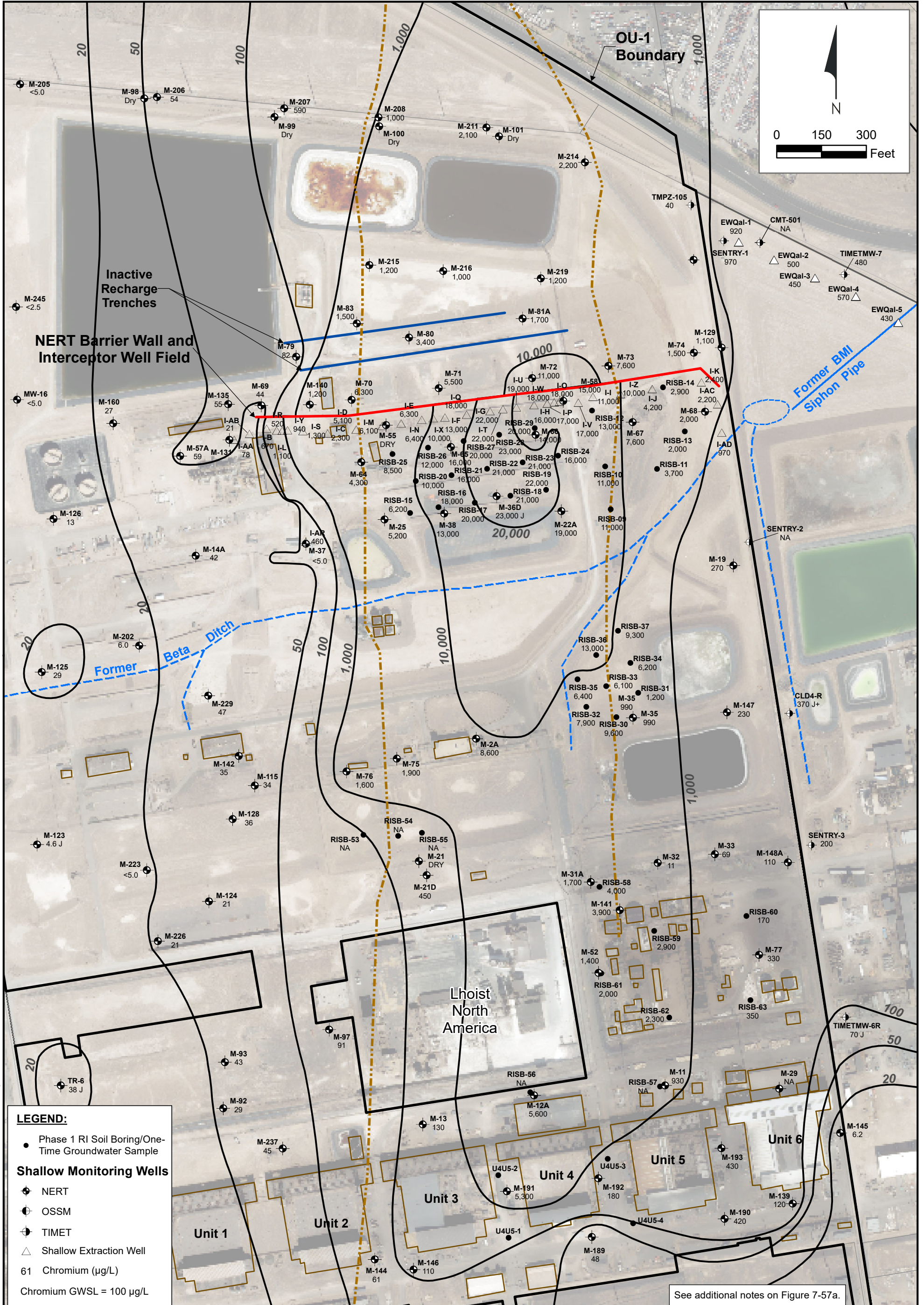
- Phase 1 RI Soil Boring/One-Time Groundwater Sample
- Shallow Monitoring Wells
- NERT
- OSSM
- TIMET
- BRC
- Shallow Extraction Well
- Decommissioned Well

Chromium Isoconcentration Map - Shallow WBZ (0-55 ft bgs) OU-1, 2015-2018
 Nevada Environmental Response Trust Site; Henderson, Nevada

Figure **7-57a**



Path: H:\LePetomane\NERT\RI_Evaluation\GIS\Chemical Maps\Fig 6-6a_Chromium Phase 3 RI_Onsite Sampled Wells.mxd



LEGEND:

- Phase 1 RI Soil Boring/One-Time Groundwater Sample
- ◆ NERT
- ◆ OSSM
- ◆ TIMET
- △ Shallow Extraction Well
- 61 Chromium (µg/L)
- Chromium GWSL = 100 µg/L

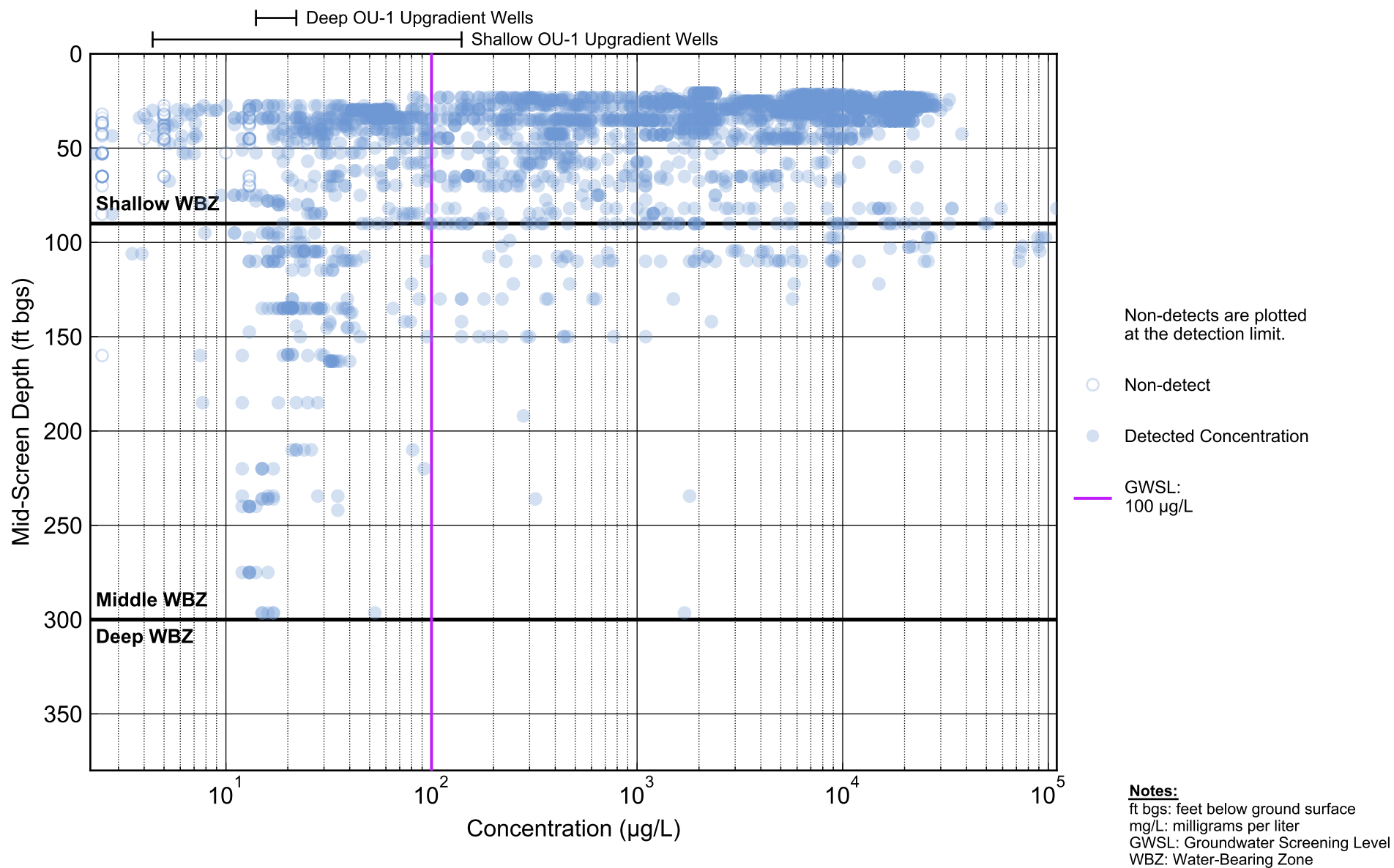
See additional notes on Figure 7-57a.



Chromium Isoconcentration Map - Shallow WBZ (0-55 ft bgs)
OU-1 Detail, 2015-2018
 Nevada Environmental Response Trust Site; Henderson, Nevada

Figure
7-57b

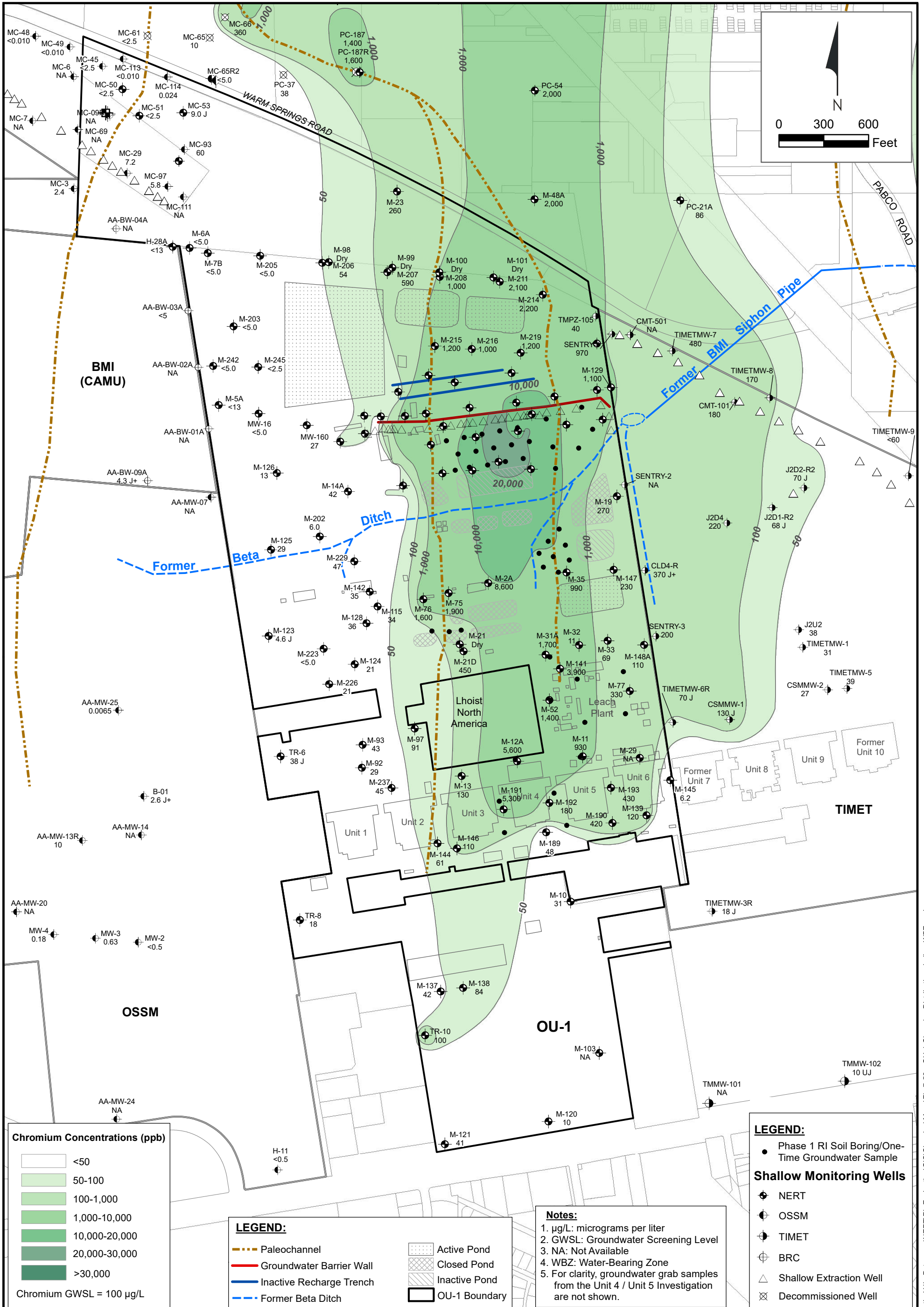
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OU-1 Chromium (Total) Groundwater Concentrations vs. Sample Depth
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure

7-58a

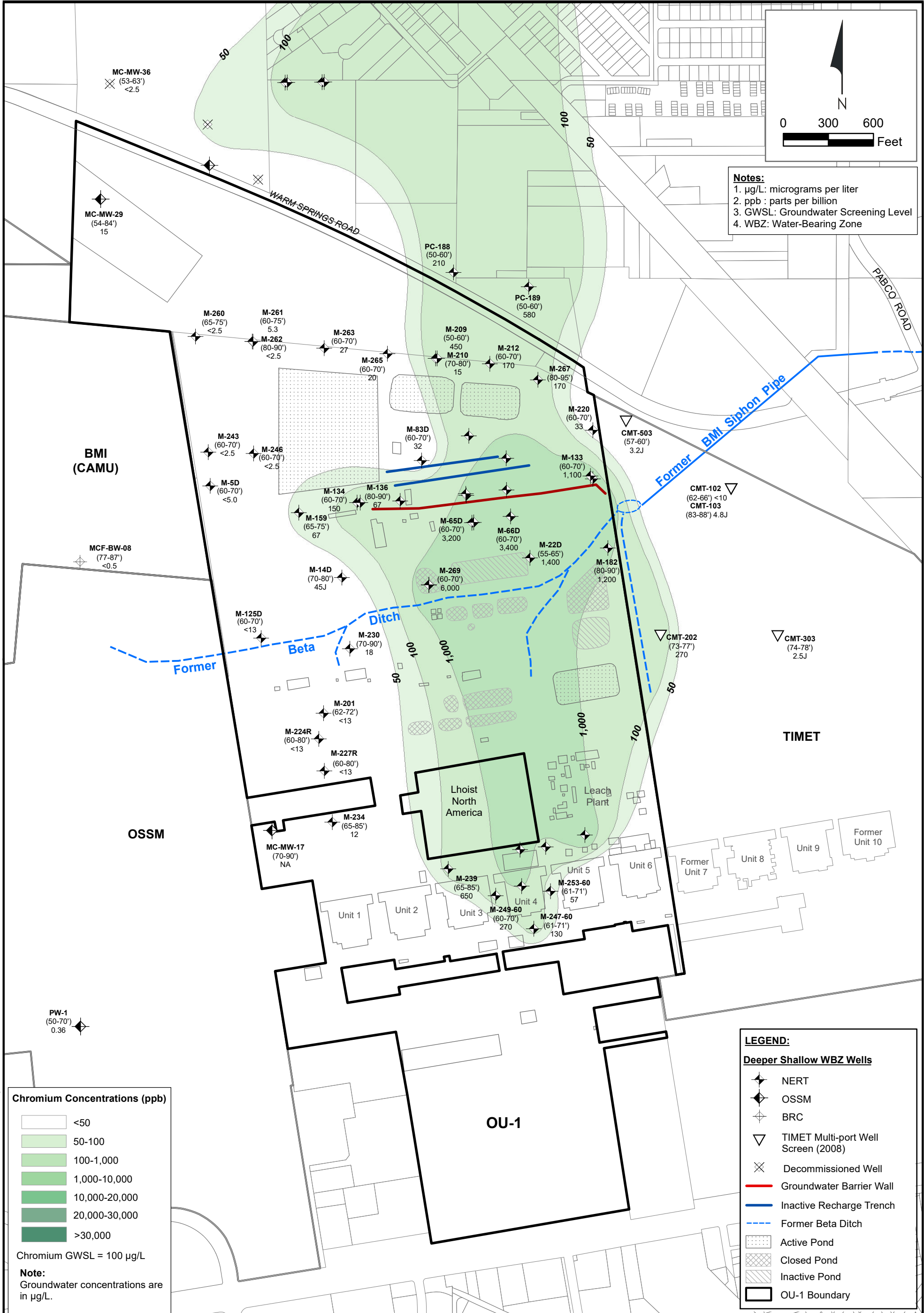


**Chromium Distribution - Shallow WBZ (0-55 ft bgs)
OU-1, 2015-2018**
Nevada Environmental Response Trust Site; Henderson, Nevada

Figure
7-58b



Path: H:\LePetomane\NERT\RI_Evaluation\GIS\Chemical Maps\Fig 7-52a_OU-1-ChromiumDistribution shallow WBZ.mxd



Path: H:\LePalomane\NERT\RI_Evaluation\GIS\Chemical Maps\Fig 7-52b_OU-1_55-90_Chromium map-Sha WBZ_.mxd



**Chromium Distribution - Shallow WBZ (55-90 ft bgs)
OU-1, 2015-2018**
Nevada Environmental Response Trust Site; Henderson, Nevada

Figure
7-58c

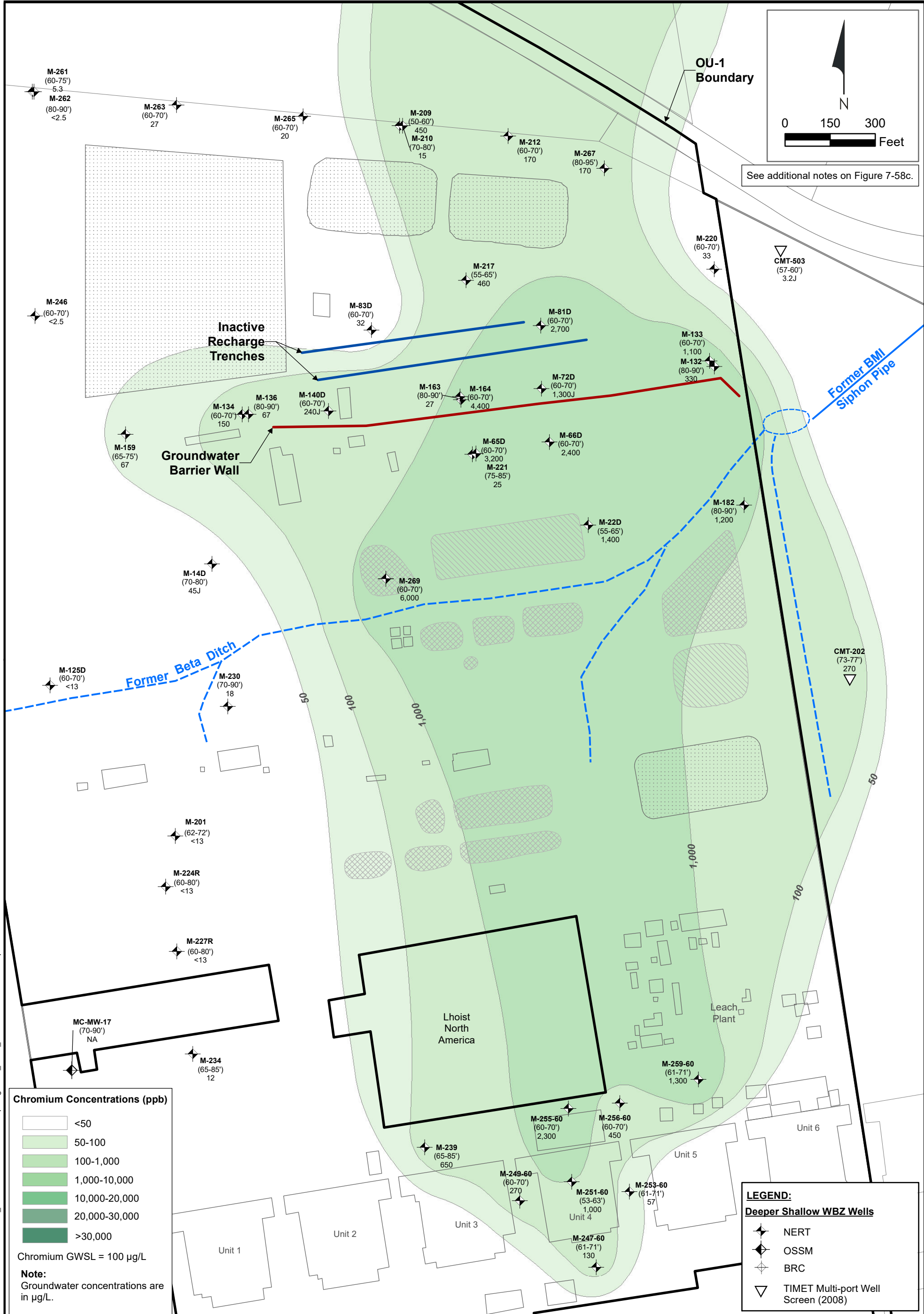
Drafter: RS

Date: 2/22/2021

Contract Number: 169002 9369

Approved by:

Revised:



Path: H:\LePalomane\NERT\RI_Evaluation\GIS\Chemical Maps\Fig 7-52c_55-90_Chromium Distribution map-detail.mxd

Chromium Concentrations (ppb)

	<50
	50-100
	100-1,000
	1,000-10,000
	10,000-20,000
	20,000-30,000
	>30,000

Chromium GWSL = 100 µg/L

Note:
Groundwater concentrations are in µg/L.

LEGEND:

Deeper Shallow WBZ Wells

- NERT
- OSSM
- BRC
- TIMET Multi-port Well Screen (2008)



Chromium Distribution - Shallow WBZ (55-90 ft bgs)
OU-1 Detail, 2015-2018
 Nevada Environmental Response Trust Site; Henderson, Nevada

Figure
7-58d



Path: H:\LePalomane\NERT\RI_Evaluation\GIS\Chemical Maps\Fig 7-52d_Chromium_Mid_WaterBearingMW_90-130ftmx.d.mxd

Chromium Concentrations (ppb)

<50
50-100
100-1,000
1,000-10,000
10,000-20,000
20,000-30,000
>30,000

Chromium GWSL = 100 µg/L

LEGEND:

Middle Water-Bearing Zone Wells

- ⊕ NERT
- ⊕ OSSM
- ⊕ BRC
- ▽ TIMET Multi-port Well Screen (2008)
- Groundwater Barrier Wall
- - - Former Beta Ditch

Notes:

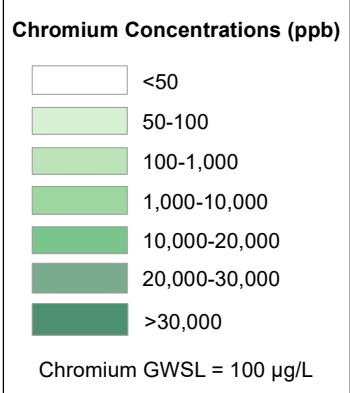
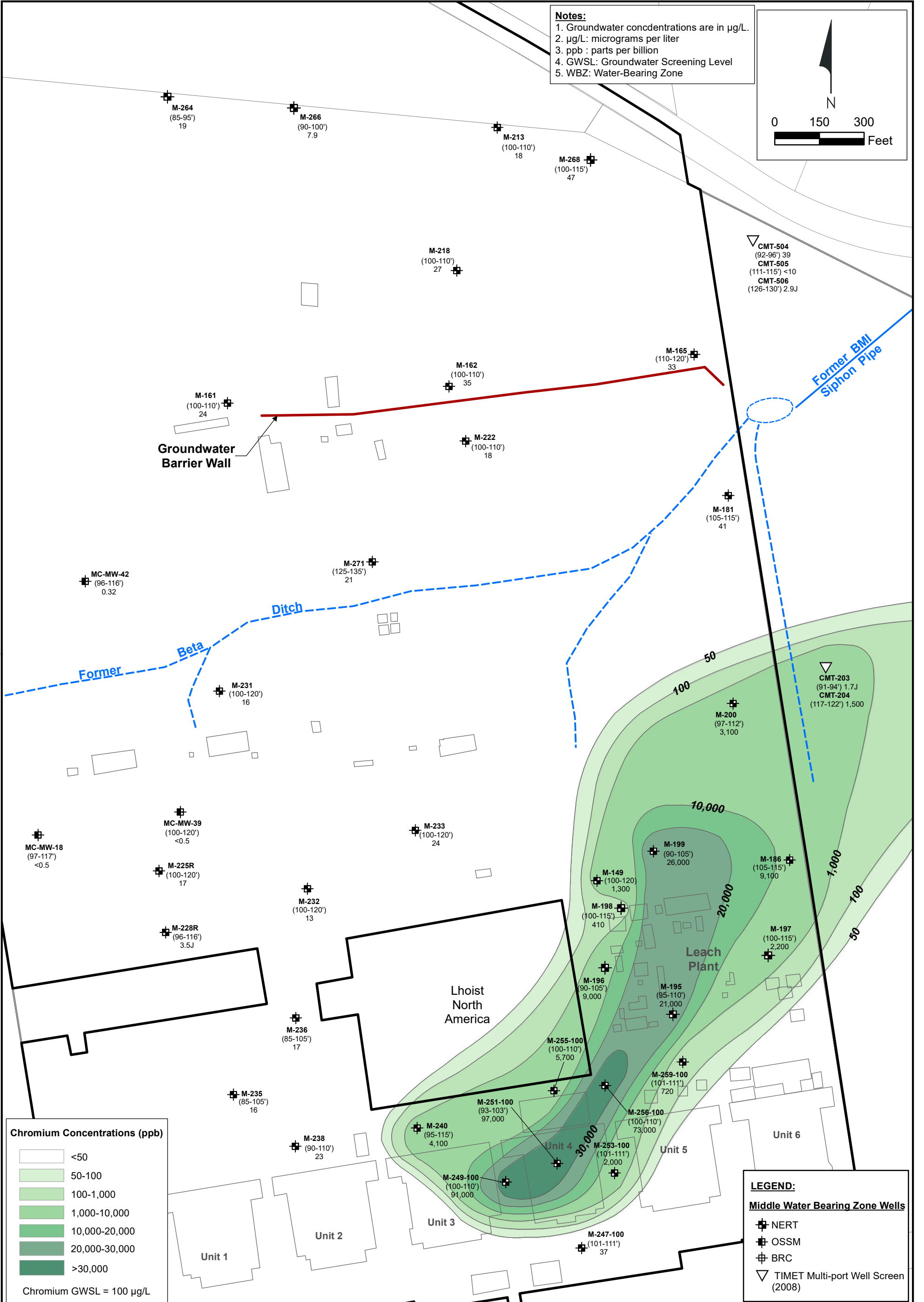
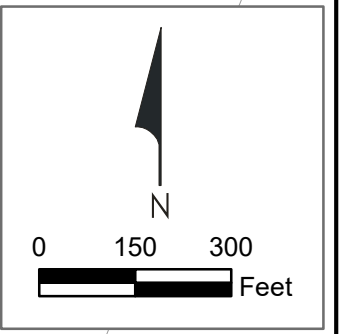
1. Groundwater concentrations are in µg/L.
2. µg/L: micrograms per liter
3. ppb : parts per billion
4. GWSL: Groundwater Screening Level
5. WBZ: Water-Bearing Zone



**Chromium Distribution - Middle WBZ (90-130 ft bgs)
OU-1, 2015-2018**
Nevada Environmental Response Trust Site; Henderson, Nevada

Figure
7-58e

- Notes:**
1. Groundwater concentrations are in µg/L.
 2. µg/L: micrograms per liter
 3. ppb : parts per billion
 4. GWSL: Groundwater Screening Level
 5. WBZ: Water-Bearing Zone



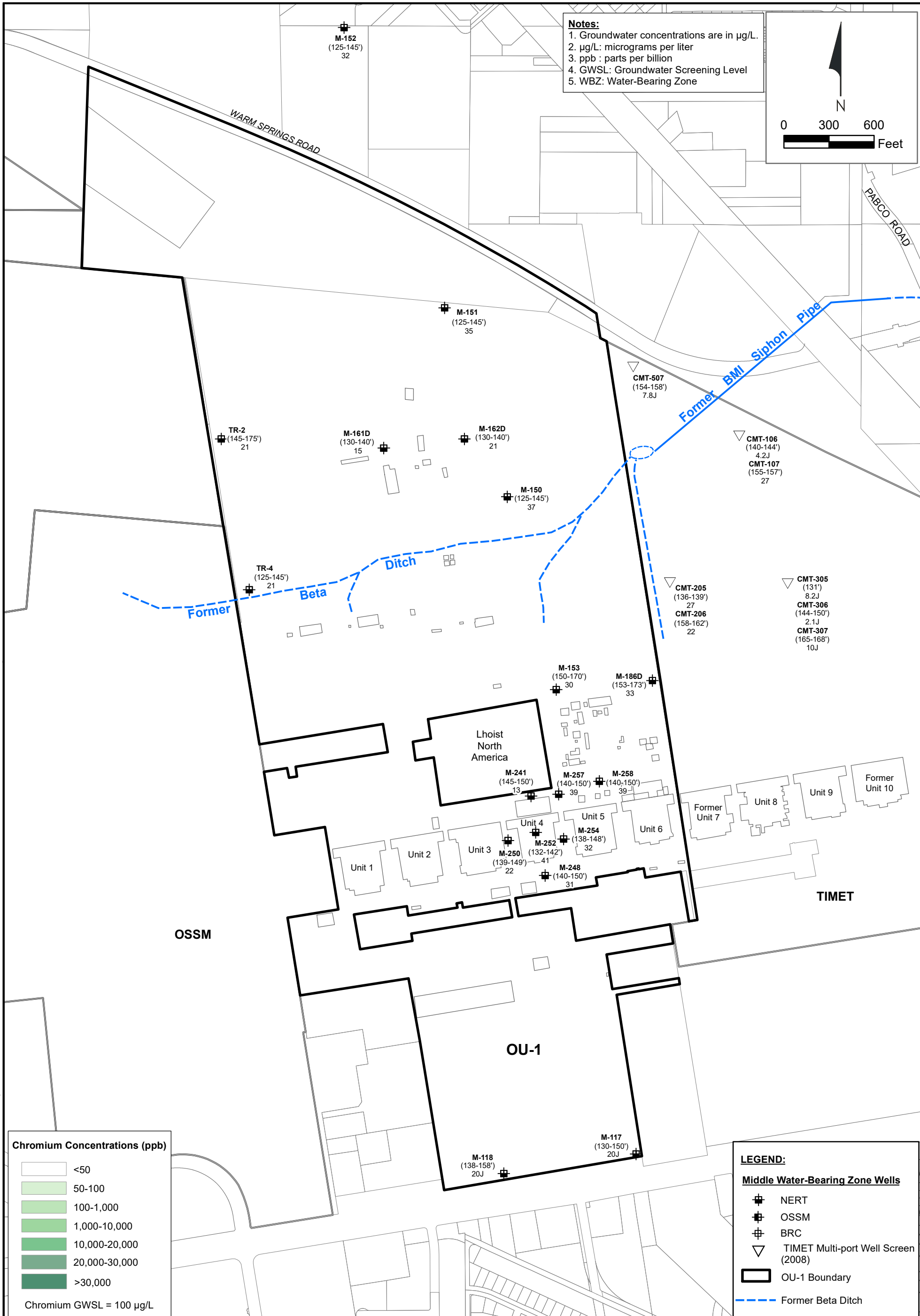
- LEGEND:**
- Middle Water Bearing Zone Wells**
- NERT
 - OSSM
 - BRC
 - ▽ TIMET Multi-port Well Screen (2008)

**Chromium Distribution - Middle WBZ (90-130 ft bgs)
OU-1 Detail, 2015-2018**
Nevada Environmental Response Trust Site; Henderson, Nevada



Figure
7-58f

Path: H:\LePalomane\NERT\RI_Evaluation\GIS\Chemical Maps\Fig 7-52e_Chromium_Mid_WaterBearingMW_90-130.mxd



Path: H:\LePalomane\NERT\RI_Evaluation\GIS\Chemical Maps\Fig 7-52f_Chromium_Dpr\MidieZone130-175ft.mxd



**Chromium Distribution - Middle WBZ (130-175 ft bgs)
OU-1, 2015-2018**
Nevada Environmental Response Trust Site; Henderson, Nevada

Figure
7-58g

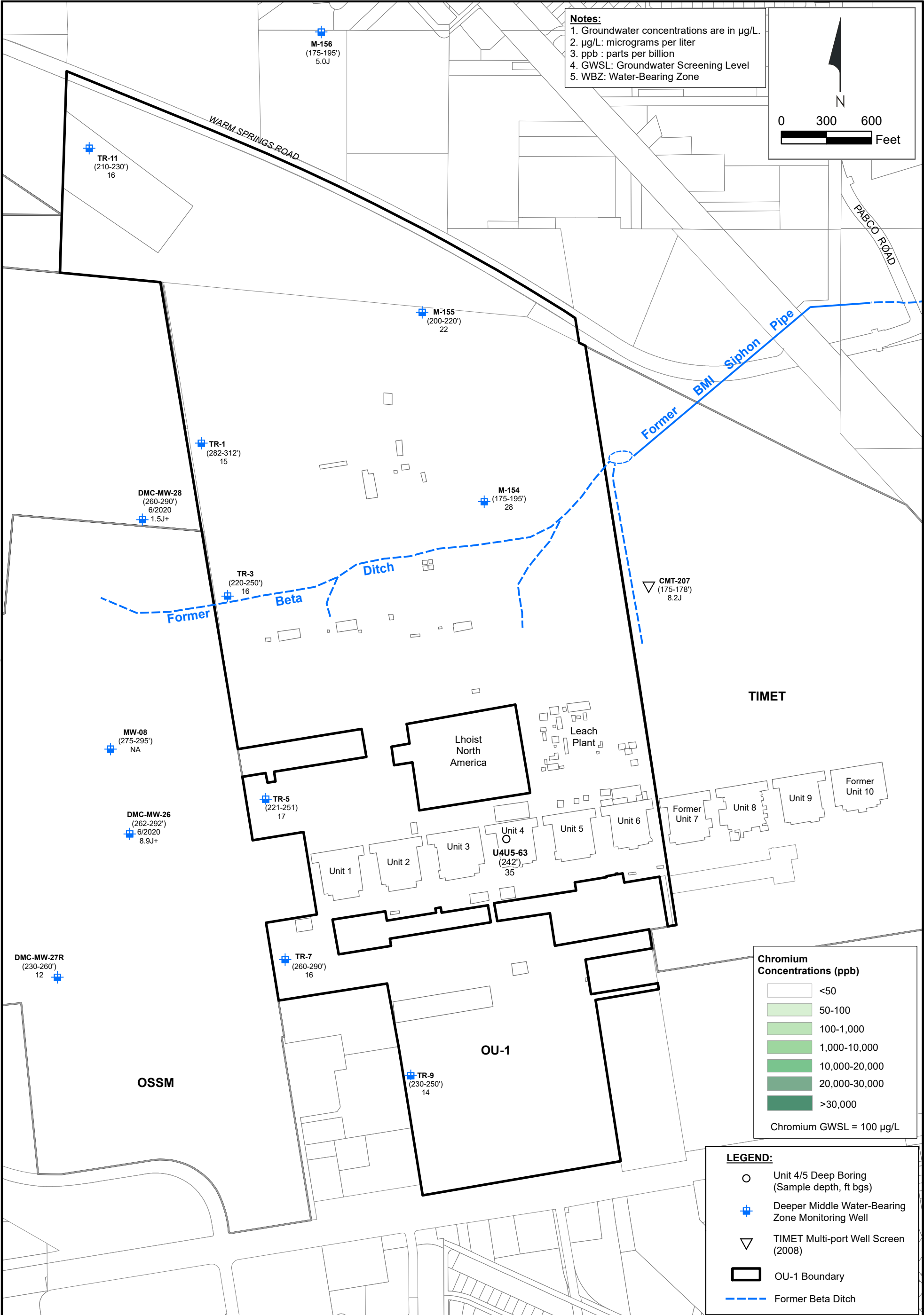
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Date: 2/19/2021

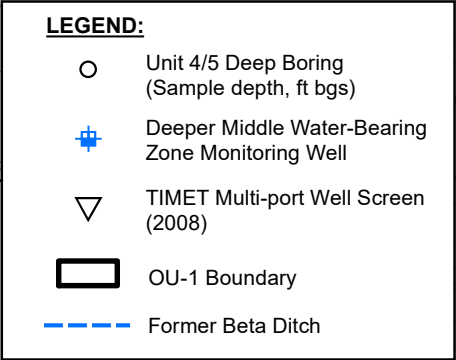
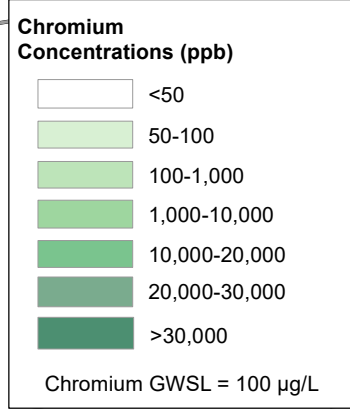
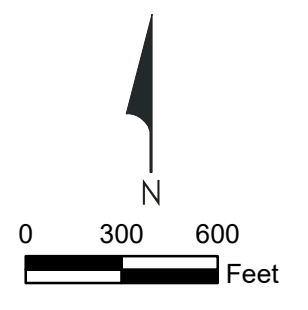
Contract Number: 169002 9369

Approved by:

Revised:



Notes:
 1. Groundwater concentrations are in µg/L.
 2. µg/L: micrograms per liter
 3. ppb : parts per billion
 4. GWSL: Groundwater Screening Level
 5. WBZ: Water-Bearing Zone

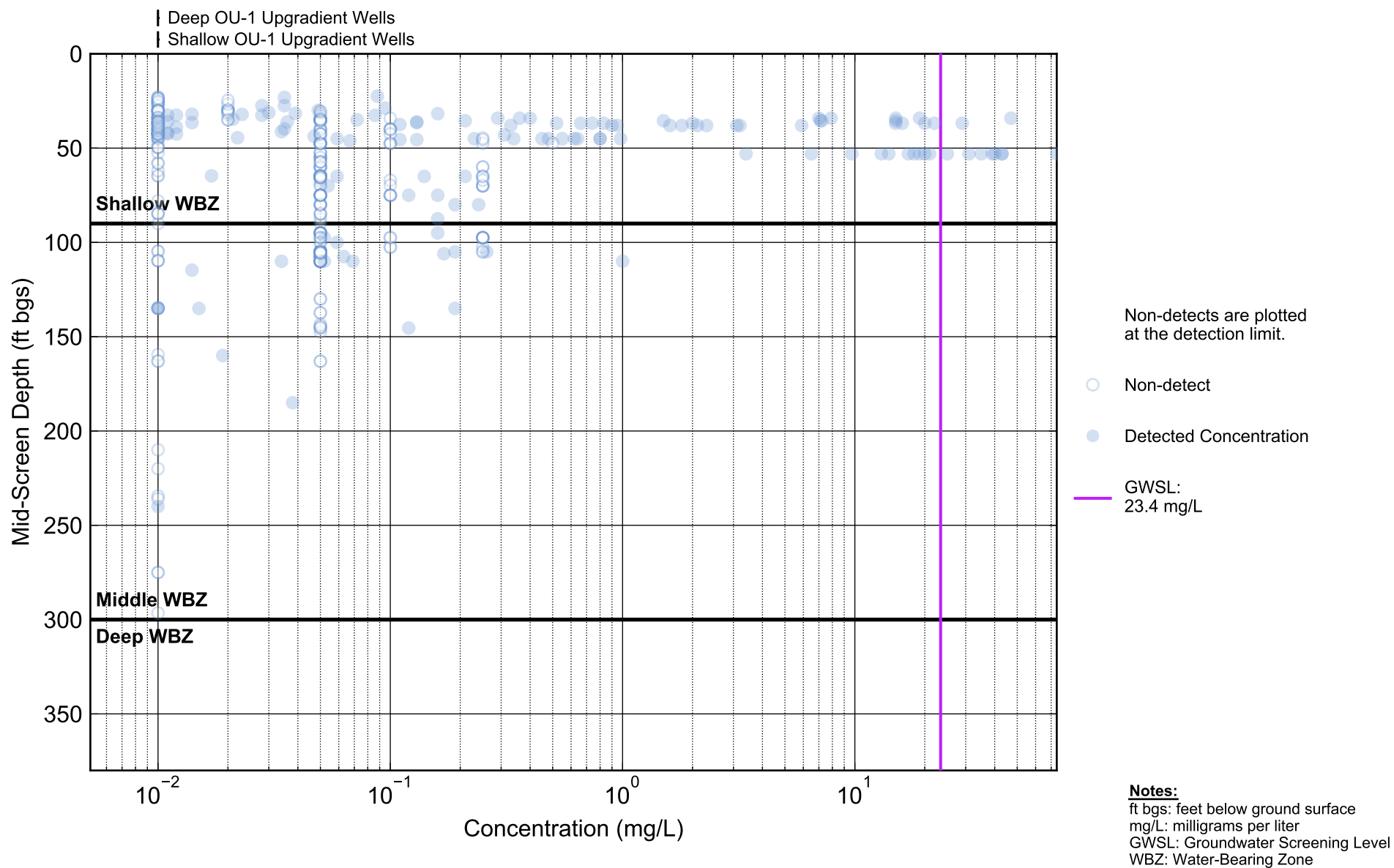


Path: H:\LePalomane\NERT\RI_Evaluation\GIS\Chemical Maps\Fig 7-52g_Chromium Dist Middle Zone 175-300ft.mxd



**Chromium Distribution - Middle WBZ (175-300 ft bgs)
 OU-1, 2015-2018**
 Nevada Environmental Response Trust Site; Henderson, Nevada

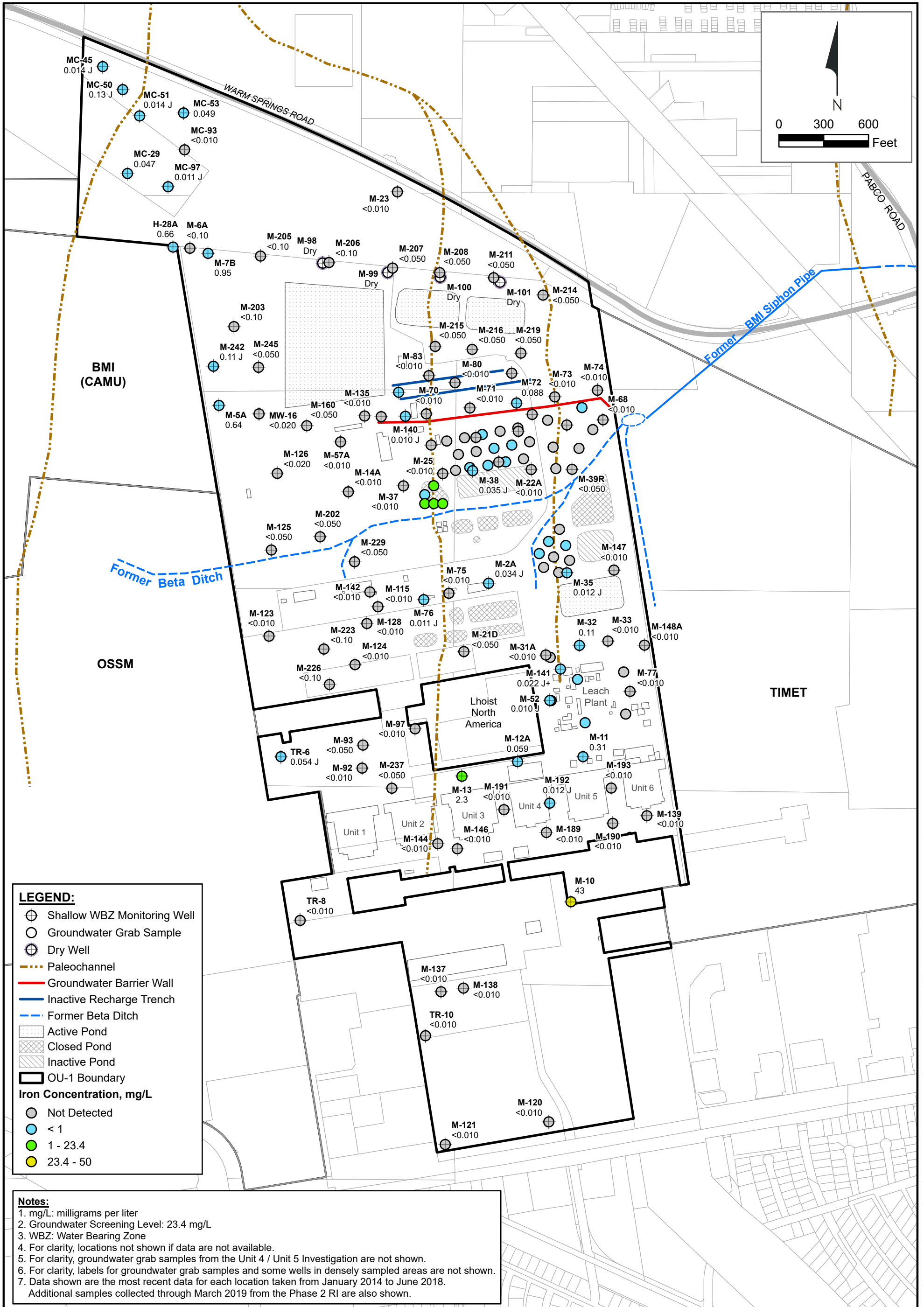
Figure
7-58h



OU-1 Iron Groundwater Concentrations vs. Sample Depth
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure

7-59a



LEGEND:

- ⊕ Shallow WBZ Monitoring Well
- Groundwater Grab Sample
- ⊖ Dry Well
- Paleochannel
- Groundwater Barrier Wall
- Inactive Recharge Trench
- Former Beta Ditch
- ▨ Active Pond
- ▩ Closed Pond
- ▧ Inactive Pond
- ▭ OU-1 Boundary

Iron Concentration, mg/L

- Not Detected
- < 1
- 1 - 23.4
- 23.4 - 50

Notes:

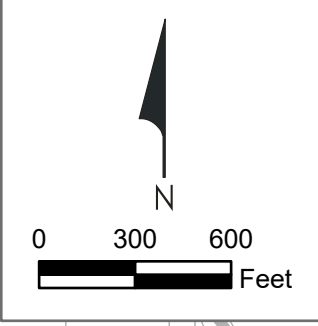
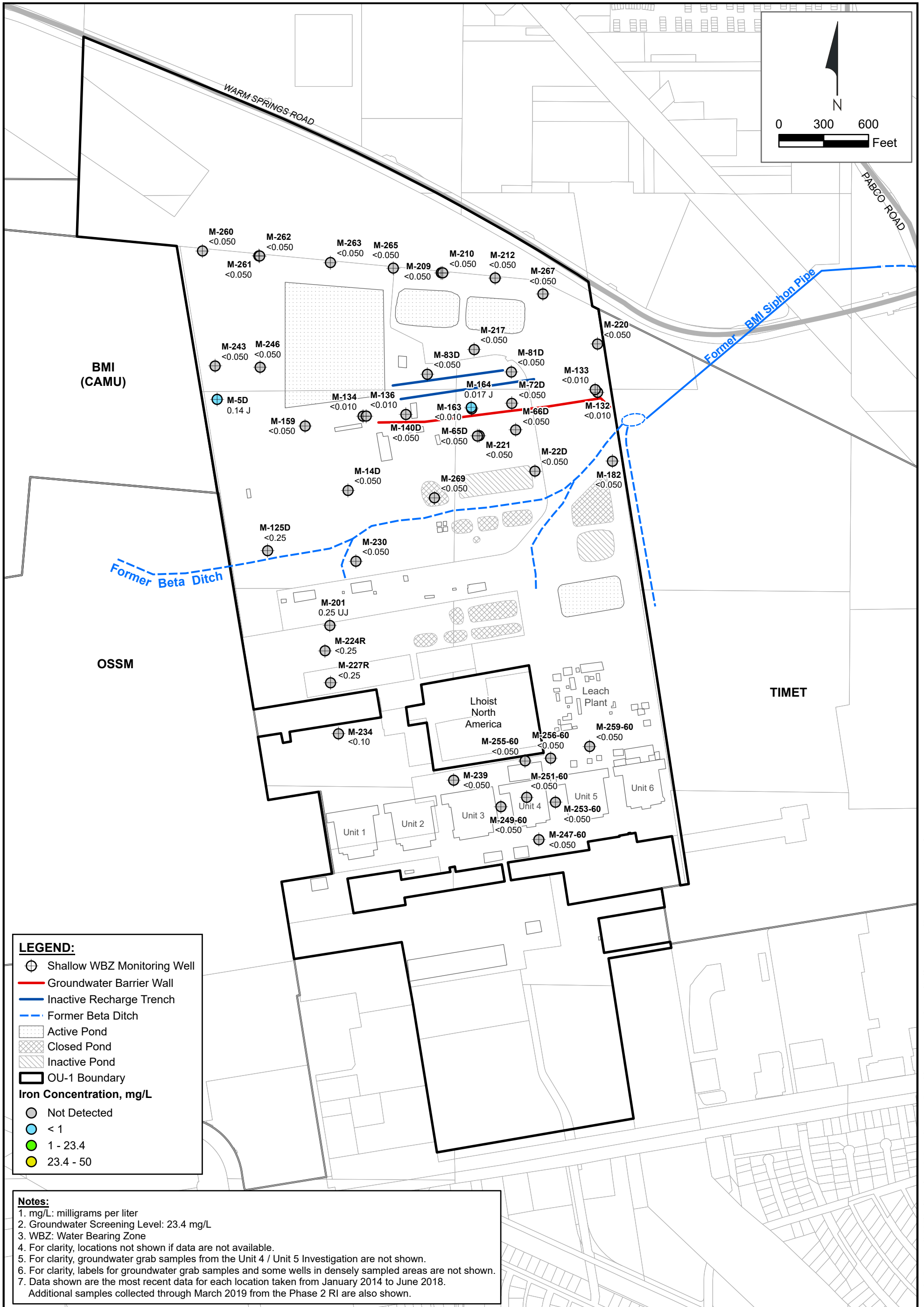
1. mg/L: milligrams per liter
2. Groundwater Screening Level: 23.4 mg/L
3. WBZ: Water Bearing Zone
4. For clarity, locations not shown if data are not available.
5. For clarity, groundwater grab samples from the Unit 4 / Unit 5 Investigation are not shown.
6. For clarity, labels for groundwater grab samples and some wells in densely sampled areas are not shown.
7. Data shown are the most recent data for each location taken from January 2014 to June 2018. Additional samples collected through March 2019 from the Phase 2 RI are also shown.



Iron - Shallow WBZ (0-55 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-59b

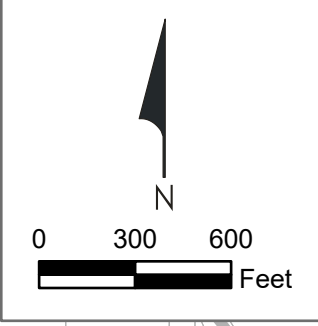
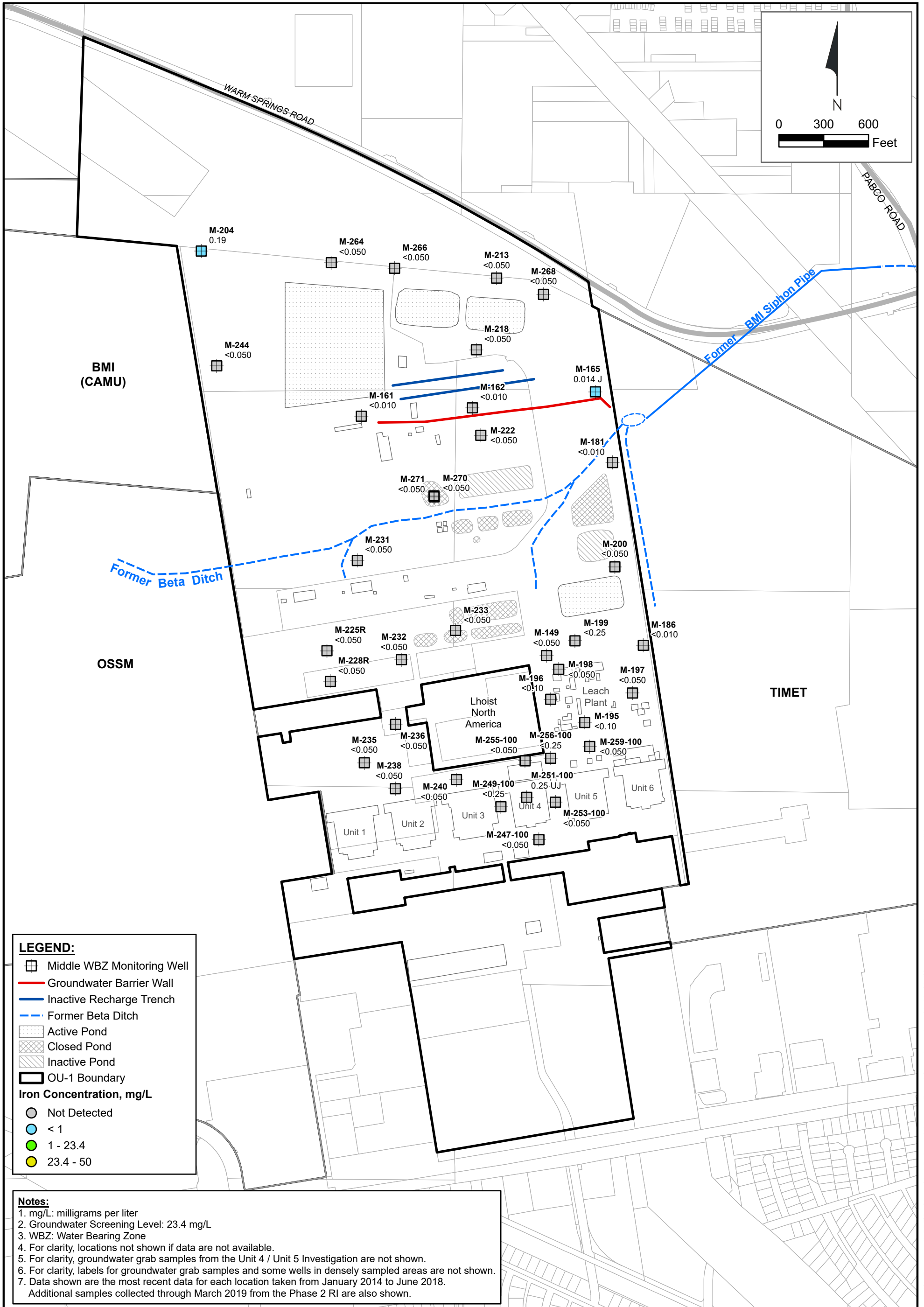
Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_1.aprx\Figure 7-59b Iron Upper Shallow



Iron - Shallow WBZ (55-90 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-59c

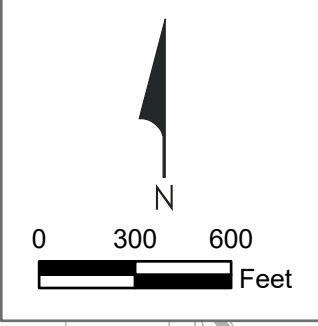
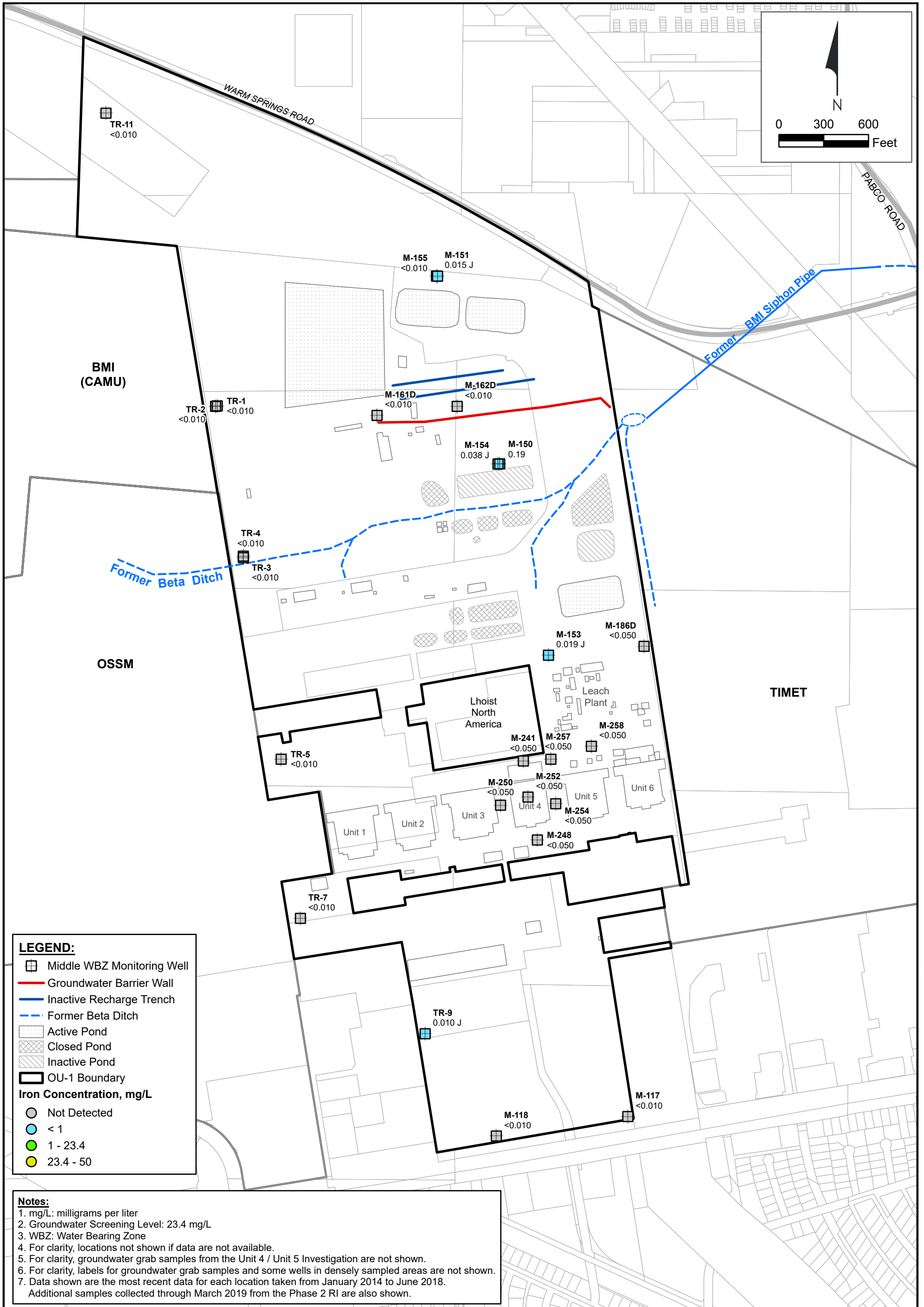
Path: H:\Petomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_1.aprx\Figure 7-59c Iron Lower Shallow



Iron - Middle WBZ (90-130 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-59d

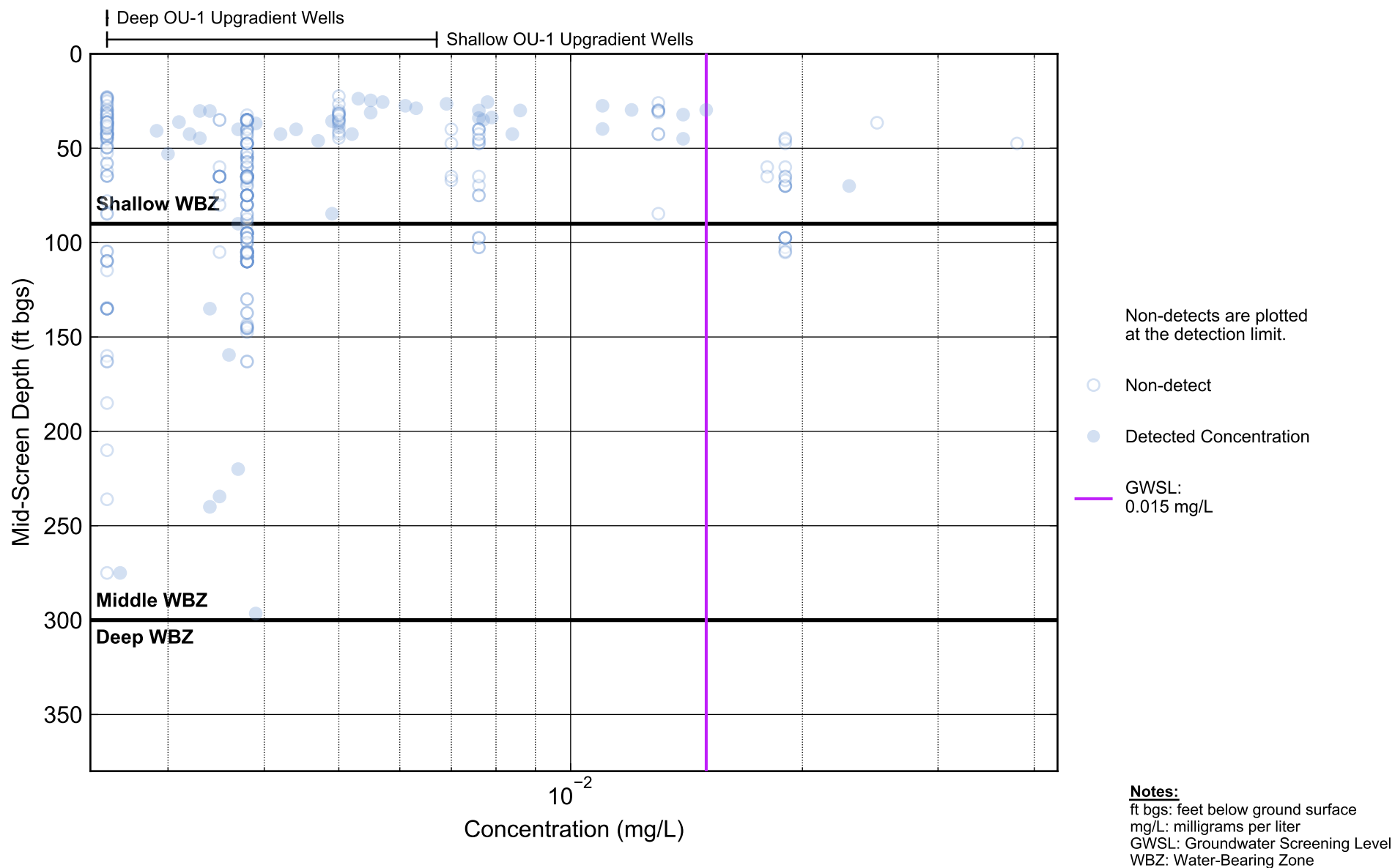
Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_1.aprx\Figure 7-59d Iron Upper Middle



Iron - Middle WBZ (130-300 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-59e

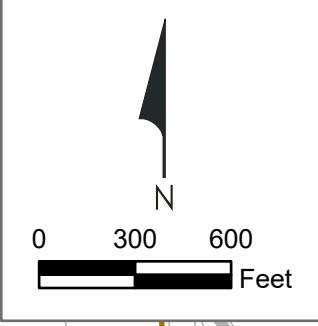
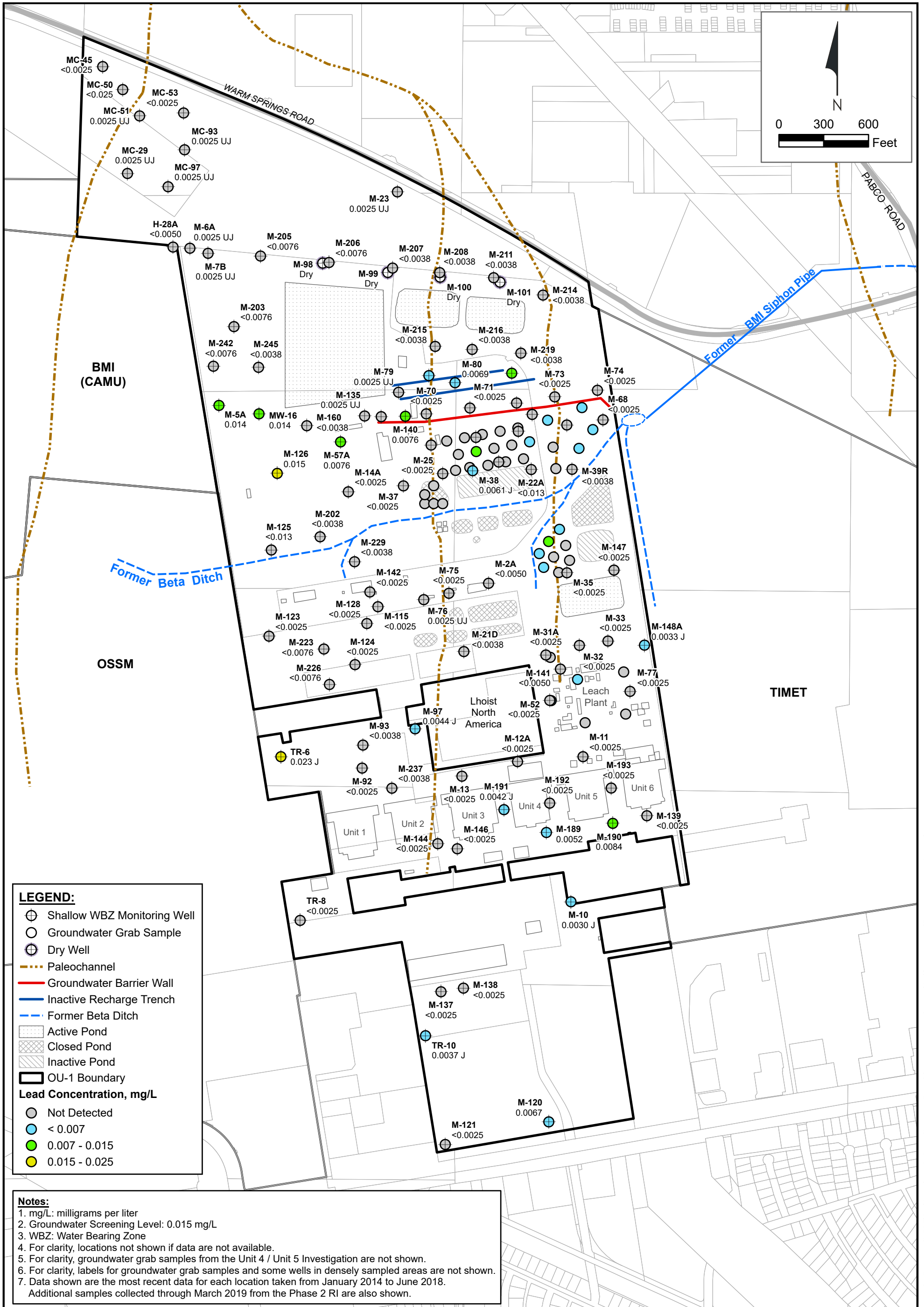
Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_1.aprx\Figure 7-59e Iron Lower Middle



OU-1 Lead Groundwater Concentrations vs. Sample Depth
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure

7-60a



LEGEND:

- ⊕ Shallow WBZ Monitoring Well
- Groundwater Grab Sample
- ⊖ Dry Well
- - - Paleochannel
- Groundwater Barrier Wall
- Inactive Recharge Trench
- - - Former Beta Ditch
- ▨ Active Pond
- ▩ Closed Pond
- ▧ Inactive Pond
- ▭ OU-1 Boundary

Lead Concentration, mg/L

- Not Detected
- < 0.007
- 0.007 - 0.015
- 0.015 - 0.025

Notes:

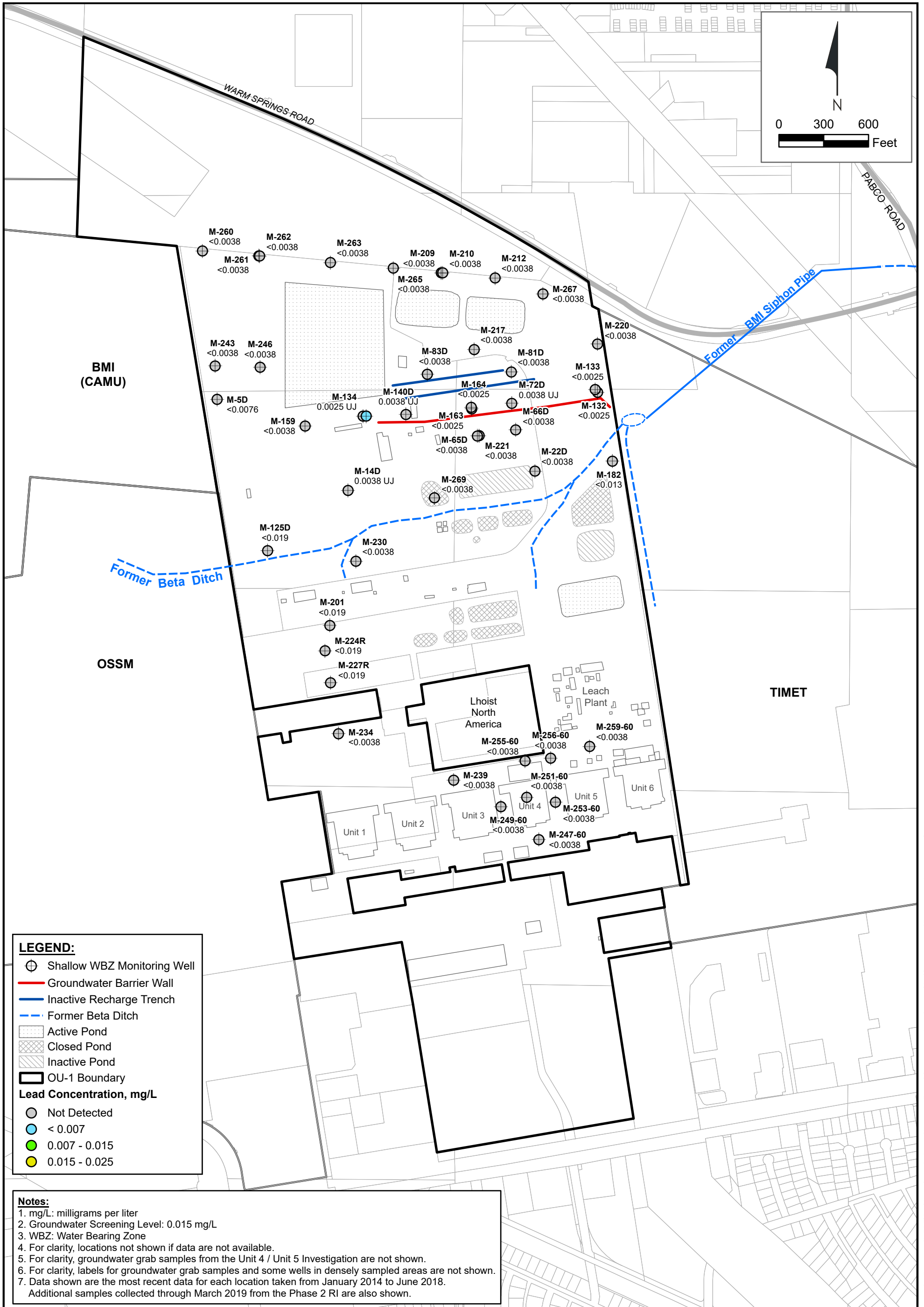
1. mg/L: milligrams per liter
2. Groundwater Screening Level: 0.015 mg/L
3. WBZ: Water Bearing Zone
4. For clarity, locations not shown if data are not available.
5. For clarity, groundwater grab samples from the Unit 4 / Unit 5 Investigation are not shown.
6. For clarity, labels for groundwater grab samples and some wells in densely sampled areas are not shown.
7. Data shown are the most recent data for each location taken from January 2014 to June 2018. Additional samples collected through March 2019 from the Phase 2 RI are also shown.



Lead - Shallow WBZ (0-55 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-60b

Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_1.aprx\Figure 7-60b Lead Upper Shallow



LEGEND:

- ⊕ Shallow WBZ Monitoring Well
- Groundwater Barrier Wall
- Inactive Recharge Trench
- - - Former Beta Ditch
- ▨ Active Pond
- ▩ Closed Pond
- ▧ Inactive Pond
- ▭ OU-1 Boundary

Lead Concentration, mg/L

- ⊕ Not Detected
- ⊕ < 0.007
- ⊕ 0.007 - 0.015
- ⊕ 0.015 - 0.025

Notes:

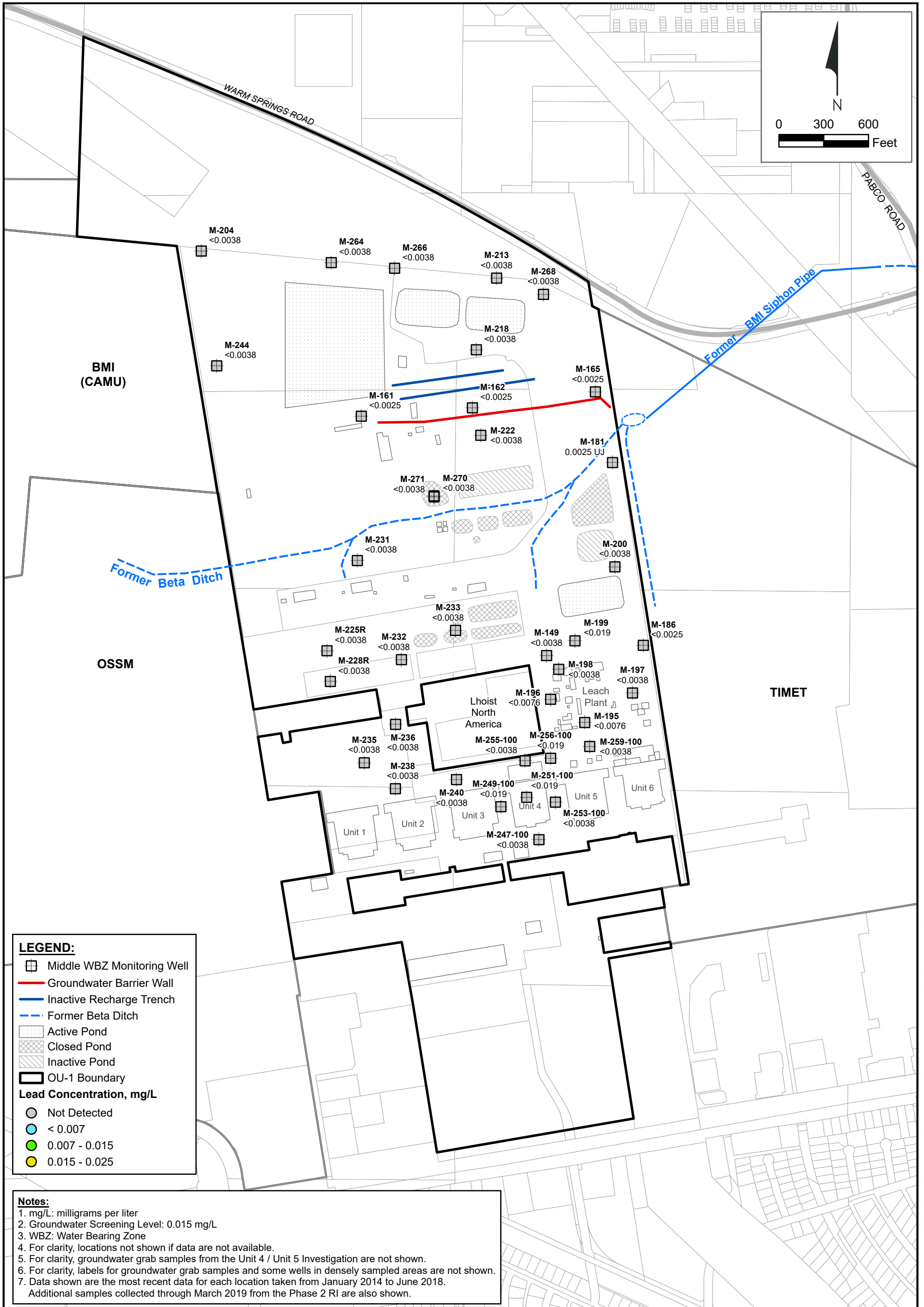
1. mg/L: milligrams per liter
2. Groundwater Screening Level: 0.015 mg/L
3. WBZ: Water Bearing Zone
4. For clarity, locations not shown if data are not available.
5. For clarity, groundwater grab samples from the Unit 4 / Unit 5 Investigation are not shown.
6. For clarity, labels for groundwater grab samples and some wells in densely sampled areas are not shown.
7. Data shown are the most recent data for each location taken from January 2014 to June 2018. Additional samples collected through March 2019 from the Phase 2 RI are also shown.



Lead - Shallow WBZ (55-90 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-60c

Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_1.aprx\Figure 7-60c Lead Lower Shallow



LEGEND:

- Middle WBZ Monitoring Well
- Groundwater Barrier Wall
- Inactive Recharge Trench
- Former Beta Ditch
- Active Pond
- Closed Pond
- Inactive Pond
- OU-1 Boundary

Lead Concentration, mg/L

- Not Detected
- < 0.007
- 0.007 - 0.015
- 0.015 - 0.025

Notes:

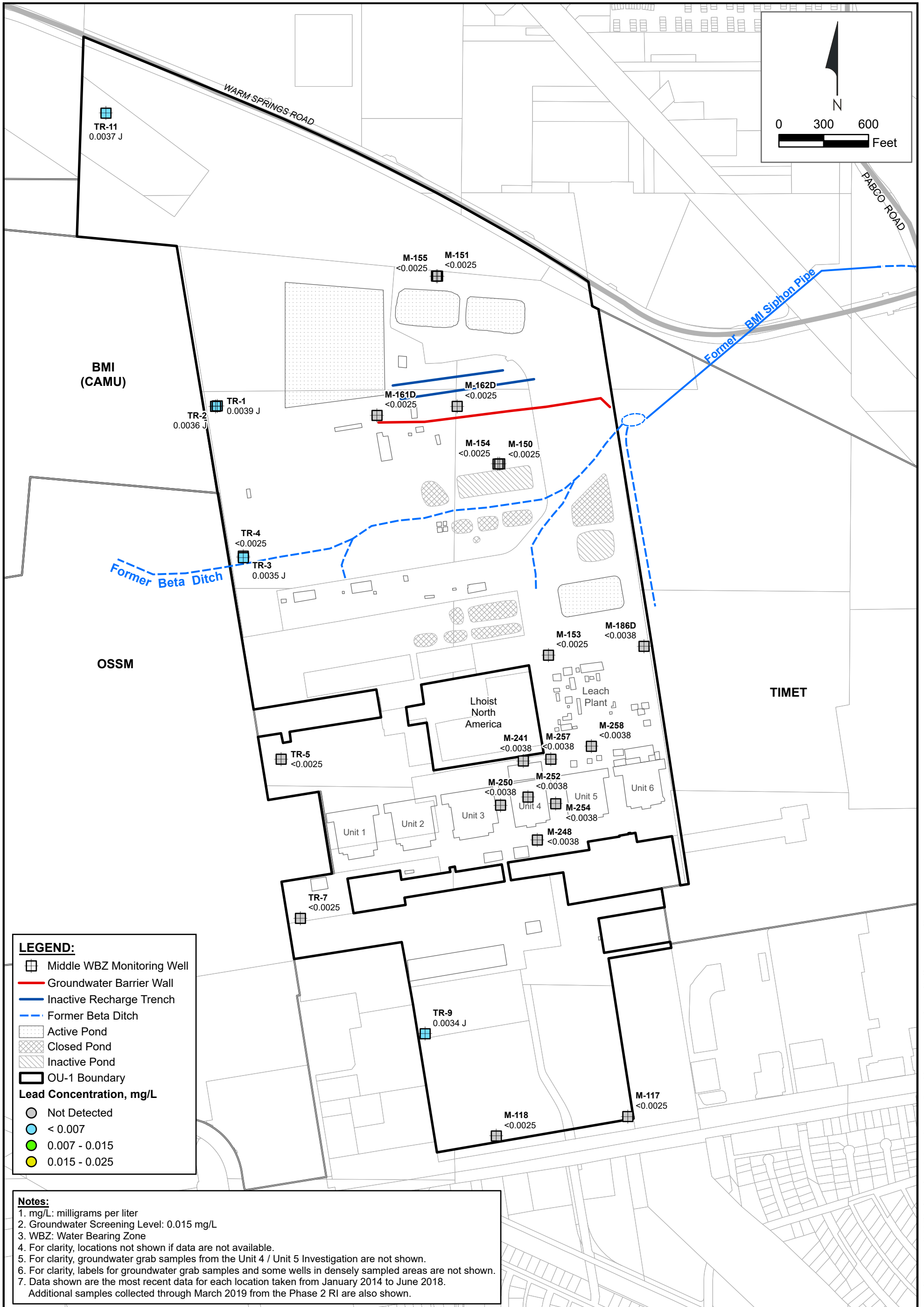
1. mg/L: milligrams per liter
2. Groundwater Screening Level: 0.015 mg/L
3. WBZ: Water Bearing Zone
4. For clarity, locations not shown if data are not available.
5. For clarity, groundwater grab samples from the Unit 4 / Unit 5 Investigation are not shown.
6. For clarity, labels for groundwater grab samples and some wells in densely sampled areas are not shown.
7. Data shown are the most recent data for each location taken from January 2014 to June 2018. Additional samples collected through March 2019 from the Phase 2 RI are also shown.



Lead - Middle WBZ (90-130 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-60d

Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_1.aprx\Figure 7-60d Lead Upper Middle



LEGEND:

- Middle WBZ Monitoring Well
- Groundwater Barrier Wall
- Inactive Recharge Trench
- Former Beta Ditch
- Active Pond
- Closed Pond
- Inactive Pond
- OU-1 Boundary

Lead Concentration, mg/L

- Not Detected
- < 0.007
- 0.007 - 0.015
- 0.015 - 0.025

Notes:

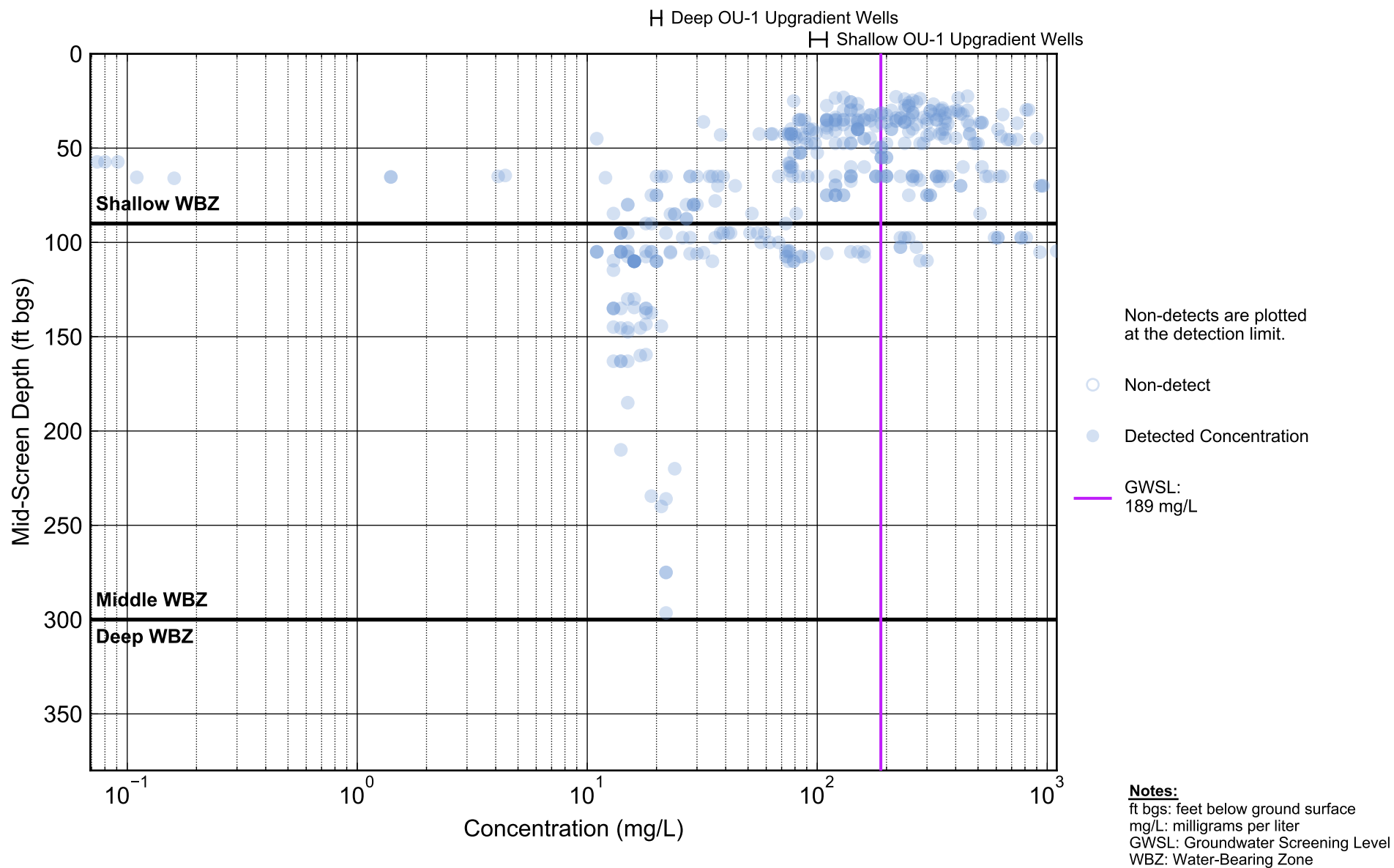
1. mg/L: milligrams per liter
2. Groundwater Screening Level: 0.015 mg/L
3. WBZ: Water Bearing Zone
4. For clarity, locations not shown if data are not available.
5. For clarity, groundwater grab samples from the Unit 4 / Unit 5 Investigation are not shown.
6. For clarity, labels for groundwater grab samples and some wells in densely sampled areas are not shown.
7. Data shown are the most recent data for each location taken from January 2014 to June 2018. Additional samples collected through March 2019 from the Phase 2 RI are also shown.



Lead - Middle WBZ (130-300 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-60e

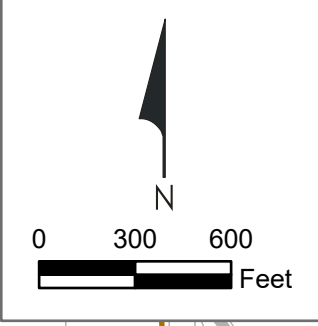
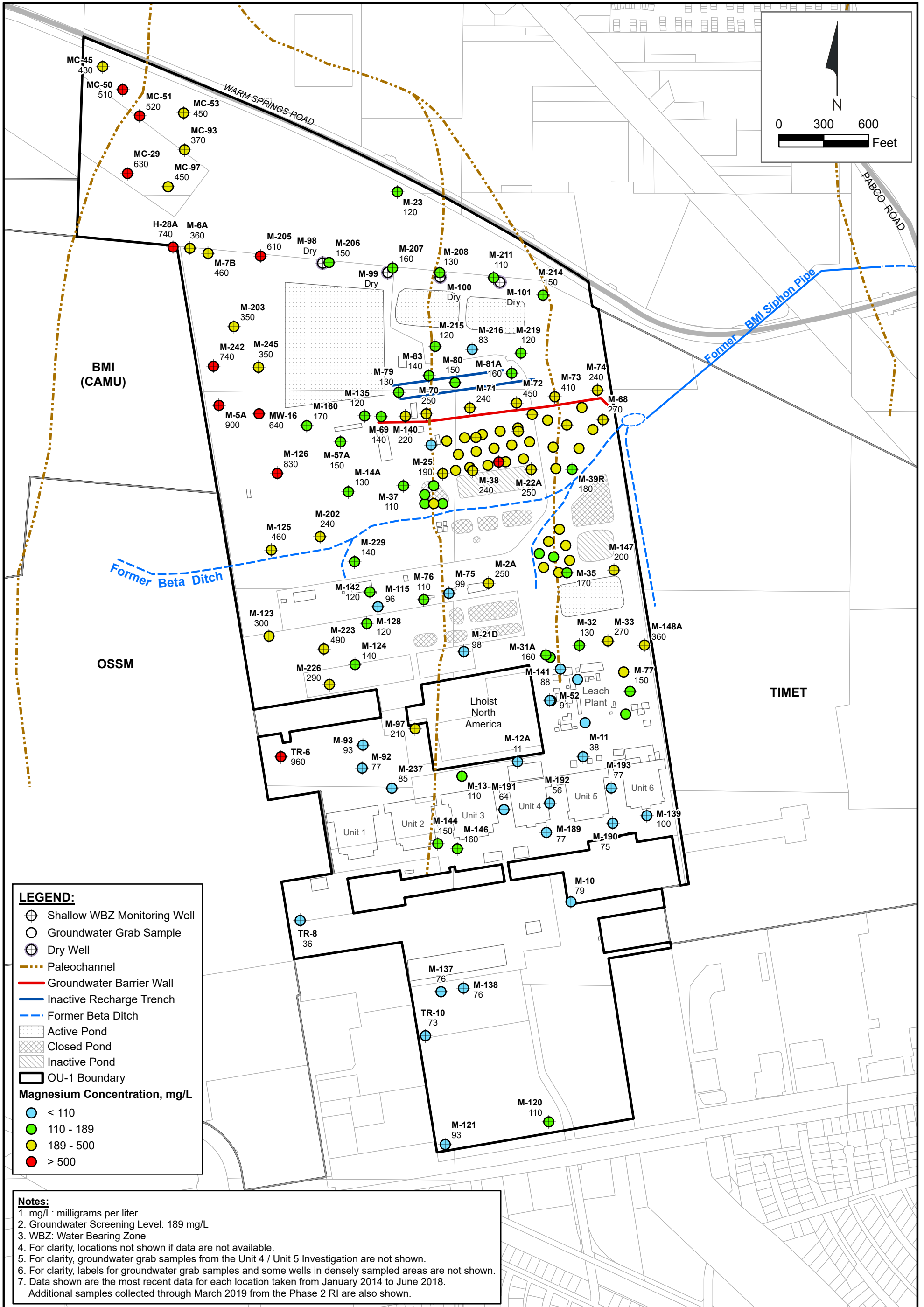
Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_1.aprx\Figure 7-60e Lead Lower Middle



OU-1 Magnesium Groundwater Concentrations vs. Sample Depth
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure

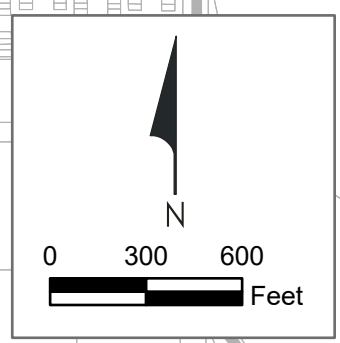
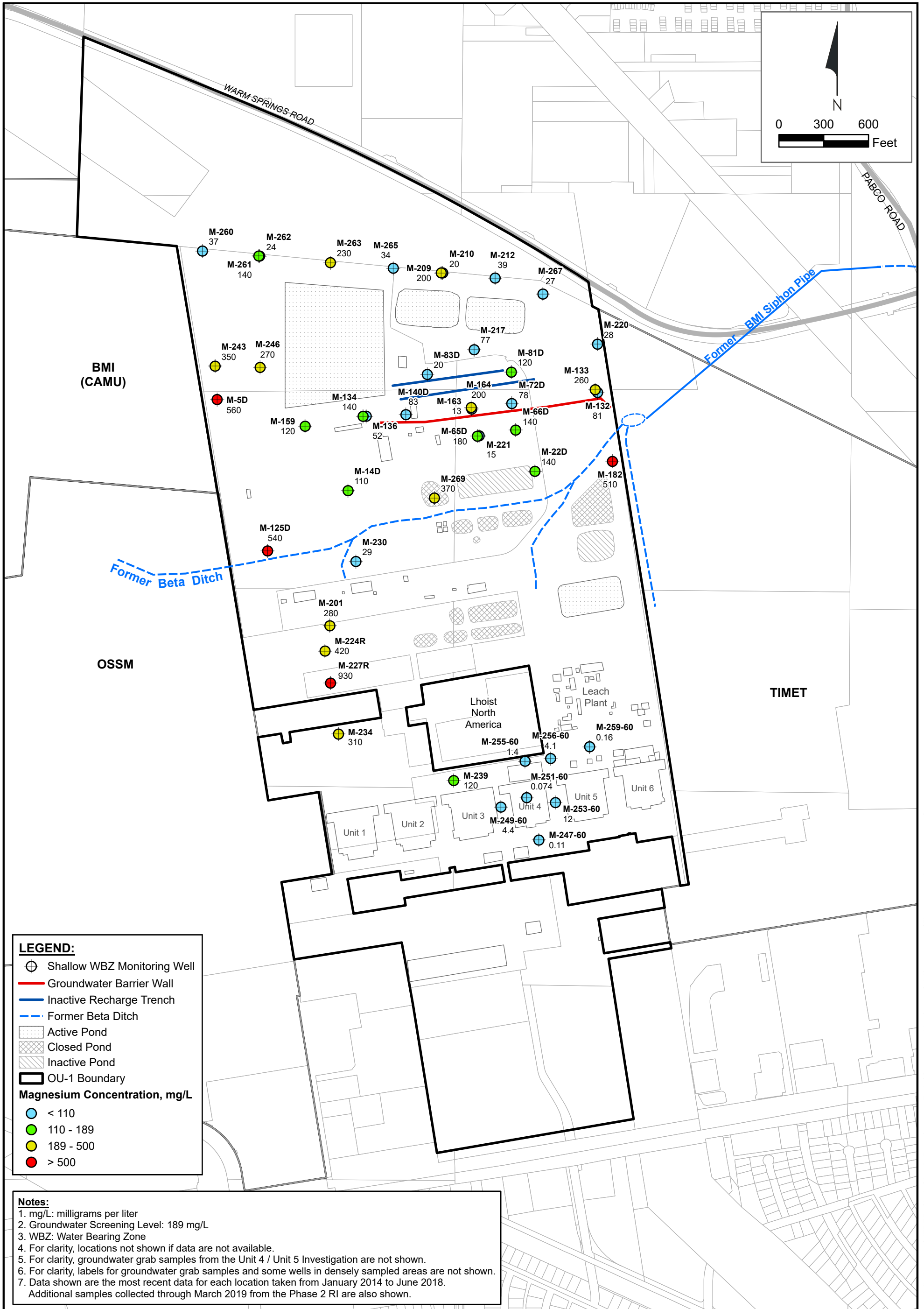
7-61a



Magnesium - Shallow WBZ (0-55 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-61b

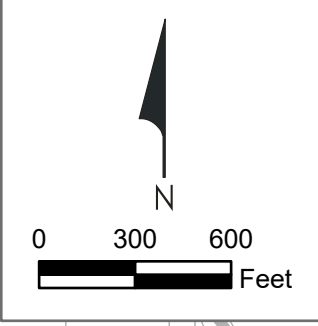
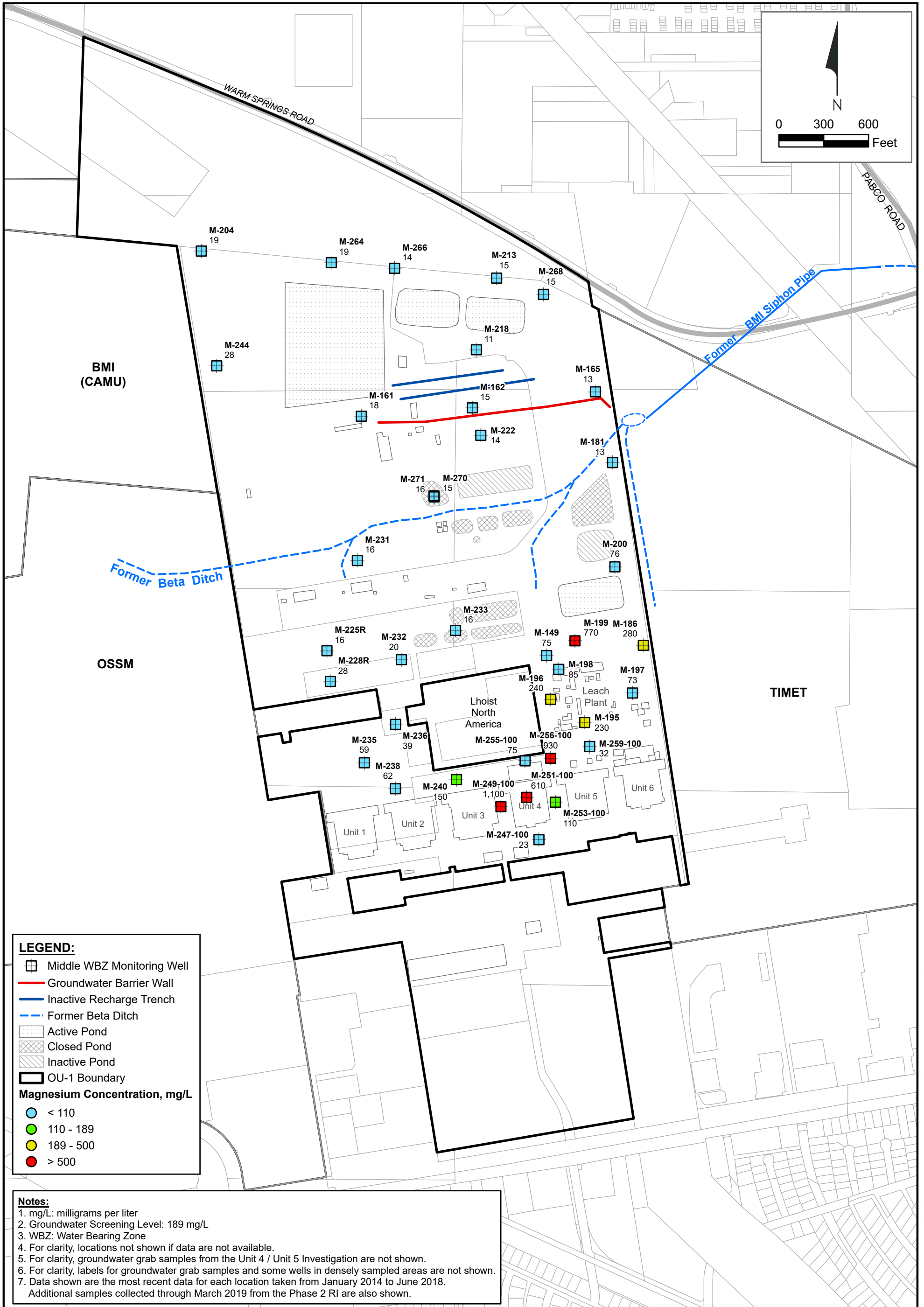
Path: H:\Petomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_1.aprx\Figure 7-61b Magnesium Upper Shallow



Magnesium - Shallow WBZ (55-90 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-61c

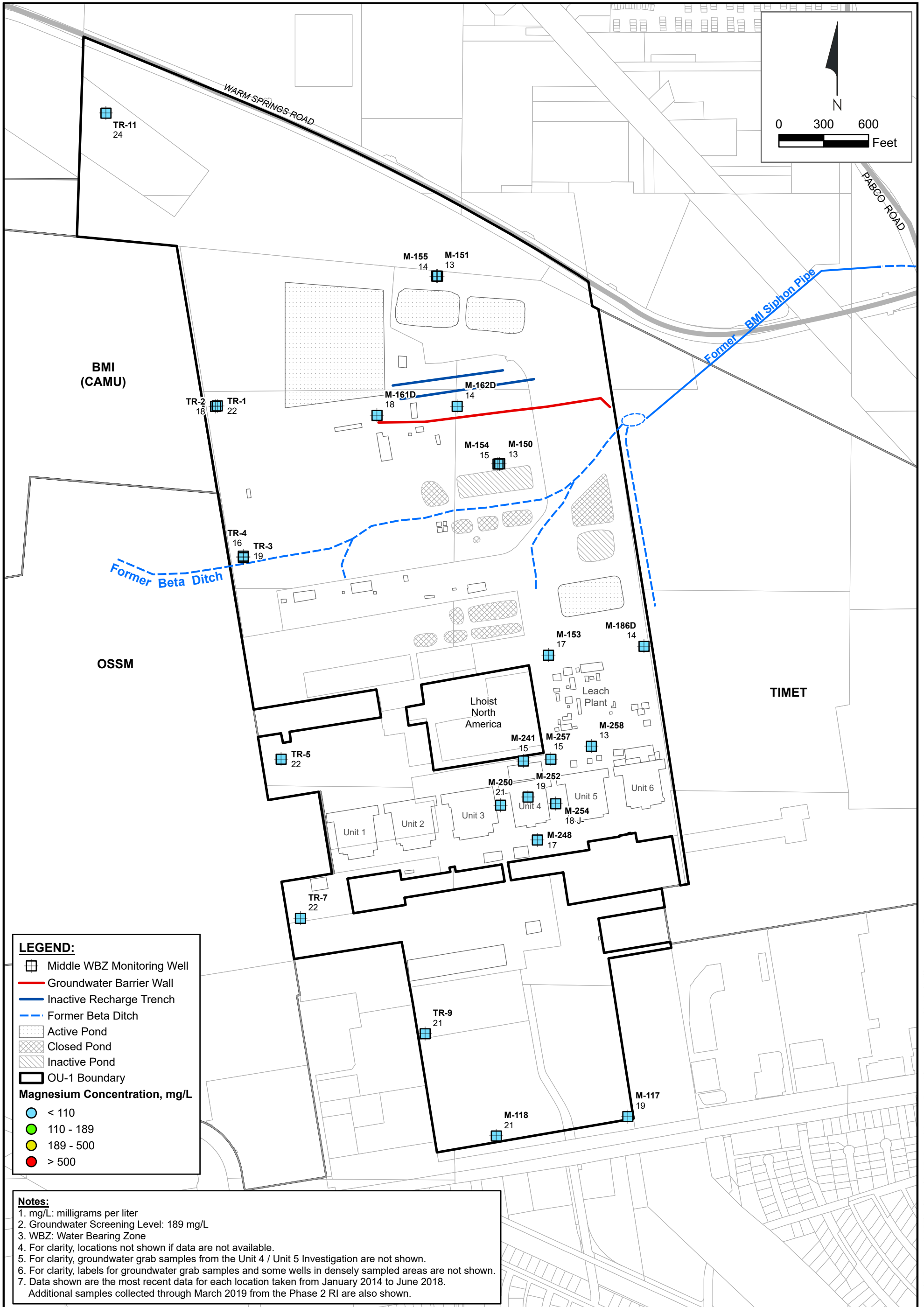
Path: H:\Petomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_1.aprx\Figure 7-61c Magnesium Lower Shallow



Magnesium - Middle WBZ (90-130 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-61d

Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_1.aprx\Figure 7-61d Magnesium Upper Middle



LEGEND:

- Middle WBZ Monitoring Well
- Groundwater Barrier Wall
- Inactive Recharge Trench
- Former Beta Ditch
- Active Pond
- Closed Pond
- Inactive Pond
- OU-1 Boundary

Magnesium Concentration, mg/L

- < 110
- 110 - 189
- 189 - 500
- > 500

Notes:

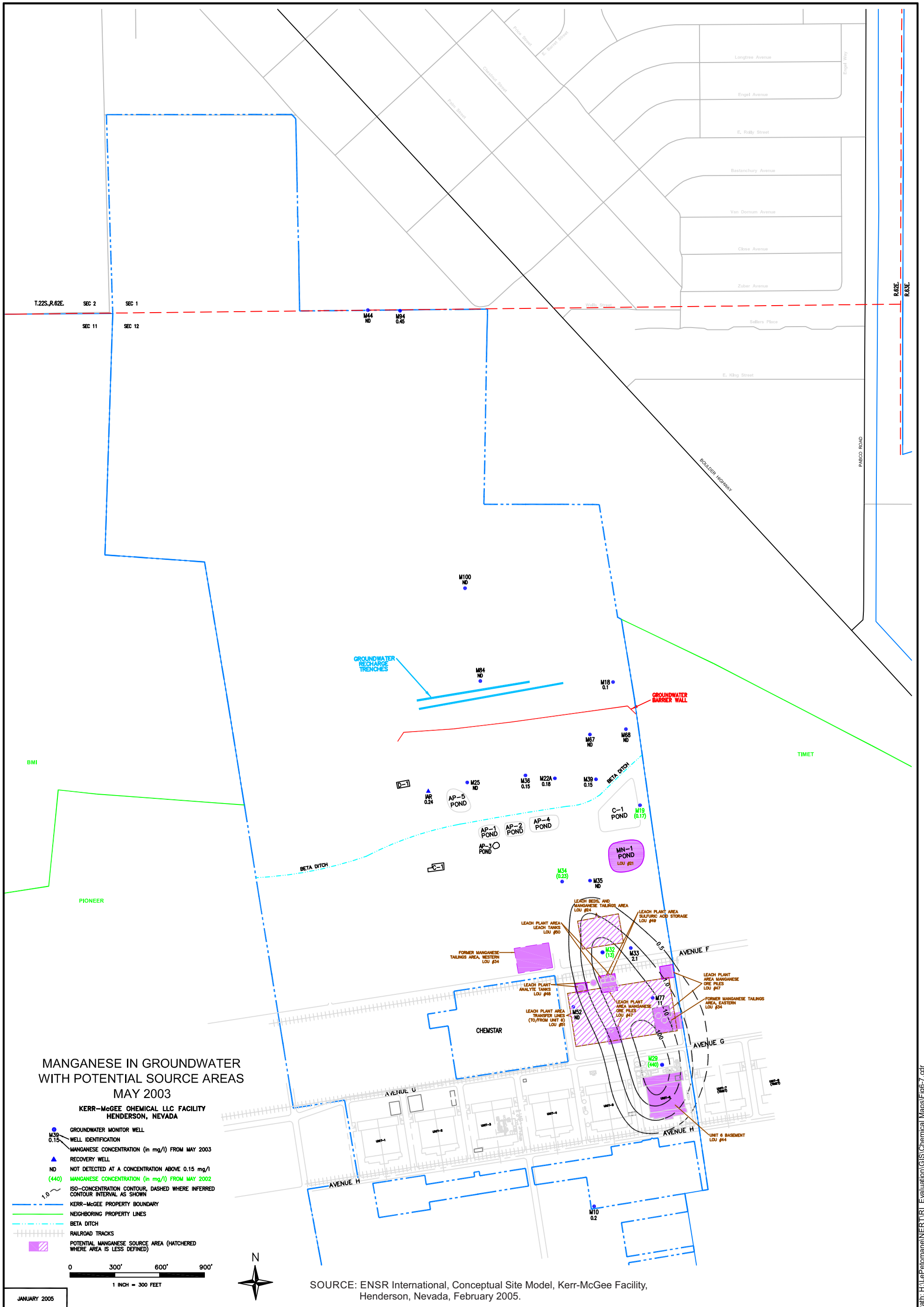
1. mg/L: milligrams per liter
2. Groundwater Screening Level: 189 mg/L
3. WBZ: Water Bearing Zone
4. For clarity, locations not shown if data are not available.
5. For clarity, groundwater grab samples from the Unit 4 / Unit 5 Investigation are not shown.
6. For clarity, labels for groundwater grab samples and some wells in densely sampled areas are not shown.
7. Data shown are the most recent data for each location taken from January 2014 to June 2018. Additional samples collected through March 2019 from the Phase 2 RI are also shown.



Magnesium - Middle WBZ (130-300 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-61e

Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_1.aprx\Figure 7-61e Magnesium Lower Middle



JANUARY 2005



Manganese in Groundwater with Potential Source Areas, May 2003
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-62

Drafter: RS

Date: 5/4/2020

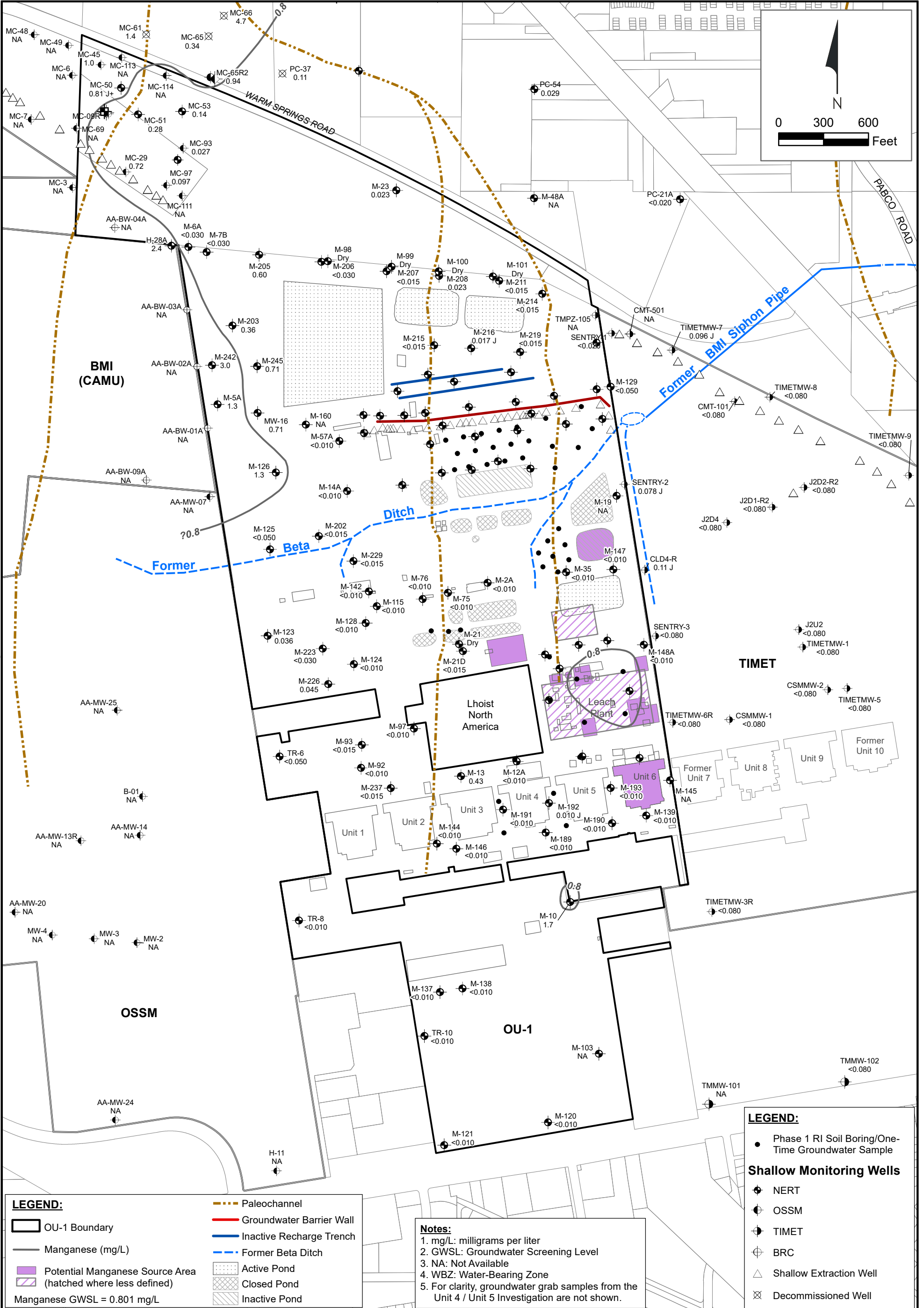
Contract Number: 169002 9369

Approved by:

Revised:

Path: H:\Peromane\NERT\IR\Evaluation\GIS\Chemical Maps\Fig67.cdr

Path: H:\LePalomane\NERT\RI_Evaluation\GIS\Chemical Maps\Fig 7-57a_Manganese Phase 3 RI_Onsite Sampled Wells.mxd



LEGEND:

- OU-1 Boundary
- Manganese (mg/L)
- Potential Manganese Source Area (hatched where less defined)
- Manganese GWSL = 0.801 mg/L

- Paleochannel
- Groundwater Barrier Wall
- Inactive Recharge Trench
- Former Beta Ditch
- Active Pond
- Closed Pond
- Inactive Pond

Notes:
 1. mg/L: milligrams per liter
 2. GWSL: Groundwater Screening Level
 3. NA: Not Available
 4. WBZ: Water-Bearing Zone
 5. For clarity, groundwater grab samples from the Unit 4 / Unit 5 Investigation are not shown.

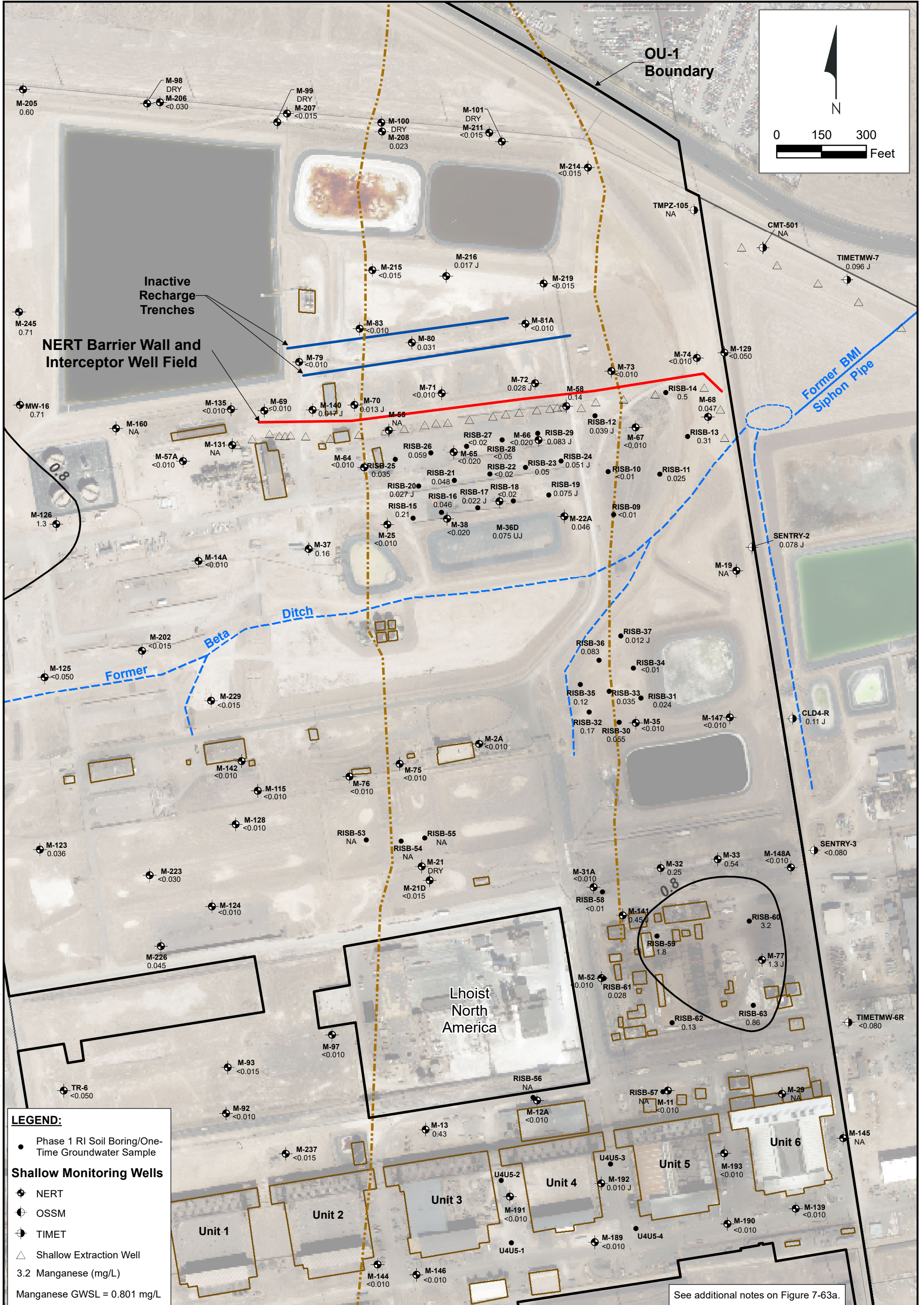
LEGEND:

- Phase 1 RI Soil Boring/One-Time Groundwater Sample
- NERT
- OSSM
- TIMET
- BRC
- Shallow Extraction Well
- Decommissioned Well



Manganese Isoconcentration Map - Shallow WBZ (0-55 ft bgs)
OU-1, 2015-2018
 Nevada Environmental Response Trust Site; Henderson, Nevada

Figure
7-63a



Path: H:\LePalomane\NERT\RI_Evaluation\GIS\Chemical Maps\Fig 7-57b_RI-Evaluation-Manganese-samploc-300-2018.mxd

- LEGEND:**
- Phase 1 RI Soil Boring/One-Time Groundwater Sample
 - Shallow Monitoring Wells**
 - ⊕ NERT
 - ⊕ OSSM
 - ⊕ TIMET
 - △ Shallow Extraction Well
 - 3.2 Manganese (mg/L)
 - Manganese GWSL = 0.801 mg/L



**Manganese Isoconcentration Map - Shallow WBZ (0-55 ft bgs)
OU-1 Detail, 2015-2018**
Nevada Environmental Response Trust Site; Henderson, Nevada

Figure
7-63b

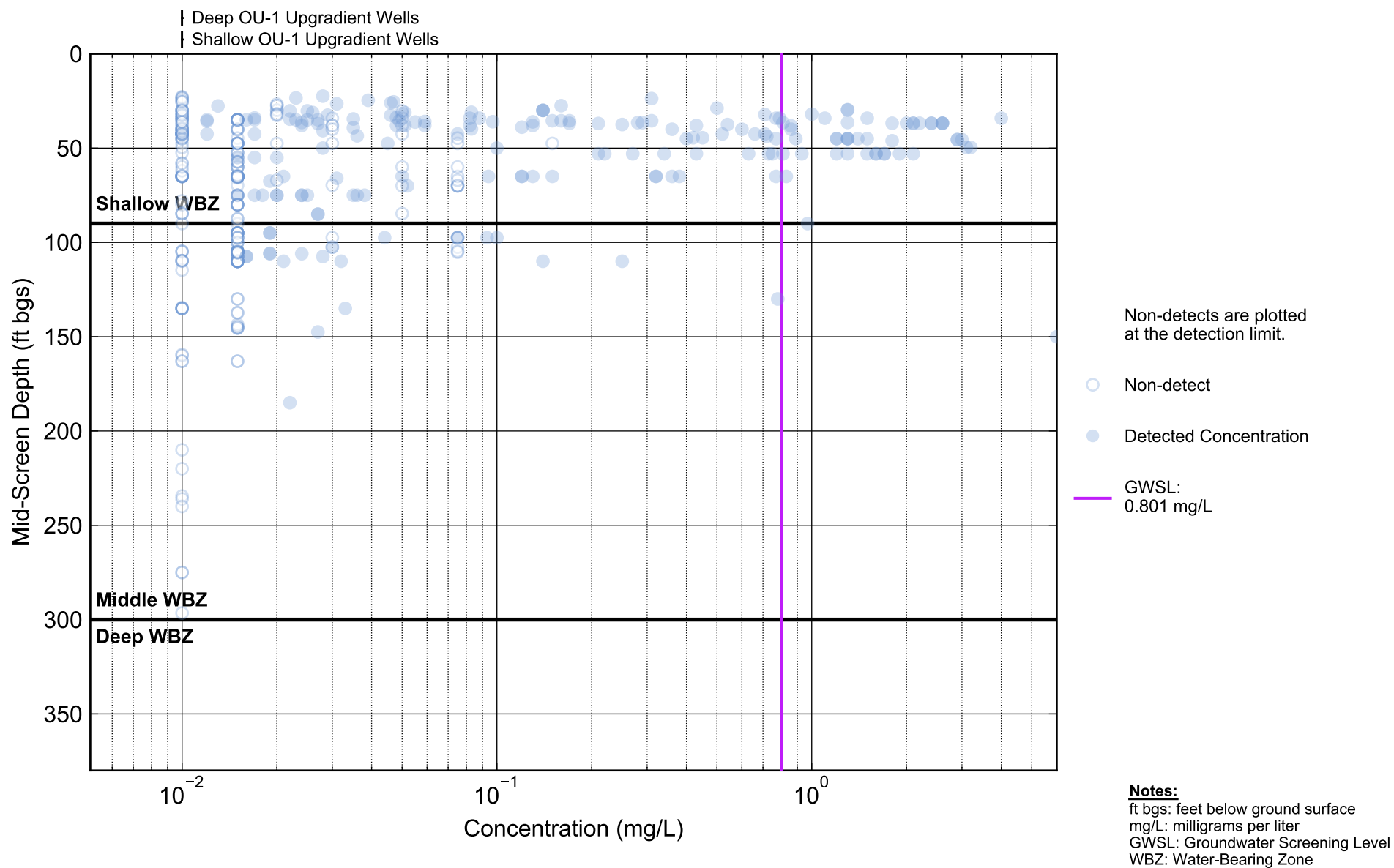
Drafter: RS

Date: 5/4/2020

Contract Number: 169002 9369

Approved by:

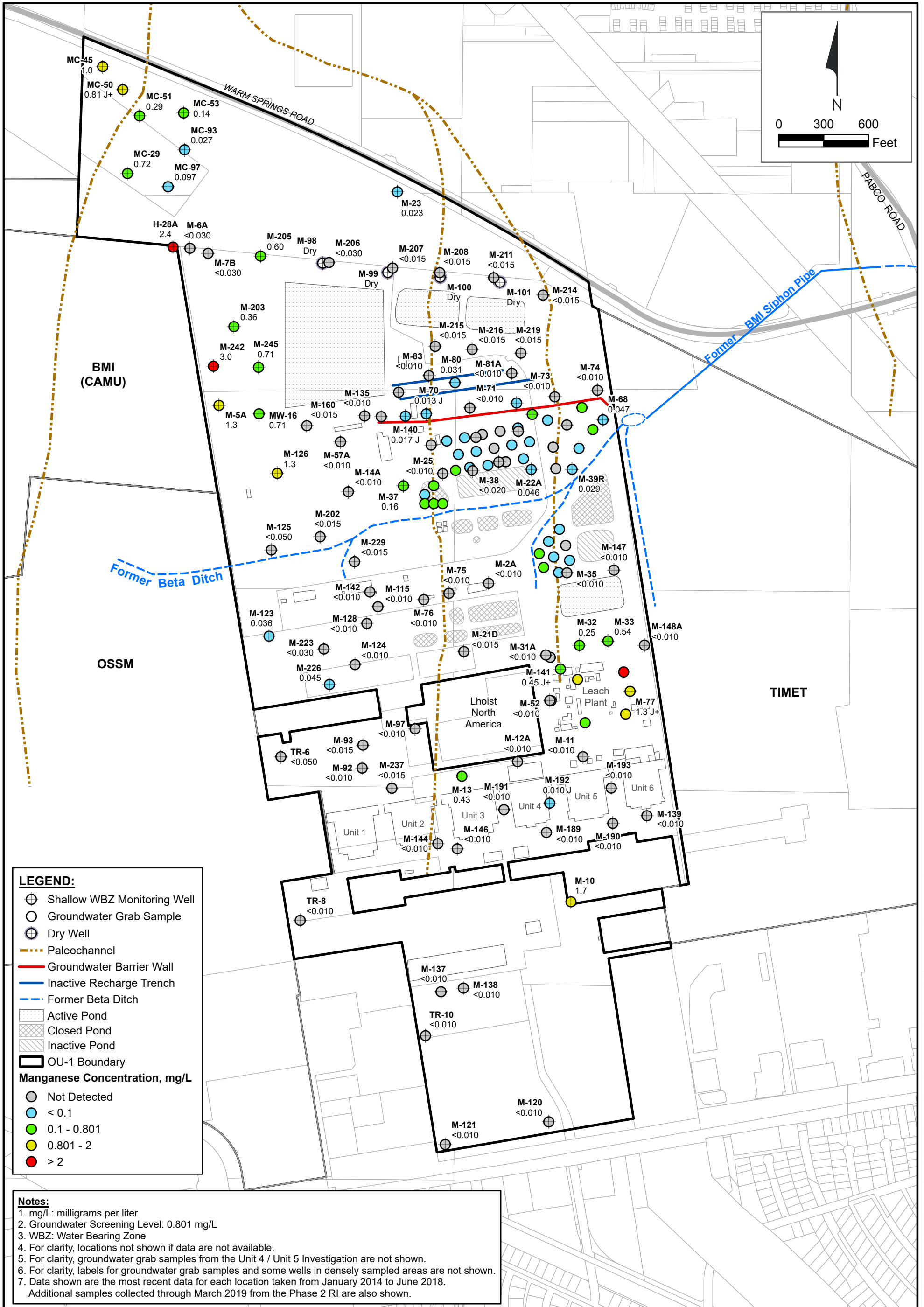
Revised:



OU-1 Manganese Groundwater Concentrations vs. Sample Depth
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure

7-64a



Manganese - Shallow WBZ (0-55 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-64b

Drafter: JC

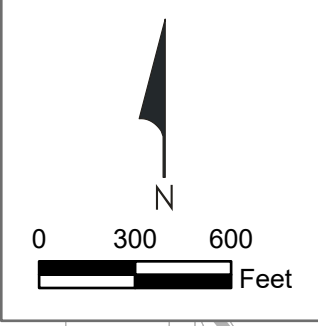
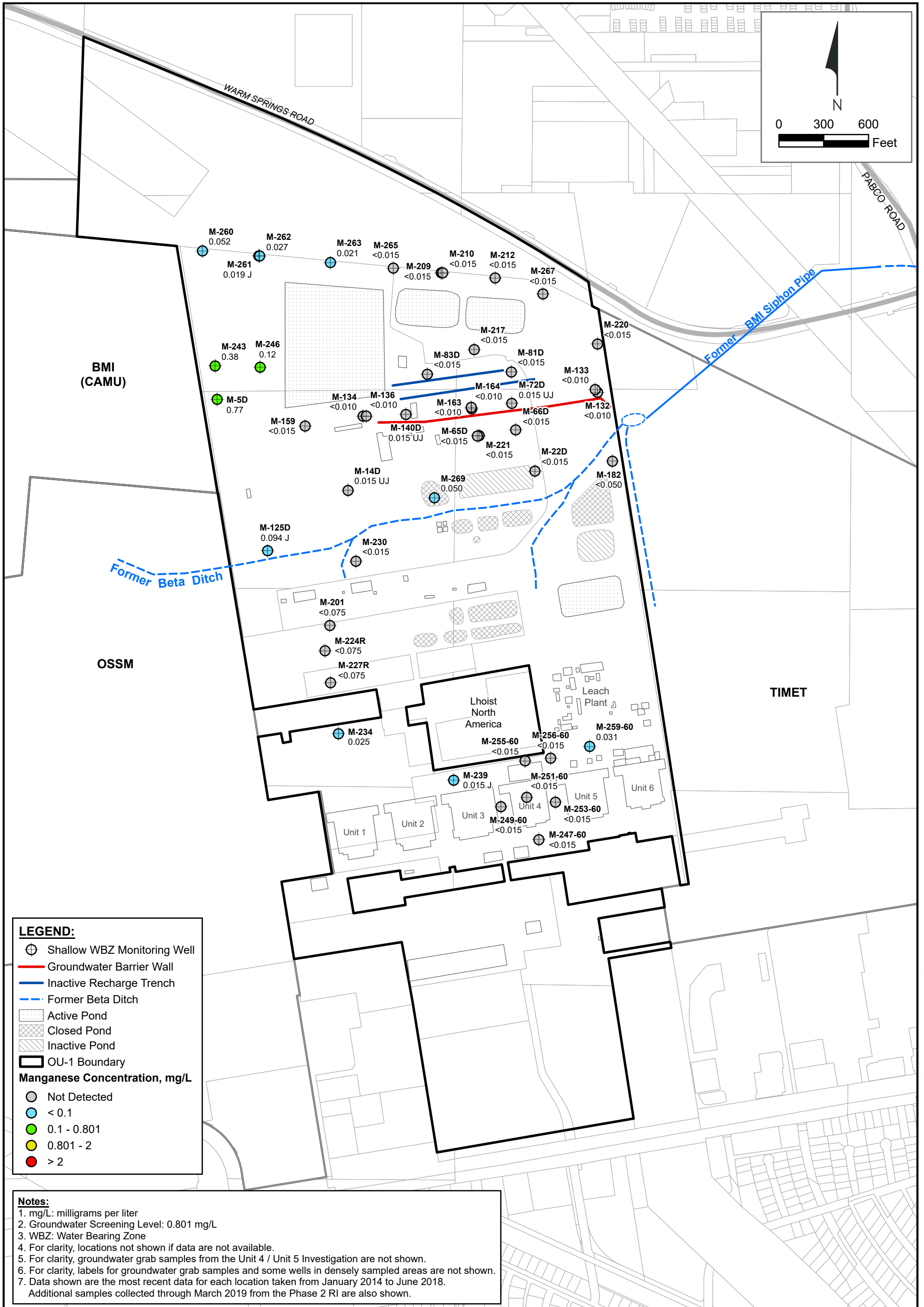
Date: 2023-01-11

Contract Number: 169002 9369

Approved by:

Revised:

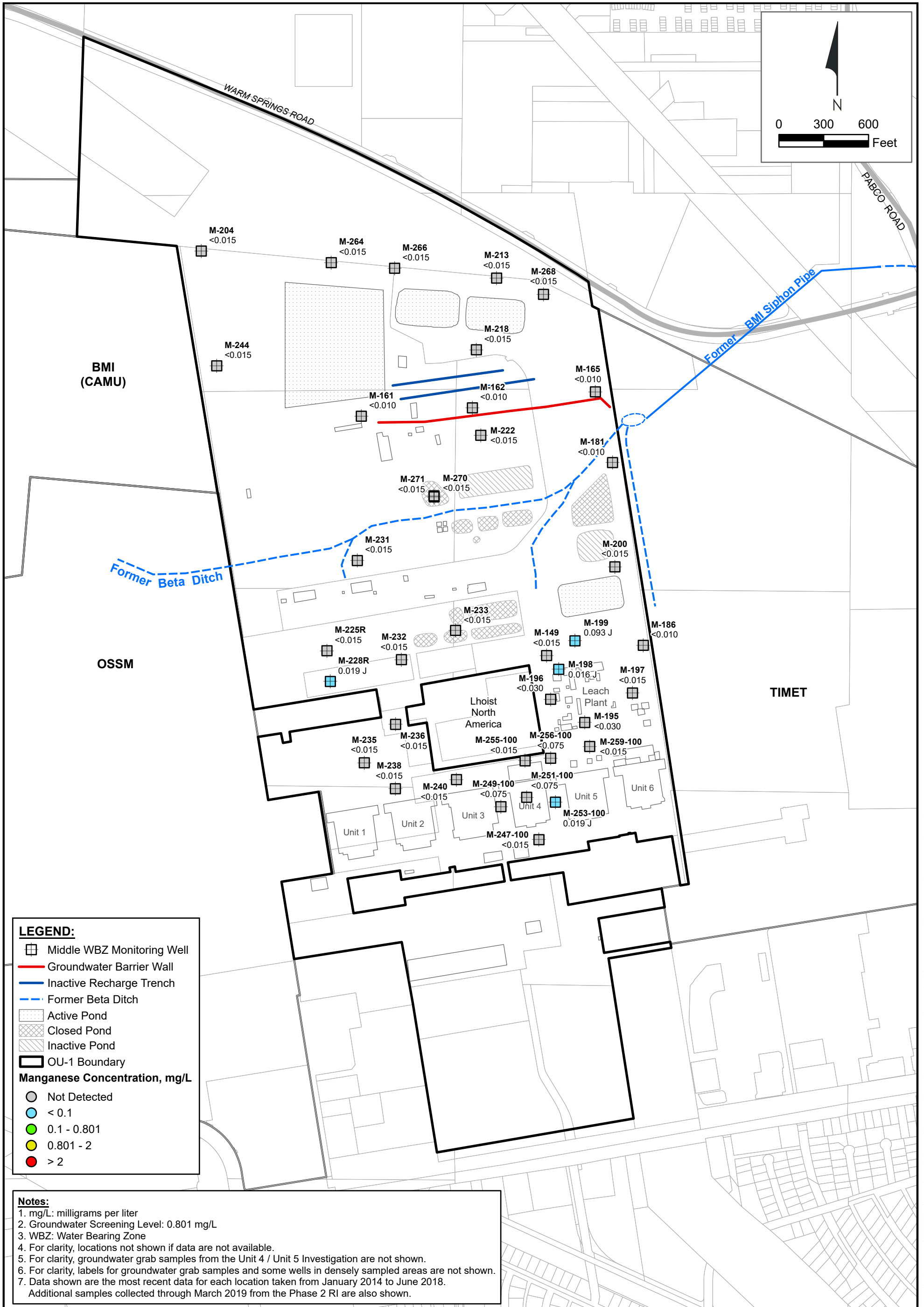
Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_1.aprx\Figure 7-64b Manganese Upper Shallow



Manganese - Shallow WBZ (55-90 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-64c

Path: H:\Petomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_1.aprx\Figure 7-64c Manganese Lower Shallow



LEGEND:

- Middle WBZ Monitoring Well
- Groundwater Barrier Wall
- Inactive Recharge Trench
- Former Beta Ditch
- Active Pond
- Closed Pond
- Inactive Pond
- OU-1 Boundary

Manganese Concentration, mg/L

- Not Detected
- < 0.1
- 0.1 - 0.801
- 0.801 - 2
- > 2

Notes:

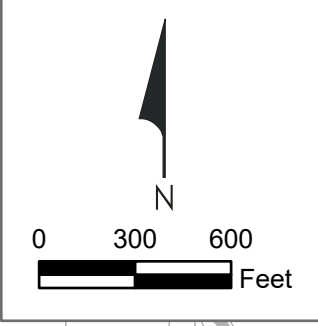
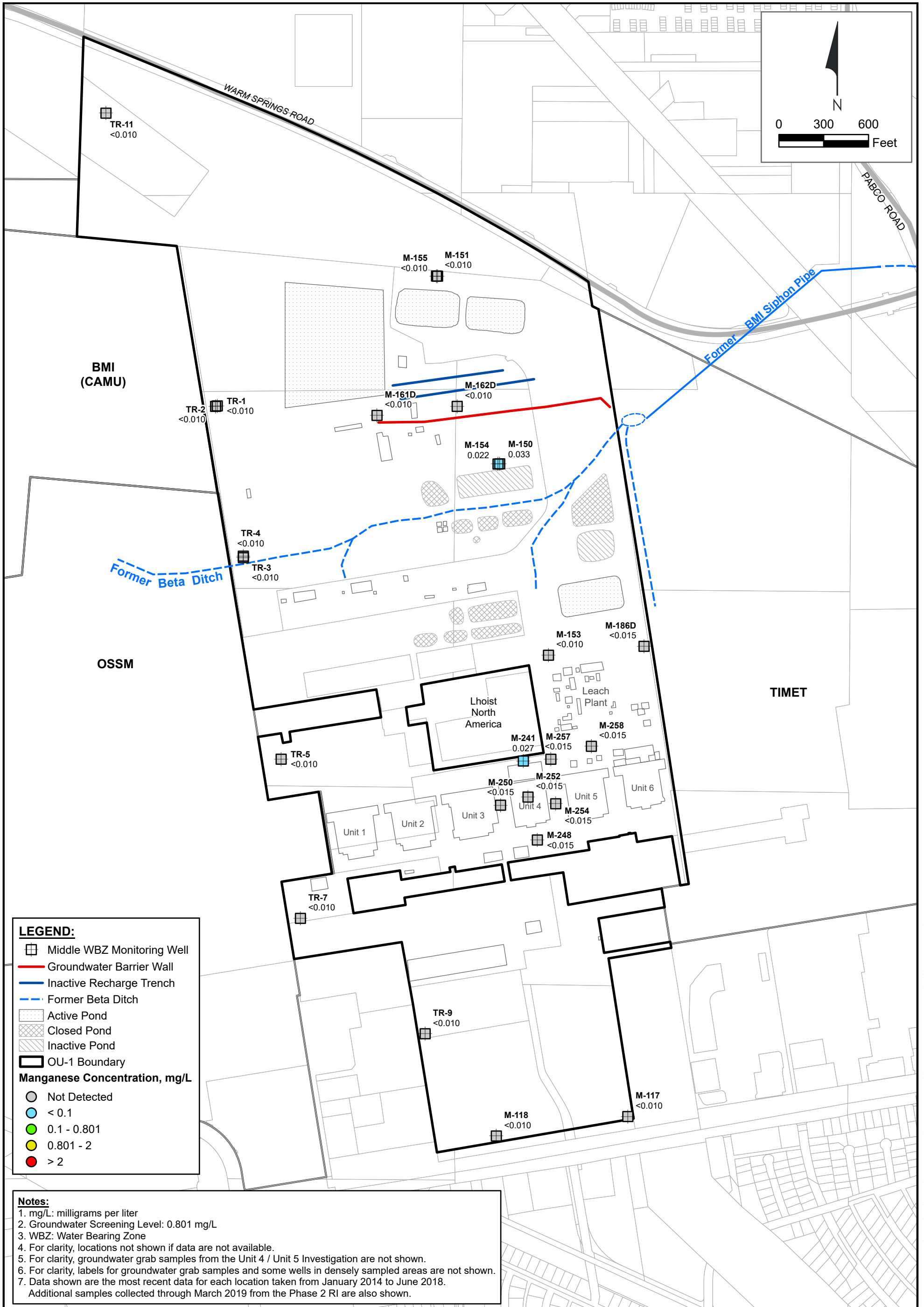
1. mg/L: milligrams per liter
2. Groundwater Screening Level: 0.801 mg/L
3. WBZ: Water Bearing Zone
4. For clarity, locations not shown if data are not available.
5. For clarity, groundwater grab samples from the Unit 4 / Unit 5 Investigation are not shown.
6. For clarity, labels for groundwater grab samples and some wells in densely sampled areas are not shown.
7. Data shown are the most recent data for each location taken from January 2014 to June 2018. Additional samples collected through March 2019 from the Phase 2 RI are also shown.



Manganese - Middle WBZ (90-130 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-64d

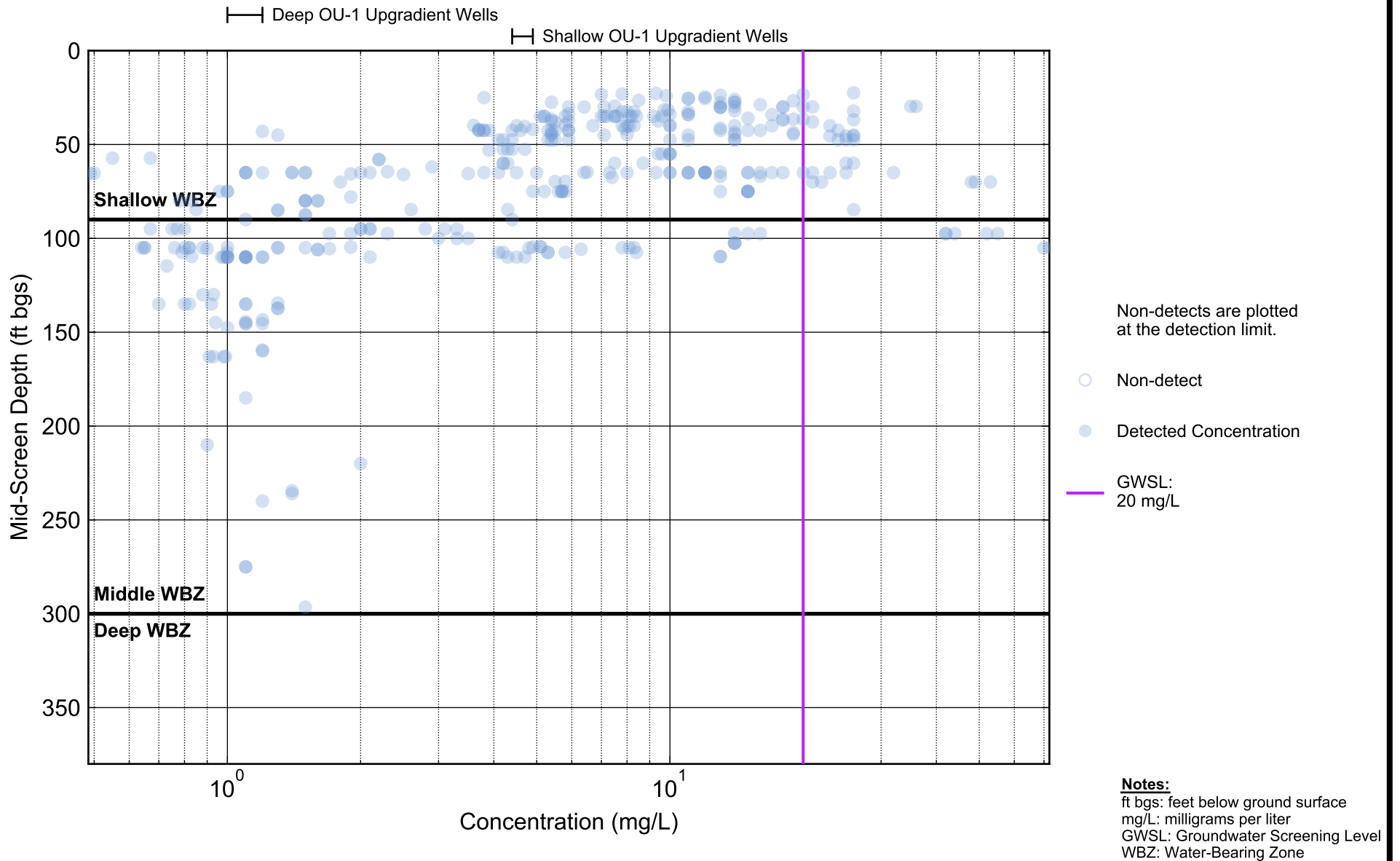
Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_1.aprx\Figure 7-64d Manganese Upper Middle



Manganese - Middle WBZ (130-300 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-64e

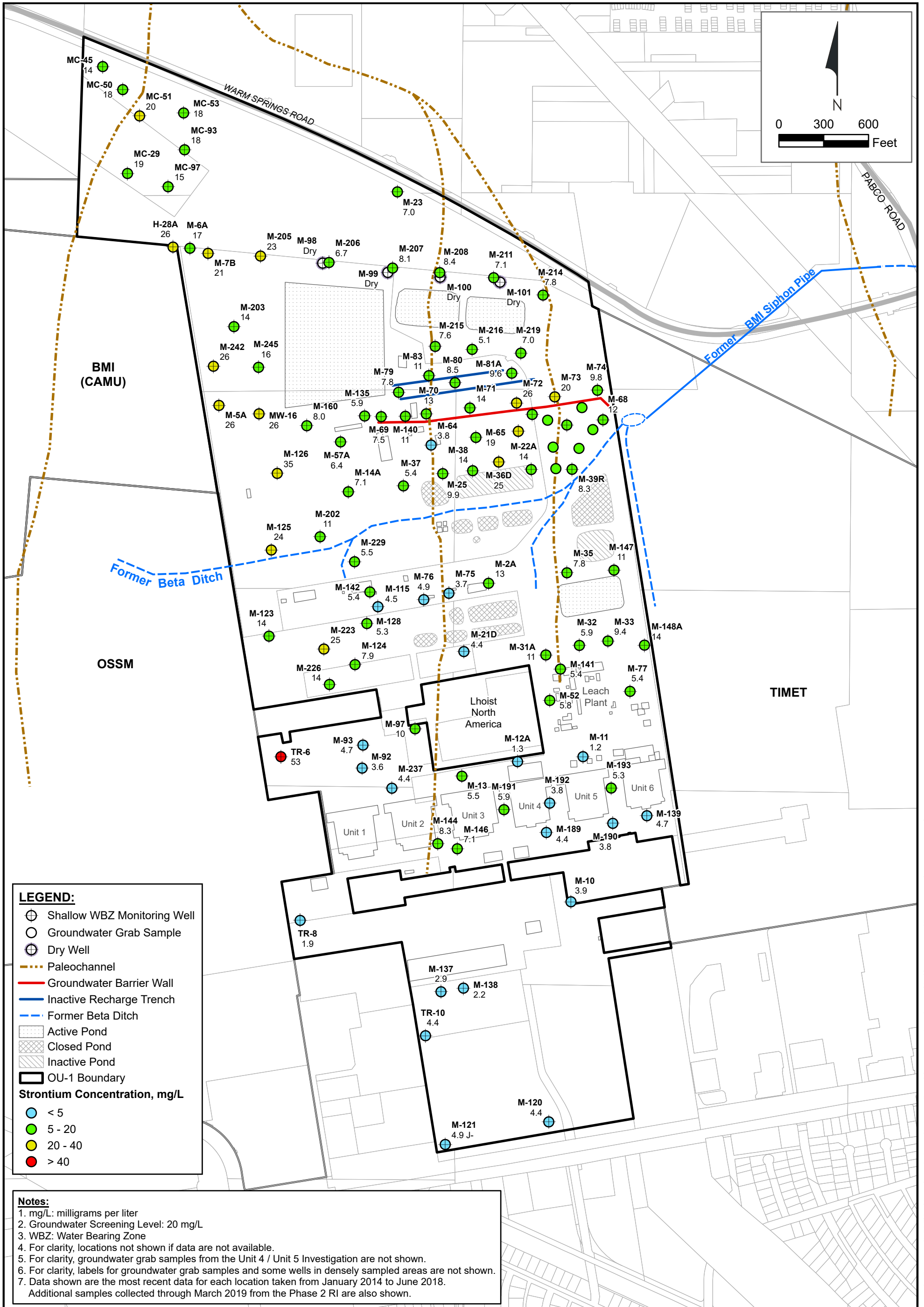
Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_1.aprx\Figure 7-64e Manganese Lower Middle



OU-1 Strontium Groundwater Concentrations vs. Sample Depth
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure

7-65a



LEGEND:

- ⊕ Shallow WBZ Monitoring Well
- Groundwater Grab Sample
- ⊖ Dry Well
- Paleochannel
- Groundwater Barrier Wall
- Inactive Recharge Trench
- Former Beta Ditch
- ▨ Active Pond
- ▩ Closed Pond
- ▧ Inactive Pond
- ▭ OU-1 Boundary

Strontium Concentration, mg/L

- < 5
- 5 - 20
- 20 - 40
- > 40

Notes:

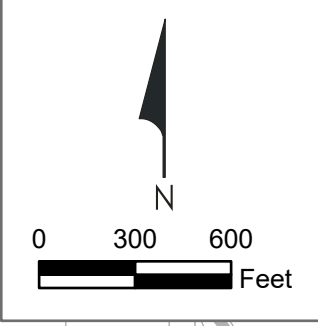
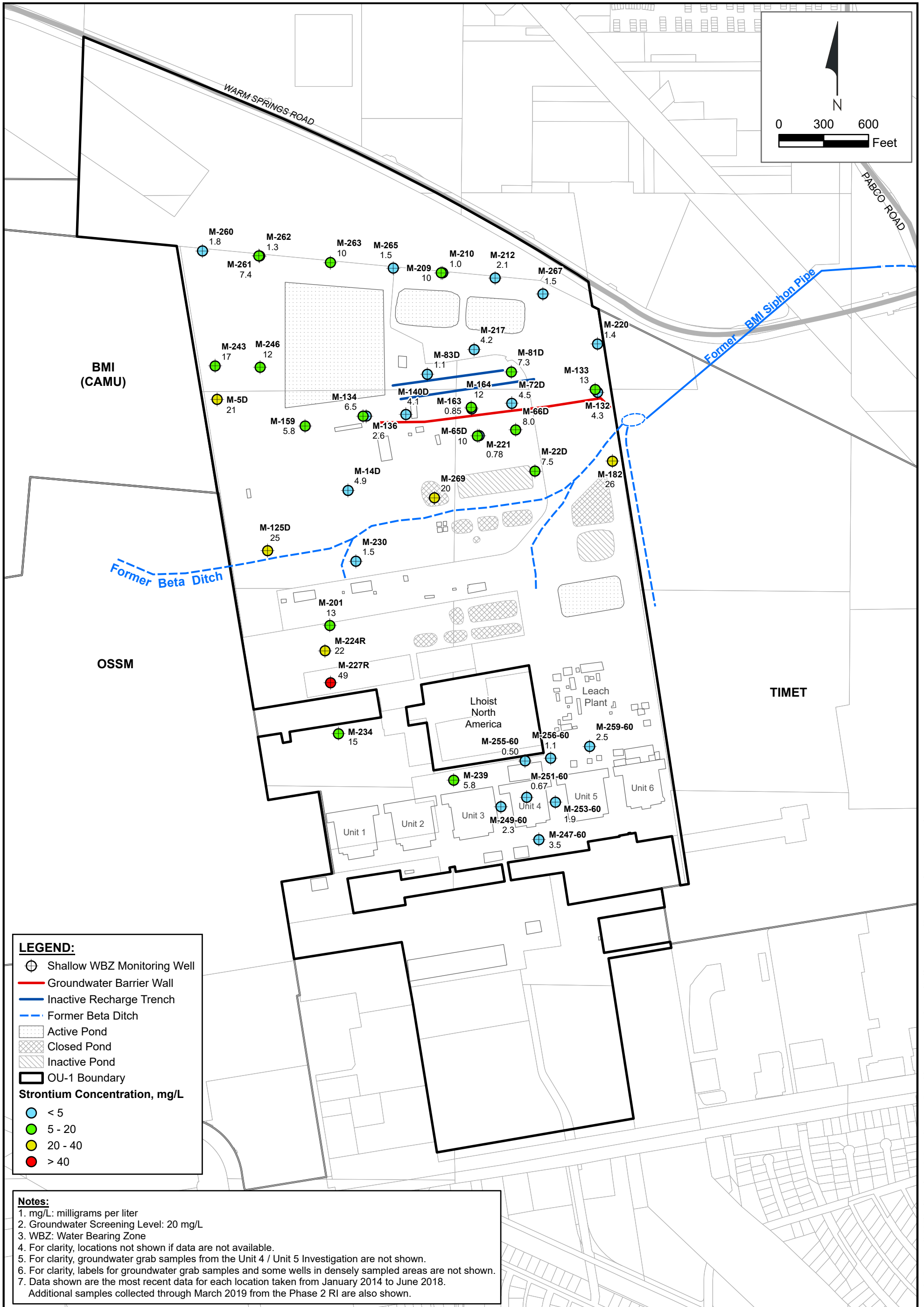
1. mg/L: milligrams per liter
2. Groundwater Screening Level: 20 mg/L
3. WBZ: Water Bearing Zone
4. For clarity, locations not shown if data are not available.
5. For clarity, groundwater grab samples from the Unit 4 / Unit 5 Investigation are not shown.
6. For clarity, labels for groundwater grab samples and some wells in densely sampled areas are not shown.
7. Data shown are the most recent data for each location taken from January 2014 to June 2018. Additional samples collected through March 2019 from the Phase 2 RI are also shown.



Strontium - Shallow WBZ (0-55 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-65b

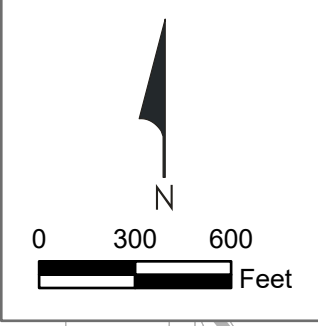
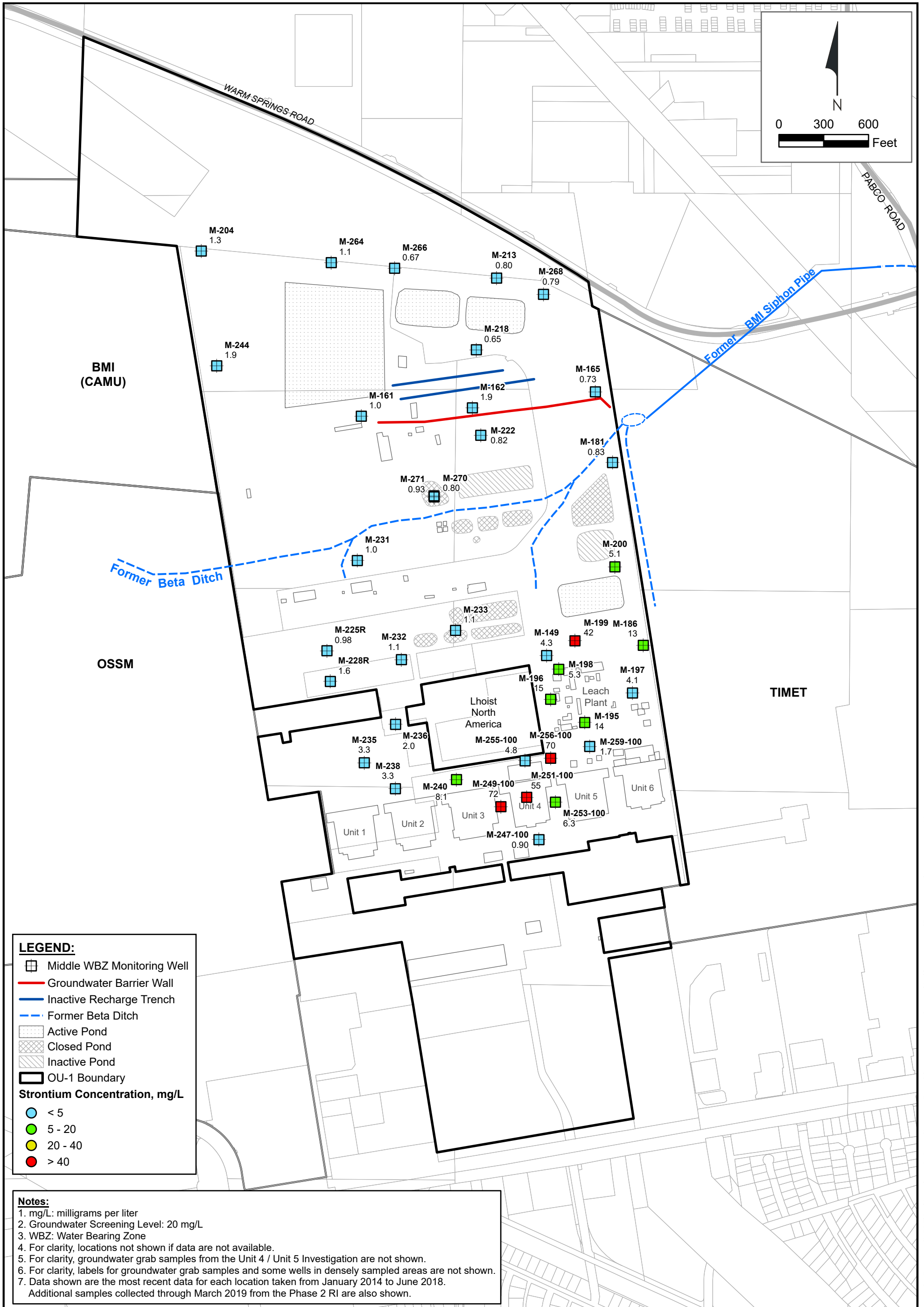
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Strontium - Shallow WBZ (55-90 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-65c

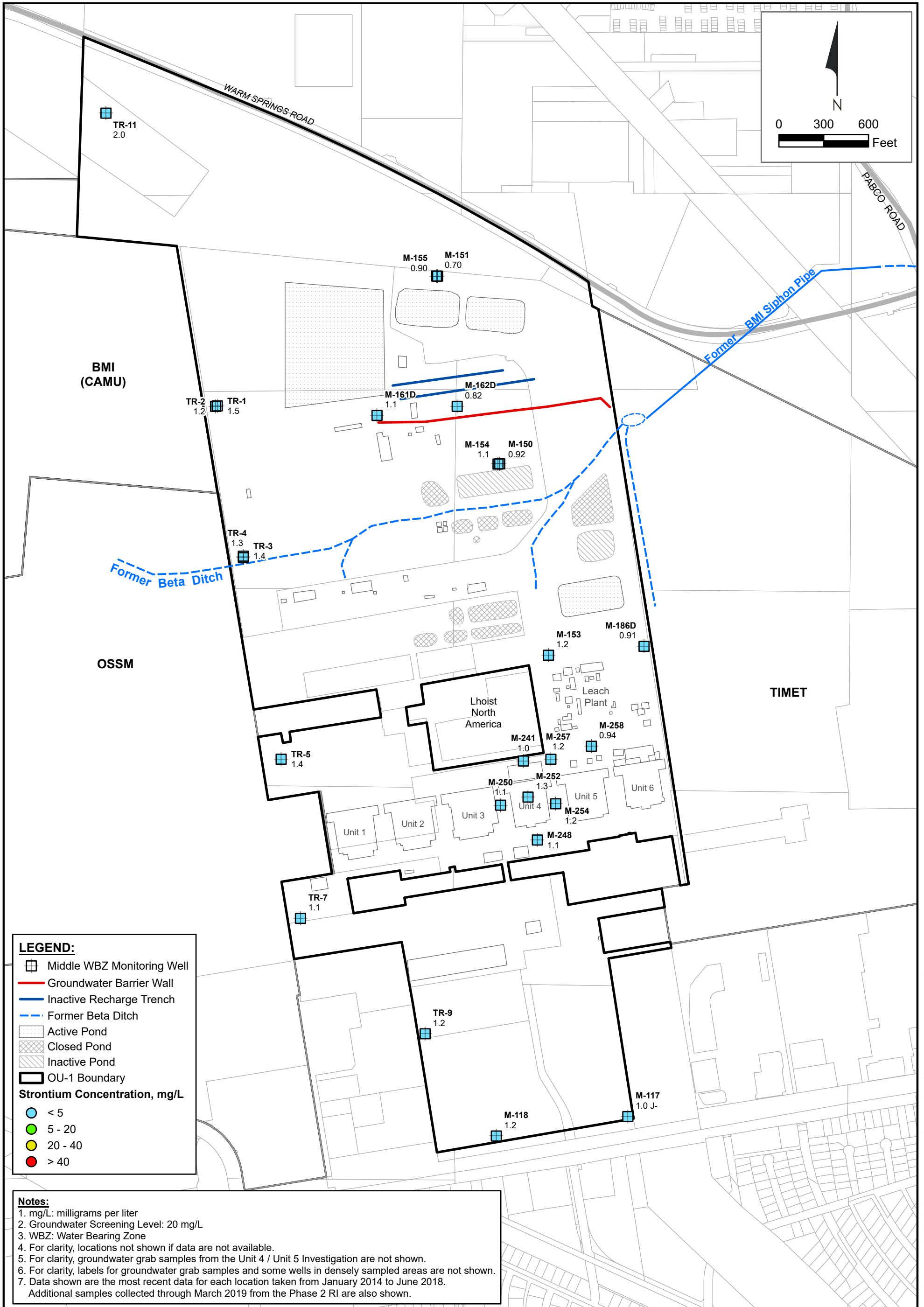
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Strontium - Middle WBZ (90-130 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-65d

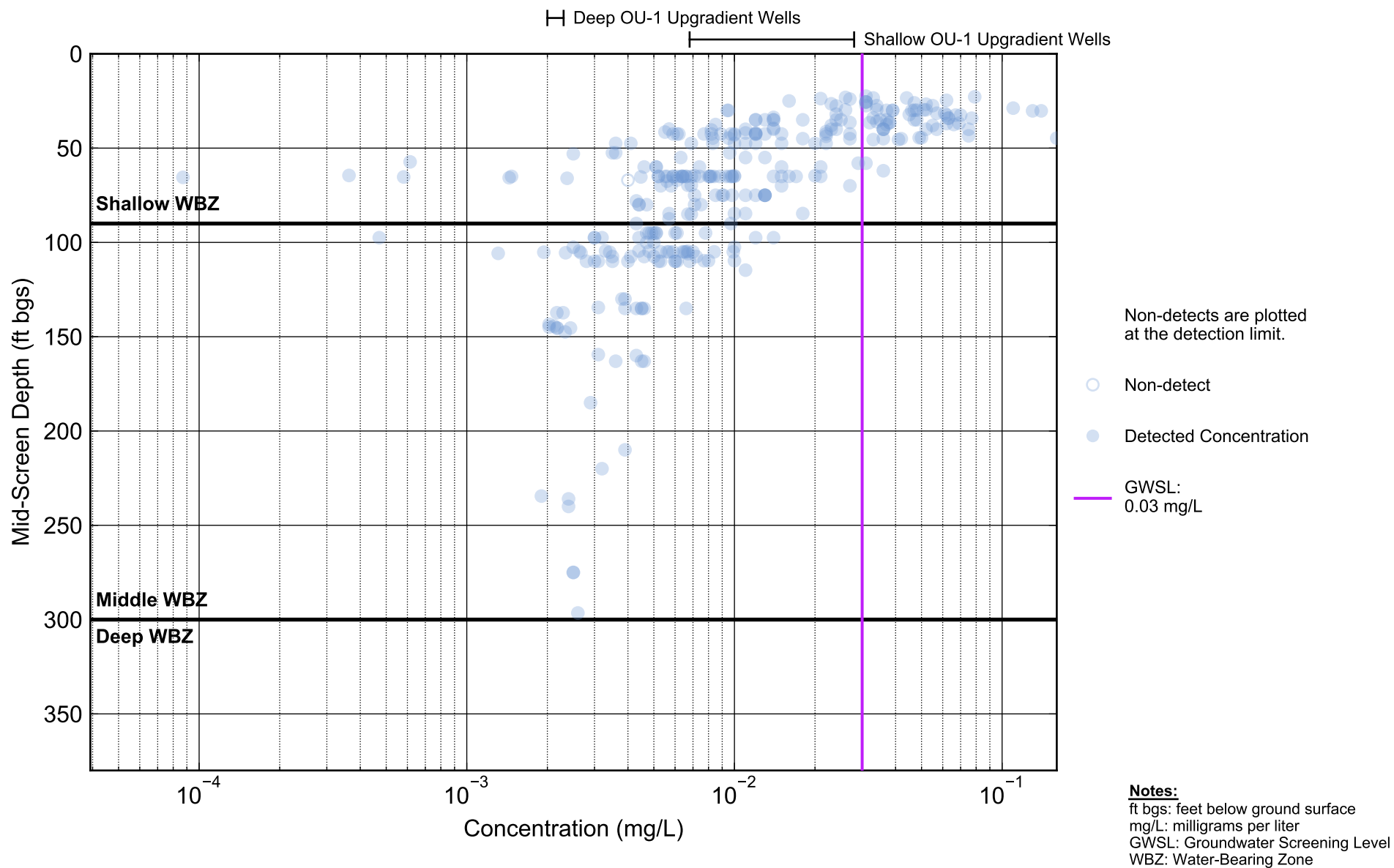
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Strontium - Middle WBZ (130-300 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-65e

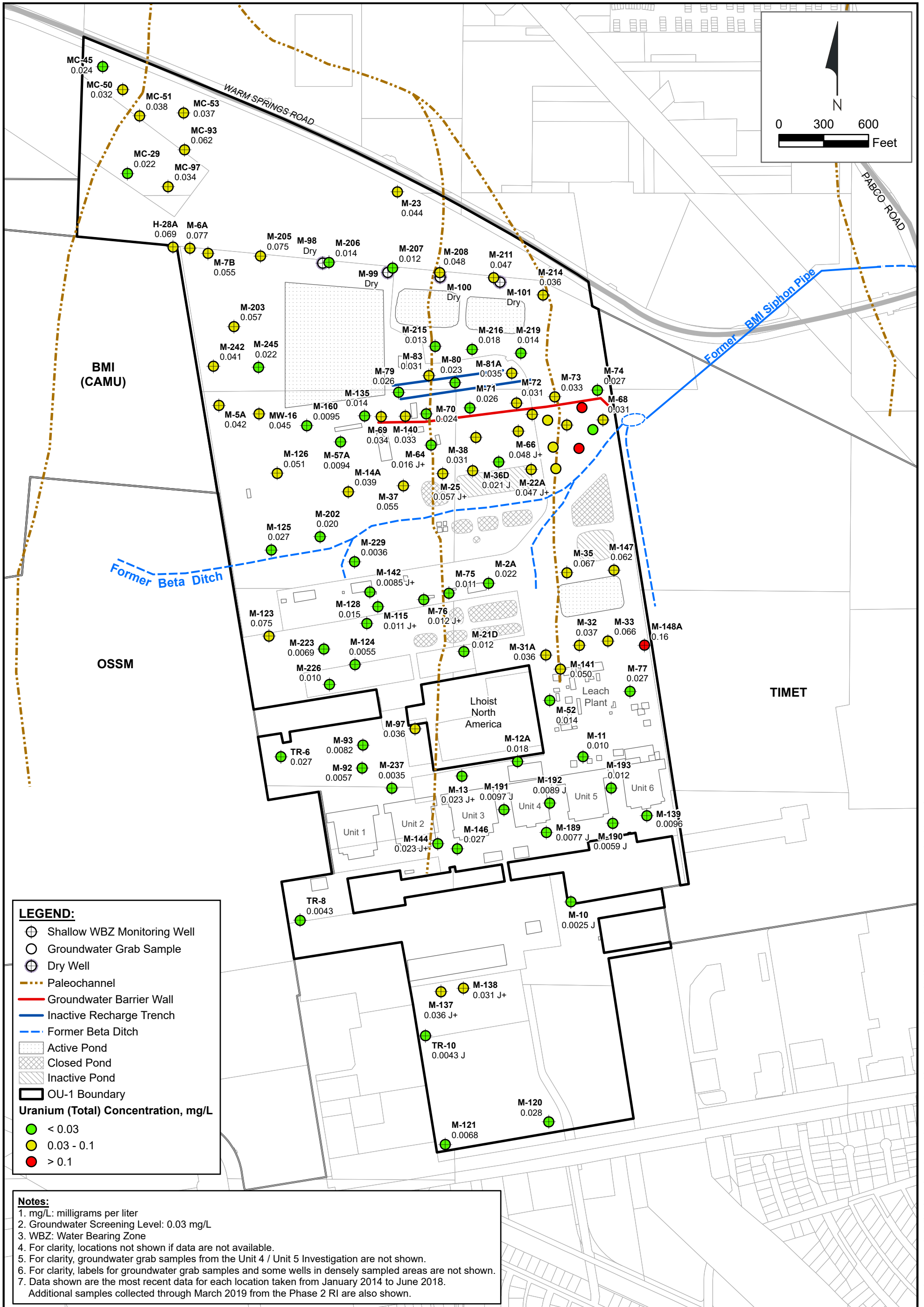
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OU-1 Uranium (Total) Groundwater Concentrations vs. Sample Depth
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure

7-66a



Uranium (Total) - Shallow WBZ (0-55 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-66b

Drafter: JC

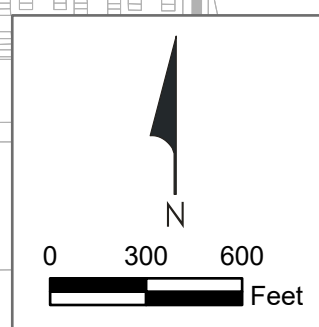
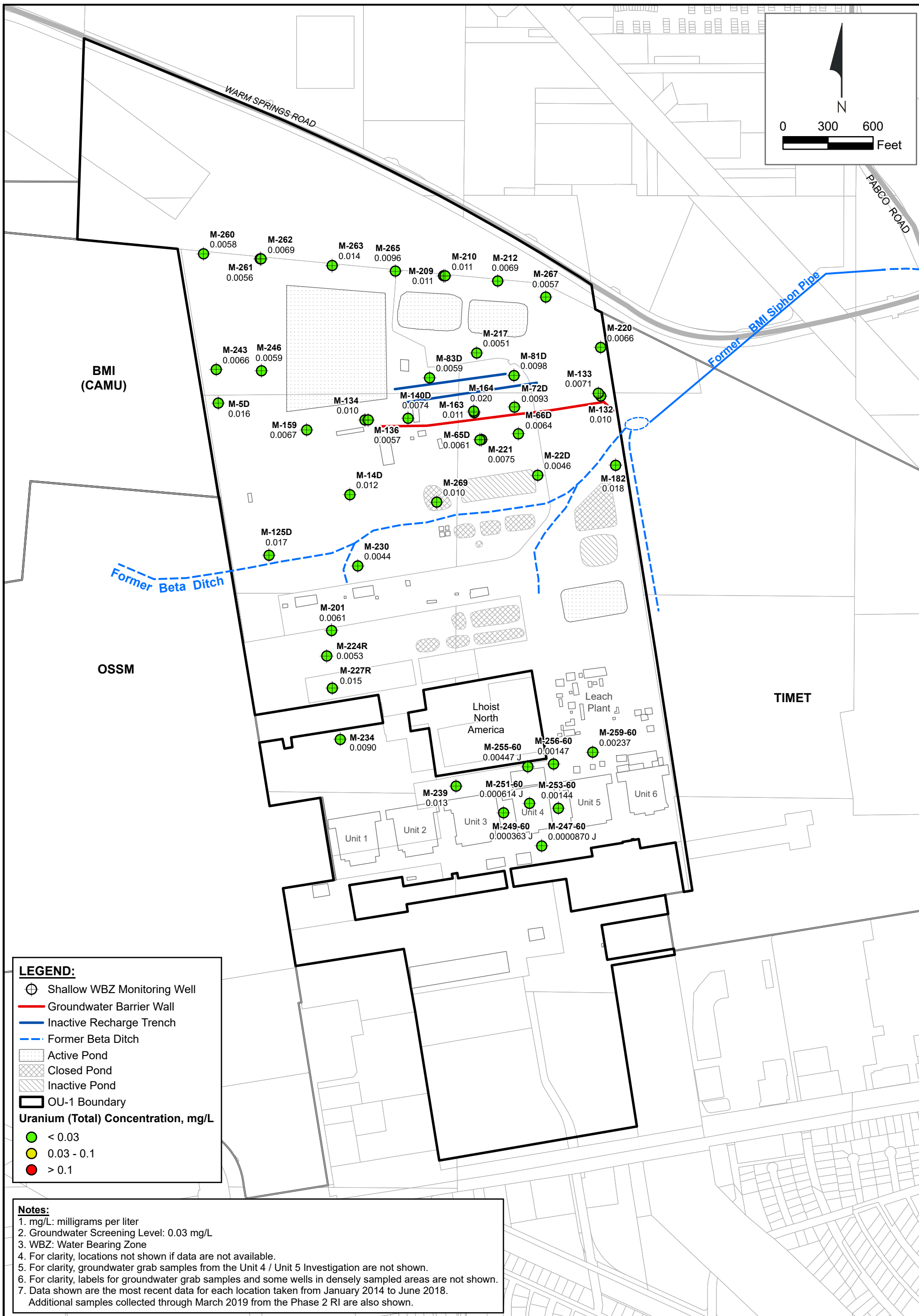
Date: 2023-01-11

Contract Number: 169002 9369

Approved by:

Revised:

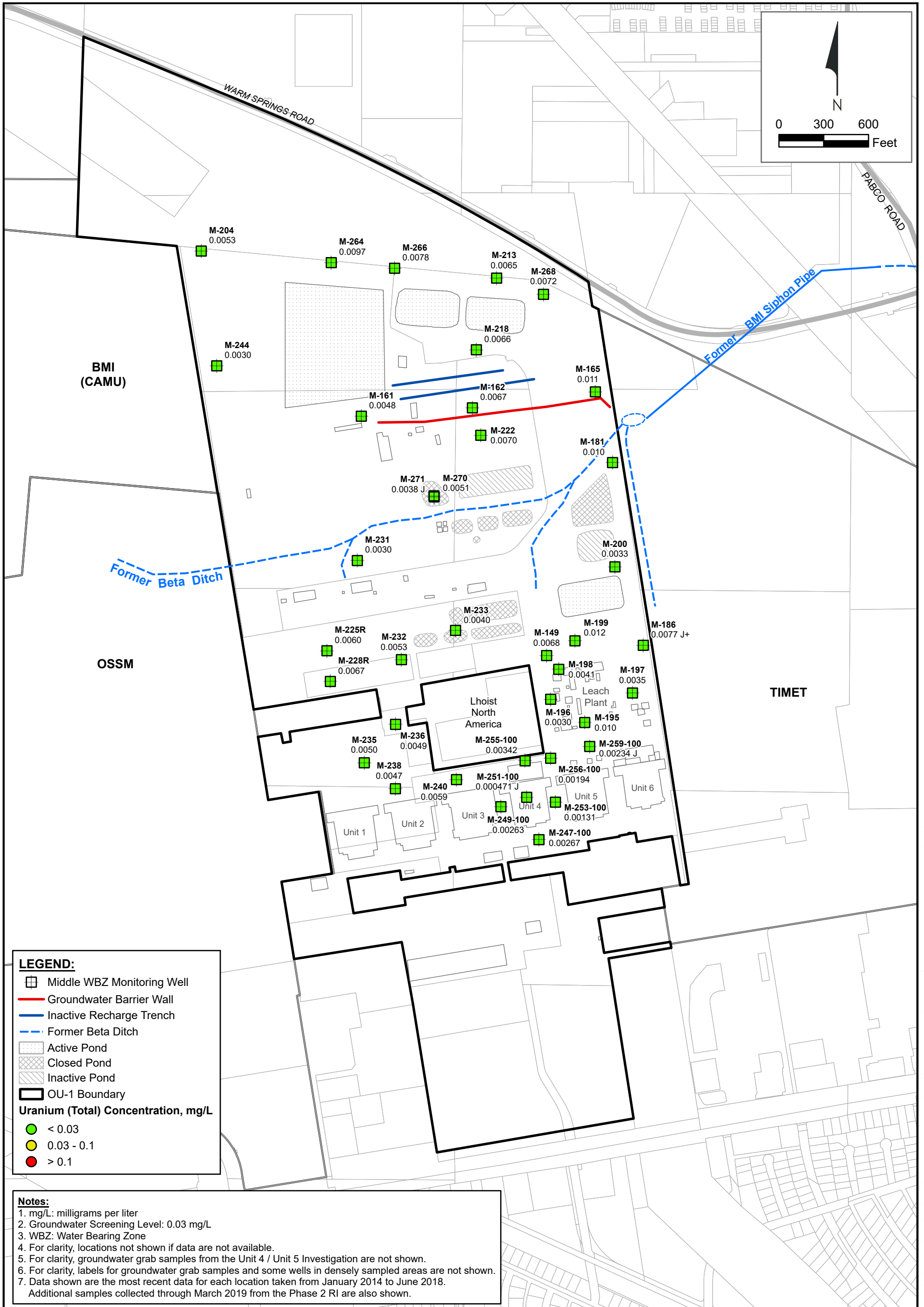
Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_2.aprx\Figure 7-66b Uranium (total) Upper Shallow



Uranium (Total) - Shallow WBZ (55-90 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-66c

Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_2.aprx\Figure 7-66c Uranium (total) Lower Shallow



Uranium (Total) - Middle WBZ (90-130 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-66d

Drafter: JC

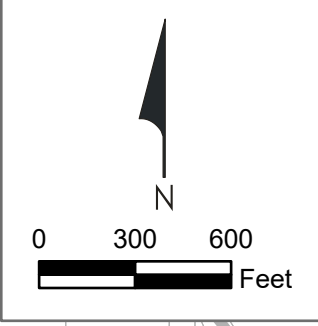
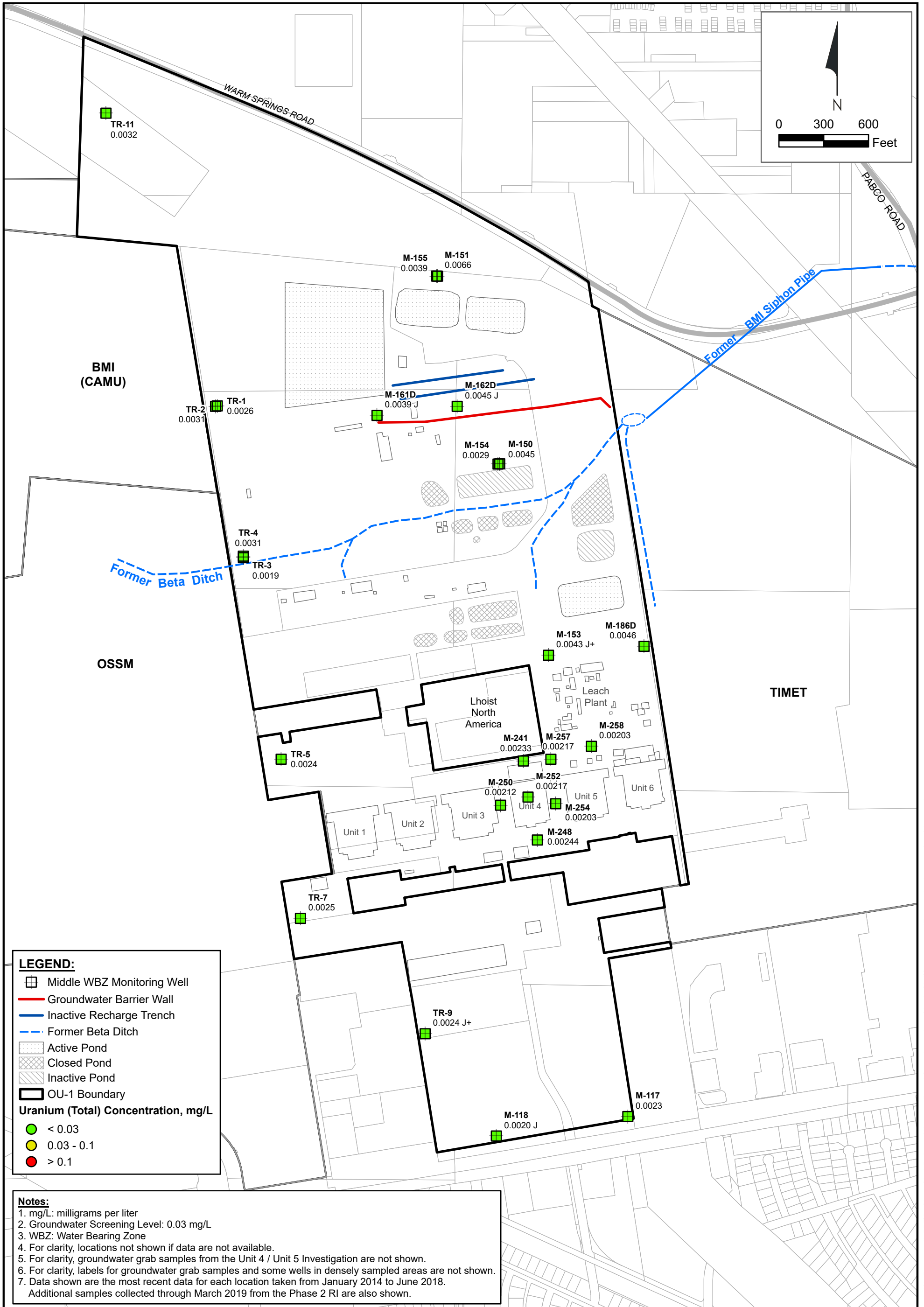
Date: 2023-01-11

Contract Number: 169002 9369

Approved by:

Revised:

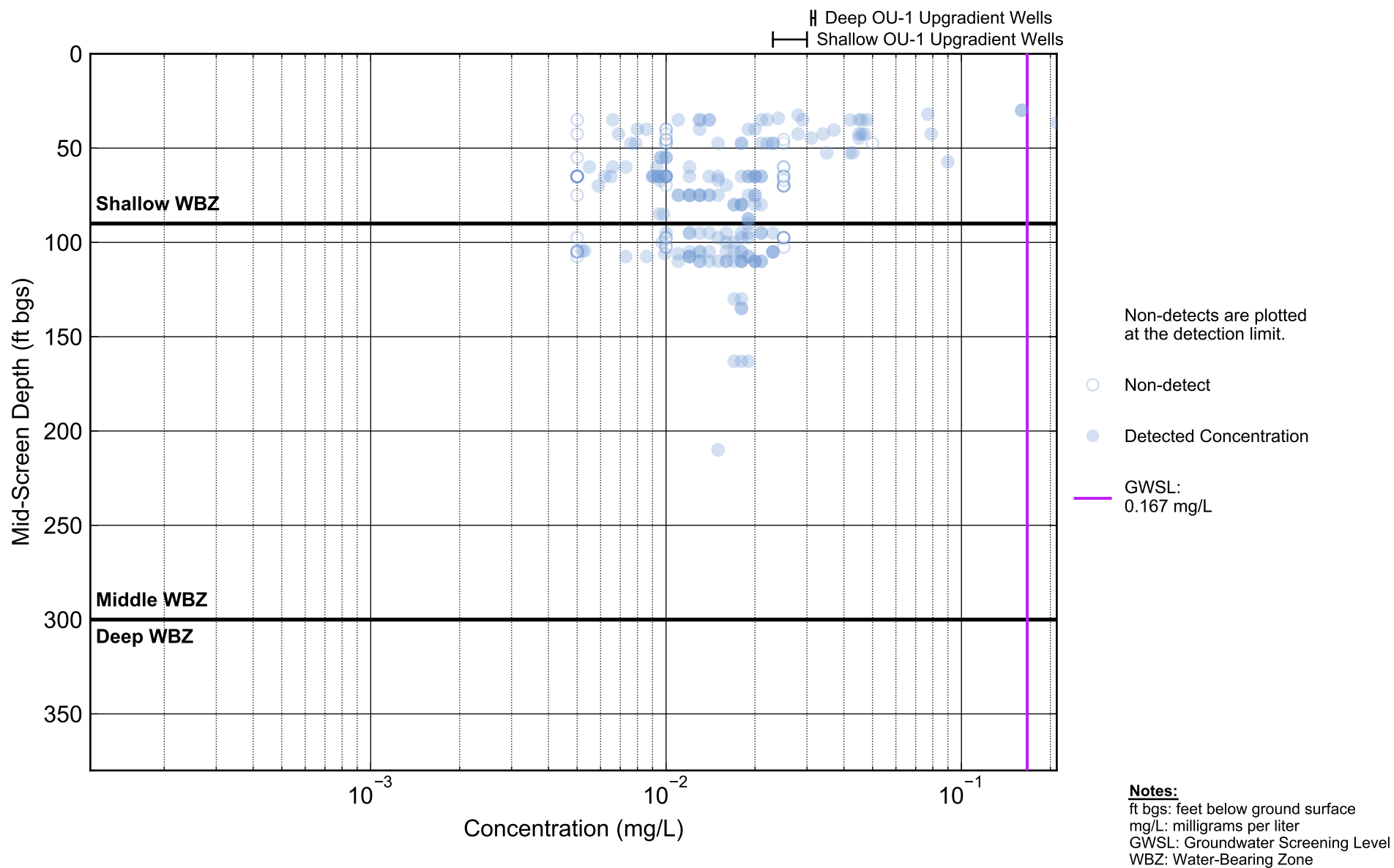
Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_2.aprx\Figure 7-66d Uranium (total) Upper Middle



Uranium (Total) - Middle WBZ (130-300 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-66e

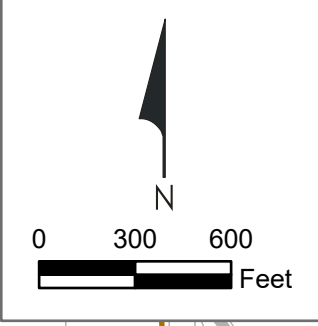
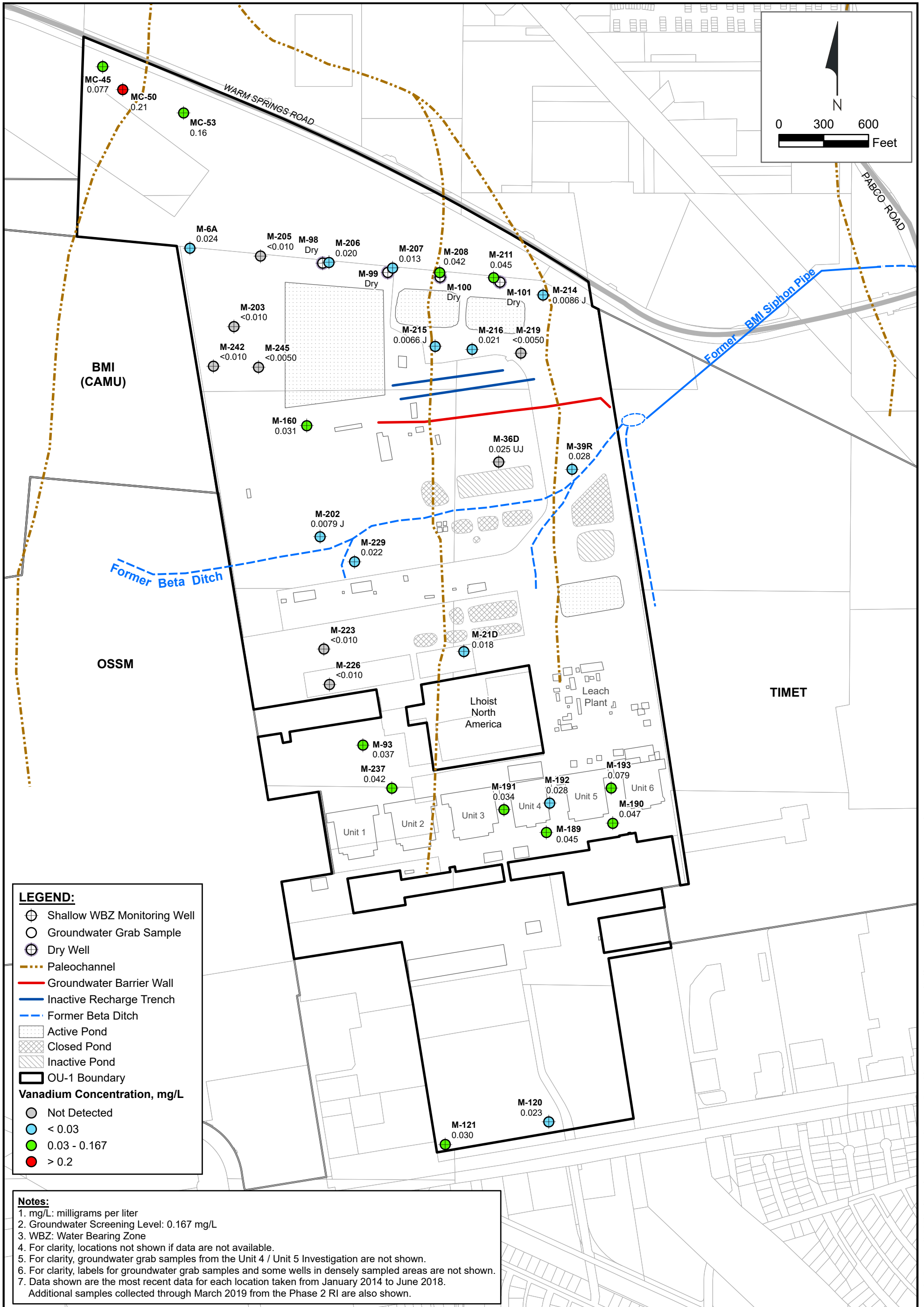
Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_2_aprx\Figure 7-66e Uranium (total) Lower Middle



OU-1 Vanadium Groundwater Concentrations vs. Sample Depth
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure

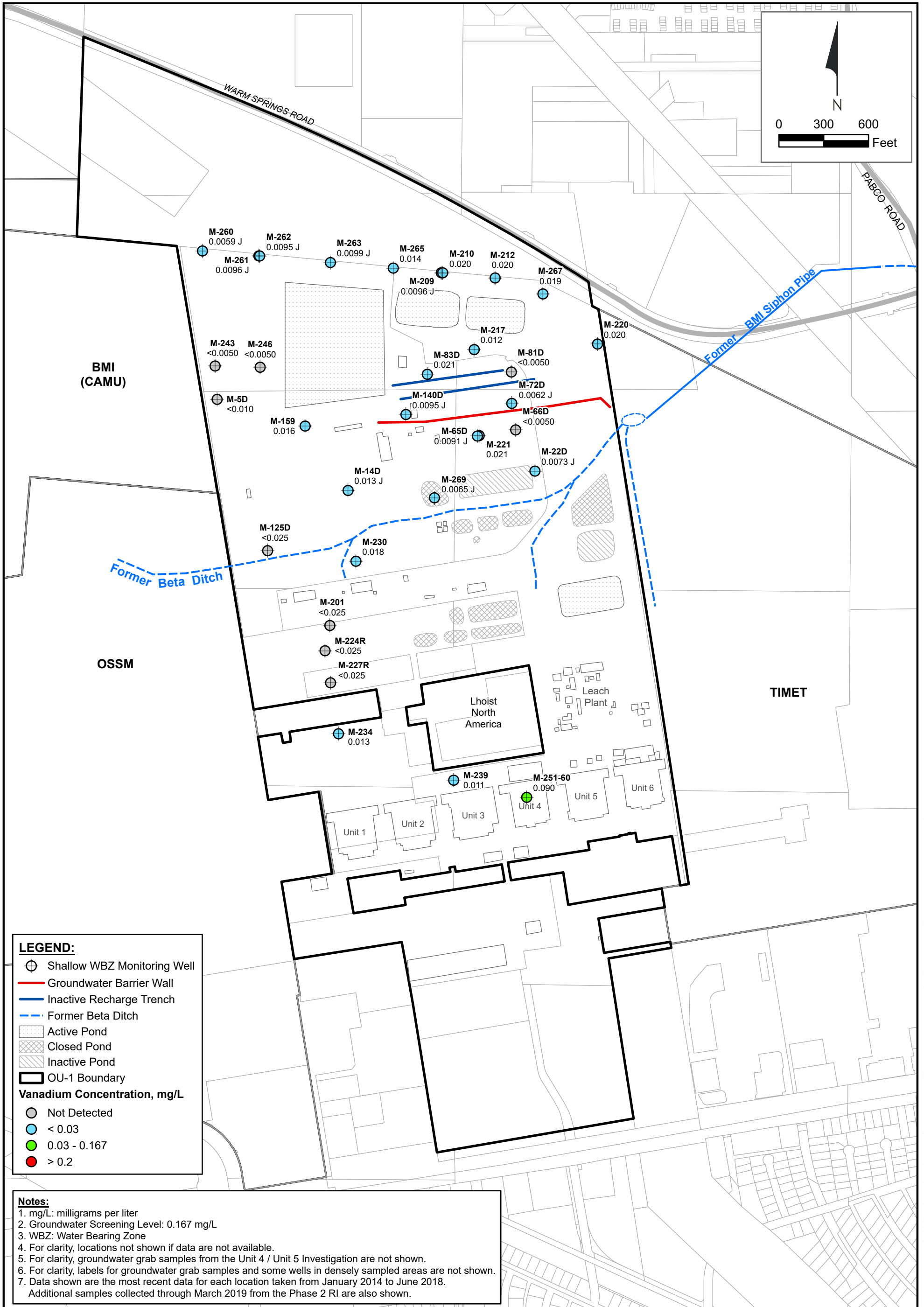
7-67a



Vanadium - Shallow WBZ (0-55 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-67b

Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_2.aprx\Figure 7-67b Vanadium Upper Shallow



LEGEND:

- ⊕ Shallow WBZ Monitoring Well
- Groundwater Barrier Wall
- Inactive Recharge Trench
- - - Former Beta Ditch
- ▨ Active Pond
- ▩ Closed Pond
- ▧ Inactive Pond
- ▭ OU-1 Boundary

Vanadium Concentration, mg/L

- Not Detected
- < 0.03
- 0.03 - 0.167
- > 0.2

Notes:

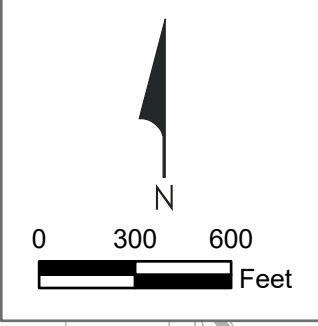
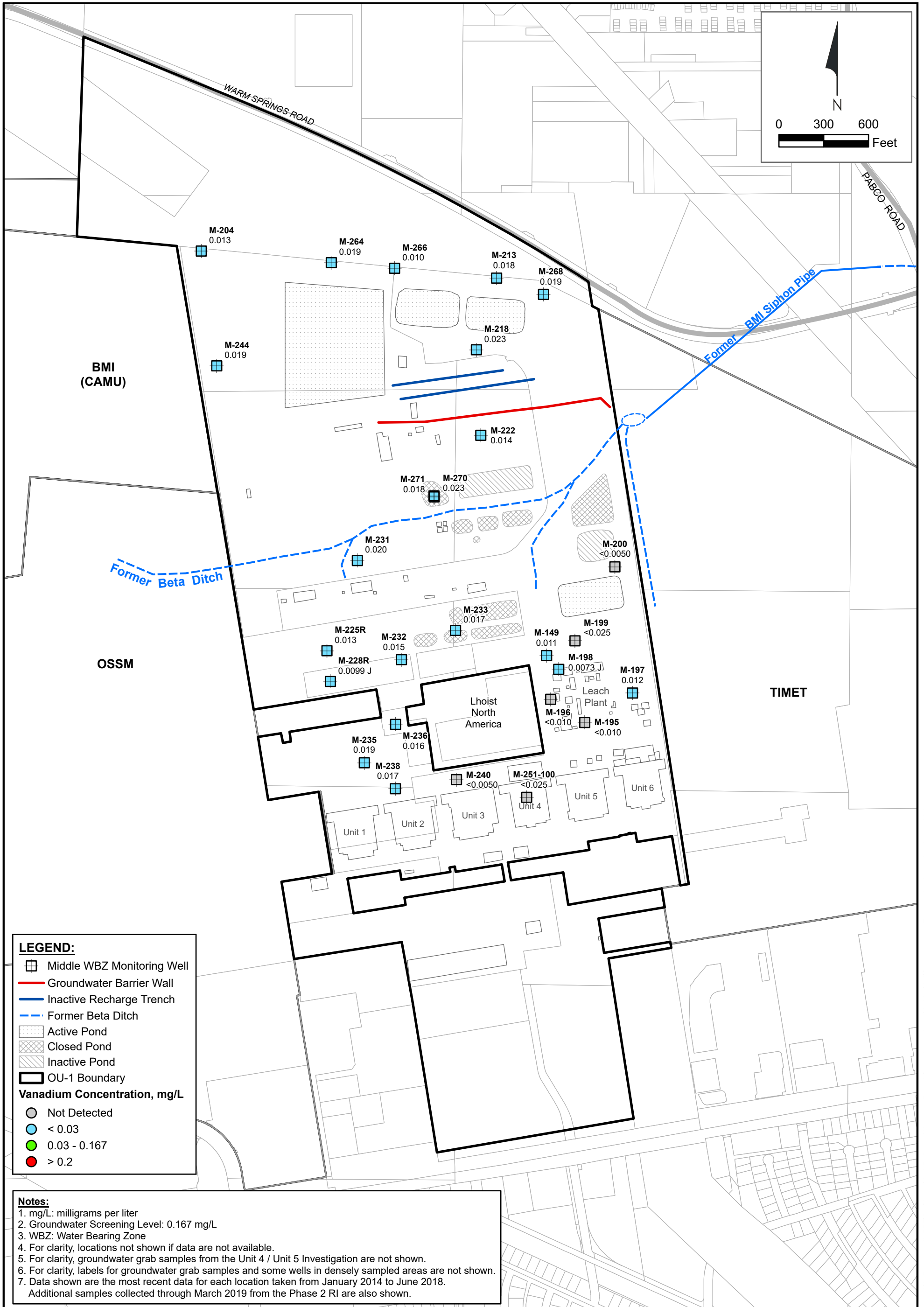
1. mg/L: milligrams per liter
2. Groundwater Screening Level: 0.167 mg/L
3. WBZ: Water Bearing Zone
4. For clarity, locations not shown if data are not available.
5. For clarity, groundwater grab samples from the Unit 4 / Unit 5 Investigation are not shown.
6. For clarity, labels for groundwater grab samples and some wells in densely sampled areas are not shown.
7. Data shown are the most recent data for each location taken from January 2014 to June 2018. Additional samples collected through March 2019 from the Phase 2 RI are also shown.



Vanadium - Shallow WBZ (55-90 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-67c

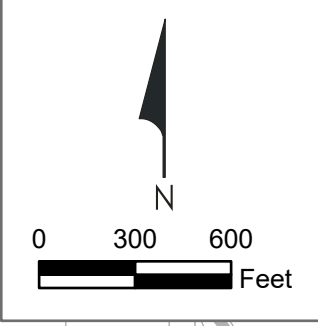
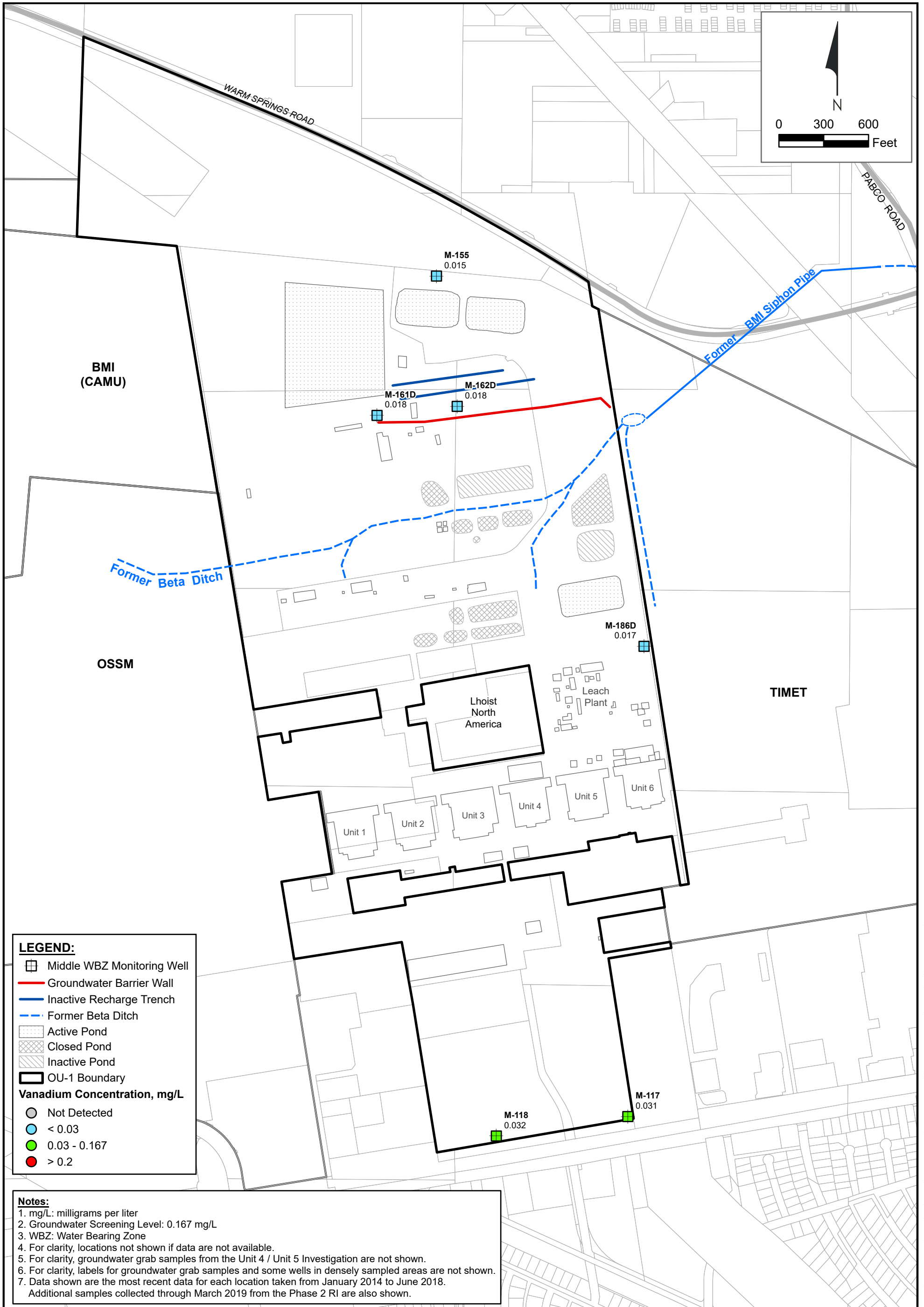
Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_2_aprx\Figure 7-67c Vanadium Lower Shallow



Vanadium - Middle WBZ (90-130 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-67d

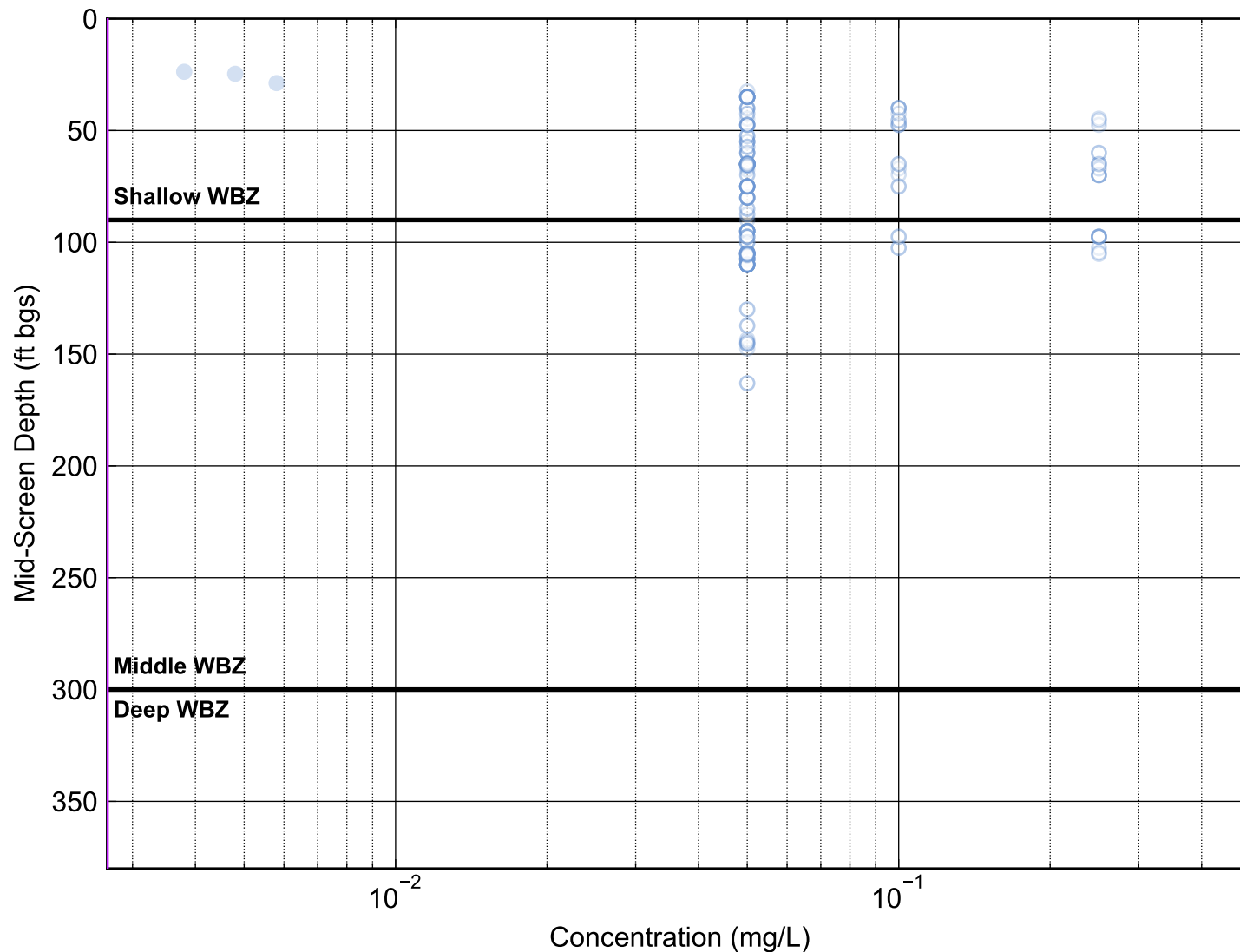
Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_2.aprx\Figure 7-67d Vanadium Upper Middle



Vanadium - Middle WBZ (130-300 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-67e

Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_2_aprx\Figure 7-67e Vanadium Lower Middle



- Non-detect
- Detected Concentration
- GWSL: 0.00267 mg/L

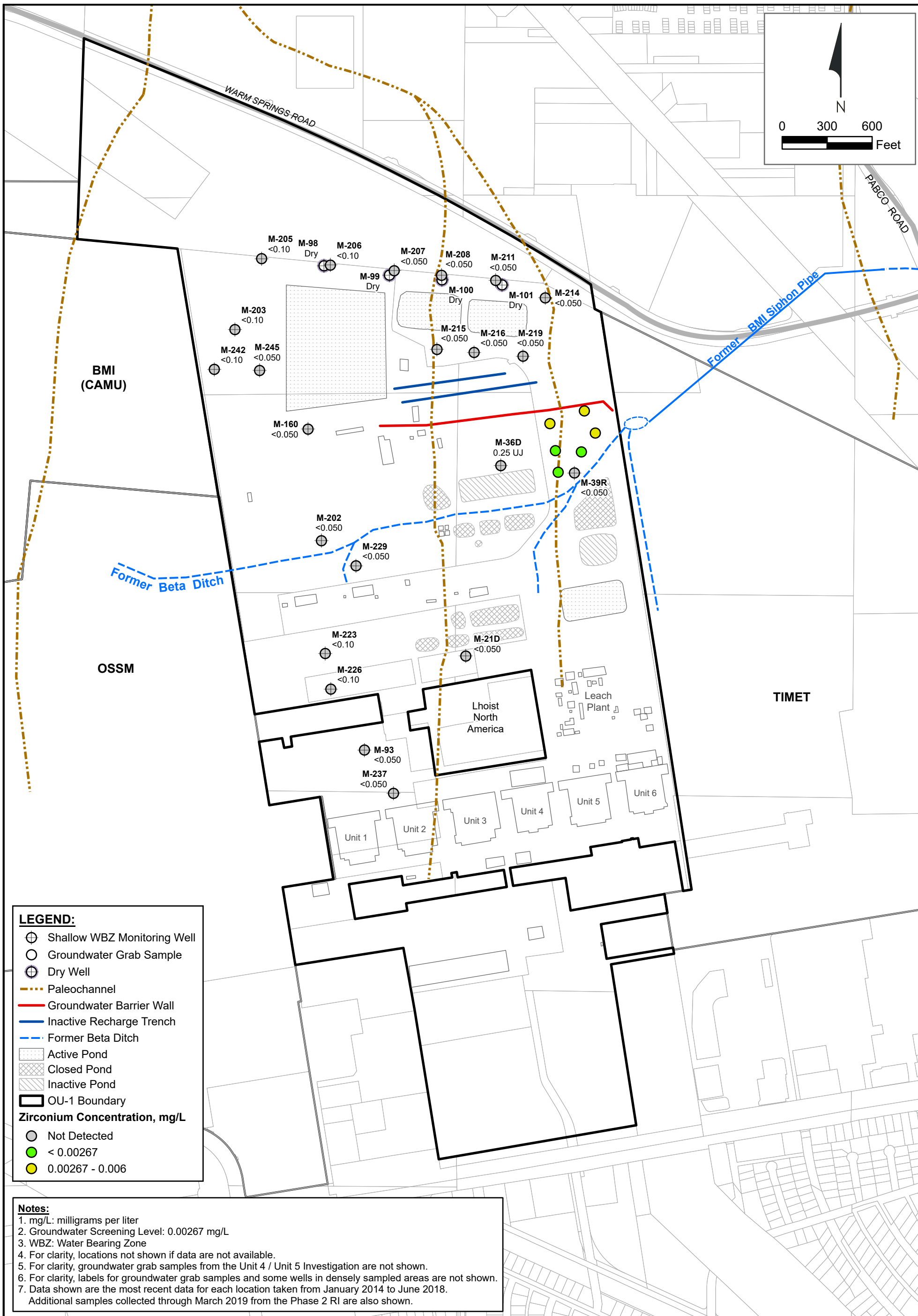
Notes:
 ft bgs: feet below ground surface
 mg/L: milligrams per liter
 GWSL: Groundwater Screening Level
 WBZ: Water-Bearing Zone



OU-1 Zirconium Groundwater Concentrations vs. Sample Depth
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure

7-68a



LEGEND:

- ⊕ Shallow WBZ Monitoring Well
 - Groundwater Grab Sample
 - ⊖ Dry Well
 - - - Paleochannel
 - Groundwater Barrier Wall
 - Inactive Recharge Trench
 - - - Former Beta Ditch
 - ▒ Active Pond
 - ▒ Closed Pond
 - ▒ Inactive Pond
 - ▭ OU-1 Boundary
- Zirconium Concentration, mg/L**
- Not Detected
 - < 0.00267
 - 0.00267 - 0.006

Notes:

1. mg/L: milligrams per liter
2. Groundwater Screening Level: 0.00267 mg/L
3. WBZ: Water Bearing Zone
4. For clarity, locations not shown if data are not available.
5. For clarity, groundwater grab samples from the Unit 4 / Unit 5 Investigation are not shown.
6. For clarity, labels for groundwater grab samples and some wells in densely sampled areas are not shown.
7. Data shown are the most recent data for each location taken from January 2014 to June 2018. Additional samples collected through March 2019 from the Phase 2 RI are also shown.



Zirconium - Shallow WBZ (0-55 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-68b

Drafter: JC

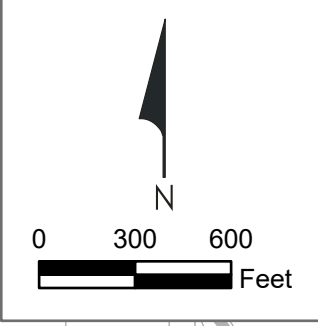
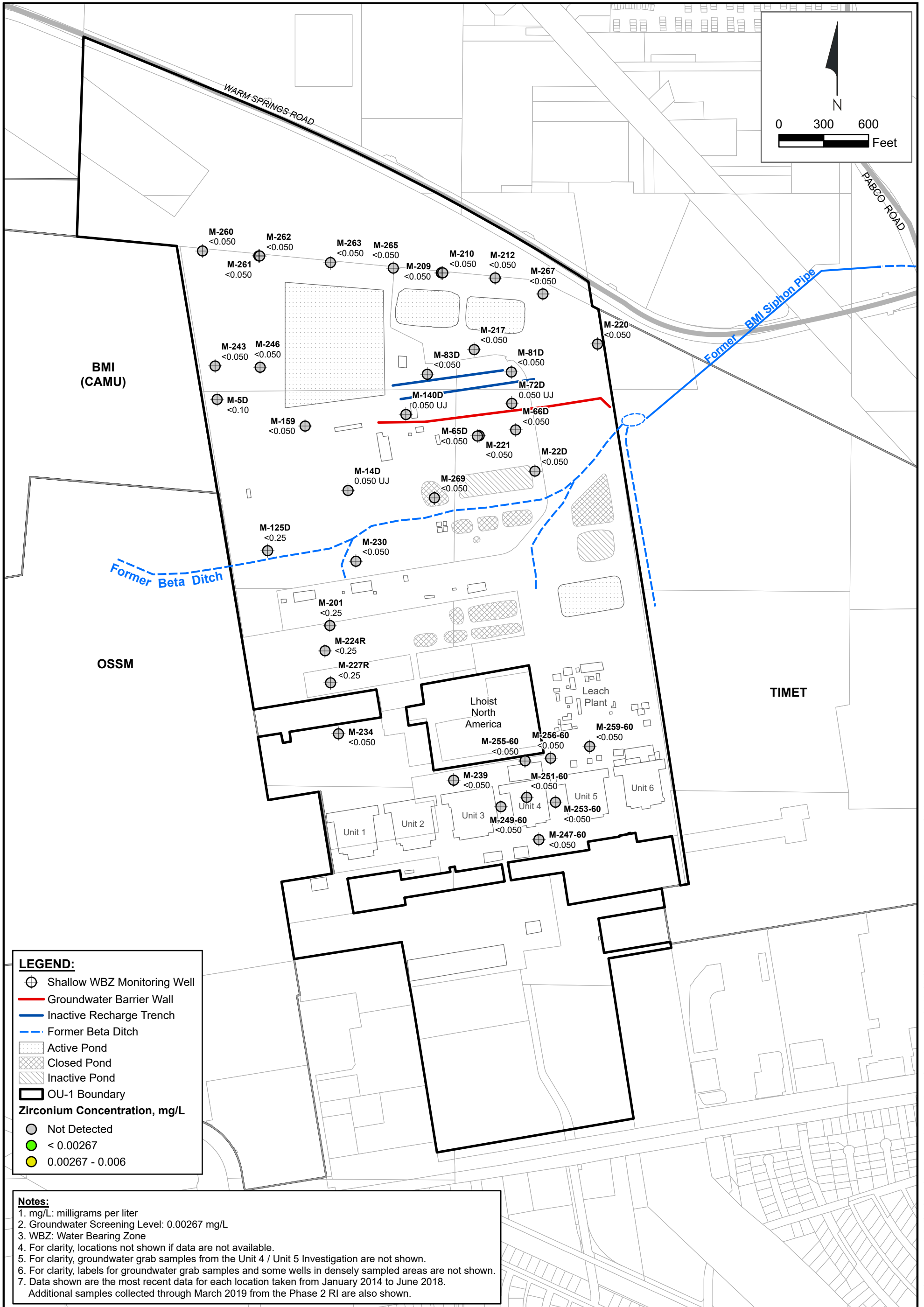
Date: 2023-01-11

Contract Number: 169002 9369

Approved by:

Revised:

Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_2.aprx\Figure 7-68b Zirconium Upper Shallow



LEGEND:

- ⊕ Shallow WBZ Monitoring Well
- Groundwater Barrier Wall
- Inactive Recharge Trench
- - - Former Beta Ditch
- ▨ Active Pond
- ▩ Closed Pond
- ▧ Inactive Pond
- ▭ OU-1 Boundary

Zirconium Concentration, mg/L

- Not Detected
- < 0.00267
- 0.00267 - 0.006

Notes:

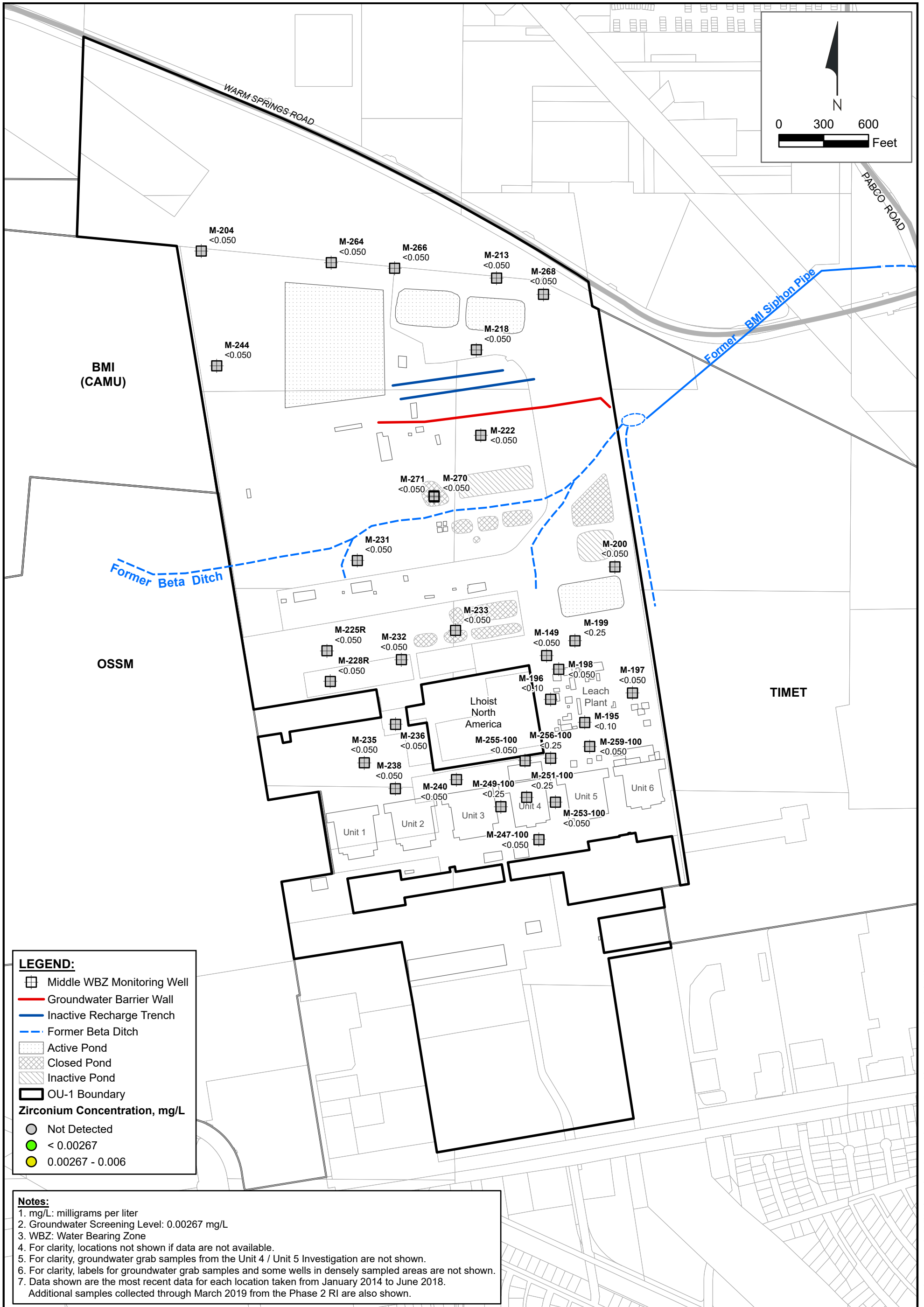
1. mg/L: milligrams per liter
2. Groundwater Screening Level: 0.00267 mg/L
3. WBZ: Water Bearing Zone
4. For clarity, locations not shown if data are not available.
5. For clarity, groundwater grab samples from the Unit 4 / Unit 5 Investigation are not shown.
6. For clarity, labels for groundwater grab samples and some wells in densely sampled areas are not shown.
7. Data shown are the most recent data for each location taken from January 2014 to June 2018. Additional samples collected through March 2019 from the Phase 2 RI are also shown.



Zirconium - Shallow WBZ (55-90 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-68c

Path: H:\Petomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_2_aprx\Figure 7-68c Zirconium Lower Shallow



LEGEND:

- Middle WBZ Monitoring Well
- Groundwater Barrier Wall
- Inactive Recharge Trench
- Former Beta Ditch
- Active Pond
- Closed Pond
- Inactive Pond
- OU-1 Boundary

Zirconium Concentration, mg/L

- Not Detected
- < 0.00267
- 0.00267 - 0.006

Notes:

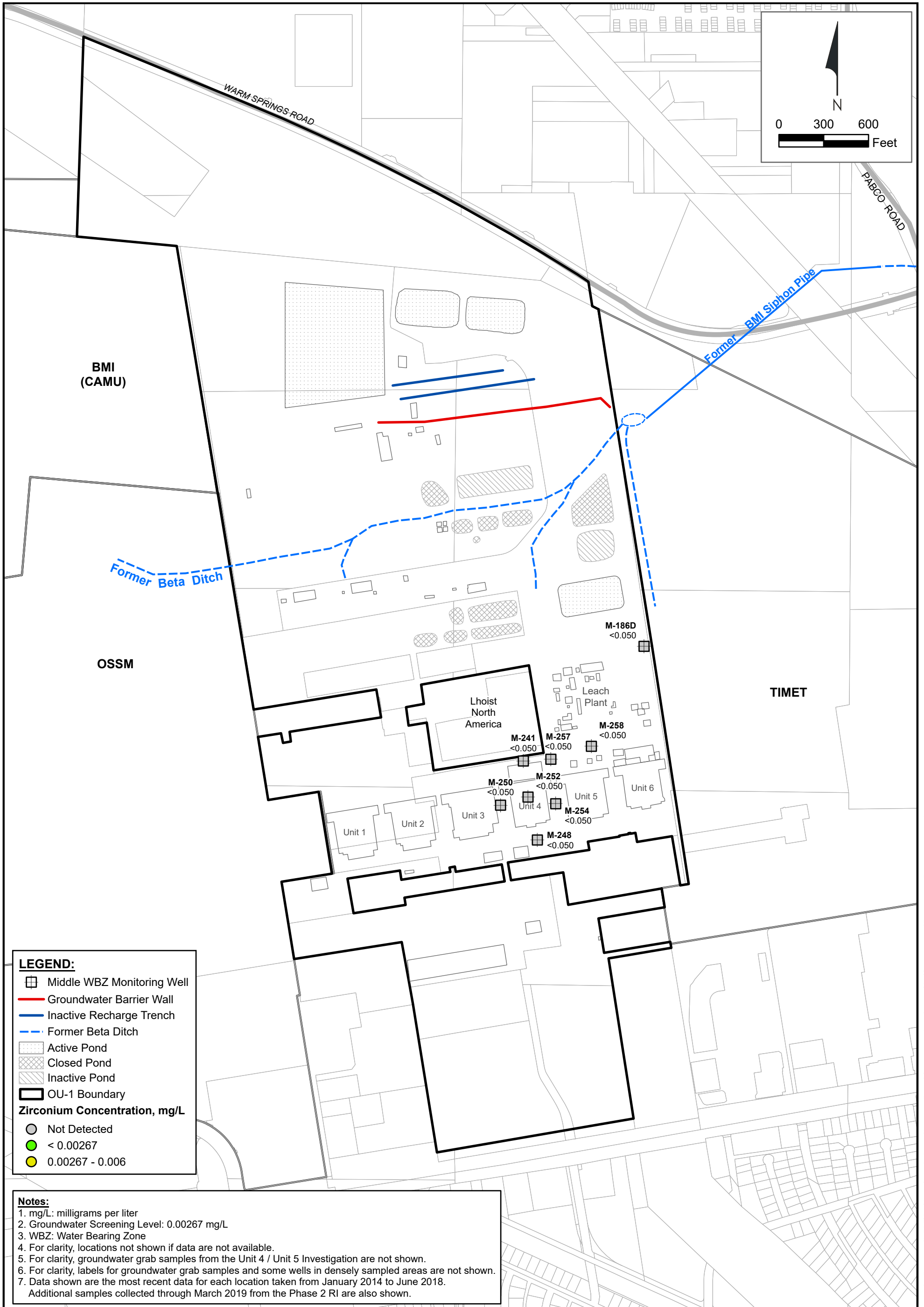
1. mg/L: milligrams per liter
2. Groundwater Screening Level: 0.00267 mg/L
3. WBZ: Water Bearing Zone
4. For clarity, locations not shown if data are not available.
5. For clarity, groundwater grab samples from the Unit 4 / Unit 5 Investigation are not shown.
6. For clarity, labels for groundwater grab samples and some wells in densely sampled areas are not shown.
7. Data shown are the most recent data for each location taken from January 2014 to June 2018. Additional samples collected through March 2019 from the Phase 2 RI are also shown.



Zirconium - Middle WBZ (90-130 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-68d

Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_2_aprx\Figure 7-68d Zirconium Upper Middle



LEGEND:

- Middle WBZ Monitoring Well
- Groundwater Barrier Wall
- Inactive Recharge Trench
- Former Beta Ditch
- Active Pond
- Closed Pond
- Inactive Pond
- OU-1 Boundary

Zirconium Concentration, mg/L

- Not Detected
- < 0.00267
- 0.00267 - 0.006

Notes:

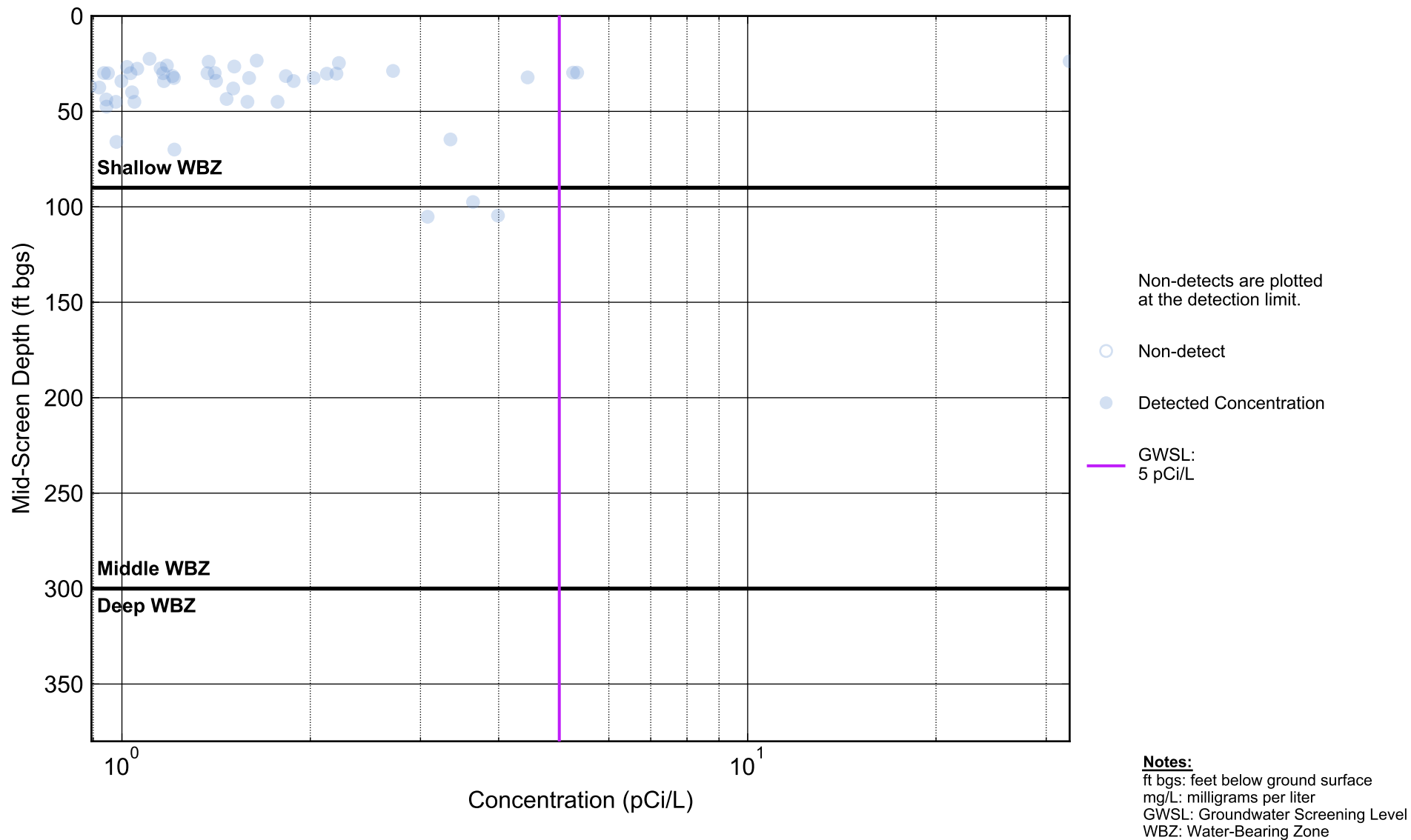
1. mg/L: milligrams per liter
2. Groundwater Screening Level: 0.00267 mg/L
3. WBZ: Water Bearing Zone
4. For clarity, locations not shown if data are not available.
5. For clarity, groundwater grab samples from the Unit 4 / Unit 5 Investigation are not shown.
6. For clarity, labels for groundwater grab samples and some wells in densely sampled areas are not shown.
7. Data shown are the most recent data for each location taken from January 2014 to June 2018. Additional samples collected through March 2019 from the Phase 2 RI are also shown.



Zirconium - Middle WBZ (130-300 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-68e

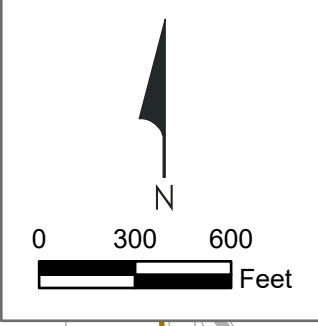
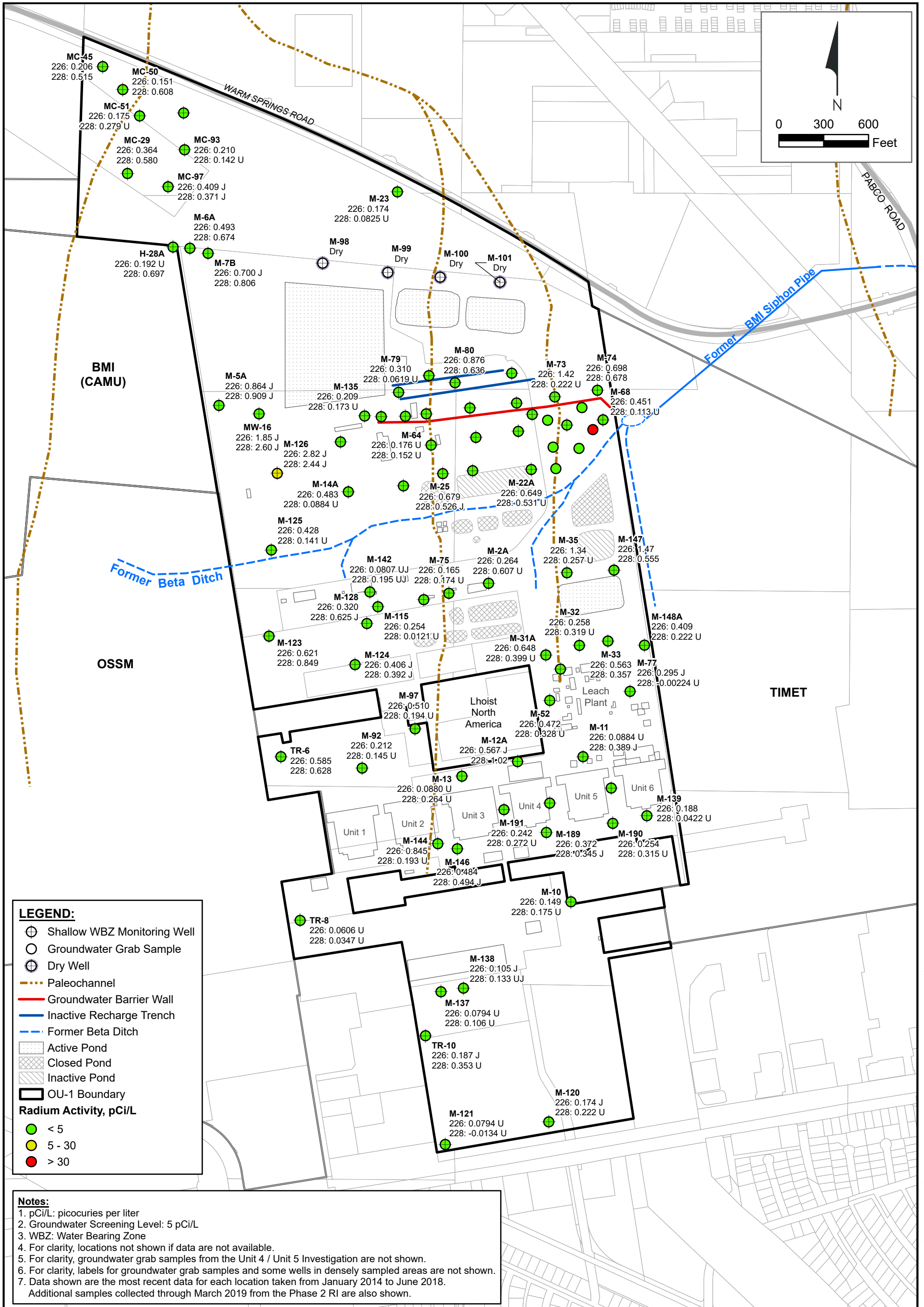
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OU-1 Radium Groundwater Concentrations vs. Sample Depth
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure

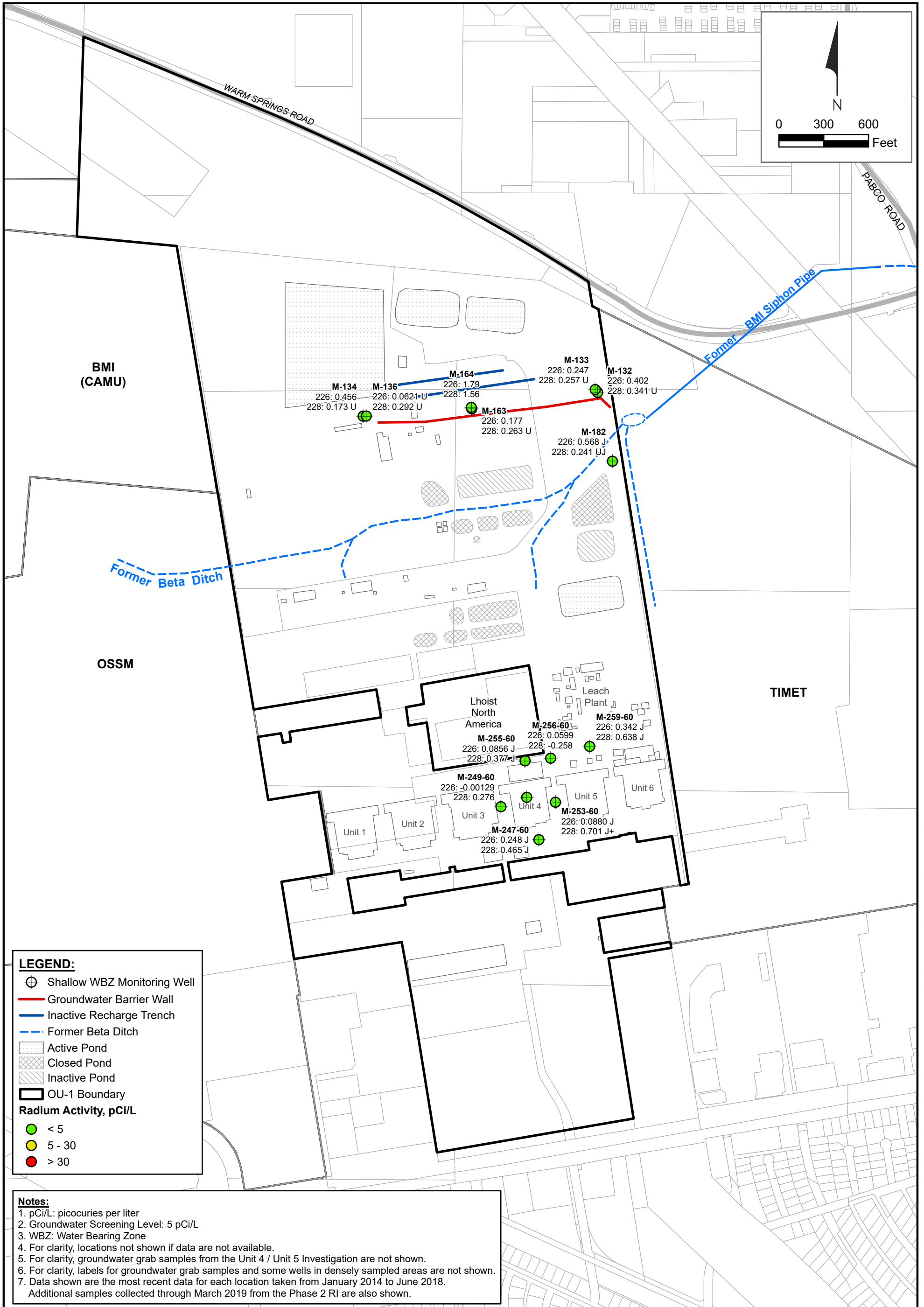
7-69a



Radium - Shallow WBZ (0-55 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-69b

Path: H:\LePetomane\NERT\RI\OU-1\OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_2_aprx\Figure 7-69b Radium Upper Shallow



Radium - Shallow WBZ (55-90 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-69c

Drafter: JC

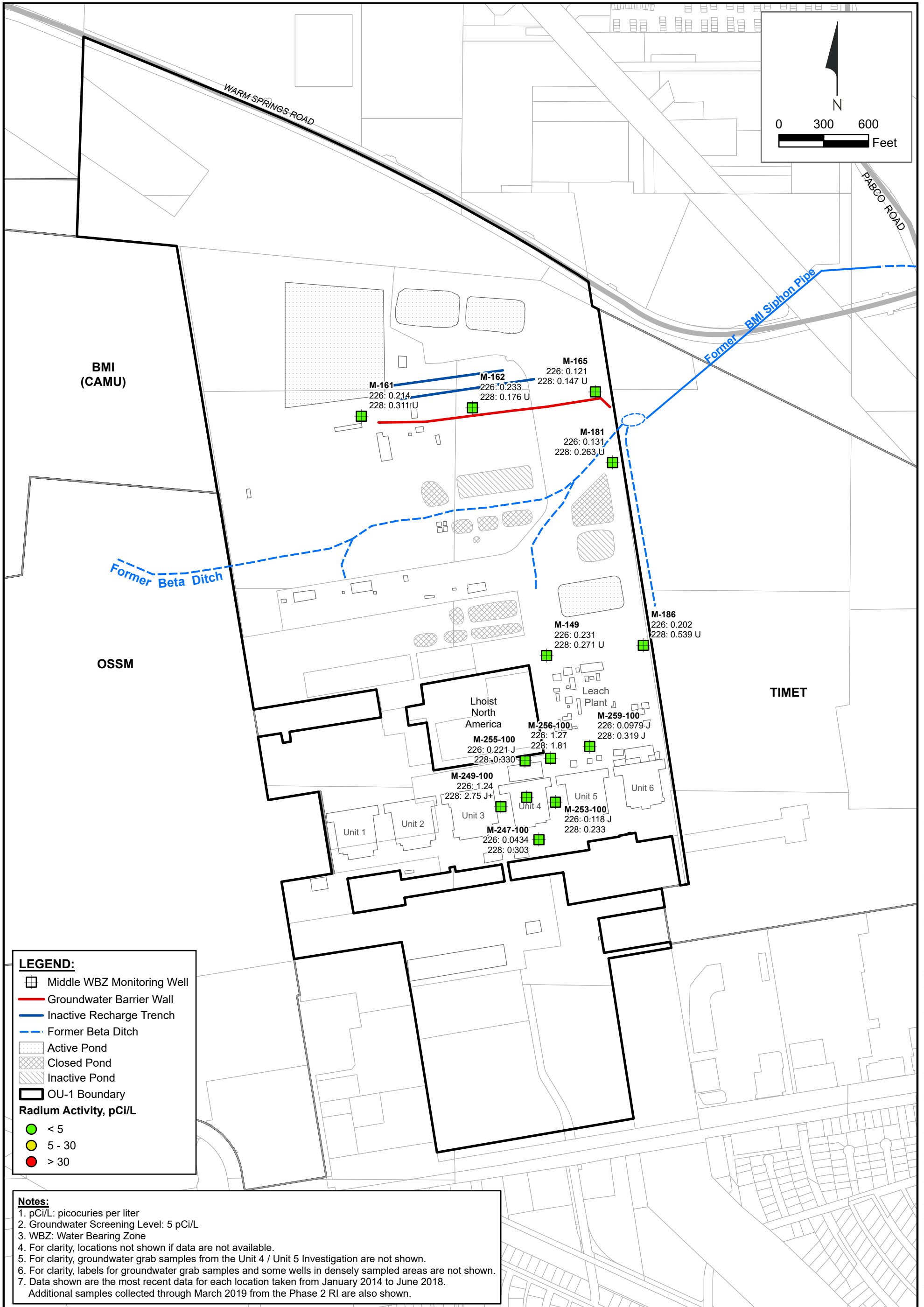
Date: 2023-01-11

Contract Number: 169002 9369

Approved by:

Revised:

Path: H:\Petomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_2_aprx\Figure 7-69c Radium Lower Shallow



Radium - Middle WBZ (90-130 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-69d

Drafter: JC

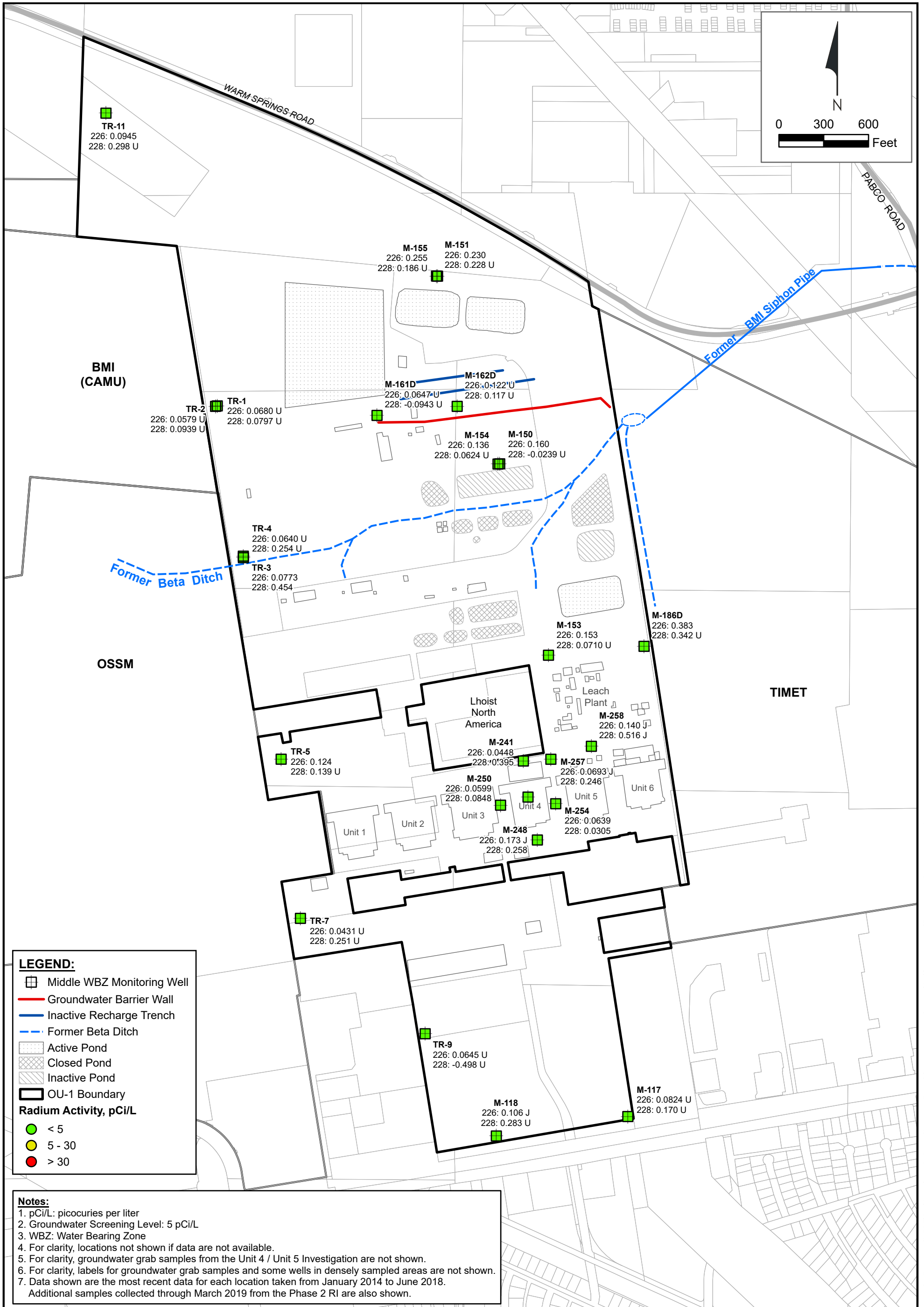
Date: 2023-01-11

Contract Number: 169002 9369

Approved by:

Revised:

Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_2.aprx\Figure 7-69d Radium Upper Middle



Radium - Middle WBZ (130-300 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-69e

Drafter: JC

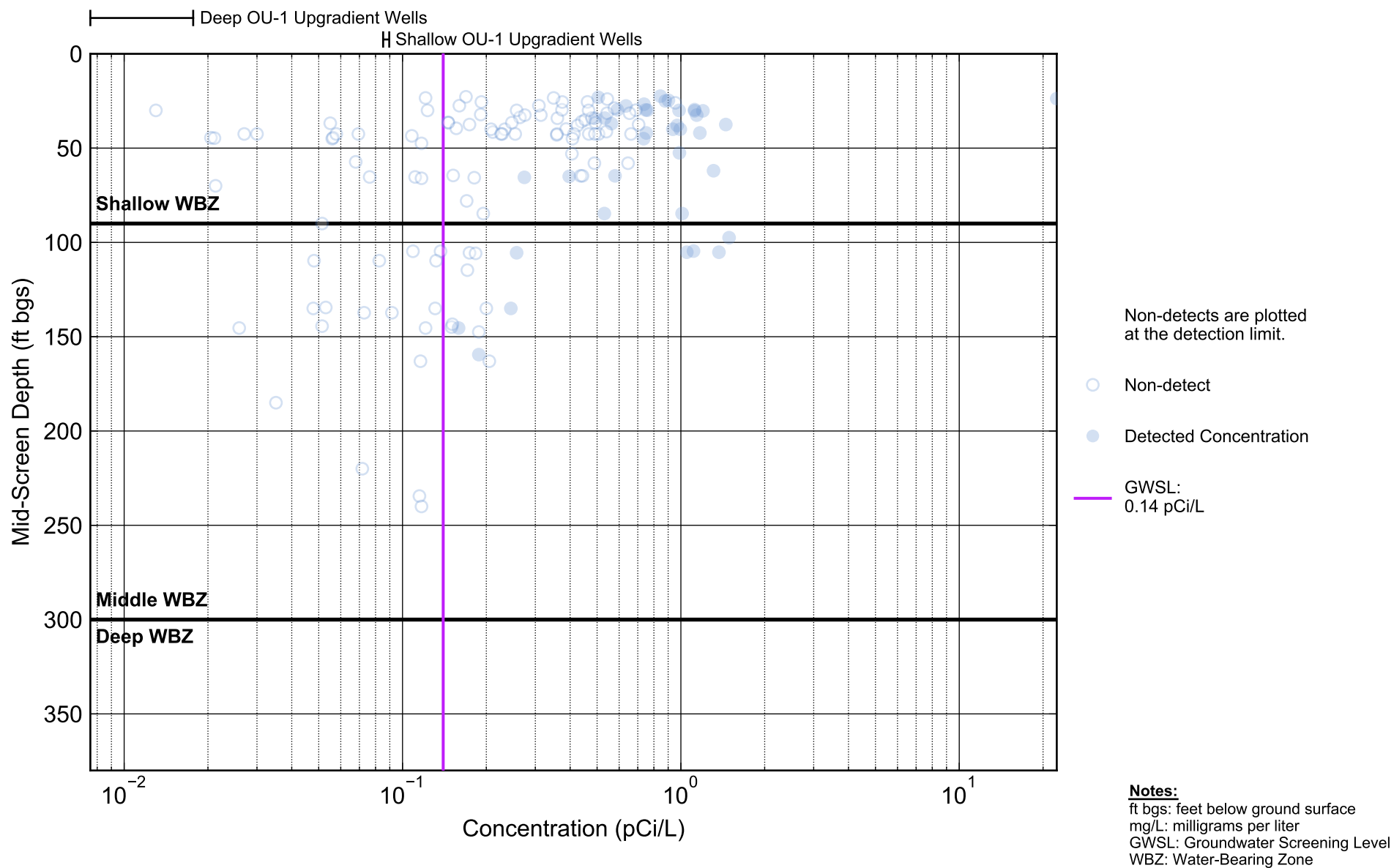
Date: 2023-01-11

Contract Number: 169002 9369

Approved by:

Revised:

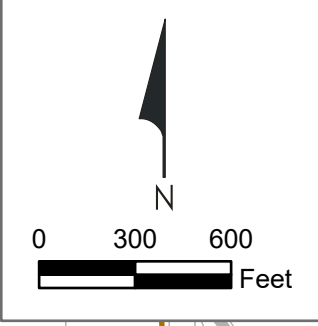
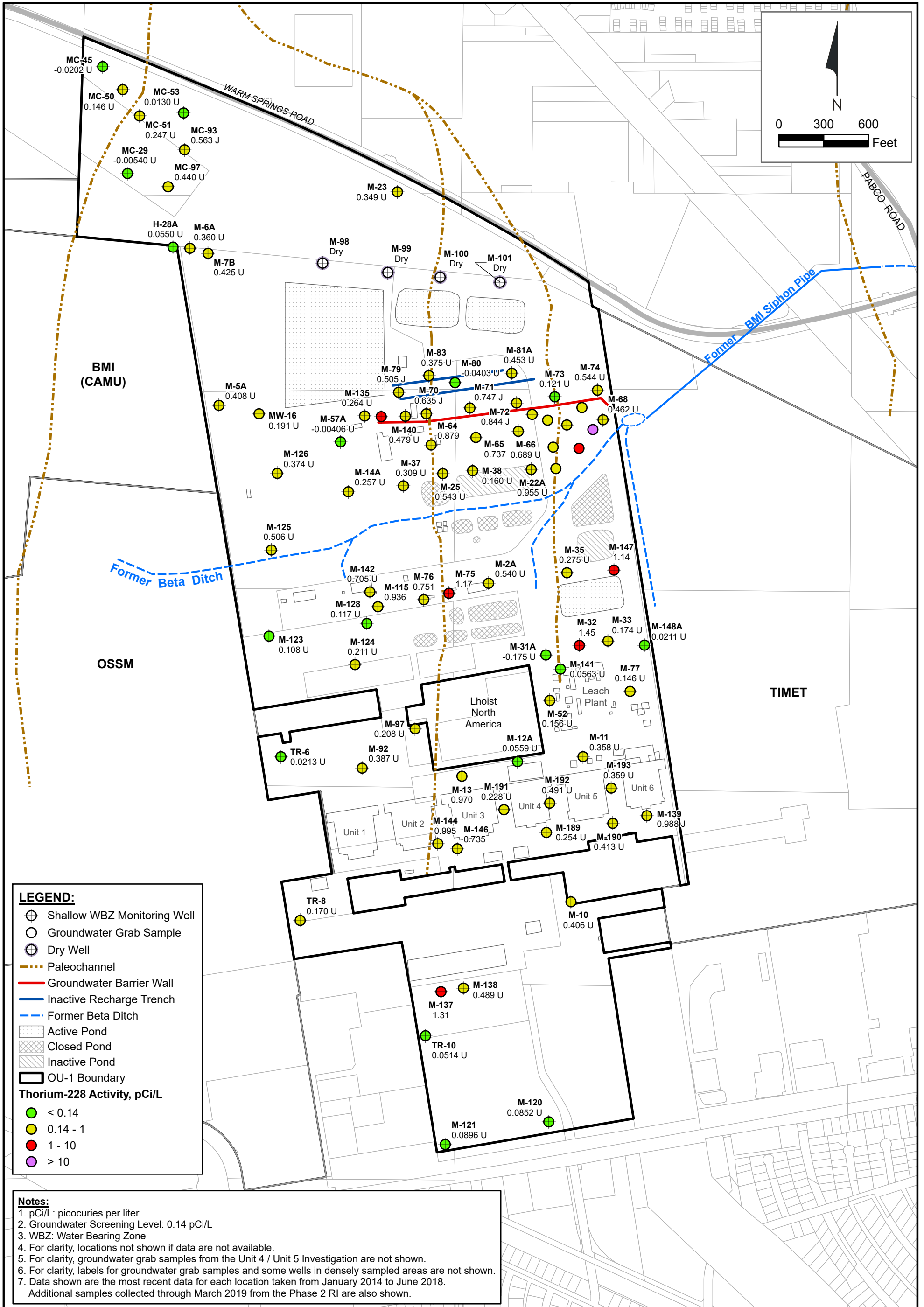
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OU-1 Thorium-228 Groundwater Concentrations vs. Sample Depth
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure

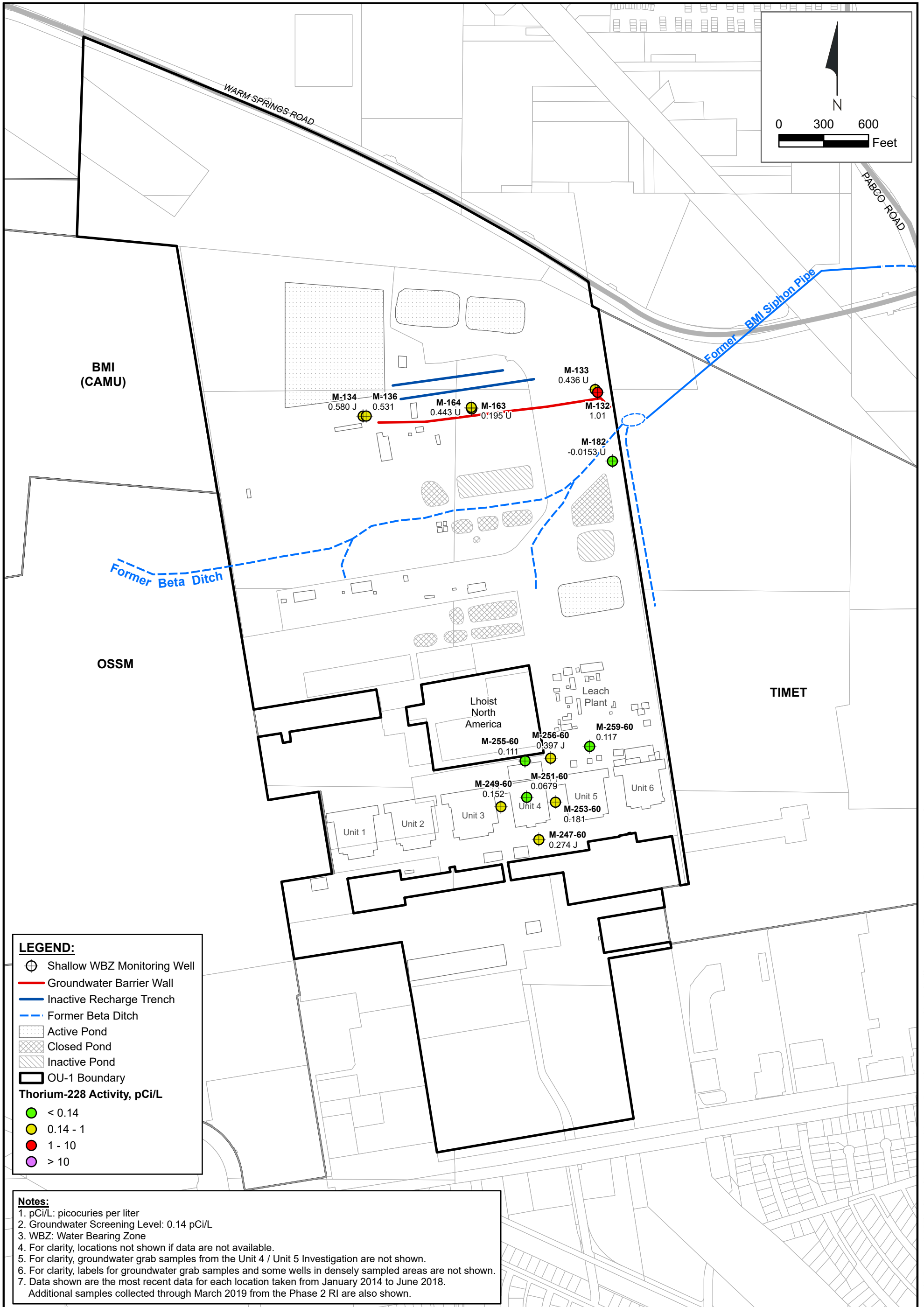
7-70a



Thorium-228 - Shallow WBZ (0-55 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-70b

Path: H:\Petomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_2.aprx\Figure 7-70b Thorium-228 Upper Shallow



LEGEND:

- ⊕ Shallow WBZ Monitoring Well
- Groundwater Barrier Wall
- Inactive Recharge Trench
- - - Former Beta Ditch
- ▨ Active Pond
- ▩ Closed Pond
- ▧ Inactive Pond
- ▭ OU-1 Boundary

Thorium-228 Activity, pCi/L

- < 0.14
- 0.14 - 1
- 1 - 10
- > 10

Notes:

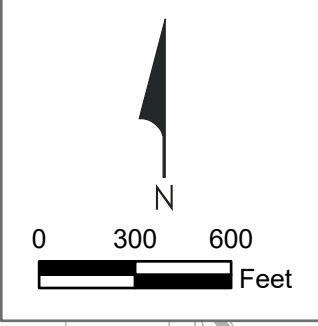
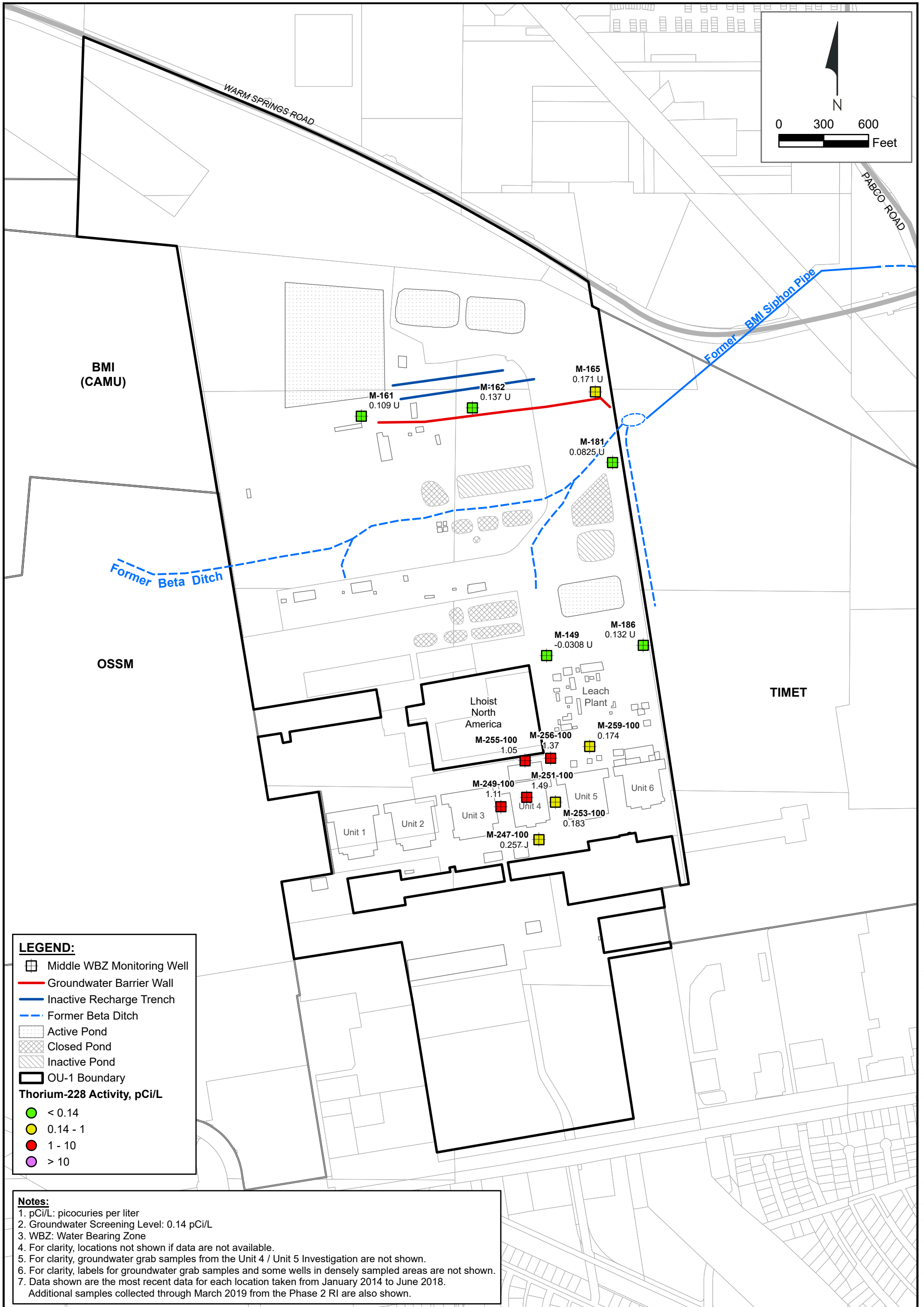
1. pCi/L: picocuries per liter
2. Groundwater Screening Level: 0.14 pCi/L
3. WBZ: Water Bearing Zone
4. For clarity, locations not shown if data are not available.
5. For clarity, groundwater grab samples from the Unit 4 / Unit 5 Investigation are not shown.
6. For clarity, labels for groundwater grab samples and some wells in densely sampled areas are not shown.
7. Data shown are the most recent data for each location taken from January 2014 to June 2018. Additional samples collected through March 2019 from the Phase 2 RI are also shown.



Thorium-228 - Shallow WBZ (55-90 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-70c

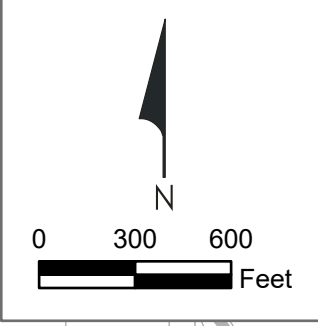
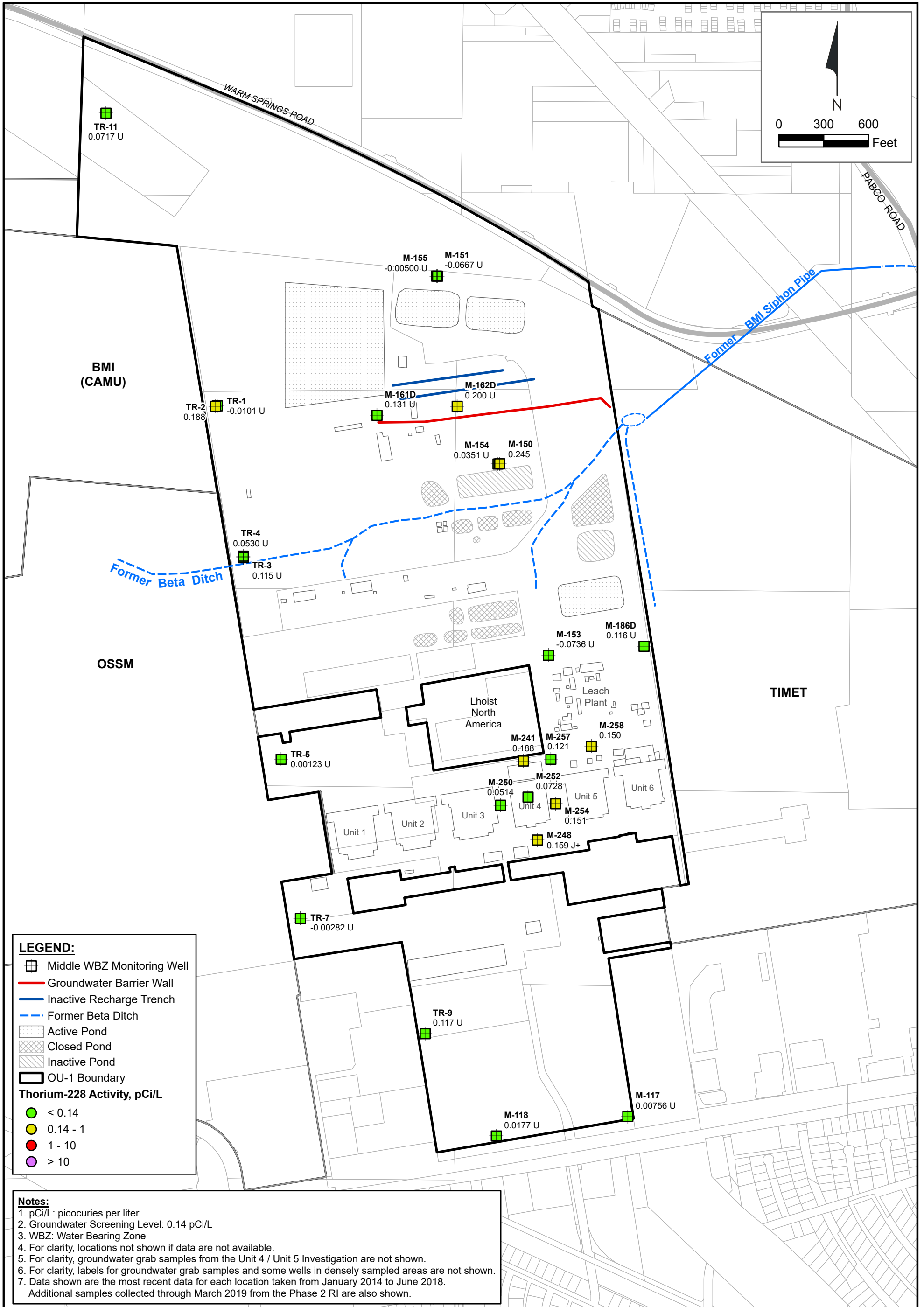
Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_2.aprx\Figure 7-70c Thorium-228 Lower Shallow



Thorium-228 - Middle WBZ (90-130 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-70d

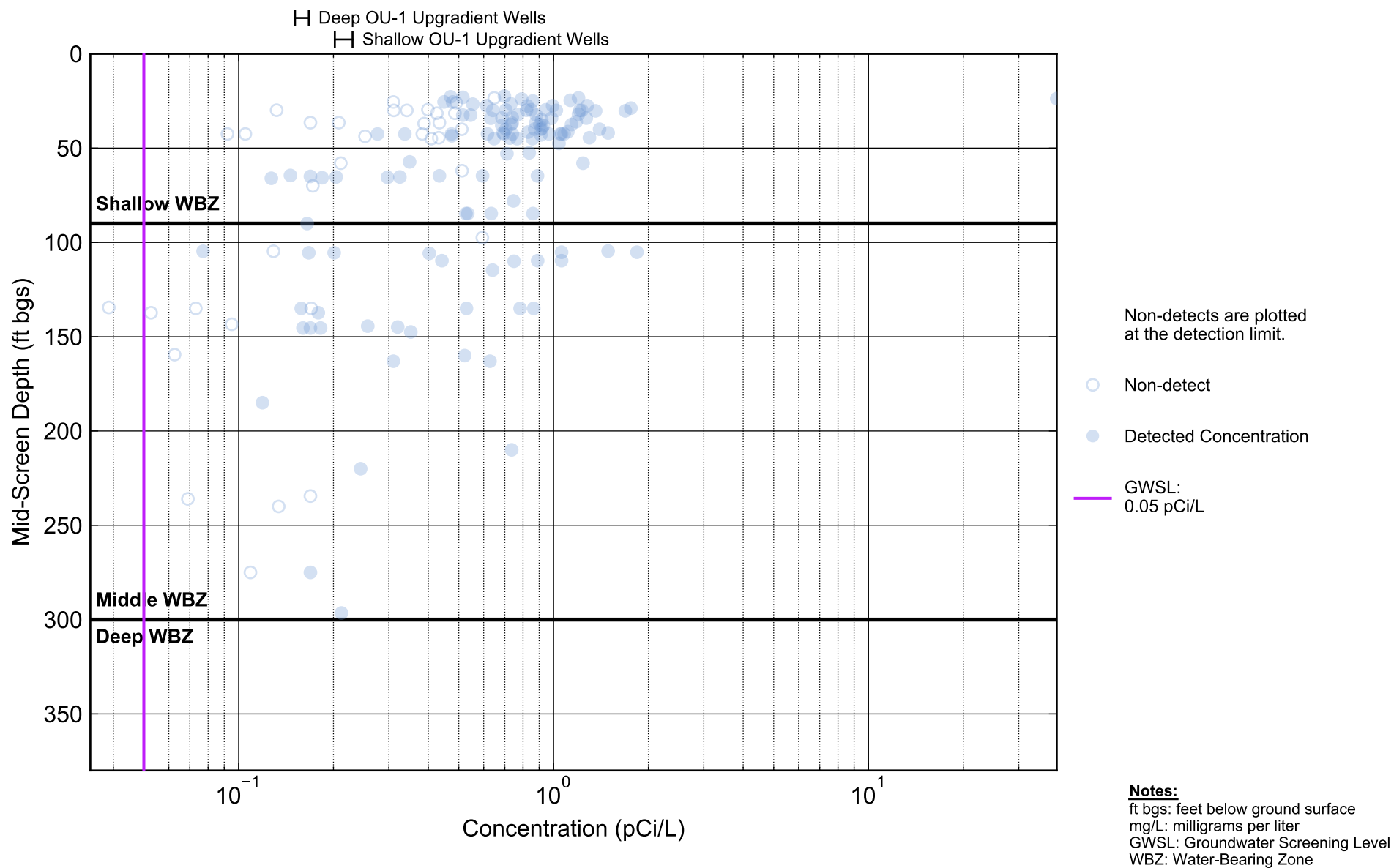
Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_2_aprx\Figure 7-70d Thorium-228 Upper Middle



Thorium-228 - Middle WBZ (130-300 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-70e

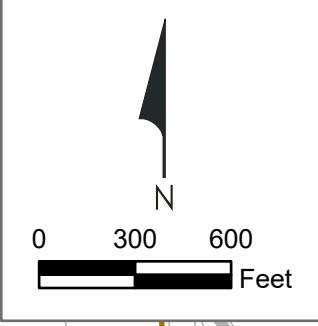
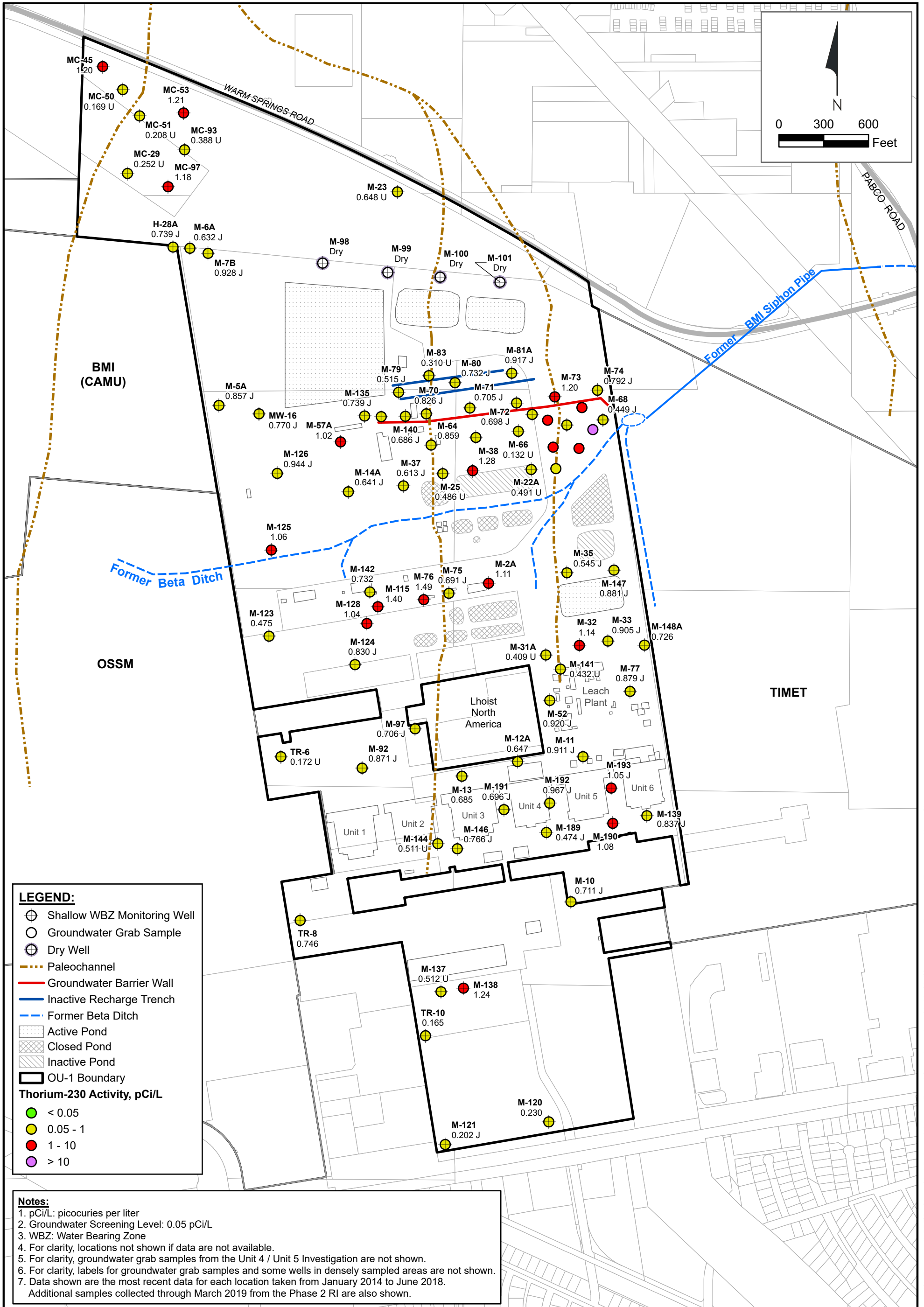
Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_2.aprx\Figure 7-70e Thorium-228 Lower Middle



OU-1 Thorium-230 Groundwater Concentrations vs. Sample Depth
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure

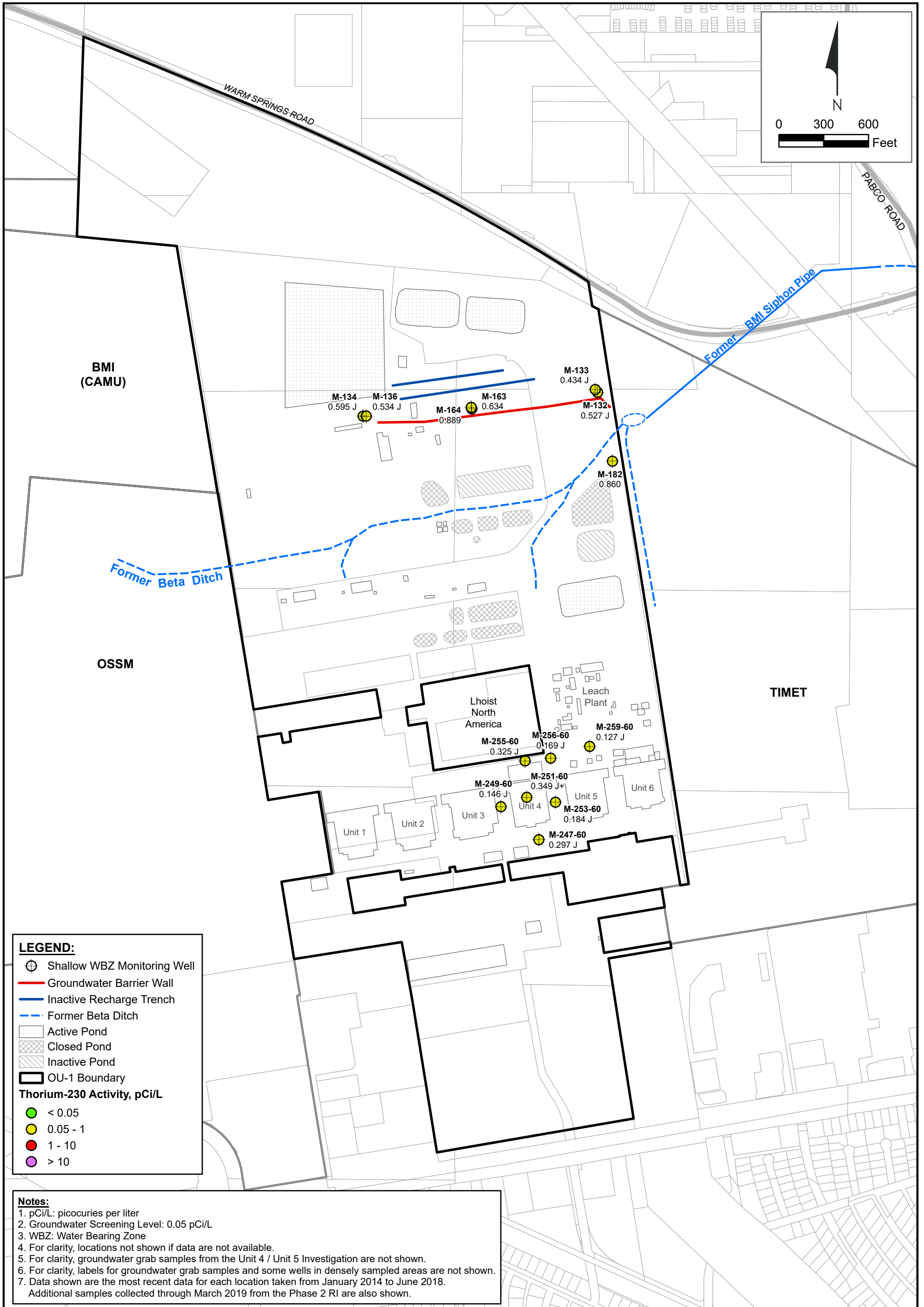
7-71a



Thorium-230 - Shallow WBZ (0-55 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-71b

Path: H:\Petomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_2.aprx\Figure 7-71b Thorium-230 Upper Shallow

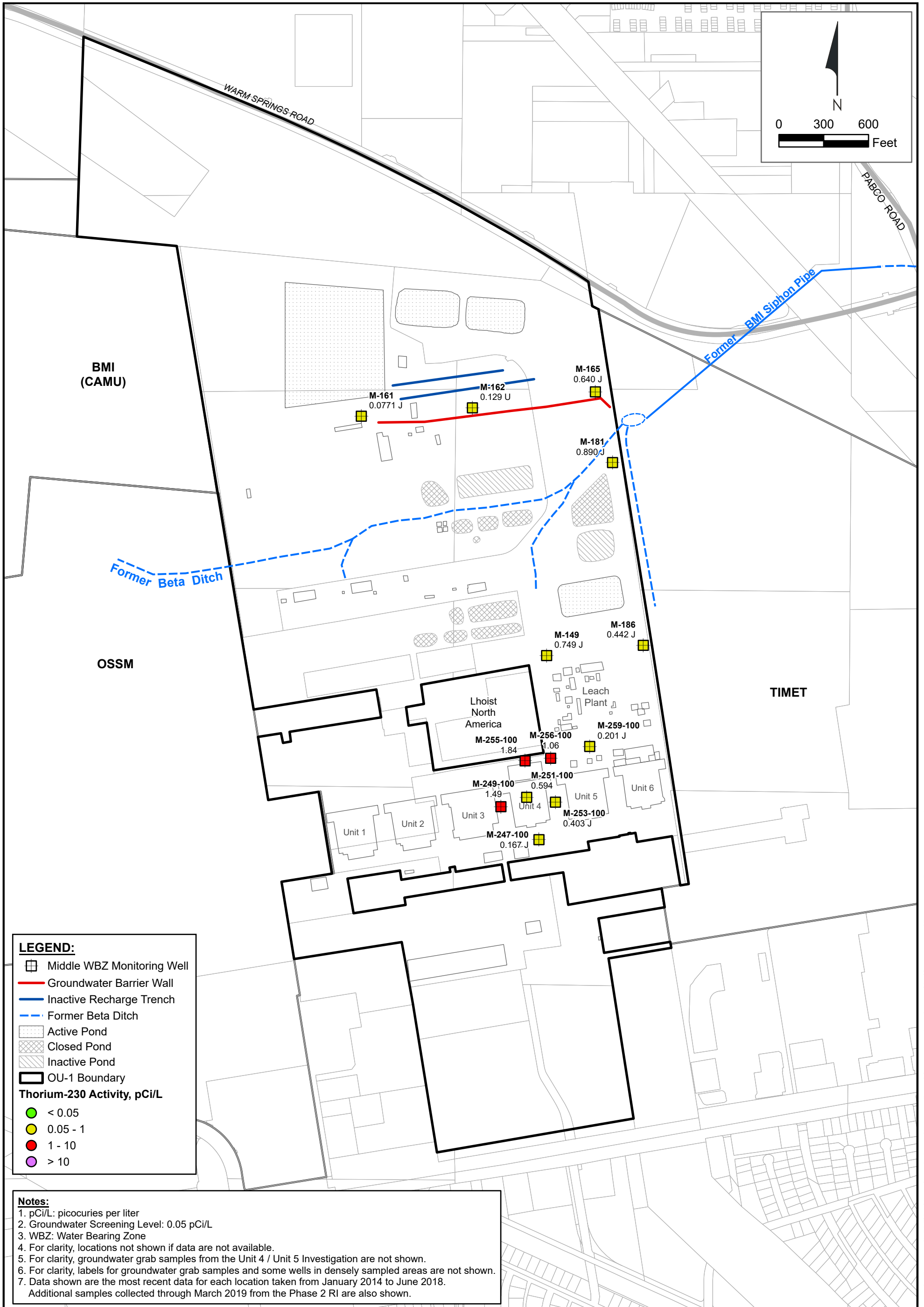


Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_2_aprx\Figure 7-71c Thorium-230 Lower Shallow



Thorium-230 - Shallow WBZ (55-90 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-71c



LEGEND:

- Middle WBZ Monitoring Well
- Groundwater Barrier Wall
- Inactive Recharge Trench
- Former Beta Ditch
- Active Pond
- Closed Pond
- Inactive Pond
- OU-1 Boundary

Thorium-230 Activity, pCi/L

- < 0.05
- 0.05 - 1
- 1 - 10
- > 10

Notes:

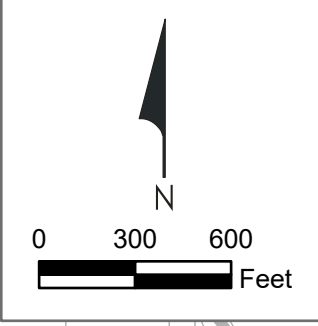
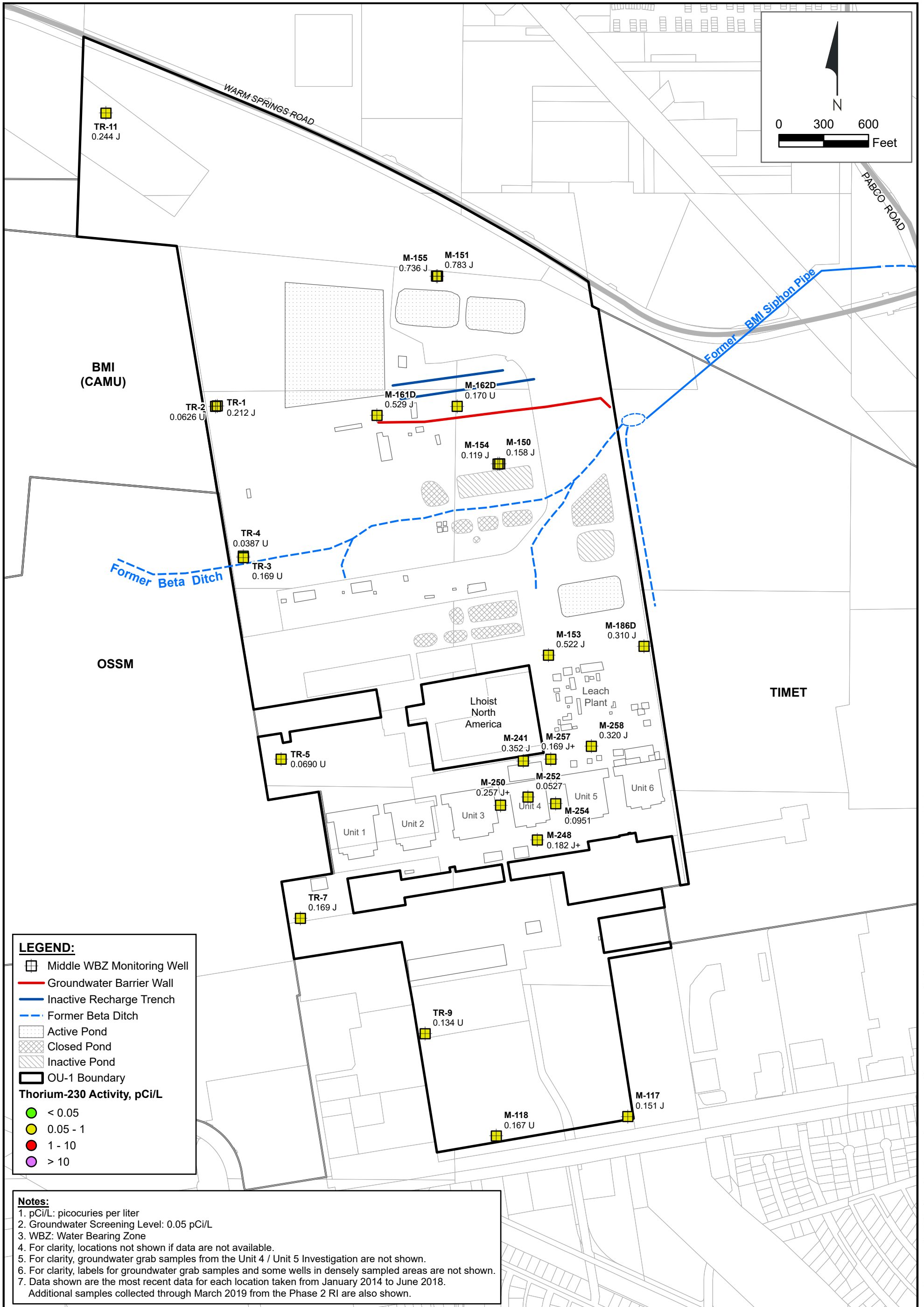
1. pCi/L: picocuries per liter
2. Groundwater Screening Level: 0.05 pCi/L
3. WBZ: Water Bearing Zone
4. For clarity, locations not shown if data are not available.
5. For clarity, groundwater grab samples from the Unit 4 / Unit 5 Investigation are not shown.
6. For clarity, labels for groundwater grab samples and some wells in densely sampled areas are not shown.
7. Data shown are the most recent data for each location taken from January 2014 to June 2018. Additional samples collected through March 2019 from the Phase 2 RI are also shown.



Thorium-230 - Middle WBZ (90-130 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-71d

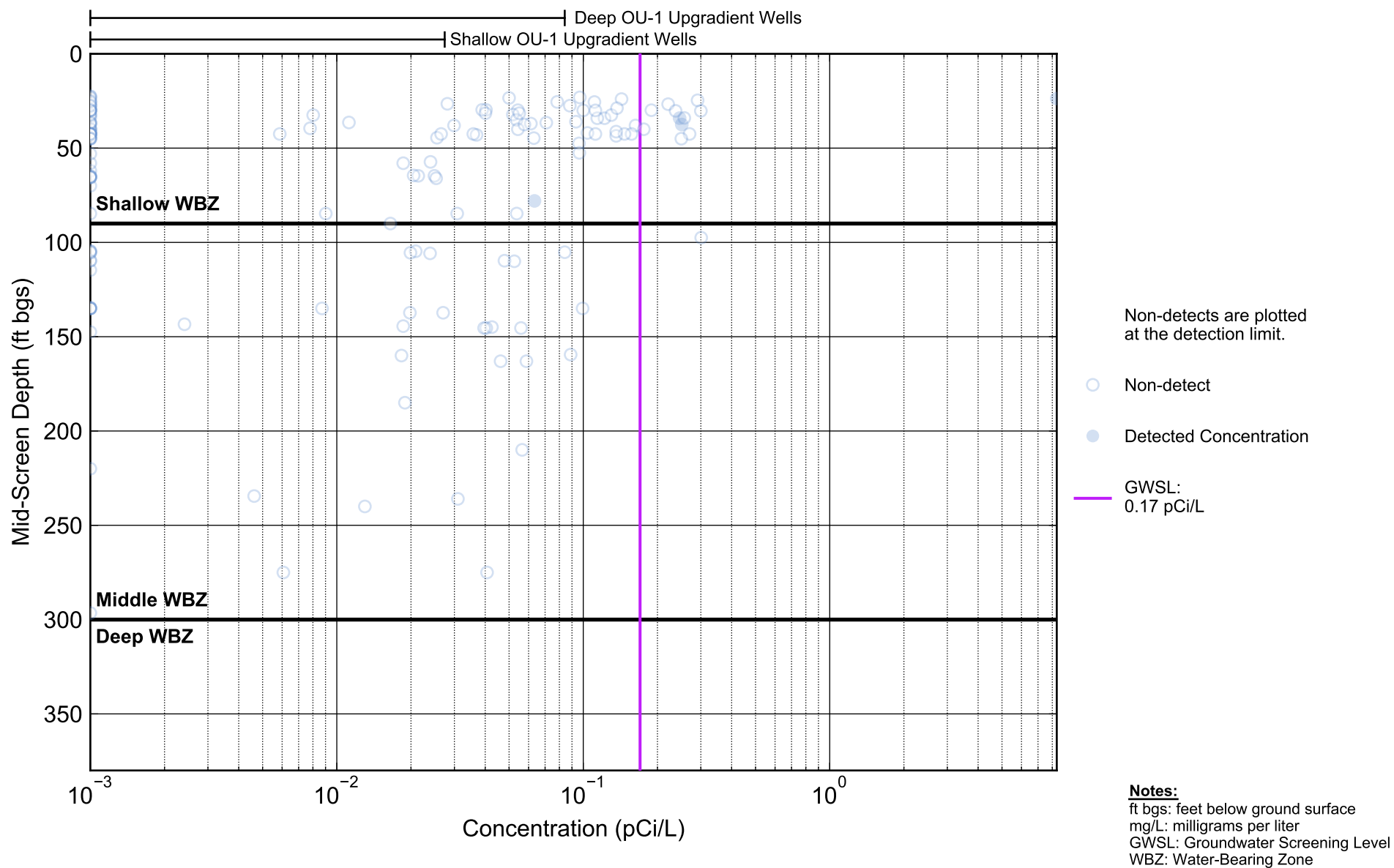
Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_2_aprx\Figure 7-71d Thorium-230 Upper Middle



Thorium-230 - Middle WBZ (130-300 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-71e

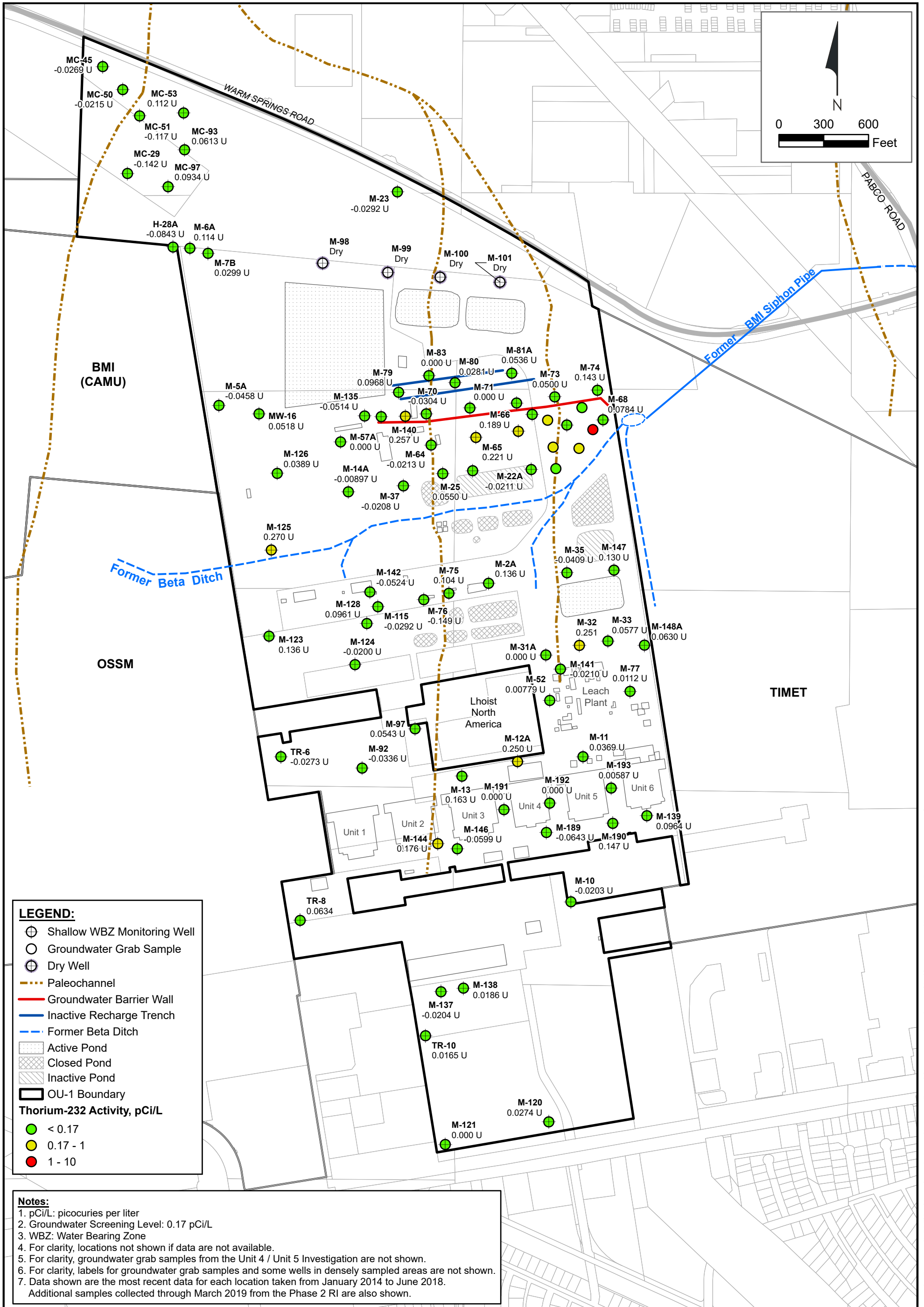
Path: H:\LePetomane\NERT\OU-1_OU-2 RI Report\Working_Folder\Groundwater Maps\2022_OU1\figures_2_aprx\Figure 7-71e Thorium-230 Lower Middle



OU-1 Thorium-232 Groundwater Concentrations vs. Sample Depth
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure

7-72a



Thorium-232 - Shallow WBZ (0-55 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-72b

Drafter: JC

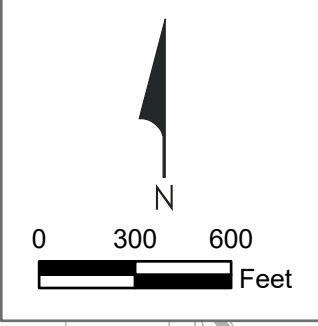
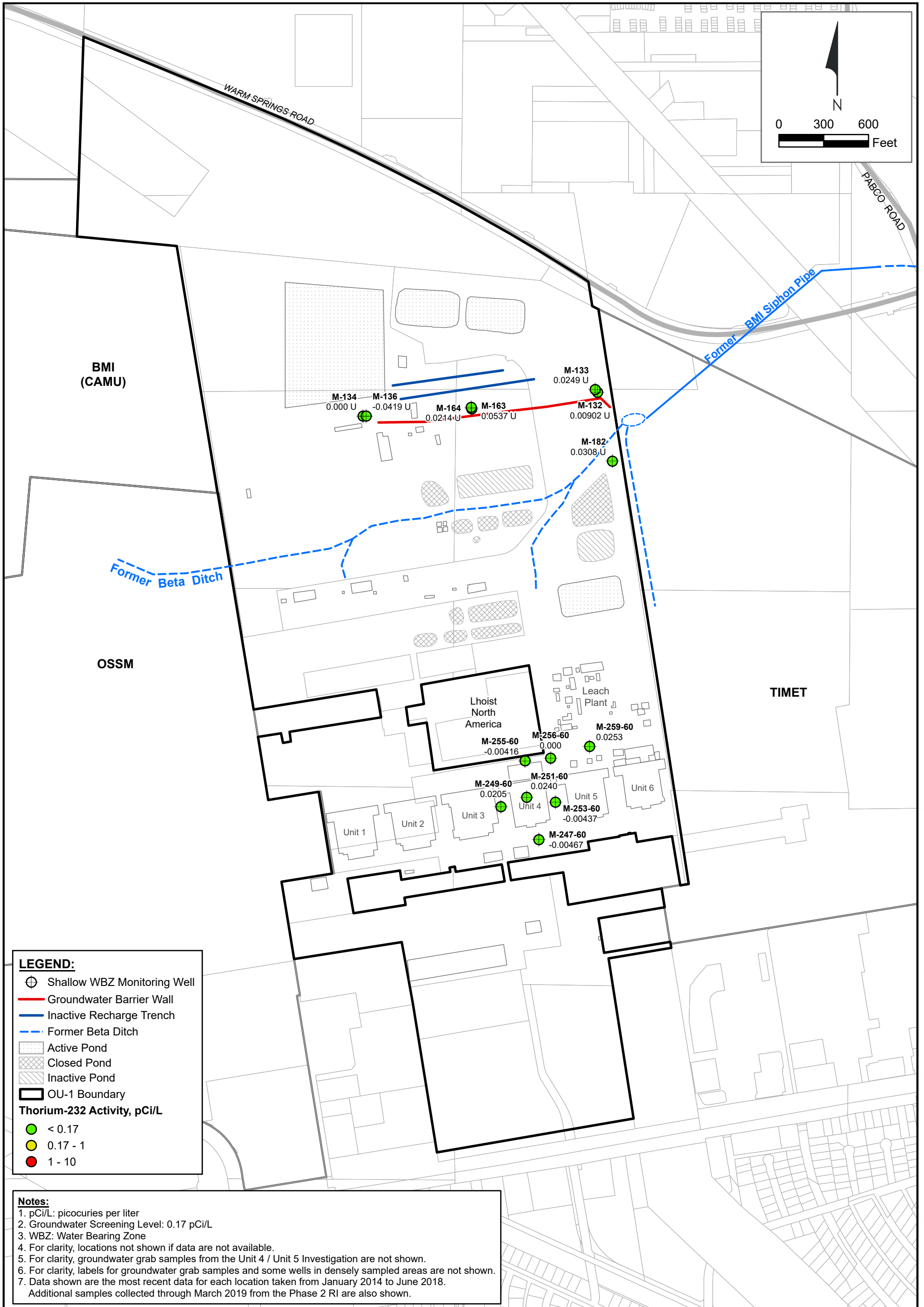
Date: 2023-01-11

Contract Number: 169002 9369

Approved by:

Revised:

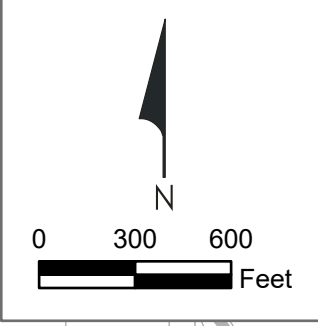
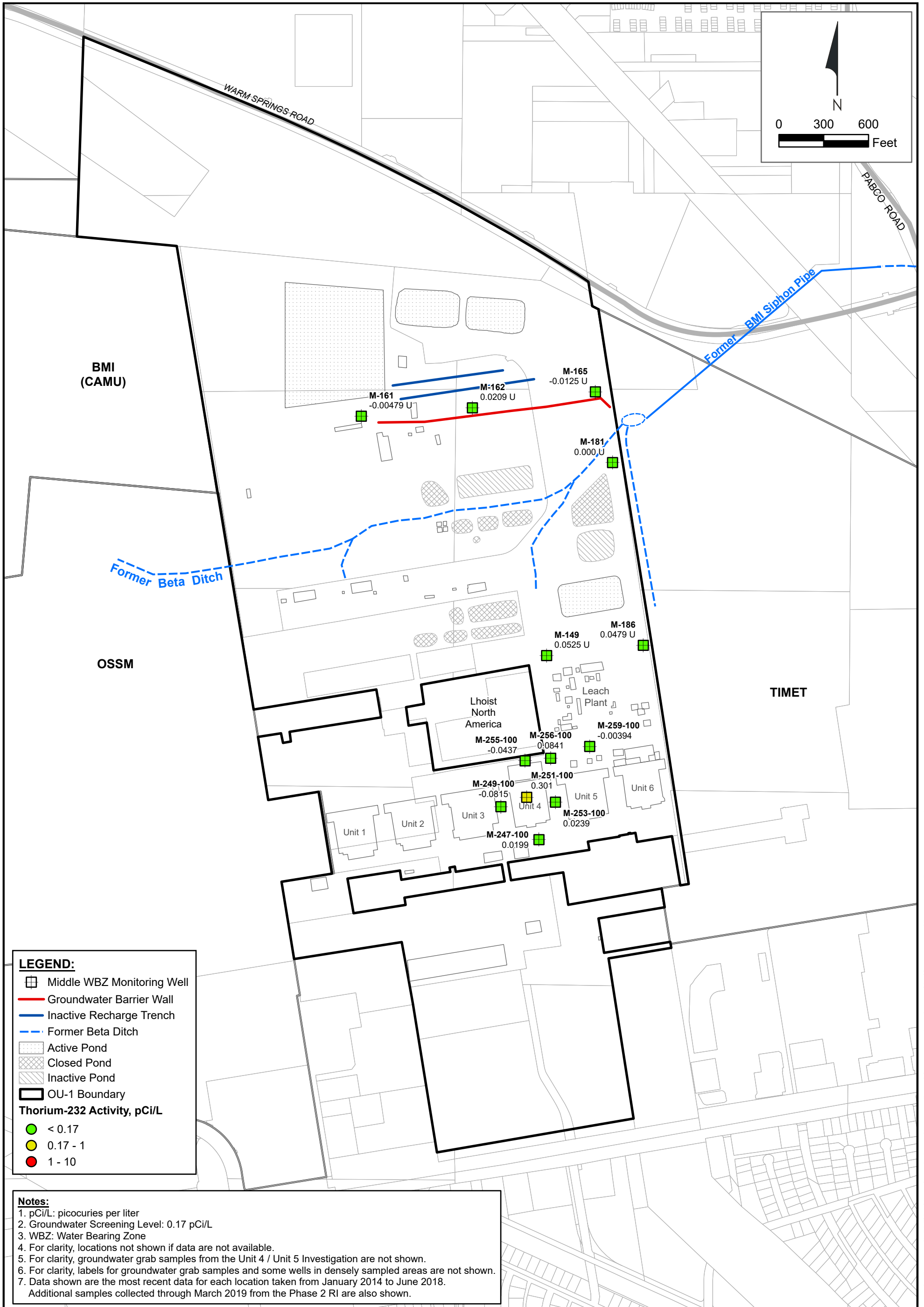
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Thorium-232 - Shallow WBZ (55-90 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-72c

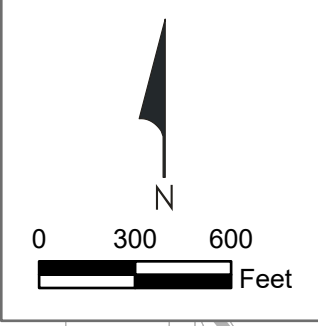
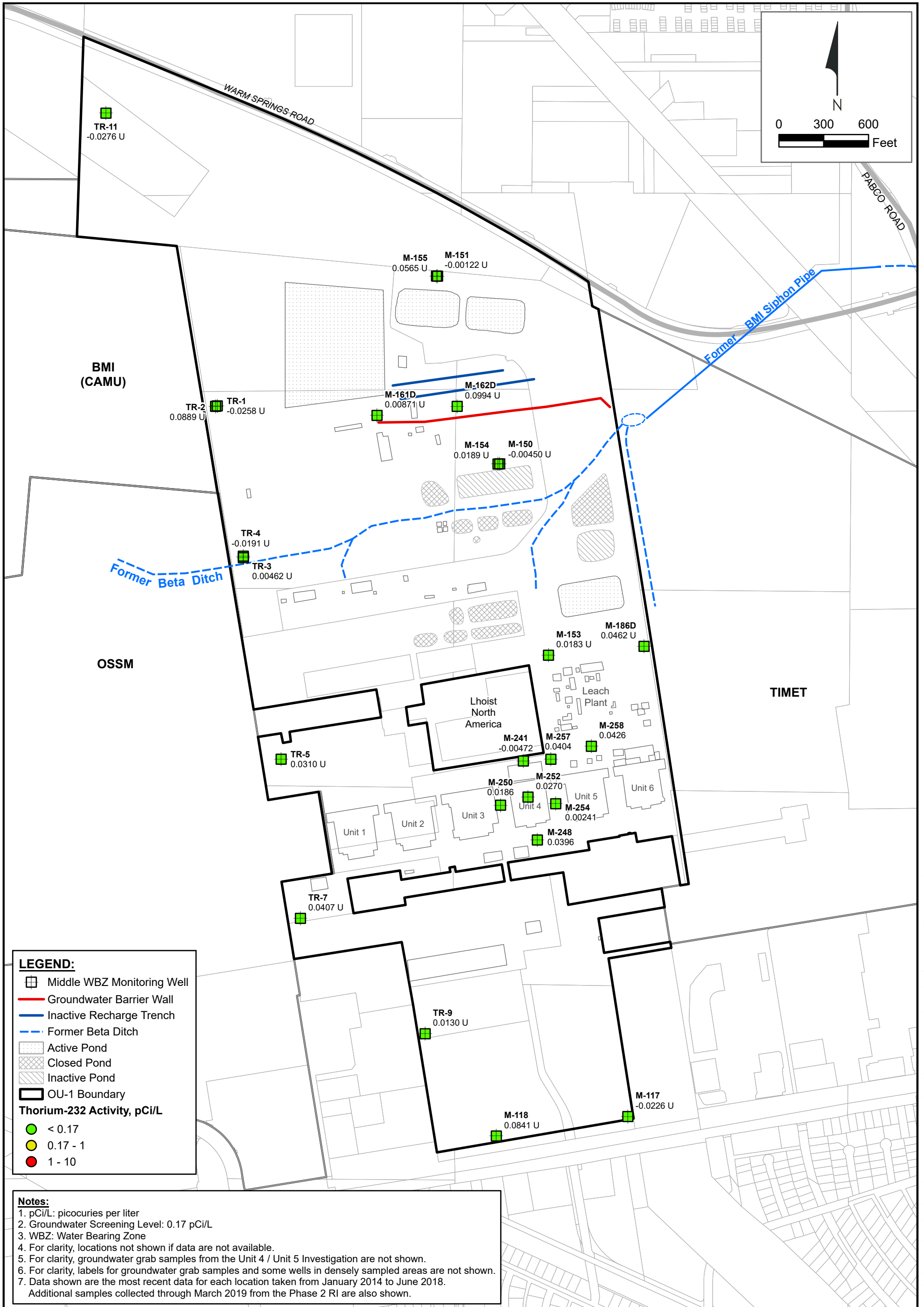
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Thorium-232 - Middle WBZ (90-130 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-72d

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Thorium-232 - Middle WBZ (130-300 ft bgs)
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
7-72e

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