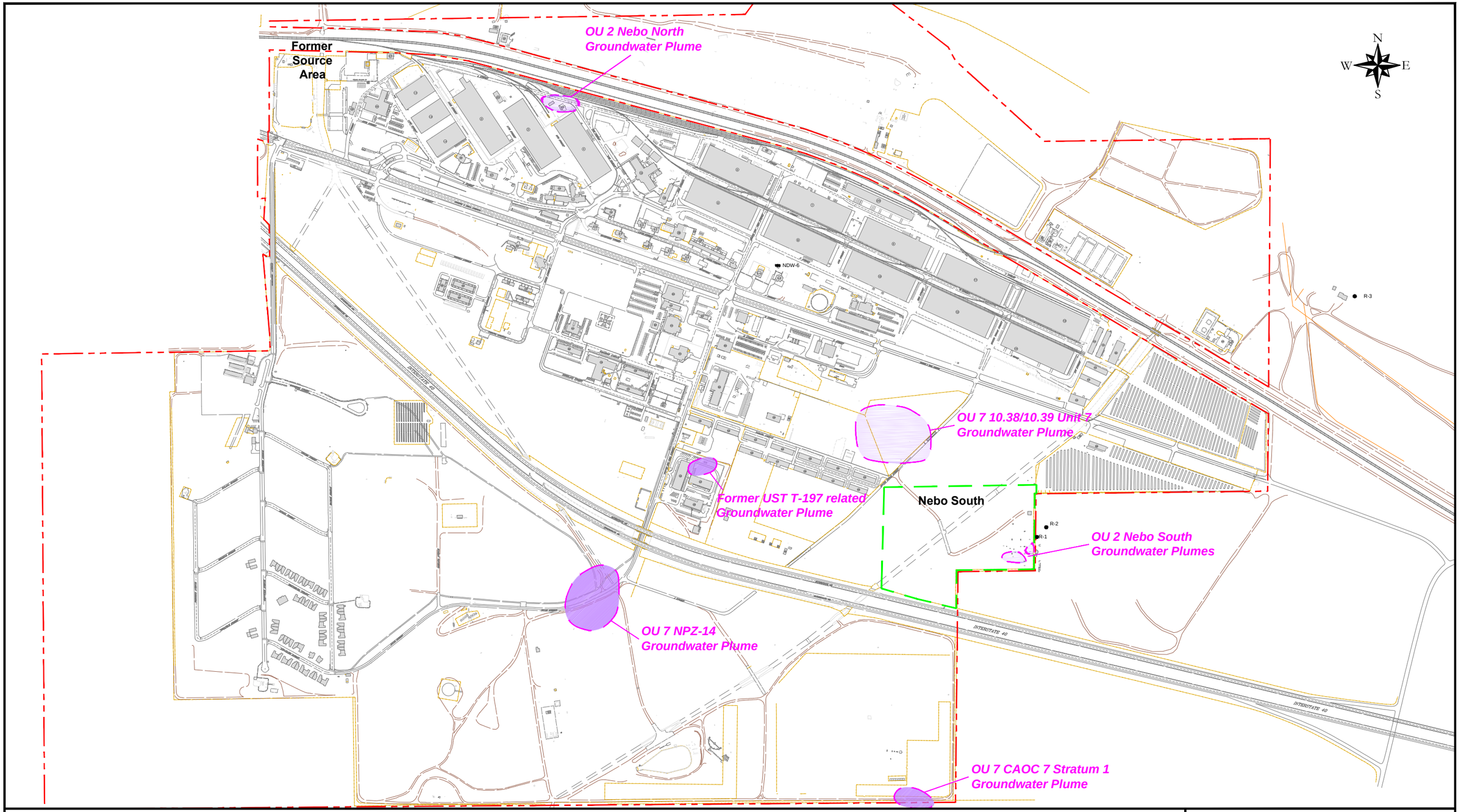


Legend

- Paved Road
- Dirt Road
- Railroad Tracks
- CAOC 6 Land Use Control Boundary
- Base Boundary
- NDW-6 — Base Groundwater Supply Well
- R-1 — Residential Well
- Approximate Groundwater VOC Plumes

Notes

1) Analytical results used to delineate the OU2 groundwater plumes are a combination of wells sampled during the November 2016 event.

Approximate Scale in Feet

0 800 1600

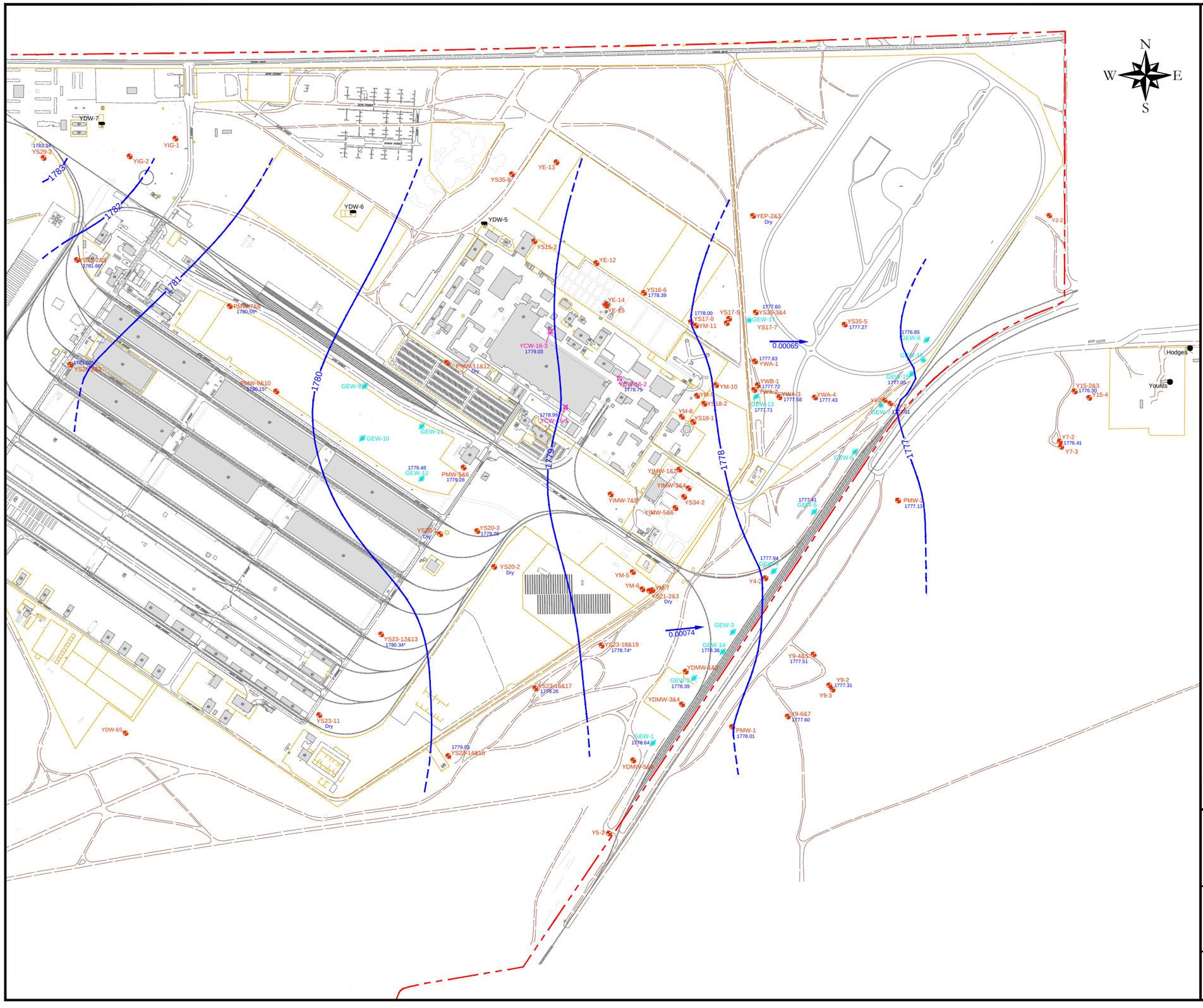
Figure 2-3
Groundwater VOC Plumes Extent
(November 2016)

Nebo Main Base
Marine Corps Logistics Base
Barstow, California

OTIE
An Oneida Nation Company

Date: June 19, 2017

File: Barstow_5yrRev - 2017.dwg



Legend

- Paved Road
- Dirt Road
- Railroad Tracks
- Fence Line
- Base Boundary
- Groundwater Elevation Contour, 1-foot Interval (Dashed Where Approximate)
- Groundwater Flow Direction (With Approximate Gradient in ft/ft)
- 1776.85 — Groundwater Elevation (ft above mean sea level)
- YMP-2 — Groundwater Monitoring Well
- YDW-6 — Base Groundwater Supply Well
- GEW-7 — Groundwater Extraction Well (Active)
- GEW-2 — Groundwater Extraction Well (Inactive)
- YCW16-1 — Combination Well
- Younts — Residential Well

Notes

1) Groundwater elevation contours were drawn using only monitoring wells with water levels within the screened interval. For nested wells that the shallow screen was "Dry", the elevation in the deep screen was used (noted with an *).
2) GEW-7, 16, & 17 were online during gauging.
3) ft/ft = feet per foot

Approximate Scale in Feet

0 800 1600

Figure 3-1
Groundwater Elevation Map
(October 2016)

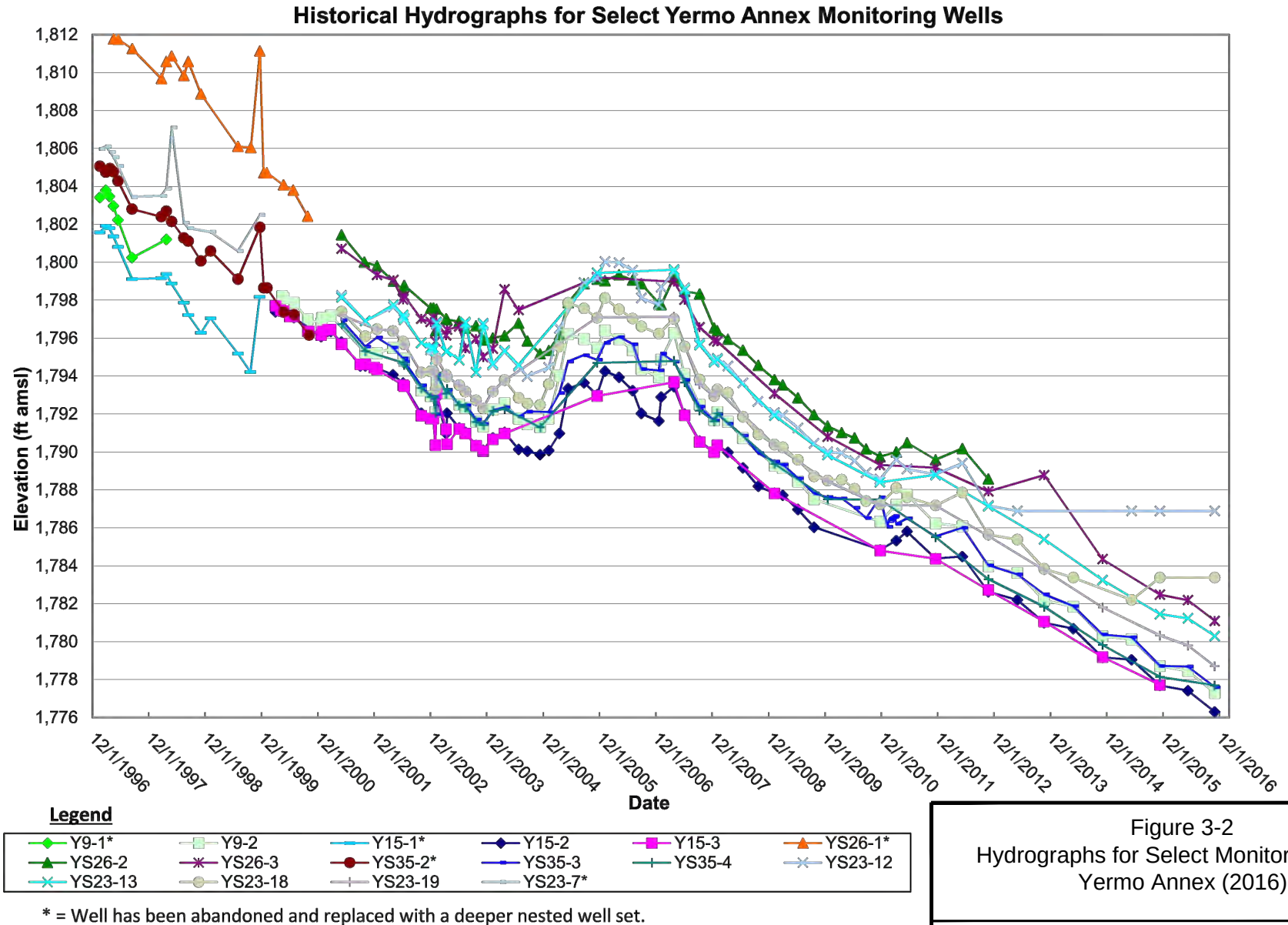
Yermo Annex
Marine Corps Logistics Base
Barstow, California

OTIE
An Oneida Nation Company

Date: June 19, 2017

File: Barstow_5yrRev - 2017.dwg

Plotted By: Adam Goldenberg



* = Well has been abandoned and replaced with a deeper nested well set.

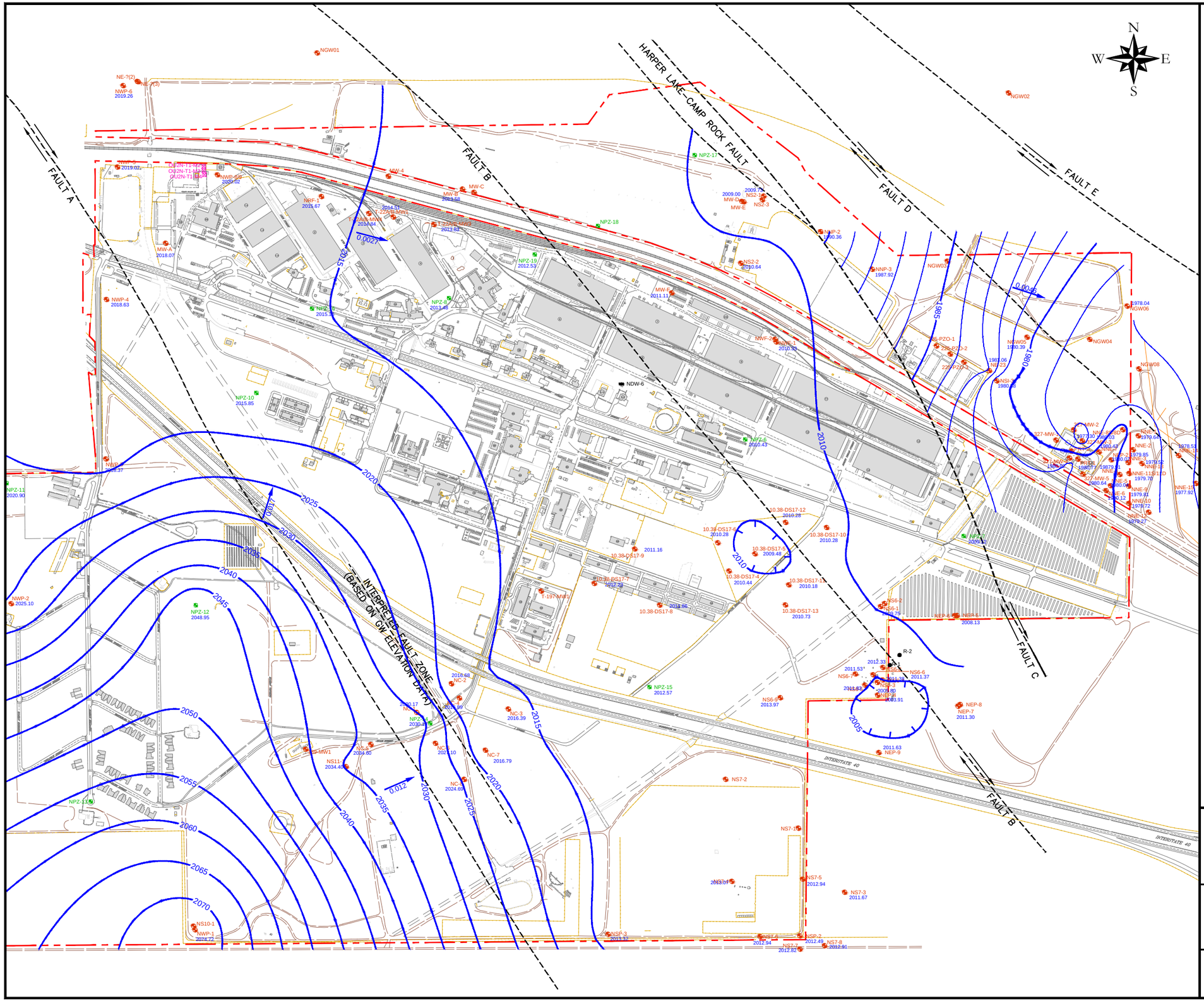
Figure 3-2
Hydrographs for Select Monitoring Wells,
Yermo Annex (2016)

Yermo Annex
Marine Corps Logistics Base
Barstow, California

OTIE
An Oneida Nation Company

Date: March 20, 2017

File: Barstow_Hgraphs.dwg



Legend

- Paved Road
- Dirt Road
- Railroad Tracks
- Fence Line
- Base Boundary
- Groundwater Elevation Contour (5-feet and 1-foot intervals)
- Groundwater Flow Direction (With Approximate Gradient in ft/ft)
- 1980.39 — Groundwater Elevation (ft above mean sea level)
- NEP-2 — Groundwater Monitoring Well
- NPZ-8 — Piezometer
- NDW-6 — Base Groundwater Supply Well
- Fault Traces (strike-slip)

Notes

1) Groundwater elevation contours were drawn using only monitoring wells with water levels within the screened interval.

2) ft/ft = feet per foot

Approximate Scale in Feet

0 800 1600

Figure 3-3
Nebo Main Base
Groundwater Elevation Map
(November 2016)

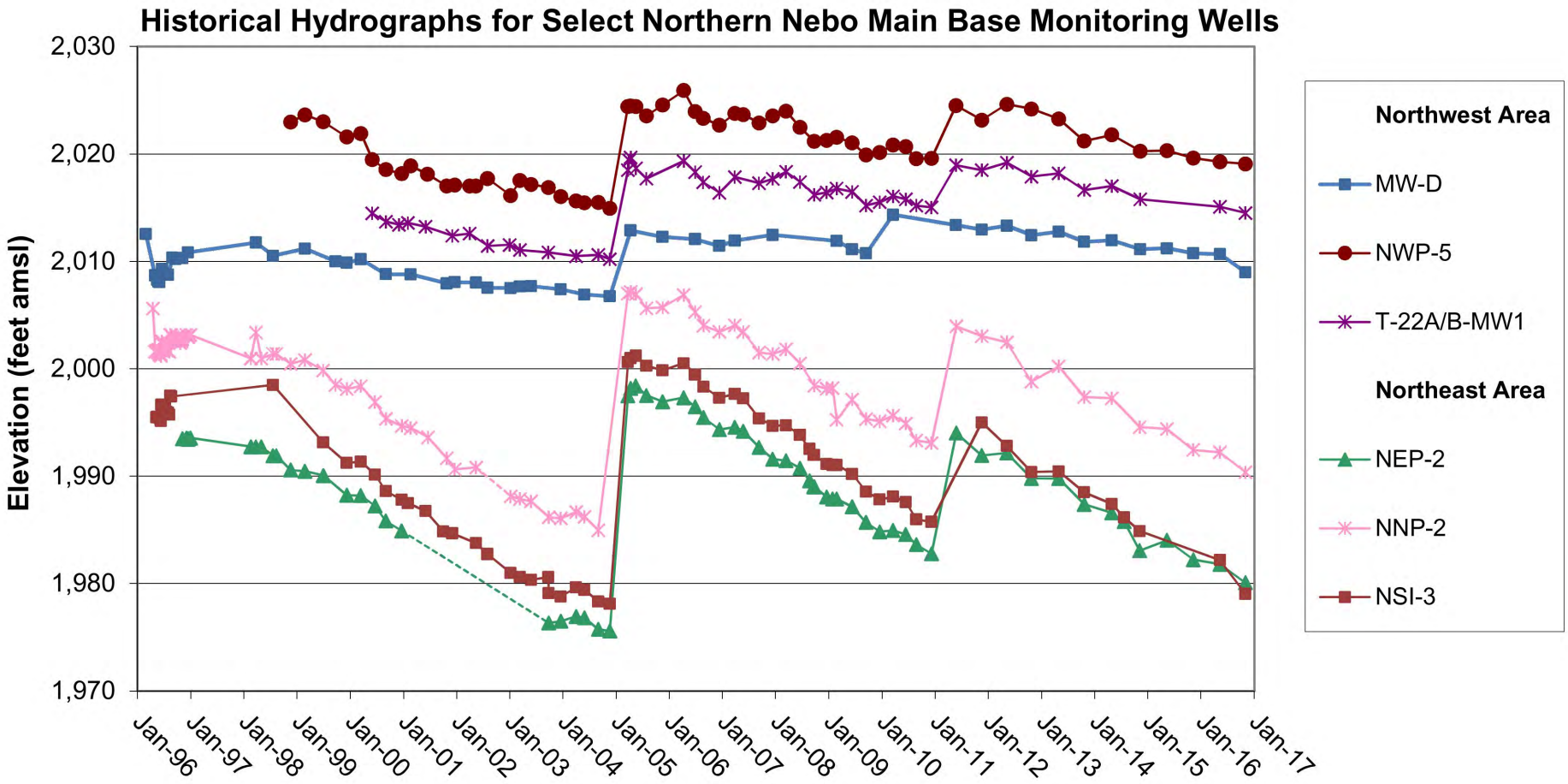
Nebo Main Base
Marine Corps Logistics Base
Barstow, California

OTIE
An Oneida Nation Company

Date: June 19, 2017

File: Barstow_5yrRev - 2017.dwg

Plotted By: Adam Goldenberg



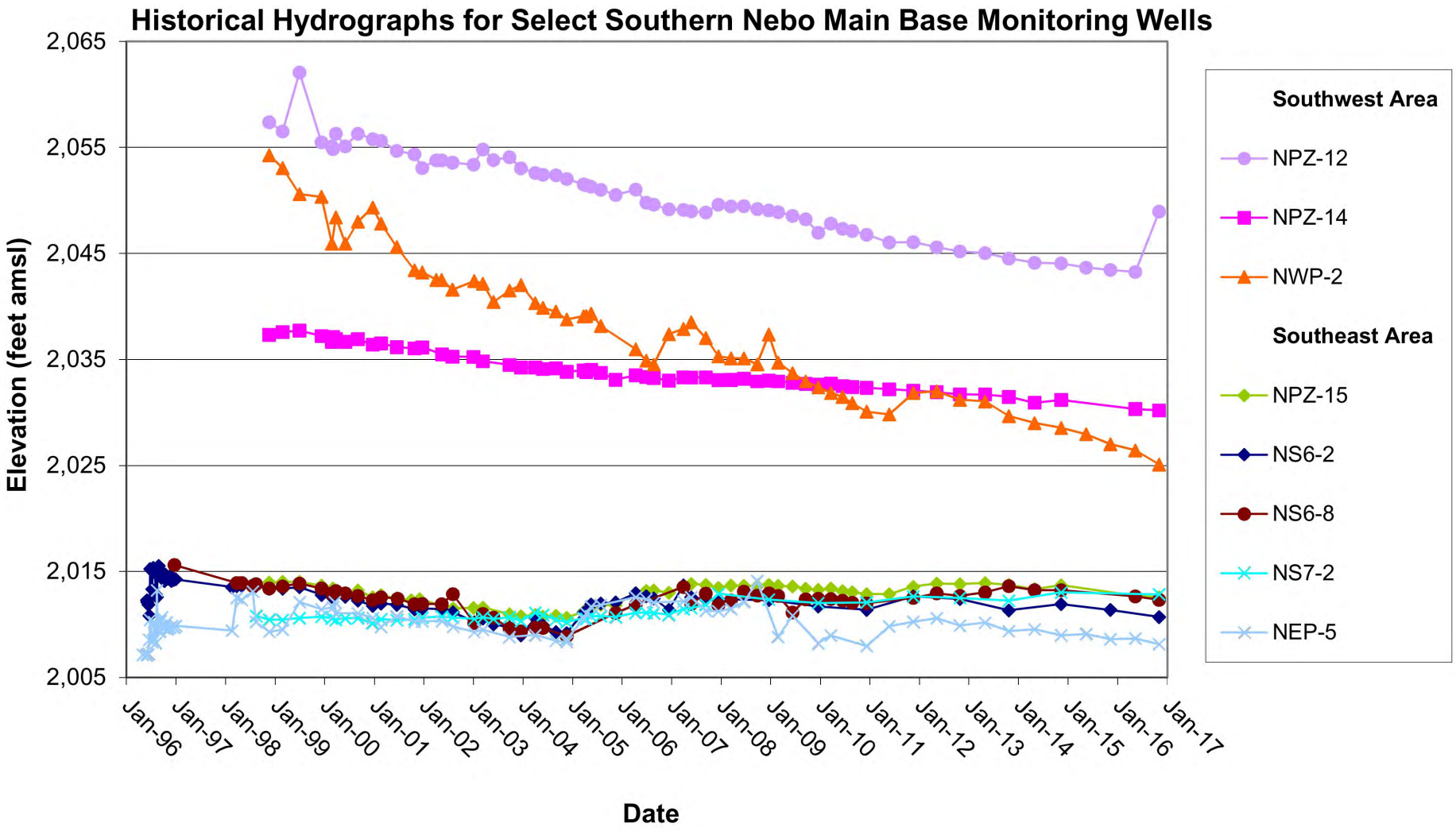


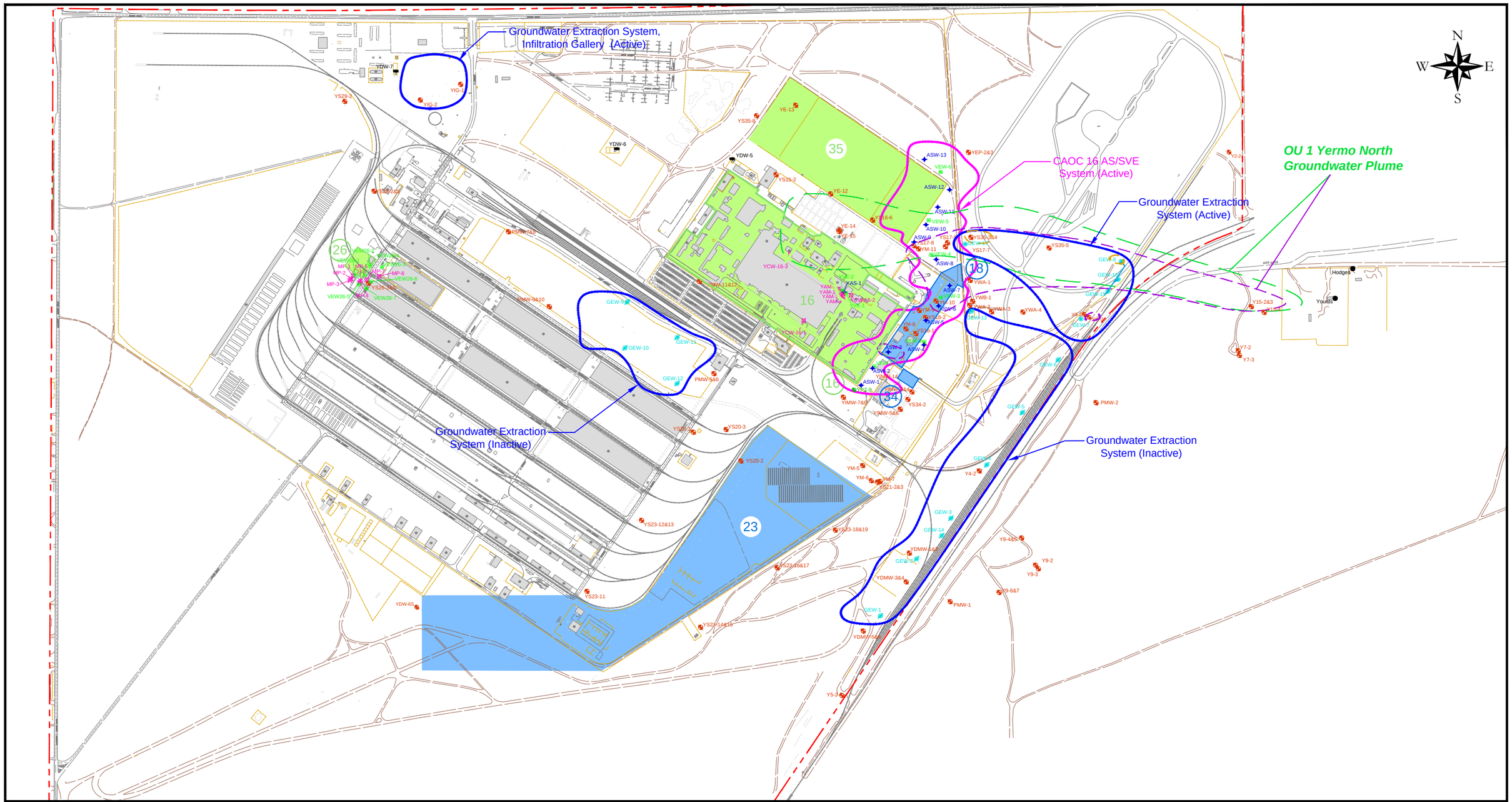
Figure 3-4
Hydrographs for Select Monitoring Wells,
Nebo Main Base (2016)

Yermo Annex
Marine Corps Logistics Base
Barstow, California

OTIE
An Oneida Nation Company

Date: March 20, 2017

File: Barstow HGraphs.dwg



Legend

- Paved Road
- Dirt Road
- Railroad Tracks
- Fence Line
- Base Boundary
- Operable Unit 3 (CAOC ##)
- Operable Unit 5 (CAOC ##)
- YS29-2 — Groundwater Monitoring Well
- YPZ-9 — Piezometer
- YDW-5 — Base Groundwater Supply Well
- GEW-7 — Groundwater Extraction Well (Active)
- GEW-2 — Groundwater Extraction Well (Inactive)
- VEW-1 — Vapor Extraction Well
- ASW-1 — Air Sparge Well
- YCW16-1 — Combination Well
- Younts — Residential Well
- 5 — Approximate TCE Isoconcentration Contour (ug/L)
- 50 — Approximate TCE Isoconcentration Contour (ug/L)
- 5 — Approximate PCE Isoconcentration Contour (ug/L)
- Groundwater Flow Direction

Notes

1) Analytical results shown in ug/L (micrograms per liter) for the wells sampled during the 2016 Annual Groundwater Monitoring Event.

2) TCE = Trichloroethene
PCE = Tetrachloroethene
DCE = 1,1-Dichloroethene
CAOC = CERCLA Area of Concern
CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act
OU = Operable Unit

Approximate Scale in Feet

0 900 1800

Figure 5-1
OU 1 (CAOC 37) Groundwater Plumes and Remediation Systems

Yermo Annex
Marine Corps Logistics Base
Barstow, California

OTIE
An Oneida Nation Company

Date: July 26, 2017

File: Barstow_5yrRev - 2017.dwg

Plotted By: Geoff Brink

N
W
E
S

Stratum 2
(NFA)

35

Zone 1 Cap
(Landfill)

Stratum 1
(Eastern Portion - NFA)

Building 573
(CAOC 16)

16

16

CAOC 16 Hardstand
Boundary

ASW-13
VEW-6
ASW-12
ASW-11
VEW-5
ASW-10
ASW-9
VEW-4
ASW-8
YVE-2
YAS-1
YVE-1
ASW-7
VEW-3
ASW-6
ASW-5
VEW-2
ASW-3
ASW-4
VEW-1
ASW-2
ASW-1

OU 1 Yermo North
Groundwater Plume

10TH STREET

Approximate Scale in Feet
0 300 600

Legend

- Operable Unit 5 (CAOC ##)
- Paved Road
- Dirt Road
- Railroad Tracks
- Fence Line
- Remediation Line
- VEW-1 Vapor Extraction Well
- ASW-1 Air Sparge Well
- 5 Approximate TCE Isoconcentration Contour (ug/L)
- 50 Approximate TCE Isoconcentration Contour (ug/L)
- 5 Approximate PCE Isoconcentration Contour (ug/L)

Notes

1) Analytical results shown in ug/L (micrograms per liter) for the wells sampled during the 2016 annual groundwater monitoring event.

2) CAOC = CERCLA Area of Concern
CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act
TCE = Trichloroethene
PCE = Tetrachloroethene
NFA = no further action

Figure 5-2
OU 5/OU 1 CAOC 16 AS/SVE System

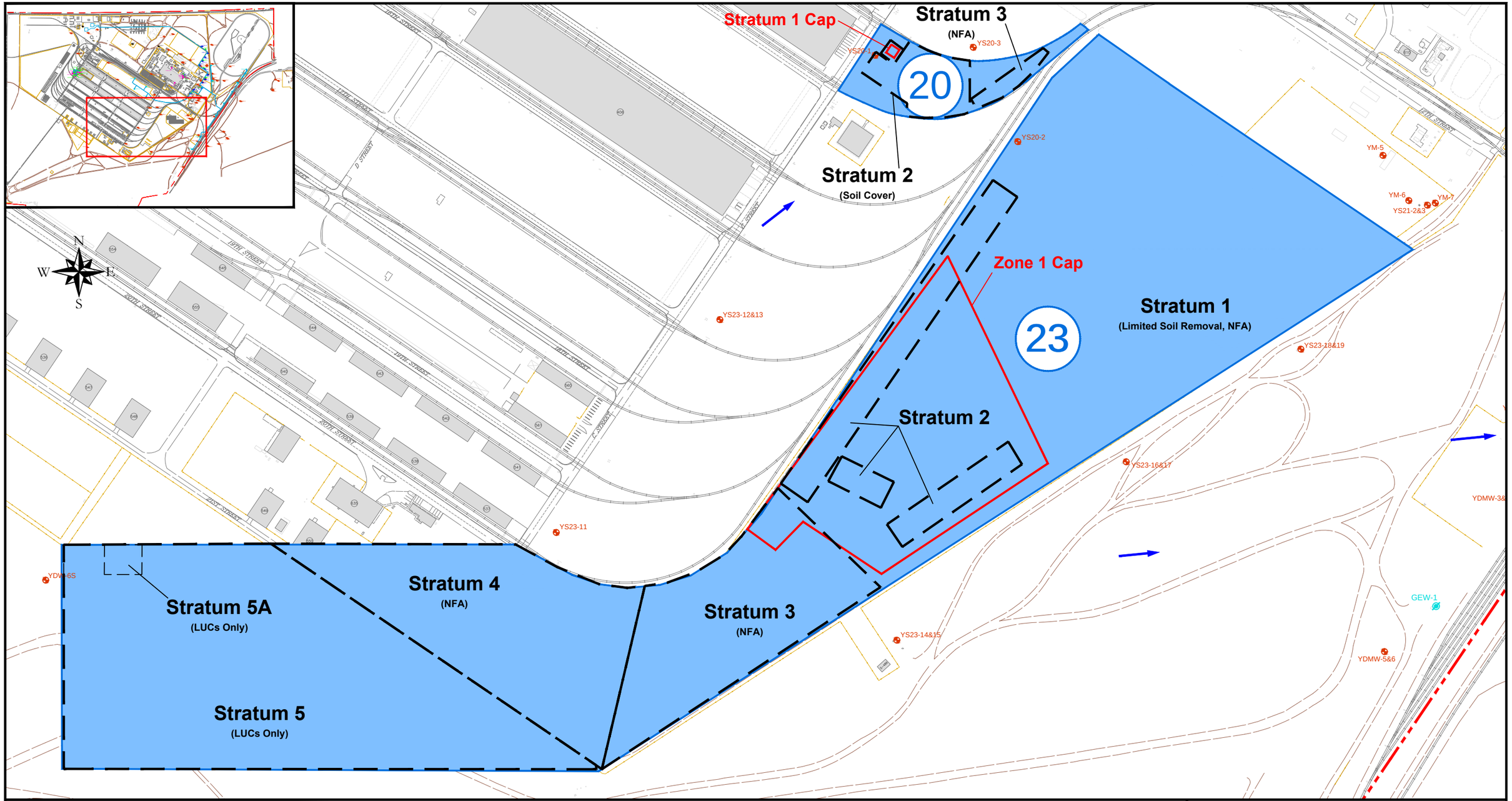
Yermo Annex
Marine Corps Logistics Base
Barstow, California

OTIE
An Oneida Nation Company

Date: July 26, 2017

File: Barstow_5yrRev - 2017.dwg

Plotted By: Geoff Brink



Legend

- Paved Road
- Dirt Road
- Railroad Tracks
- Fence Line
- Remediation Line
- Operable Unit 3 (CAOC ##)
- YS23-11 Groundwater Monitoring Well
- ASW-1 Air Sparge Well
- GEW-1 Groundwater Extraction Well (Inactive)
- Base Boundary
- Concrete Cap
- Groundwater Flow Direction

Notes

1) CAOC - CERCLA Area of Concern
CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act
LUCs = land use controls
NFA = no further action

Approximate Scale in Feet

0 300 600

Figure 5-3
OU 3 CAOCs 20 and 23

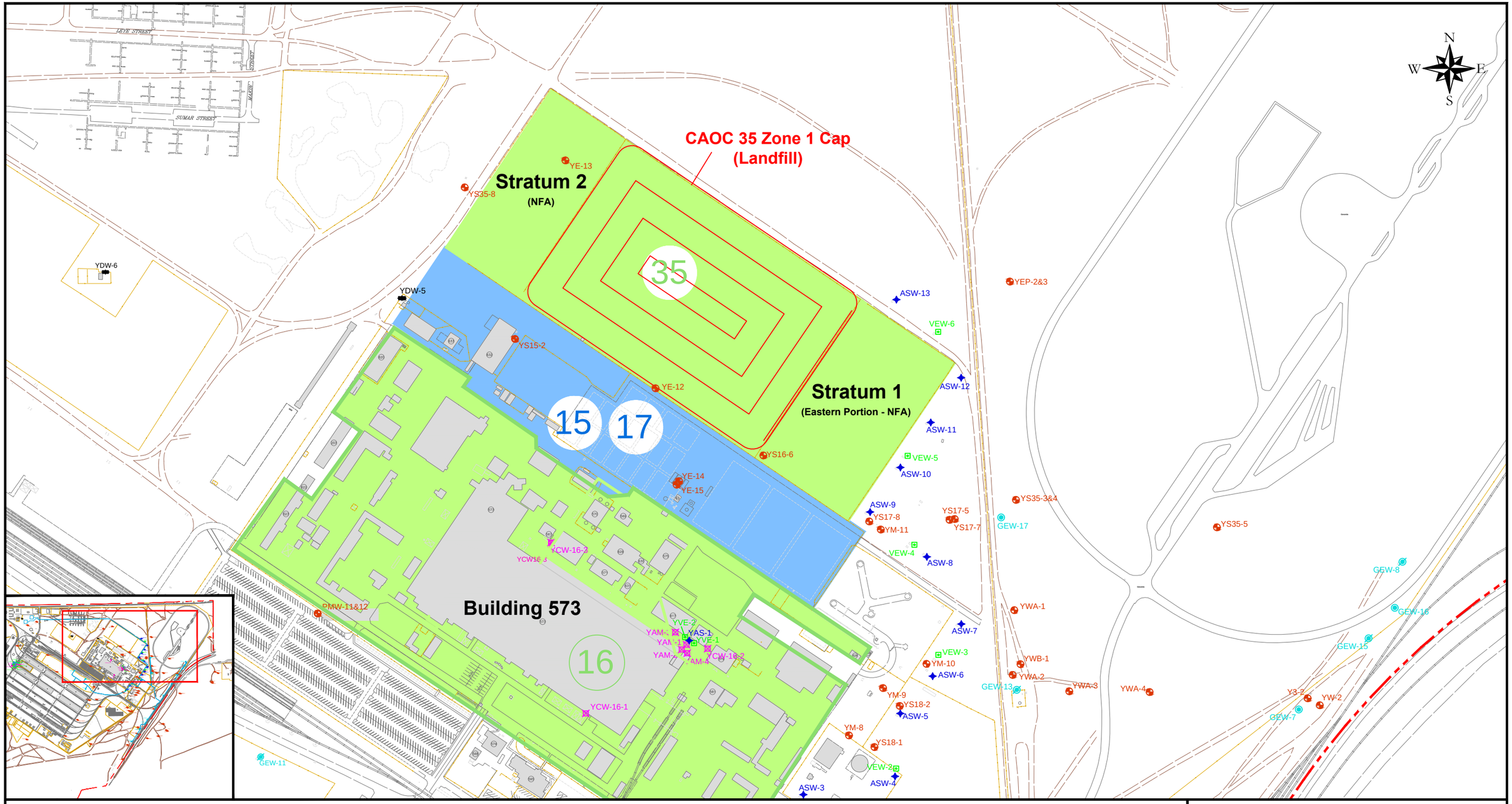
Yermo Annex
Marine Corps Logistics Base
Barstow, California

OTIE
An Oneida Nation Company

Date: July 26, 2017

File: Barstow_5yrRev - 2017.dwg

Plotted By: Geoff Brink



Legend

- Paved Road
- Dirt Road
- Railroad Tracks
- Fence Line
- Remediation Line
- Base Boundary
- Operable Unit 3 (CAOC ##)
- Operable Unit 5 (CAOC ##)

- YWA-2 Groundwater Monitoring Well
- YPZ-9 Piezometer
- GEW-16 Groundwater Extraction Well (Active)
- GEW-5 Groundwater Extraction Well (Inactive)
- VEW-1 Vapor Extraction Well
- ASW-1 Air Sparge Well
- YCW16-1 Combination Well

Notes

1) CAOC 35 Zone 1 comprises the western portion of Stratum 1, with a remedy of a soil and gravel cap, plus land use controls (LUCs). Strata 1 (eastern portion) and 2 were closed with no further action (NFA).

2) CAOC - CERCLA Area of Concern
CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act

Approximate Scale in Feet

0 350 700

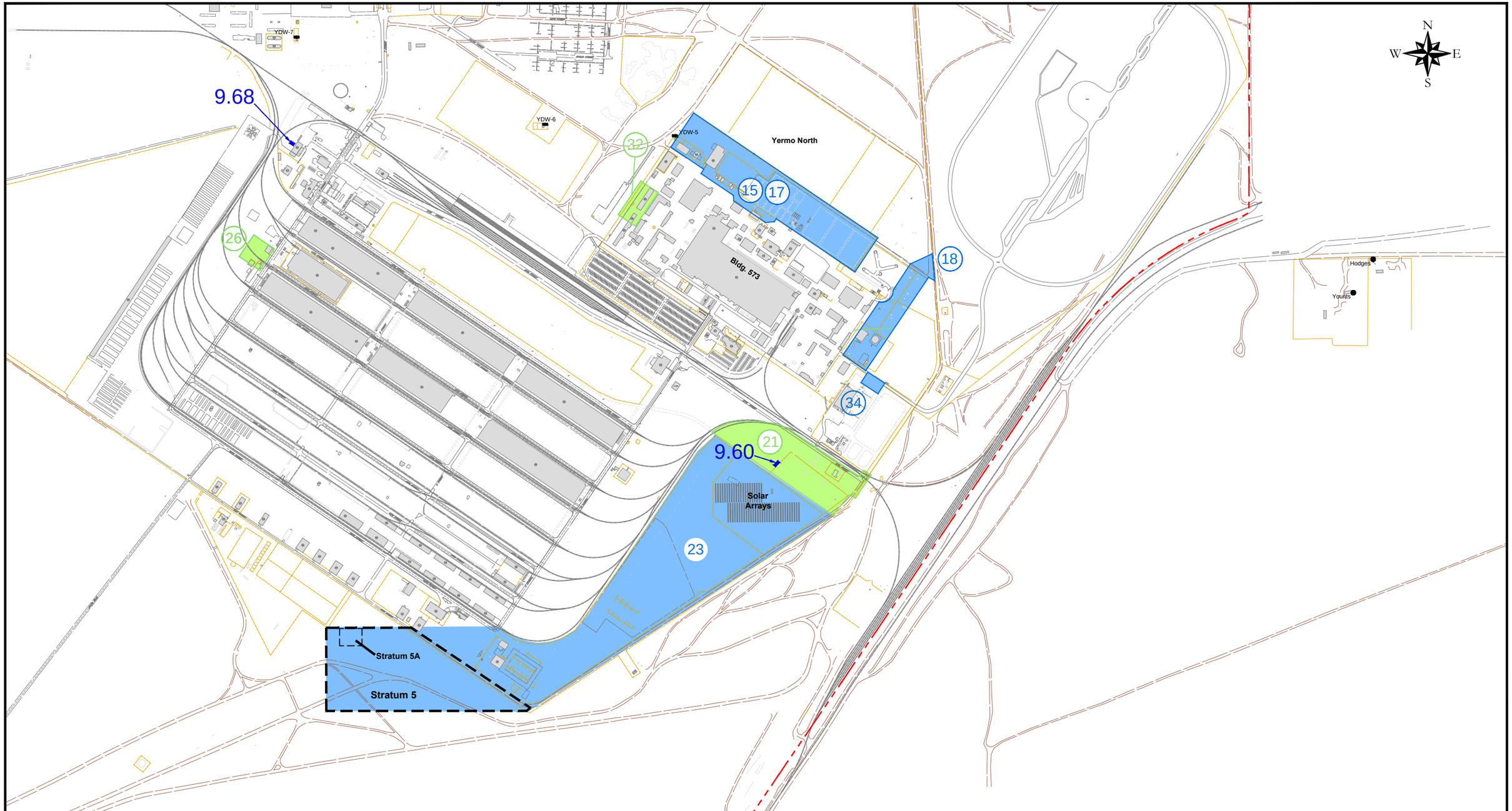
Figure 5-4
OU 5 CAOC 35

Yermo Annex
Marine Corps Logistics Base
Barstow, California

OTIE
An Otie Nation Company

Date: July 26, 2017

File: Barstow_5yrRev - 2017.dwg
Plotted By: Geoff Brink



Legend

- Paved Road
- Dirt Road
- Railroad Tracks
- Base Boundary
- Operable Unit 3 (CAOC ##)
- Operable Unit 5 (CAOC ##)

Notes

1) CAOC = CERCLA Area of Corcern
   CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act
   LUCs = Land Use Controls
2) CAOCs 9.60 and 9.68 are under OU 7

Approximate Scale in Feet

0 800 1600

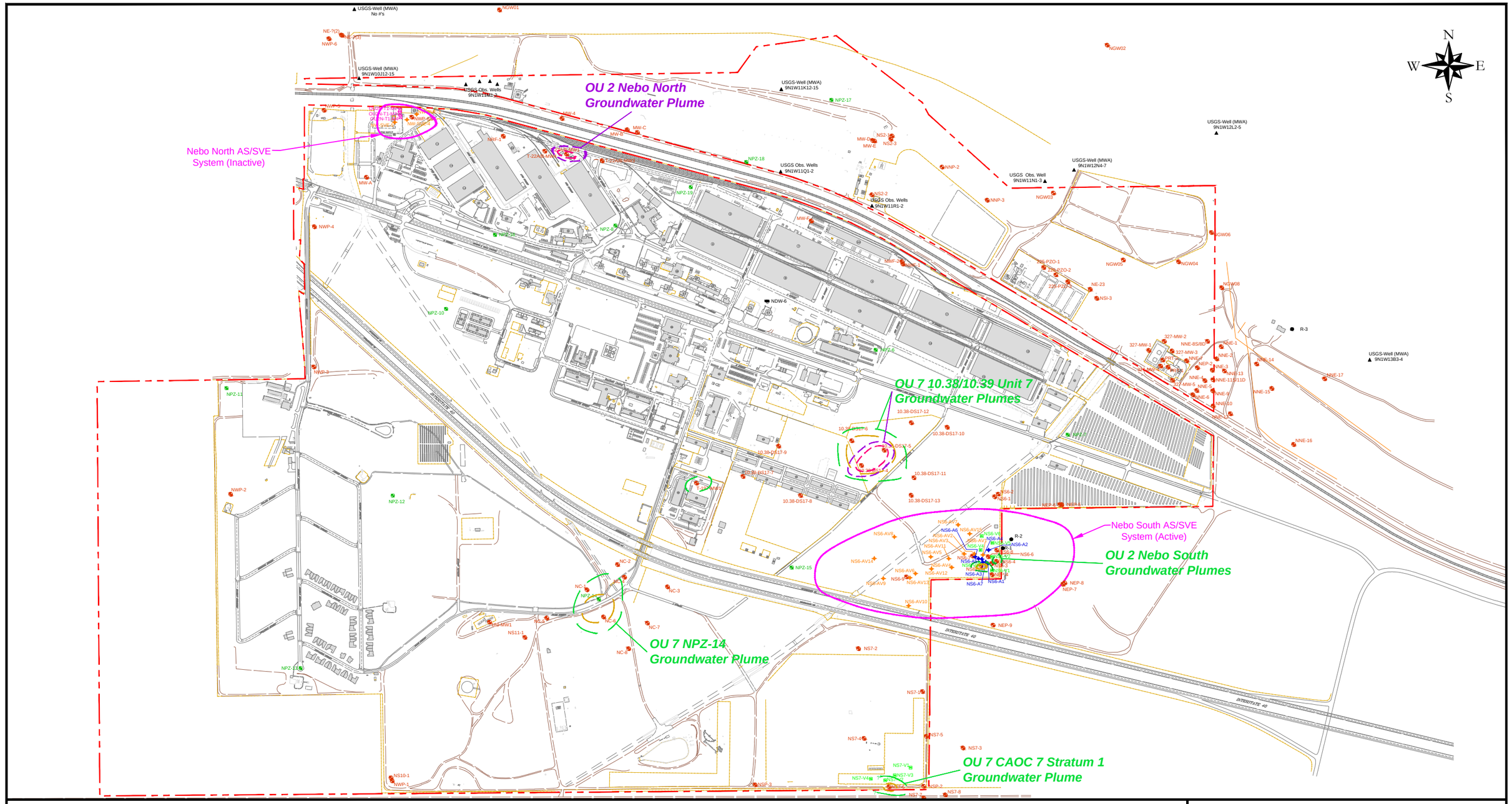
Figure 5-5
CAOCs 15/17, 18, 21, 23, 26, 32, 34, 9.60, and 9.68: LUCs Only Sites

Yermo Annex
Marine Corps Logistics Base
Barstow, California

OTIE

Date: July 26, 2017

File: Barstow_5yrRev - 2017.dwg



Legend

Paved Road	NS6-V4 — Vapor Extraction Well
Dirt Road	NS6-A7 — Air Sparge Well
Railroad Tracks	NS6-AV7 — Vapor Extraction/Air Sparge Well
Fence Line	▲ 9N1W-11K6 — USGS Well
Base Boundary	● R-1 — Residential Well
NEP-2 — Groundwater Monitoring Well	5 — Approximate TCE Isoconcentration Contour (ug/L)
NPZ-8 — Piezometer	10 — Approximate TCE Isoconcentration Contour (ug/L)
NDW-6 — Base Groundwater Supply Well	5 — Approximate PCE Isoconcentration Contour (ug/L)
	10 — Approximate PCE Isoconcentration Contour (ug/L)

Notes

1) Analytical results shown in ug/L (micrograms per liter) are a from wells sampled during the November 2016 event.

2) TCE = Tricholoethene
PCE = Tetrachloroethene
DCE = 1,1-Dichloroethene
CAOC - CERCLA Area of Concern
CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act
OU = Operable Unit

Approximate Scale in Feet

0 900 1800

Figure 6-1
OU 2 and OU 7 Groundwater Plumes and Remediation Systems

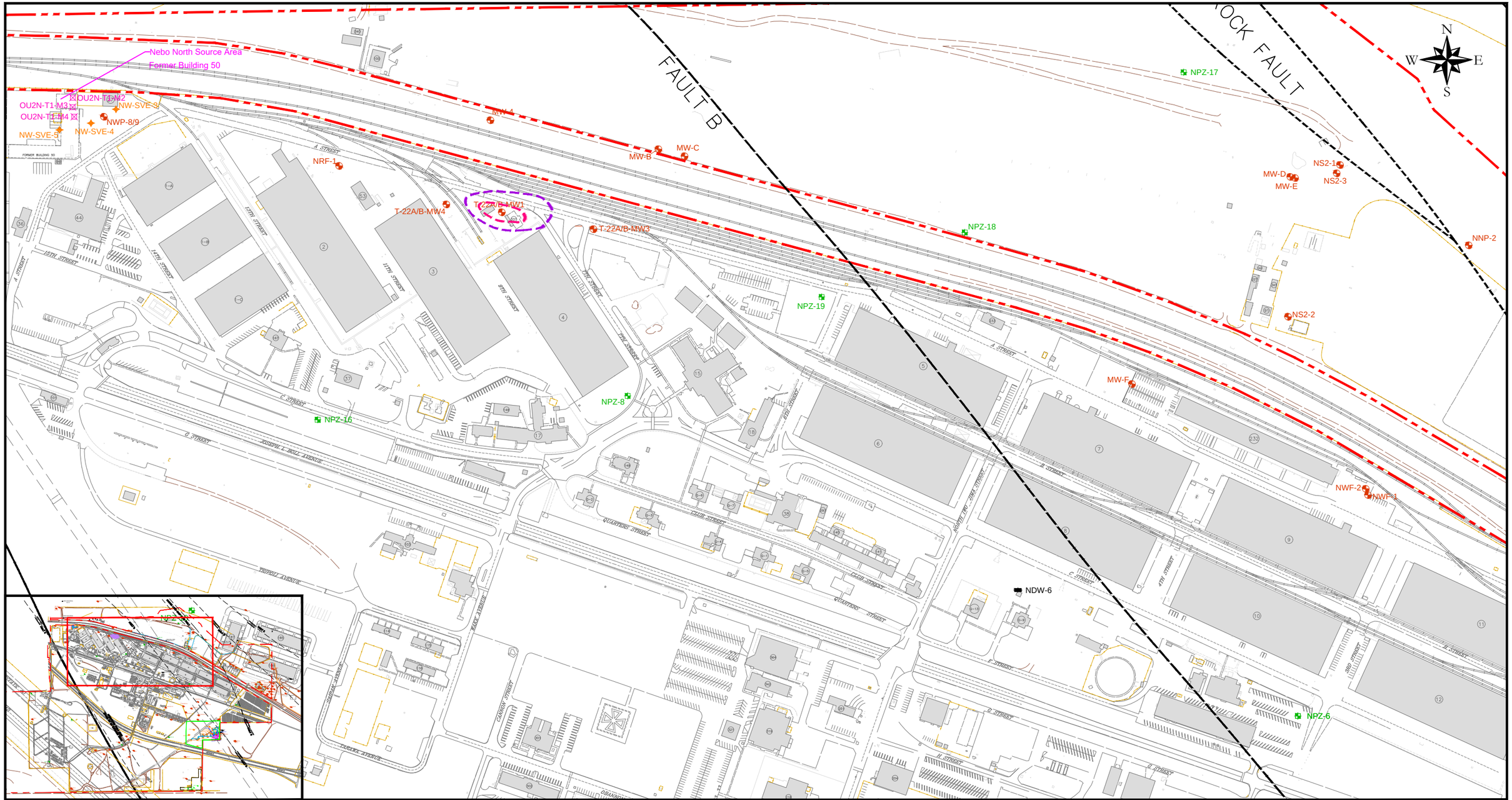
Nebo Main Base
Marine Corps Logistics Base
Barstow, California

OTIE An Oneida Nation Company

Date: June 19, 2017

File: Barstow_5yrRev - 2017.dwg

Plotted By: Adam Goldenberg



Legend

Paved Road	MW-B	Groundwater Monitoring Well
Dirt Road	NPZ-8	Piezometer
Railroad Tracks	NDW-6	Base Groundwater Supply Well
Fence Line	EW-B	Groundwater Extraction Well (Inactive)
Base Boundary	NW-SVE-3	Vapor Extraction Well
Fault Traces (strike-slip)	OU2N-T1-M2	Combination Well
	5	Approximate PCE Isoconcentration Contour (ug/L)
	10	Approximate PCE Isoconcentration Contour (ug/L)

Notes

1) Analytical results shown in ug/L (micrograms per liter) for the wells sampled during the 2016 Annual Groundwater Monitoring Event.
2) The highest detection is reported when a duplicate sample is collected.
3) TCE = Trichloroethene
   PCE = Tetrachloroethene
   MCL = Maximum Contaminant Level
   ft bgs = feet below ground surface

Approximate Scale in Feet

0 350 700

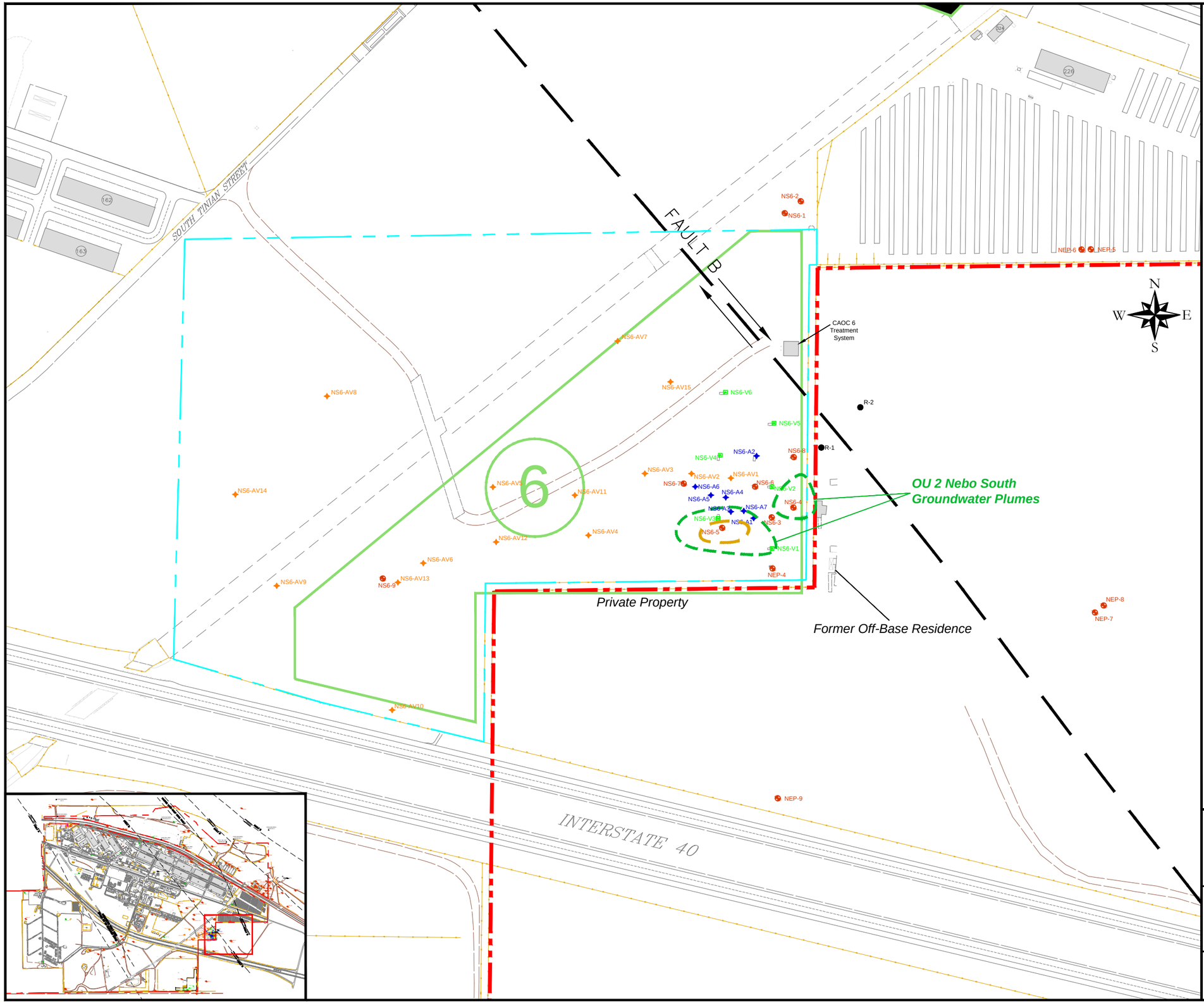
Figure 6-2
OU 2 Nebo North Source Area and Groundwater Plume (November 2016)

Nebo Main Base
Marine Corps Logistics Base
Barstow, California

OTIE
An Oneida Nation Company

Date: March 27, 2017

File: Barstow_5yrRev - 2017.dwg
Plotted By: Mario Camacho



Legend

- Paved Road
- Dirt Road
- Fence Line
- Base Boundary
- Nebo South Land Use Control Boundary
- NS6-1 — Groundwater Monitoring Well
- NS6-V4 — Vapor Extraction Well
- NS6-A7 — Air Sparge Well
- NS6-AV7 — Air Sparge/Vapor Extraction Well
- R-1 — Residential Well
- 5 — Approximate TCE Isoconcentration Contour (ug/L)
- 10 — Approximate TCE Isoconcentration Contour (ug/L)
- Fault Traces (strike-slip)

Notes

1) Analytical results shown in ug/L (micrograms per liter) for the wells sampled during the 2016 Annual Groundwater Monitoring Event.
2) The highest detection is reported when a field duplicate is collected.
3) AS/SVE = Air Sparge / Soil Vapor Extraction
   TCE = Trichloroethene
   CAOC = CERCLA Area of Concern
   CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act

Approximate Scale in Feet

0 200 400

Figure 6-3
OU 2 Nebo South AS/SVE System and 2016 TCE Plumes

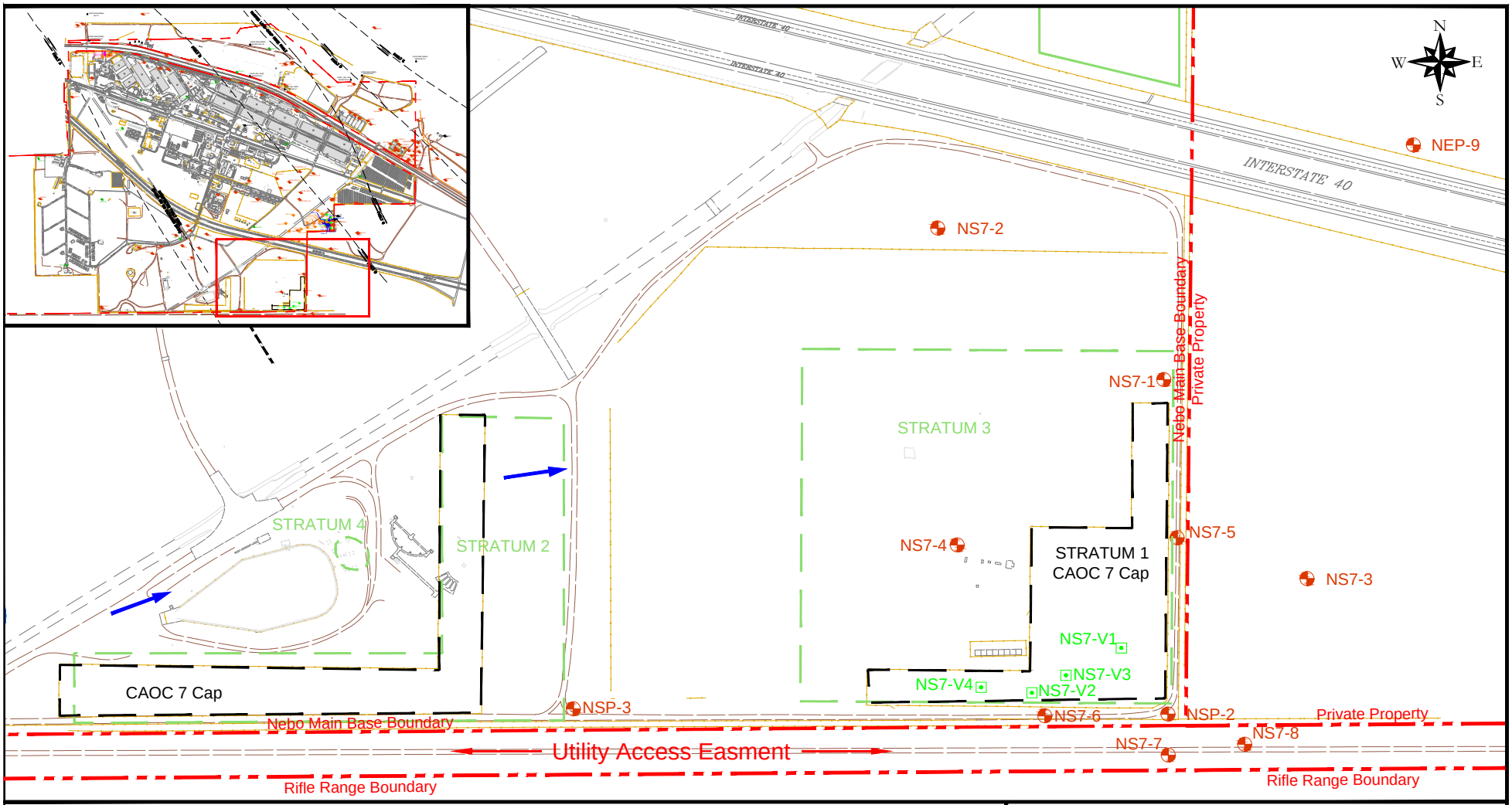
Nebo Main Base
Marine Corps Logistics Base
Barstow, California

OTIE
An Oneida Nation Company

Date: June 19, 2017

File: Barstow_5yrRev - 2017.dwg

Plotted By: Adam Goldenberg



Legend

- Paved Road
- Dirt Road
- Fence Line
- Base Boundary
- CAOC 7 Boundary
- NSP-3 — Groundwater Monitoring Well
- NS7-V1 — Vapor Extraction Well
- Groundwater Flow Direction

Notes

1) CAOC - CERCLA Area of Concern
CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act

Approximate Scale in Feet

0 400 800

Figure 6-4
OU 6 CAOC 7 Strata 1 - 4

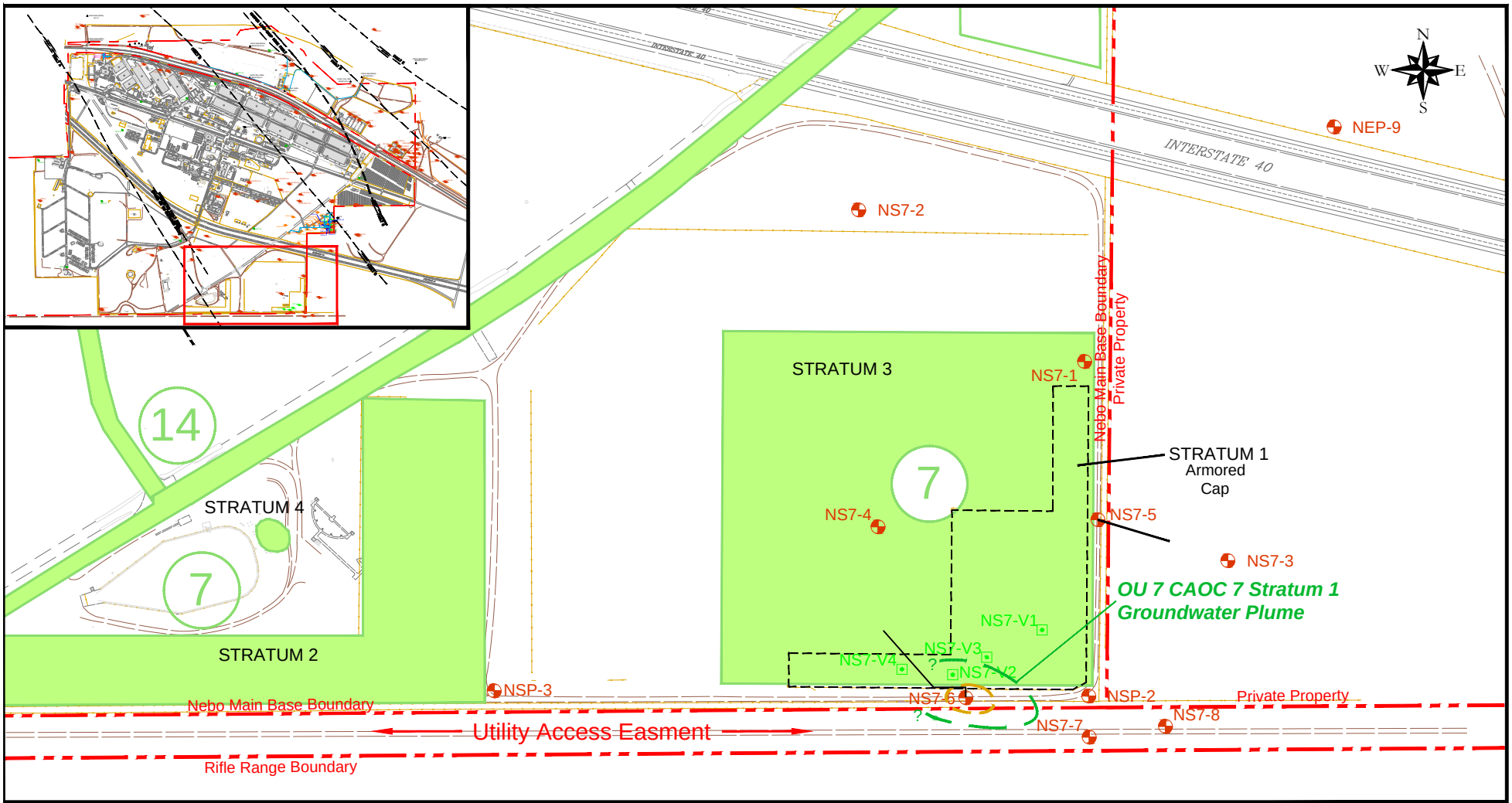
Nebo Main Base
Marine Corps Logistics Base
Barstow, California

OTIE
An Oneida Nation Company

Date: June 19, 2017

File: Barstow_5yrRev - 2017.dwg

Plotted By: Adam Goldenberg



Legend

- Paved Road
- Dirt Road
- Fence Line
- Base Boundary
- Operable Unit 6 (CAOC 7)
- NSP-3 — Groundwater Monitoring Well
- NS7-V1 — Vapor Extraction Well
- 5 — Approximate TCE Isoconcentration Contour (ug/L)
- 10 — Approximate TCE Isoconcentration Contour (ug/L)
- Stratum 1 Armored Cap Boundary

Acronyms

COC = contaminant of concern
TCE = Trichloroethene
ft bgs = feet below ground surface
U = Not Detected (value indicates detection limit)
OU = operable unit
CAOC - CERCLA Area of Concern
CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act

Approximate Scale in Feet

0 400

Figure 6-5
OU 7, CAOC 7 Groundwater
TCE Plume (2016)

Nebo Main Base
Marine Corps Logistics Base
Barstow, California

OTIE
An Oneida Nation Company

Date: May 5, 2017

File: Barstow_A16.dwg

Plotted By: Geoff Brink