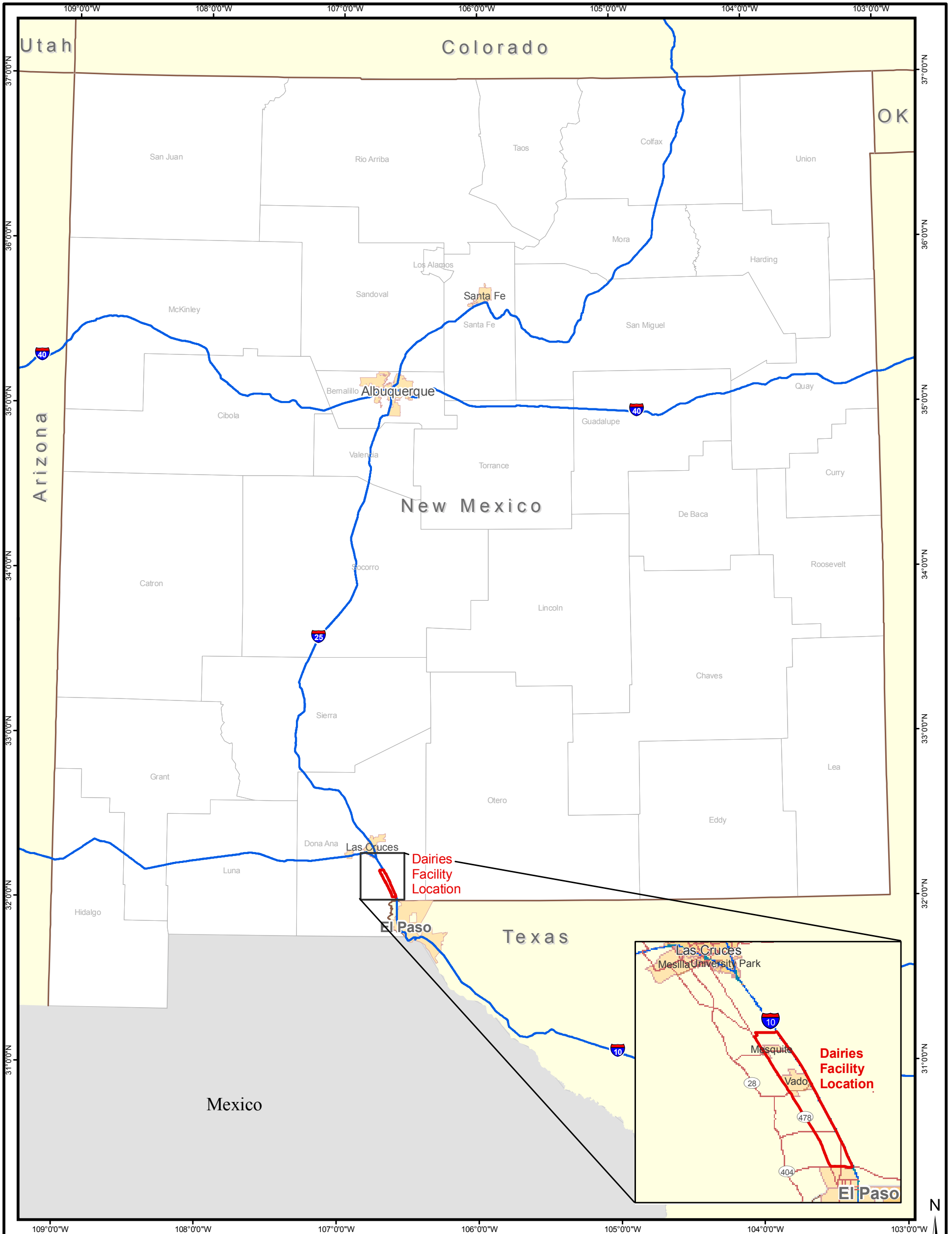


FIGURES

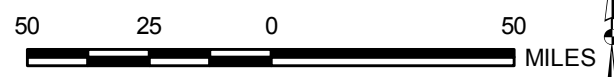


LEGEND:


 Facility Boundary

REFERENCES

Base Data: ESRI, 2008.



SCALE 1:2,500,000
WHEN PRODUCED AT 11X17IN

PROJECT		DOÑA ANA DAIRIES MESQUITE, NEW MEXICO	
TITLE		SITE LOCATION MAP	
	PROJECT No.	11x17_siteloc.mxd	
	DESIGN		SCALE AS SHOWN
	GIS		REV 0
	CHECK		
REVIEW			
			FIGURE 1



- LEGEND**
- Discharge Plan Well With Water Elevations (Feet MSL)
 - Abatement Plan Well With Water Elevations (Feet MSL)
 - Abatement Plan Vertical Delineation (Feet MSL)
 - Abatement Plan Well - Plugged and Abandoned
 - Discharge Plan Well - Plugged and Abandoned
 - Drain Crossing Location
 - - - Potentiometric Contour
 - - - Potentiometric Contour - Inferred
 - Interstate Highway
 - State Highway
 - Other Road
 - Land Owned by Dairies
 - Land Application on Non-Dairy Property

Note(s):
 * Well not used in contouring
 Feet MSL = Feet above mean sea level
 NM = Not measured

REFERENCES

Roads: Doña Ana County, 2001
 Aerial Photography: NAIP, 2022
 Projection: State Plane NAD 83 New Mexico Central (feet)

750 375 0 750 FEET
 SCALE: 1:8,000 1" = 750 FT
 WHEN PRODUCED AT 34x44IN

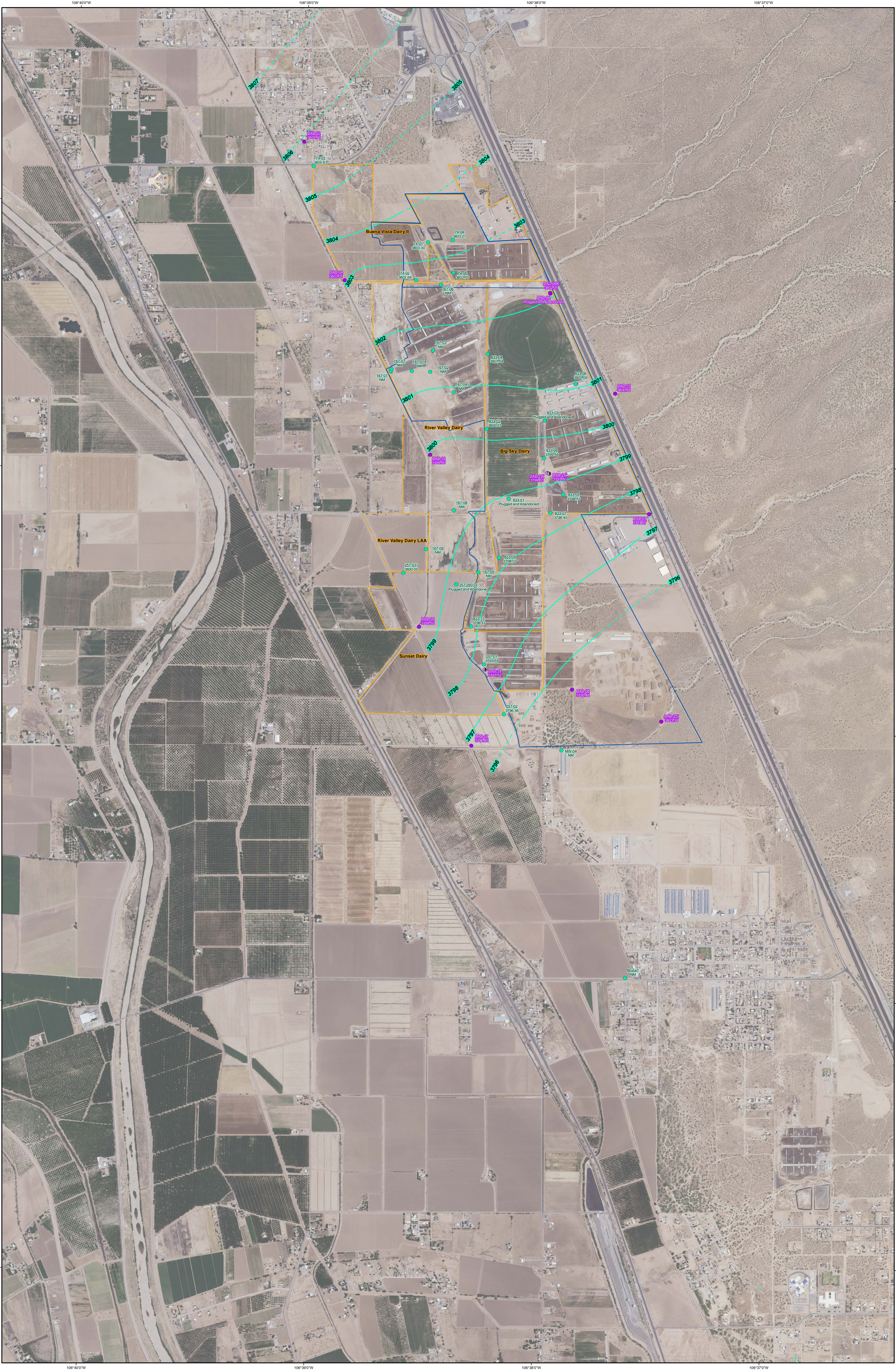
PROJECT: DOÑA ANA DAIRIES
 MESQUITE, NEW MEXICO

MAP: POTENTIOMETRIC SURFACE MAP,
 FEBRUARY 2024, NORTHERN PORTION

PROJECT NO.	24-001
DATE	02/20/24
SCALE	1" = 750 FT
PROJECT NO.	24-001

EA **FIGURE 2**

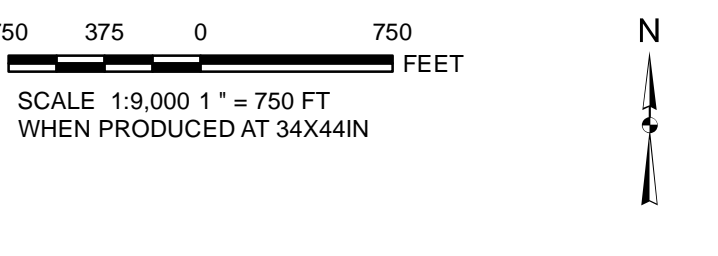
2024 02 20 10:00 AM C:\Users\jdoan\OneDrive\Documents\24-001\Map\24-001_PotentialSurfaceMap_NorthernPortion.mxd



- Discharge Plan Well with Water Elevation (Feet MSL)
- Abatement Plan Well With Water Elevations (Feet MSL)
- Abatement Plan Vertical Delineation Well
- Abatement Plan Well - Plugged and Abandoned
- Discharge Plan Well - Plugged and Abandoned
- Drain Crossing Location
- - - Potometric Contour
- - - Potometric Contour - Inferred
- ▭ Land Owned by Dairies
- ▭ Land Application on Non-Dairy
- ▭ Stage 2 Abatement Plan

Note:
 Well not used in contouring
 Feet MSL = Feet above mean sea level
 NM = Not measured

REFERENCES
 Rosati, Dona Ana County, 2001
 Aerial Photography: NAIP, 2022
 Projection: State Plane NAD 83 New Mexico Central (feet)



PROJECT: **DOÑA ANA DAIRIES
MESQUITE, NEW MEXICO**

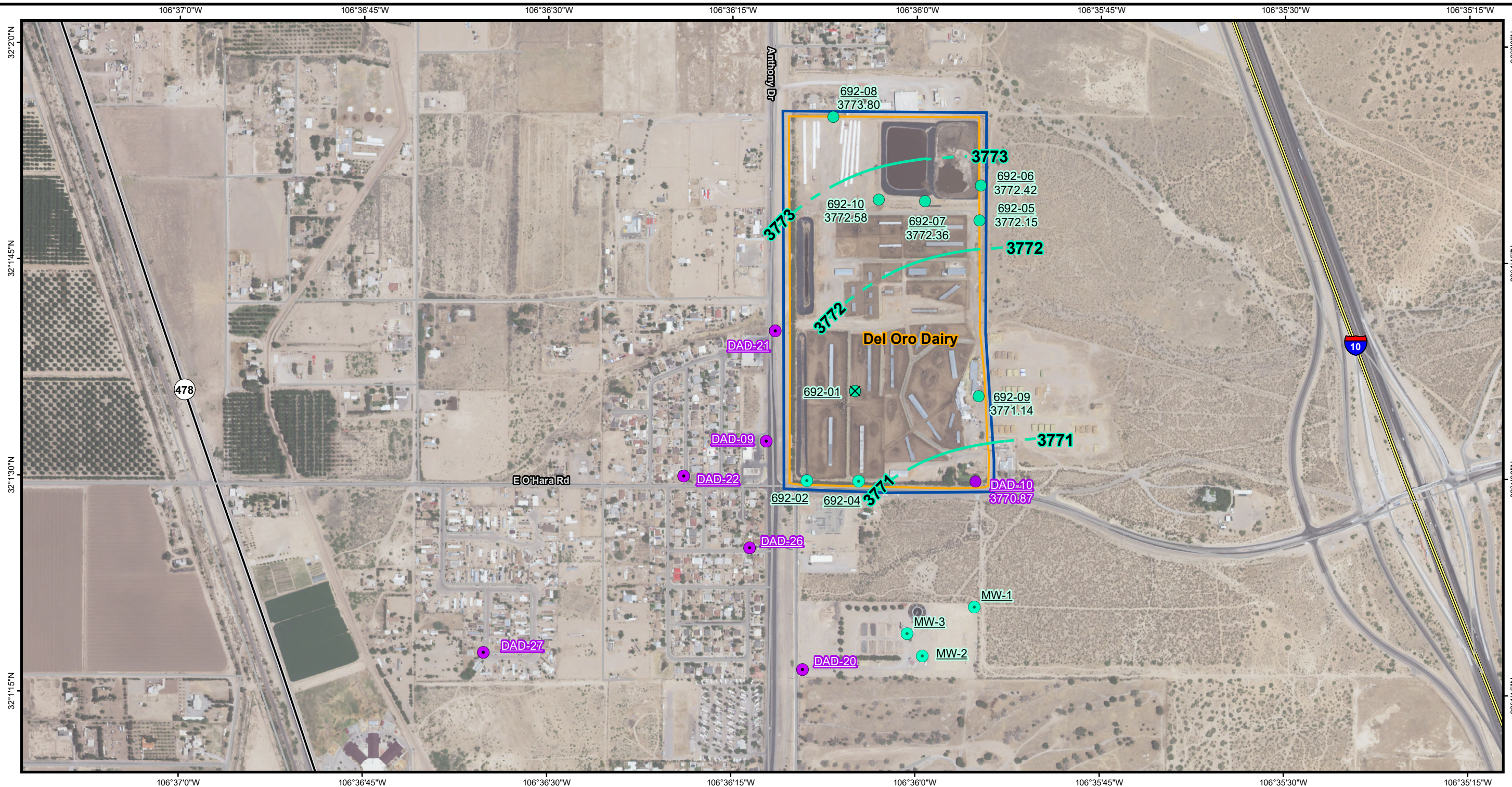
MAP: **POTENTIOMETRIC SURFACE MAP
FEBRUARY 2024, CENTRAL PORTION**

PROJECT No.	20240201
DATE	02/20/24
SCALE	1" = 750'
FIGURE	3

EA **FIGURE 3**

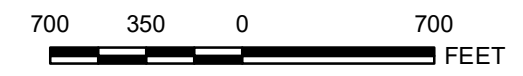
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2024-06-21 P:\gis2\Commercial\Dona Ana Dairies - 21464112\04 Feb 2024\Projects\Fig 4 SouthRegionAq_Pot_2024_02.mxd EA-Albuquerque rnullen



- LEGEND:**
- Perched Aquifer Monitoring Well**
- Abatement Plan Well
 - Discharge Plan Well
 - ✕ Discharge Plan Well - Plugged and Abandoned
- Regional Aquifer Monitoring Well**
- Abatement Plan Well With Water Elevations (Feet Above Mean Sea Level)
 - Discharge Plan Well with Water Elevation (Feet Above Mean Sea Level)

- Potentiometric Contour
- - - Potentiometric Contour - Inferred
- Land Owned by Dairies
- Stage 2 Abatement Plan Area



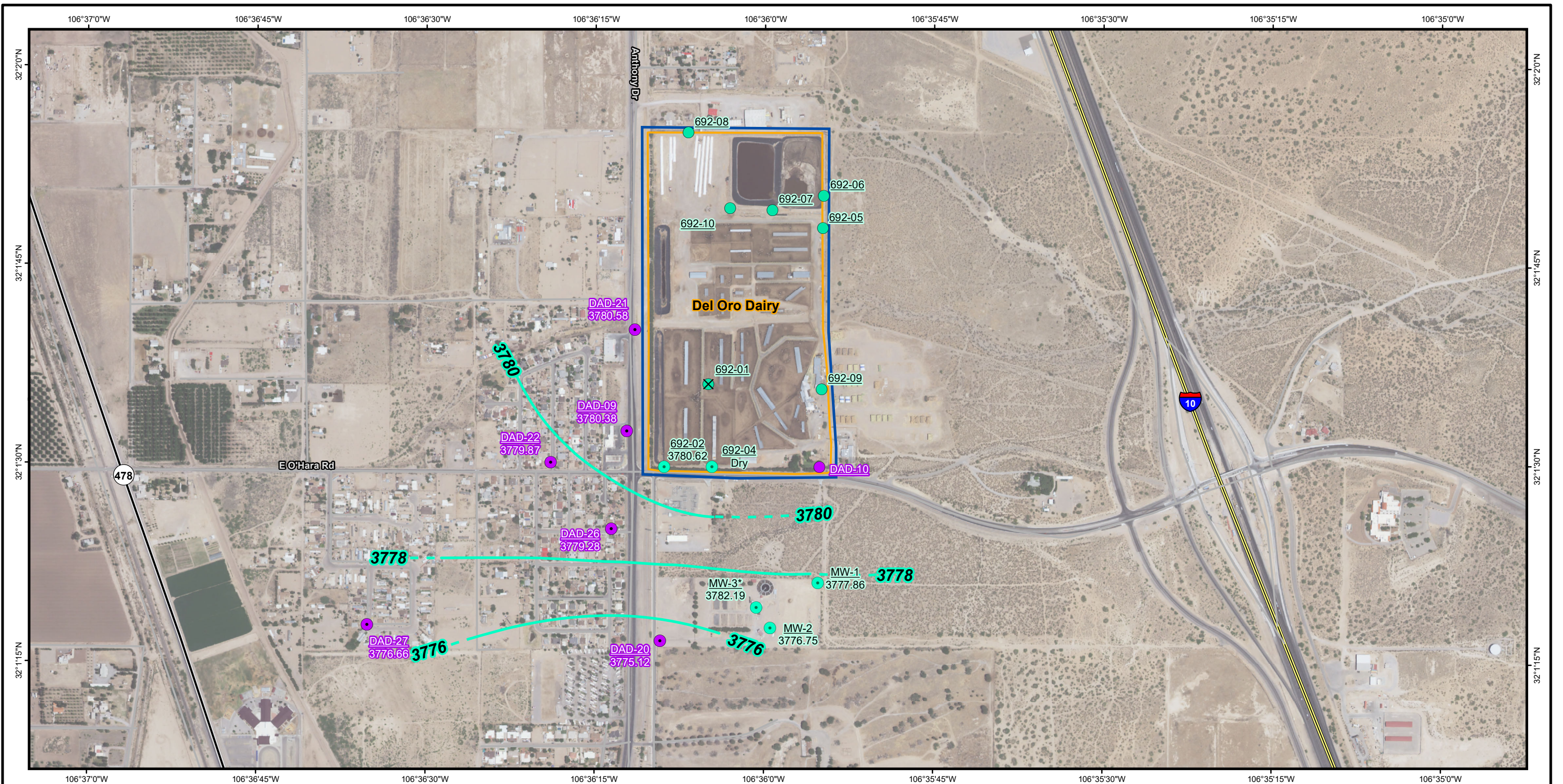
SCALE 1:8,400 1" = 700 FT
WHEN PRODUCED AT 11X17IN



REFERENCES
Aerial Photography: NAIP 2022
Projection: State Plane NAD 83 New Mexico Central (feet)

PROJECT			
DOÑA ANA DAIRIES MESQUITE, NEW MEXICO			
TITLE			
POTENTIOMETRIC SURFACE MAP FEBRUARY 2024, SOUTHERN PORTION REGIONAL AQUIFER			
	PROJECT No. 21464112.05		Fig 4 SouthRegionAq_Pot.mxd
	DESIGN	NA	SCALE AS SHOWN
	GIS	RMM	REV 0
	CHECK	TM	
	REVIEW	TM	
			FIGURE 4

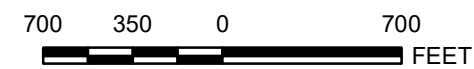
2024-06-19 P:\gis2\Commercial\Dona Ana Dairies - 21464112\04 Feb 2024\Projects\Fig 5 SouthPerchAq_Pot_2024_02.mxd EA-Albuquerque rmullen



LEGEND:

- Drain Crossing Location
- Perched Aquifer Monitoring Well**
 - Abatement Plan Well With Water Elevations (Feet Above Mean Sea Level)
 - Discharge Plan Well with Water Elevation (Feet Above Mean Sea Level)
 - ✕ Discharge Plan Well - Plugged and Abandoned
- Regional Aquifer Monitoring Well**
 - Abatement Plan Well
 - Discharge Plan Well
- Potentiometric Contour
- - - Potentiometric Contour - Inferred
- Land Owned by Dairies
- Stage 2 Abatement Plan Area

Note:
* = Not used in contouring.



SCALE 1:9,000 1" = 750 FT
WHEN PRODUCED AT 11X17IN



REFERENCES

Aerial Photography: NAIP 2022
Projection: State Plane NAD 83 New Mexico Central (feet)

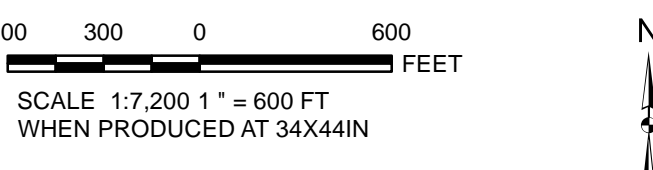
PROJECT			
DOÑA ANA DAIRIES MESQUITE, NEW MEXICO			
TITLE			
POTENTIOMETRIC SURFACE MAP FEBRUARY 2024, SOUTHERN PORTION PERCHED AQUIFER			
	PROJECT No. 21464112.05		SCALE AS SHOWN
	DESIGN	NA	REV 0
	GIS	RMM	
	CHECK	TM	
REVIEW	TM		FIGURE 5



- LEGEND:**
- Abatement Plan Monitoring Well
 - Discharge Plan Monitoring Well
 - Discharge Plan Monitoring Well, Plugged and Abandoned or Destroyed
 - Dairy Irrigation/Supply Well
 - Abatement Plan Vertical Delineation Monitoring Well
 - Interstate Highway
 - State Highway
 - Other Road
 - Land Owned by Dairies
 - Land Application on Non-Dairy Property
 - Stage 2 Abatement Plan Area

Notes:
 Units are in milligrams per liter.
 Cl = Chloride
 LRG = Irrigation Well
 NO₃ = Nitrate as N
 NS = Not Sampled
 TDS = Total Dissolved Solids

REFERENCES
 Roads: Doña Ana County, 2001
 Aerial Photography: NAIP, 2022
 Projection: State Plane NAD 83 New Mexico Central (feet)



PROJECT		DOÑA ANA DAIRIES MESQUITE, NEW MEXICO	
TITLE GROUNDWATER ANALYTICAL RESULTS FEBRUARY/MARCH 2024 NORTHERN PORTION			
	PROJECT NO.	24-001	DATE
	DRAWN BY	JL	SCALE
	CHECKED BY	JL	DATE
	DATE		FIGURE 6

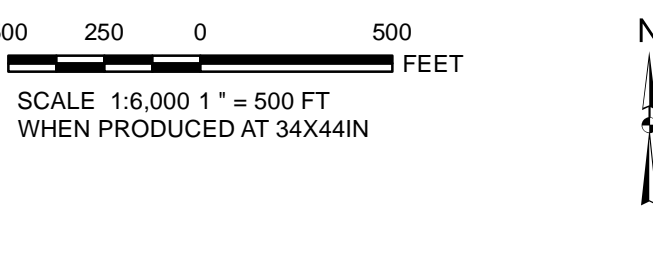


LEGEND:

- Abatement Plan Monitoring Well
- Abatement Plan Monitoring Well, Plugged and Abandoned
- Discharge Plan Monitoring Well
- Discharge Plan Monitoring Well, Plugged and Abandoned
- Dairy Irrigation/Supply Well
- Abatement Plan Vertical Delineation Monitoring Well
- Interstate Highway
- State Highway
- Other Road
- Land Owned by Dairies
- Land Application on Non-Dairy Property
- Stage 2 Abatement Plan Area

Notes:
 Units are in milligrams per liter.
 Cl = Chloride
 LRG = Irrigation well
 NO₃ = Nitrate as N
 NS = Not Sampled
 TDS = Total Dissolved Solids

REFERENCES
 Roads: Doña Ana County, 2001
 Aerial Photography: NARS, 2022
 Projection: State Plane NAD 83 New Mexico Central (feet)

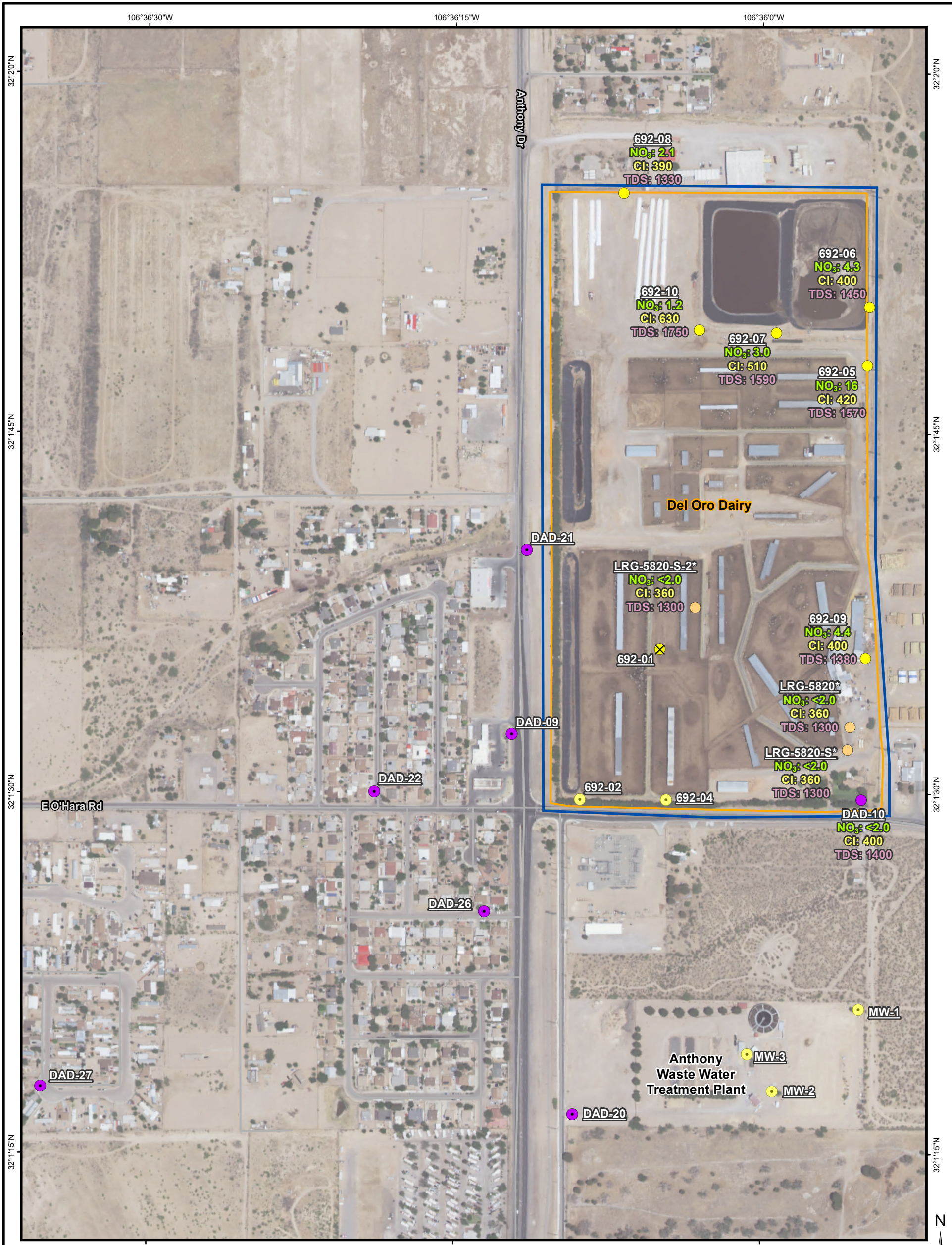


PROJECT: DOÑA ANA DAIRIES
 MESQUITE, NEW MEXICO

THE GROUNDWATER ANALYTICAL RESULTS
 FEBRUARY/MARCH 2024
 CENTRAL PORTION

EA

FIGURE 7



LEGEND:

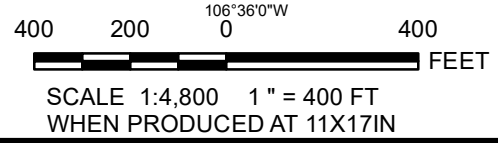
- Dairy Irrigation/Supply Well
- Perched Aquifer Monitoring Well**
- Abatement Plan Monitoring Well
- Discharge Plan Monitoring Well
- ⊗ Discharge Plan Monitoring Well - Plugged and Abandoned
- Regional Aquifer Monitoring Well**
- Abatement Plan Monitoring Well
- Discharge Plan Monitoring Well
- Land Owned by Dairies
- Stage 2 Abatement Plan Area

Notes:

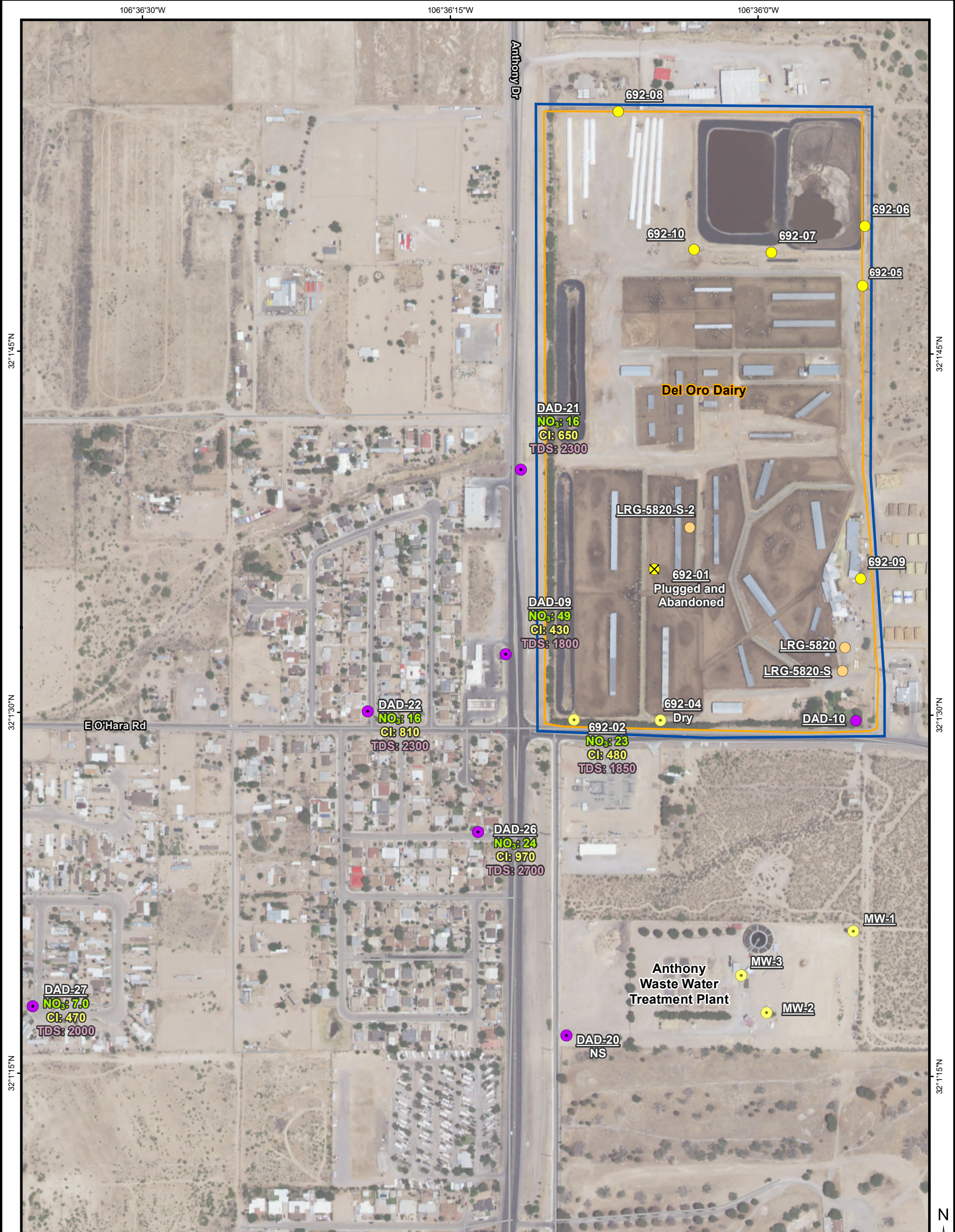
Units are in milligrams per liter.
 * Result represents a composite sample from a water tank supplied by wells LRG-5820, LRG-5820-S, and LRG-5820-S-2.
 Cl = Chloride
 LRG = irrigation well
 NO₃ = Nitrate as N
 TDS = Total Dissolved Solids

REFERENCES

Aerial Photography: NAIP, 2022
 Projection: State Plane NAD 83 New Mexico Central (feet)



PROJECT			
DOÑA ANA DAIRIES MESQUITE, NEW MEXICO			
TITLE			
GROUNDWATER ANALYTICAL RESULTS FEBRUARY/MARCH 2024 SOUTHERN PORTION, REGIONAL AQUIFER			
	PROJECT No. 21464112.05		
	DESIGN NA	SCALE AS SHOWN	REV 0
	GIS RM		
	CHECK		
REVIEW			FIGURE 8

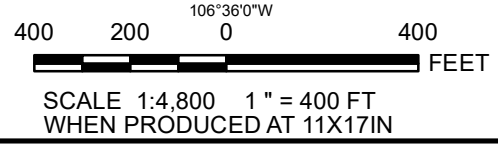


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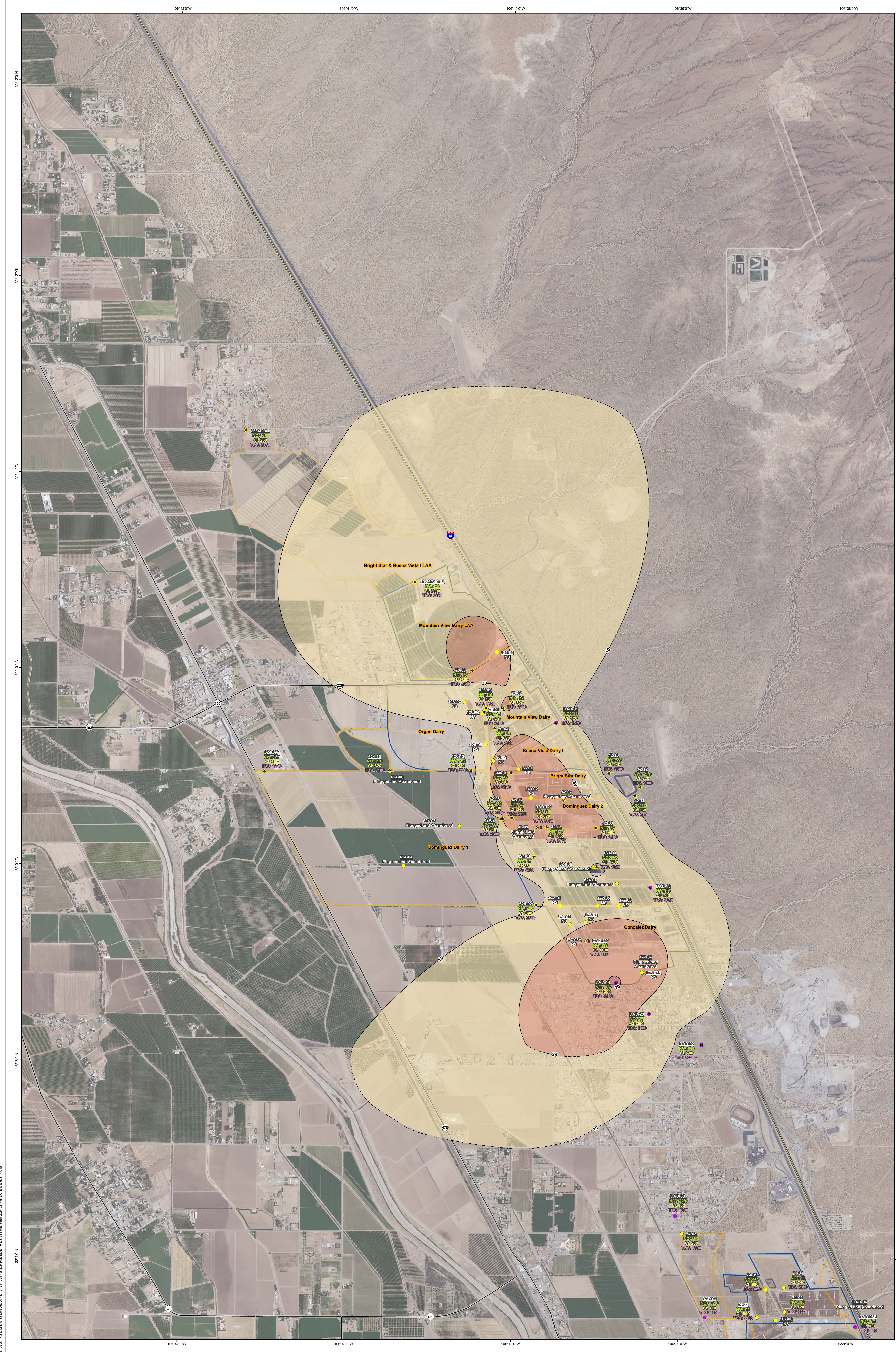
- Dairy Irrigation/Supply Well
- Perched Aquifer Monitoring Well**
- Abatement Plan Monitoring Well
- Discharge Plan Monitoring Well
- ✕ Discharge Plan Monitoring Well - Plugged and Abandoned
- Regional Aquifer Monitoring Well**
- Abatement Plan Monitoring Well
- Discharge Plan Monitoring Well
- Land Owned by Dairies
- Stage 2 Abatement Plan Area

Notes:
 Units are in milligrams per liter.
 Cl = Chloride
 LRG = irrigation well
 mg/L = Milligram(s) per liter
 NO₃ = Nitrate as N
 NS = Not sampled
 TDS = Total Dissolved Solids

REFERENCES
 Aerial Photography: NAIP, 2022
 Projection: State Plane NAD 83 New Mexico Central (feet)



PROJECT			
DOÑA ANA DAIRIES MESQUITE, NEW MEXICO			
TITLE GROUNDWATER ANALYTICAL RESULTS FEBRUARY/MARCH 2024 SOUTHERN PORTION, PERCHED AQUIFER			
	PROJECT No. 21464112.05		SCALE AS SHOWN
	DESIGN	NA	REV 0
	GIS	RM	
	CHECK		
REVIEW			FIGURE 9



LEGEND:

- Abatement Plan Monitoring Well
- Discharge Plan Monitoring Well
- Discharge Plan Monitoring Well - Plugged and Abandoned
- Abatement Plan Vertical Delineation Well
- Interstate Highway
- State Highway
- Other Road
- Land Owned by Dairies
- Land Application on Non-Dairy Property
- Stage 2 Abatement Plan Area

Nitrate Concentration (mg/L)

- 10-30
- 30-70
- 70-100

Notes:
 Units are in milligrams per liter.
 Dashed line indicates manually drawn isopleth. Solid line indicates that the isopleth was generated by ArcGIS.
 Data from vertical delineation wells were not used in modeling.
 * = Not used in modeling
 Cl = Chloride
 mg/L = Milligrams per liter
 NO₃ = Nitrate as N
 NS = Not Sampled; Not used in modeling.
 TDS = Total Dissolved Solids

REFERENCES

Roads: Doña Ana County, 2001
 Aerial Photography: NAIP, 2022
 Projection: State Plane NAD 83 New Mexico Central (feet)

1,000 500 0 1,000
 FEET

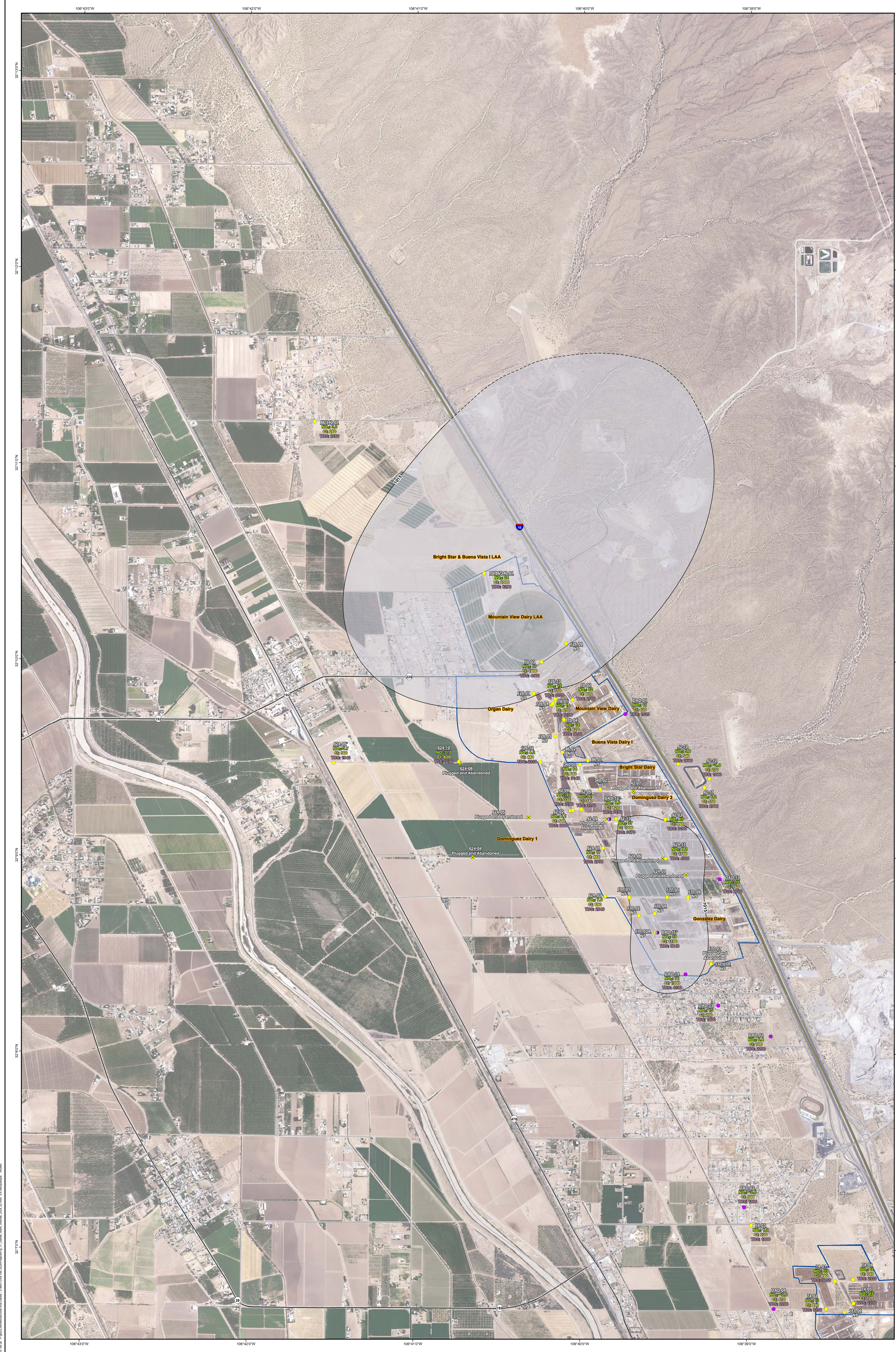
SCALE 1:12,000 1" = 1,000 FT
 WHEN PRODUCED AT 34X44IN

**DOÑA ANA DAIRIES
 MESQUITE, NEW MEXICO**

**NITRATE DISTRIBUTION IN GROUNDWATER
 FEBRUARY/MARCH 2024
 NORTHERN PORTION**

EA

PROJECT: DOÑA ANA DAIRIES
 LOCATION: MESQUITE, NM
 DATE: 02/2024
 DRAWN BY: [Name]
 CHECKED BY: [Name]
 SCALE: 1" = 1,000 FT
 SHEET: 45 OF 45
 FIGURE 10

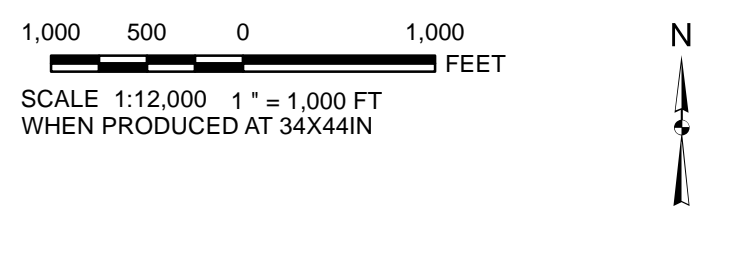


LEGEND:

- Abatement Plan Monitoring Well
- Discharge Plan Monitoring Well
- Discharge Plan Monitoring Well - Plugged and Abandoned
- Abatement Plan Vertical Delineation Well
- Interstate Highway
- State Highway
- Other Road
- Stage 2 Abatement Plan
- Chloride Concentration (mg/L)
- 1,015-2,000

Notes:
 Units are in milligrams per liter.
 Dashed line indicates manually drawn isopleth. Solid line indicates that the isopleth was generated by ArcGIS.
 Data from vertical delineation wells were not used in modeling.
 * = Not used in modeling.
 Cl = Chloride
 mg/L = Milligrams per liter
 NO₃ = Nitrate as N
 NS = Not Sampled; Not used in modeling.
 TDS = Total Dissolved Solids

REFERENCES
 Roads: Doña Ana County, 2001
 Aerial Photography: NAIP, 2011
 FIPS: 3244, 2000
 Projection: State Plane NAD 83 New Mexico Central (feet)

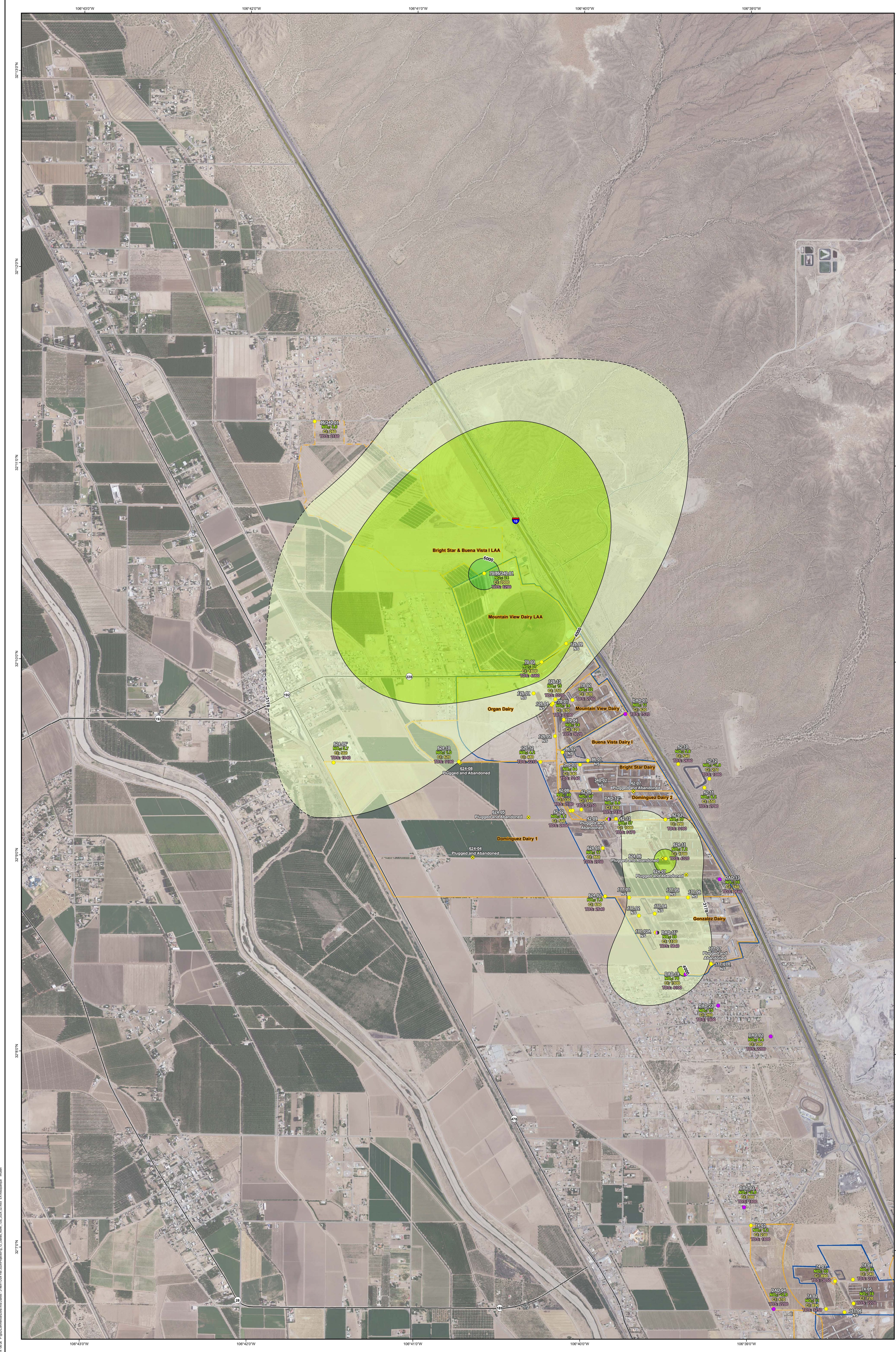


PROJECT: **DOÑA ANA DAIRIES
 MESQUITE, NEW MEXICO**

**CHLORIDE DISTRIBUTION IN GROUNDWATER
 FEBRUARY/MARCH 2023
 NORTHERN PORTION**

EA PROJECT NUMBER: 2023-03-0001 SHEET: 45 OF 45
 DATE: 03/20/23
 DRAWN BY: [Name]
 CHECKED BY: [Name]

FIGURE 11



LEGEND:

- Abatement Plan Monitoring Well
- Discharge Plan Monitoring Well
- Discharge Plan Monitoring Well - Plugged and Abandoned
- Abatement Plan Vertical Delineation Well
- Interstate Highway
- State Highway
- Other Road
- Land Owned by Dairies
- Land Application on Non-Dairy Property
- Stage 2 Abatement Plan

TDS Concentration (mg/L)

- 3,178-4,000
- 4,000-6,000
- > 6,000

Notes:
 Units are in milligrams per liter.
 Dashed line indicates manually drawn isopleth. Solid line indicates that the isopleth was generated by ArcGIS.
 Data from vertical delineation wells were not used in modeling.
 * = Not used in modeling.
 Cl = Chloride
 mg/L = Milligrams per liter
 NO₃ = Nitrate as N
 NS = Not sampled. Not used in modeling.
 TDS = Total Dissolved Solids

REFERENCES
 Roads: Doña Ana County, 2001
 Aerial Photography: NAIP, 2011
 FIPS: 344, 2000
 Projection: State Plane NAD 83 New Mexico Central (feet)

1,000 500 0 500 FEET
 SCALE 1:12,000 1" = 1,000 FT
 WHEN PRODUCED AT 34X44IN

PROJECT
DOÑA ANA DAIRIES
MESQUITE, NEW MEXICO

TITLE
TDS DISTRIBUTION IN GROUNDWATER
FEBRUARY/MARCH 2024
NORTHERN PORTION

FIGURE 12



LEGEND:

- Perched Aquifer Monitoring Well**
- Abatement Plan Monitoring Well
 - Discharge Plan Monitoring Well
 - ⊗ Discharge Plan Monitoring Well - Plugged and Abandoned
- Regional Aquifer Monitoring Well**
- Abatement Plan Monitoring Well
 - Discharge Plan Monitoring Well
 - ▭ Land Owned by Dairies
 - ▭ Stage 2 Abatement Plan
- Nitrate Concentration (mg/L)**
- 10-30

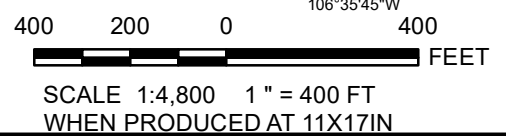
Notes:

Units are in milligrams per liter.
Dashed line indicates manually drawn isopleth. Solid line indicates that the isopleth was generated by ArcGIS.

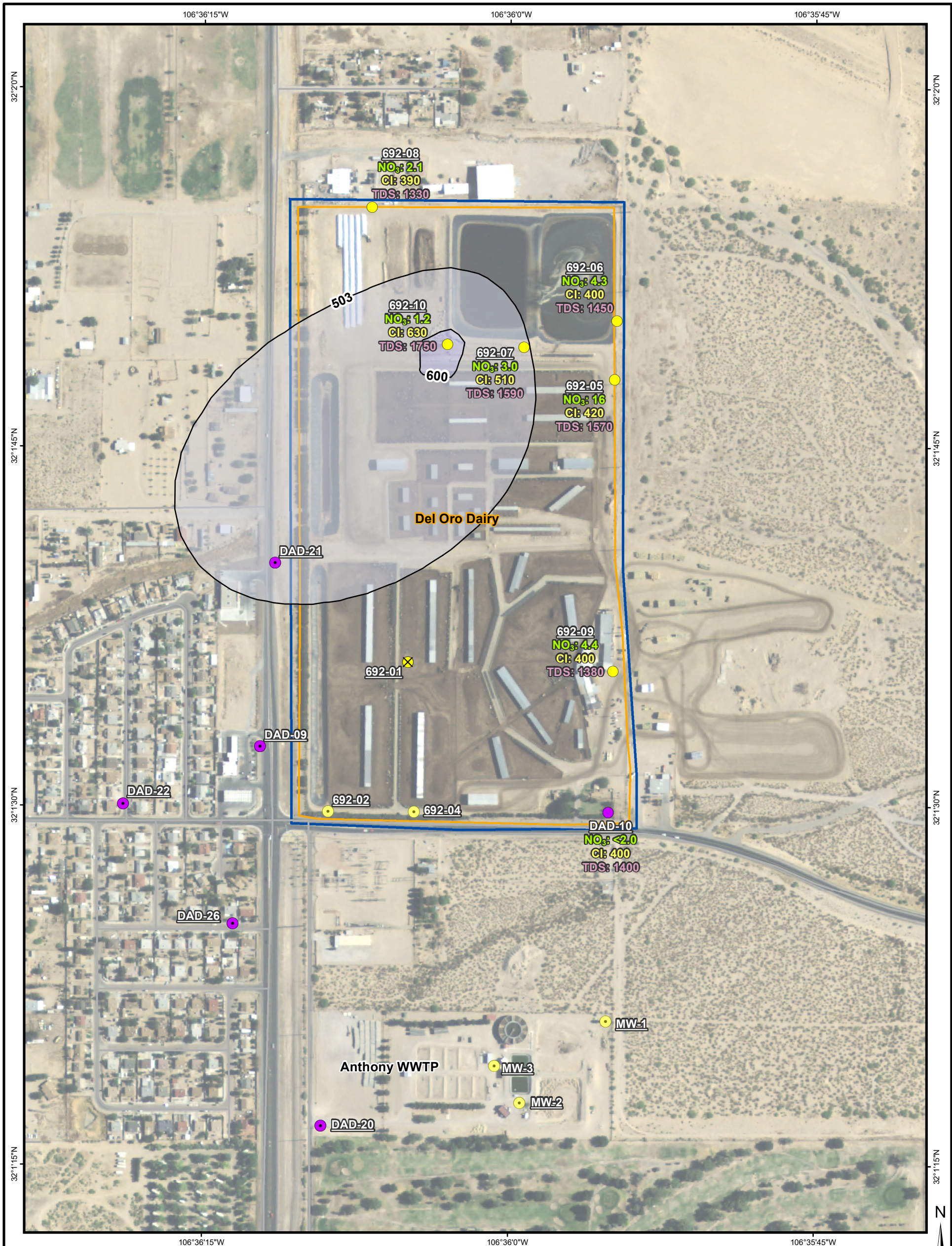
Cl = Chloride
NO₃ = Nitrate as N
TDS = Total Dissolved Solids

REFERENCES

Aerial Photography: NAIP, 2011
PLSS: BLM, 2000
Projection: State Plane NAD 83 New Mexico Central (feet)



DOÑA ANA DAIRIES MESQUITE, NEW MEXICO				
NITRATE DISTRIBUTION IN GROUNDWATER FEBRUARY/MARCH 2024 SOUTHERN PORTION, REGIONAL AQUIFER				
	PROJECT No. 1464112.05		FIGURE 14	
	DESIGN	NA		SCALE AS SHOWN
	GIS	RM		REV 0
	CHECK			
	REVIEW			



LEGEND:

Perched Aquifer Monitoring Well

- Abatement Plan Monitoring Well
- Discharge Plan Monitoring Well
- ✕ Discharge Plan Monitoring Well - Plugged and Abandoned

Regional Aquifer Monitoring Well

- Abatement Plan Monitoring Well
- Discharge Plan Monitoring Well
- Land Owned by Dairies
- Stage 2 Abatement Plan

Chloride Concentration (mg/L)

- 503-600
- 600-700

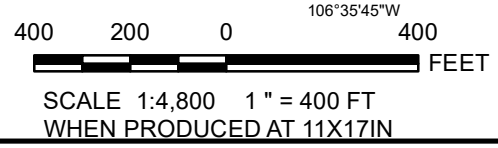
Notes:

Units are in milligrams per liter.
Dashed line indicates manually drawn isopleth. Solid line indicates that the isopleth was generated by ArcGIS.

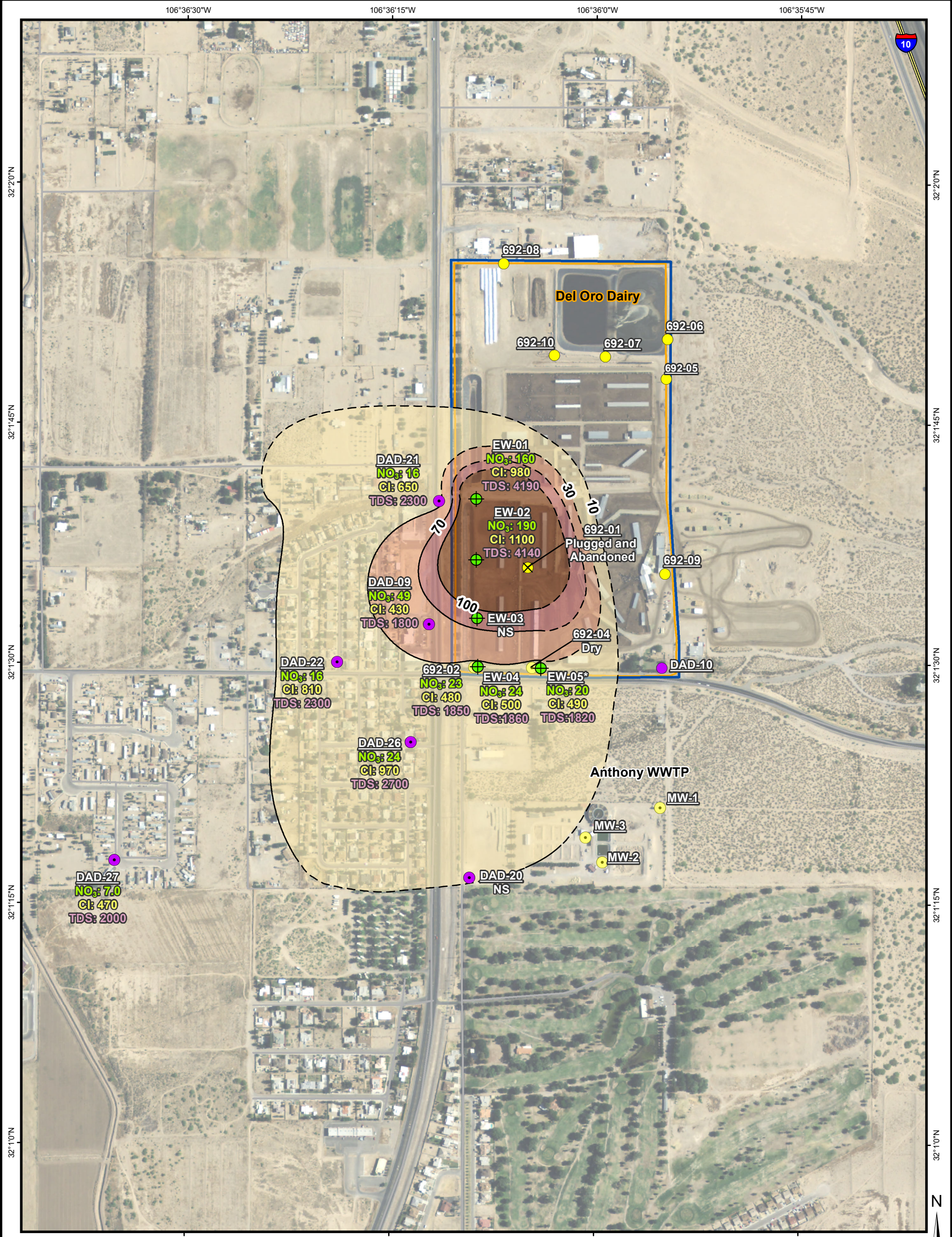
Cl = Chloride
NO₃ = Nitrate as N
TDS = Total Dissolved Solids

REFERENCES

Aerial Photography: NAIP, 2011
PLSS: BLM, 2000
Projection: State Plane NAD 83 New Mexico Central (feet)



DOÑA ANA DAIRIES MESQUITE, NEW MEXICO				
CHLORIDE DISTRIBUTION IN GROUNDWATER FEBRUARY/MARCH 2024 SOUTHERN PORTION, REGIONAL AQUIFER				
	PROJECT No. 1464112.05		FIGURE 15	
	DESIGN	NA		SCALE AS SHOWN
	GIS	RM		REV 0
	CHECK			
	REVIEW			



- Perched Aquifer Extraction Well
- Perched Aquifer Monitoring Well**
- Abatement Plan Monitoring Well
- Discharge Plan Monitoring Well
- Discharge Plan Monitoring Well - Plugged and Abandoned
- Regional Aquifer Monitoring Well**
- Abatement Plan Monitoring Well
- Discharge Plan Monitoring Well
- Stage 2 Abatement Plan
- Land Owned by Dairies

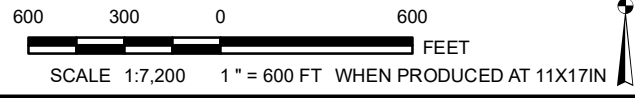
Nitrate Concentration (mg/L)

- 10-30
- 30-70
- 70-100
- > 100

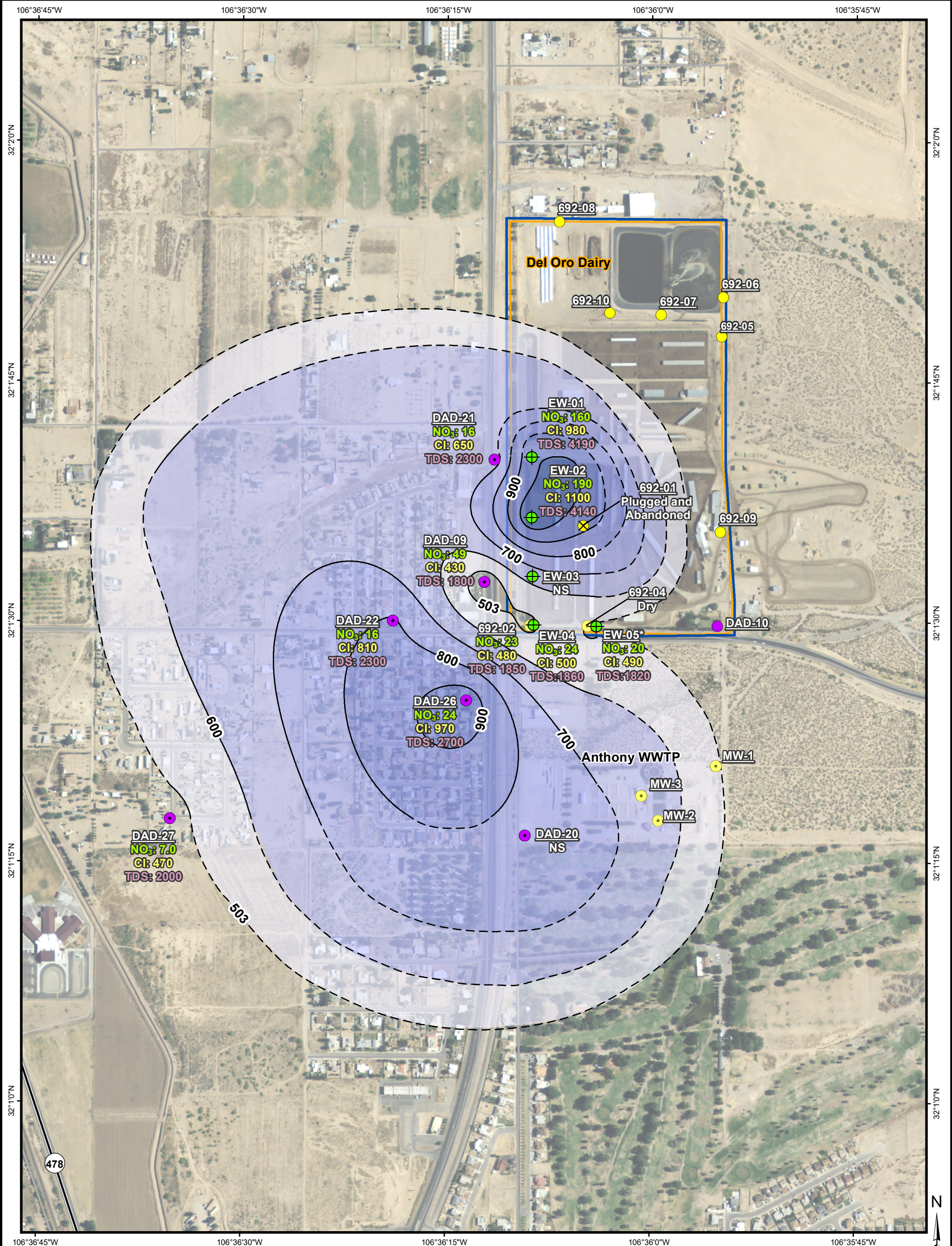
Units are in milligrams per liter.
 Dashed line indicates manually drawn isopleth.
 Solid line indicates that the isopleth was generated by ArcGIS.

*Data are from November 2023.

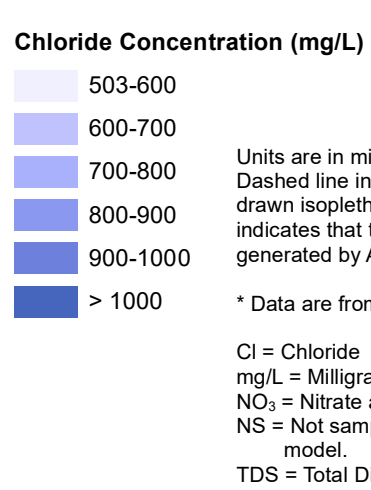
Cl = Chloride
 mg/L = Milligram(s) per liter
 NO₃ = Nitrate as N
 NS = Not sampled. Not used in model.
 TDS = Total Dissolved Solids



DOÑA ANA DAIRIES MESQUITE, NEW MEXICO			
NITRATE DISTRIBUTION IN GROUNDWATER FEBRUARY/MARCH 2024 SOUTHERN PORTION, PERCHED AQUIFER			
	PROJECT No. 1464112.05		SCALE AS SHOWN
	DESIGN NA		REV 0
	GIS RM		
	CHECK		
REVIEW			
			FIGURE 16



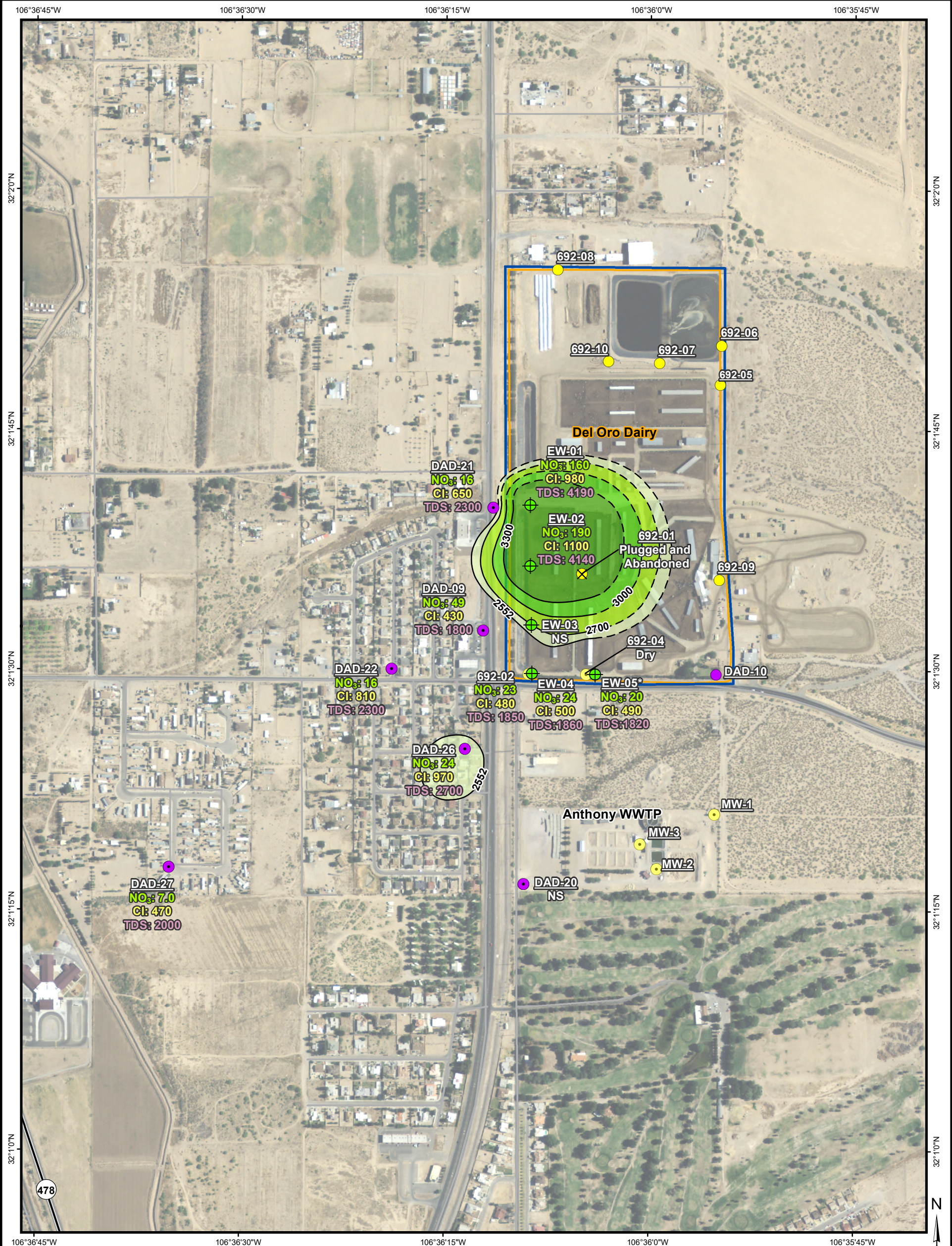
- Perched Aquifer Extraction
- Perched Aquifer Monitoring Well**
 - Abatement Plan Monitoring Well
 - Discharge Plan Monitoring Well
 - Discharge Plan Monitoring Well - Plugged and Abandoned
- Regional Aquifer Monitoring Well**
 - Abatement Plan Monitoring Well
 - Discharge Plan Monitoring Well
- Stage 2 Abatement Plan
- Land Owned by Dairies



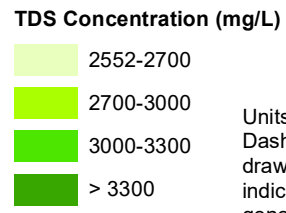
SCALE 1:7,200 1" = 600 FT WHEN PRODUCED AT 11X17IN

PROJECT			
DOÑA ANA DAIRIES MESQUITE, NEW MEXICO			
TITLE			
CHLORIDE DISTRIBUTION IN GROUNDWATER FEBRUARY/MARCH 2024 SOUTHERN PORTION, PERCHED AQUIFER			
	PROJECT No.	1464112.05	
	DESIGN	NA	SCALE AS SHOWN
	GIS	RM	REV 0
	CHECK		
REVIEW			
			FIGURE 17

2024-06-26 P:\gis2\Commercial\Doña Ana Dairies - 21464112\04 Feb 2024\Projects\Fig_17_Dairies_SouthPerchAq_chloride_2024_02.mxd EA-Albuquerque mullen



- Perched Aquifer Extraction Well
- Perched Aquifer Monitoring Well**
- Abatement Plan Monitoring Well
- Discharge Plan Monitoring Well
- Discharge Plan Monitoring Well - Plugged and Abandoned
- Regional Aquifer Monitoring Well**
- Abatement Plan Monitoring Well
- Discharge Plan Monitoring Well
- Stage 2 Abatement Plan
- Land Owned by Dairies



Units are in milligrams per liter. Dashed line indicates manually drawn isopleth. Solid line indicates that the isopleth was generated by ArcGIS.

* Data are from November 2023.

Cl = Chloride
 mg/L = Milligram(s) per liter
 NO₃ = Nitrate as N
 NS = Not sampled. Not used in model.
 TDS = Total Dissolved Solids

DOÑA ANA DAIRIES MESQUITE, NEW MEXICO			
TDS DISTRIBUTION IN GROUNDWATER FEBRUARY/MARCH 2024 SOUTHERN PORTION, PERCHED AQUIFER			
	PROJECT No. 1464112.05		SCALE AS SHOWN
	DESIGN	NA	REV 0
	GIS	RM	
	CHECK		
	REVIEW		
			FIGURE 18