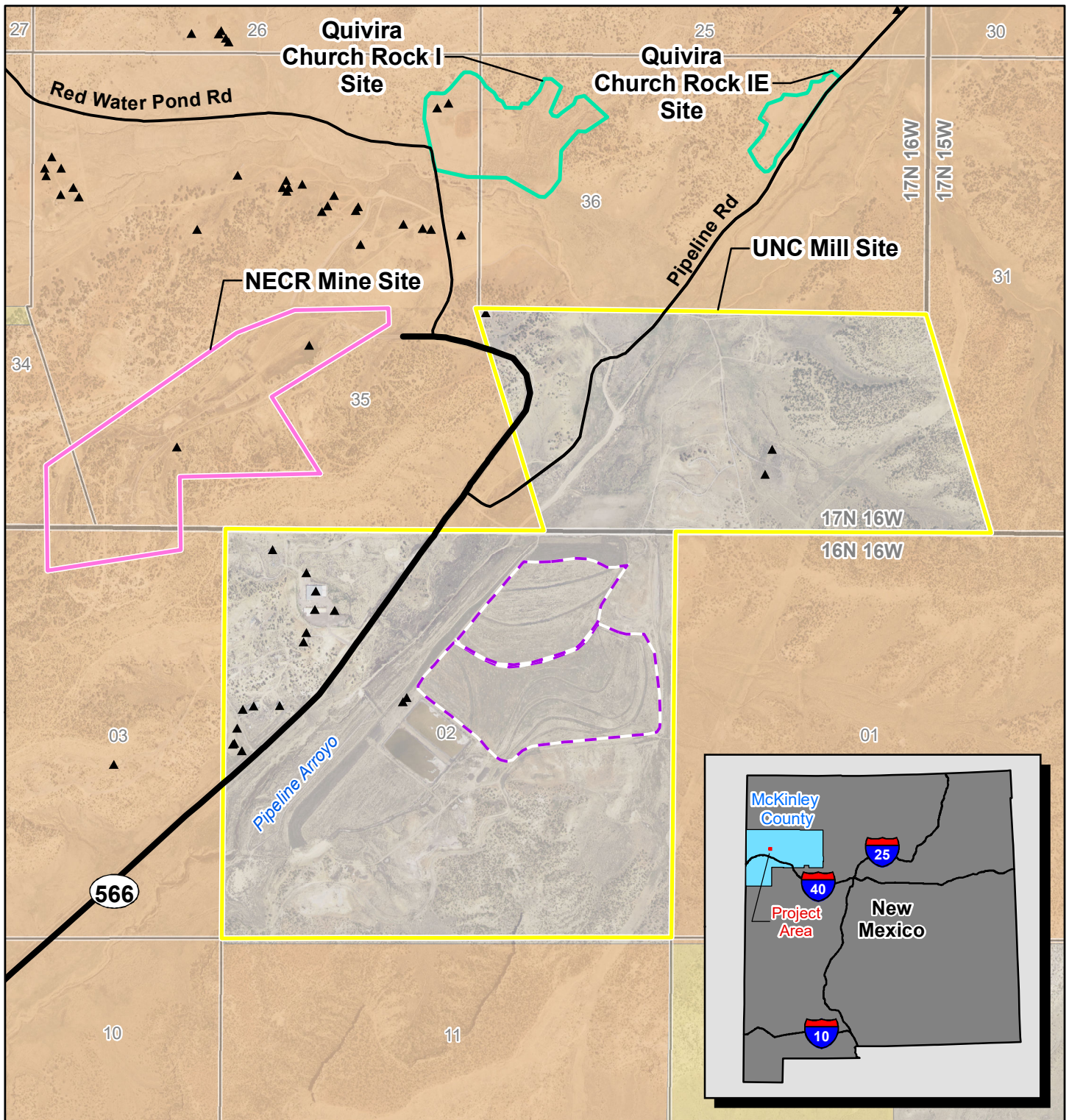
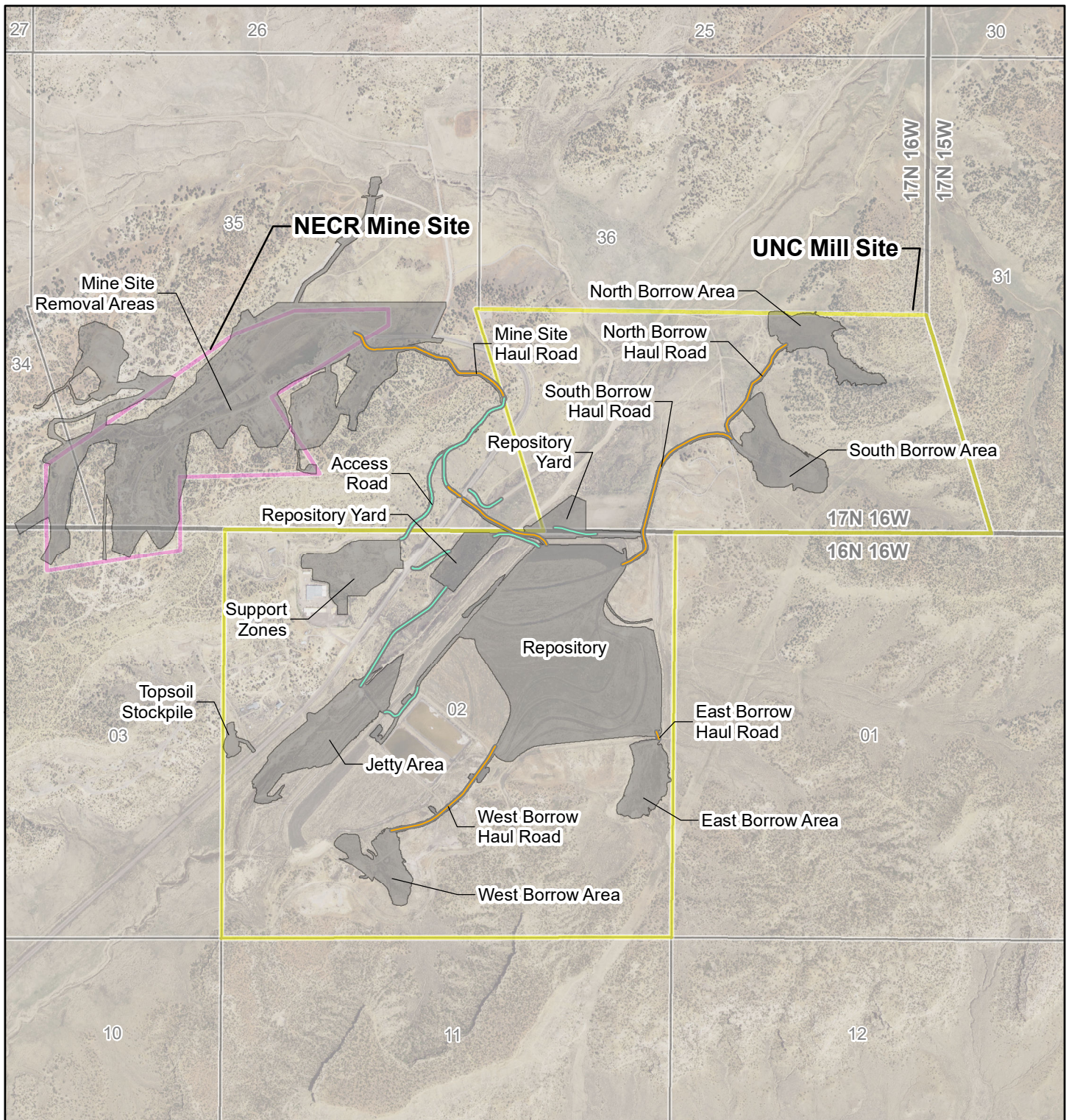


Supplemental Environmental Report for the United Nuclear Corporation
Mill Site








Source Material License Amendment Request, McKinley County, New Mexico, USA

Chapter 1 Figures





Legend

-  NECR Mine Site
-  UNC Mill Site
-  Limits of Disturbance
-  One-Lane Haul Road
-  Two-Lane Haul Road
-  17N 16W PLSS Township
-  11 PLSS Section

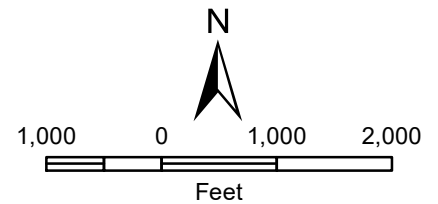
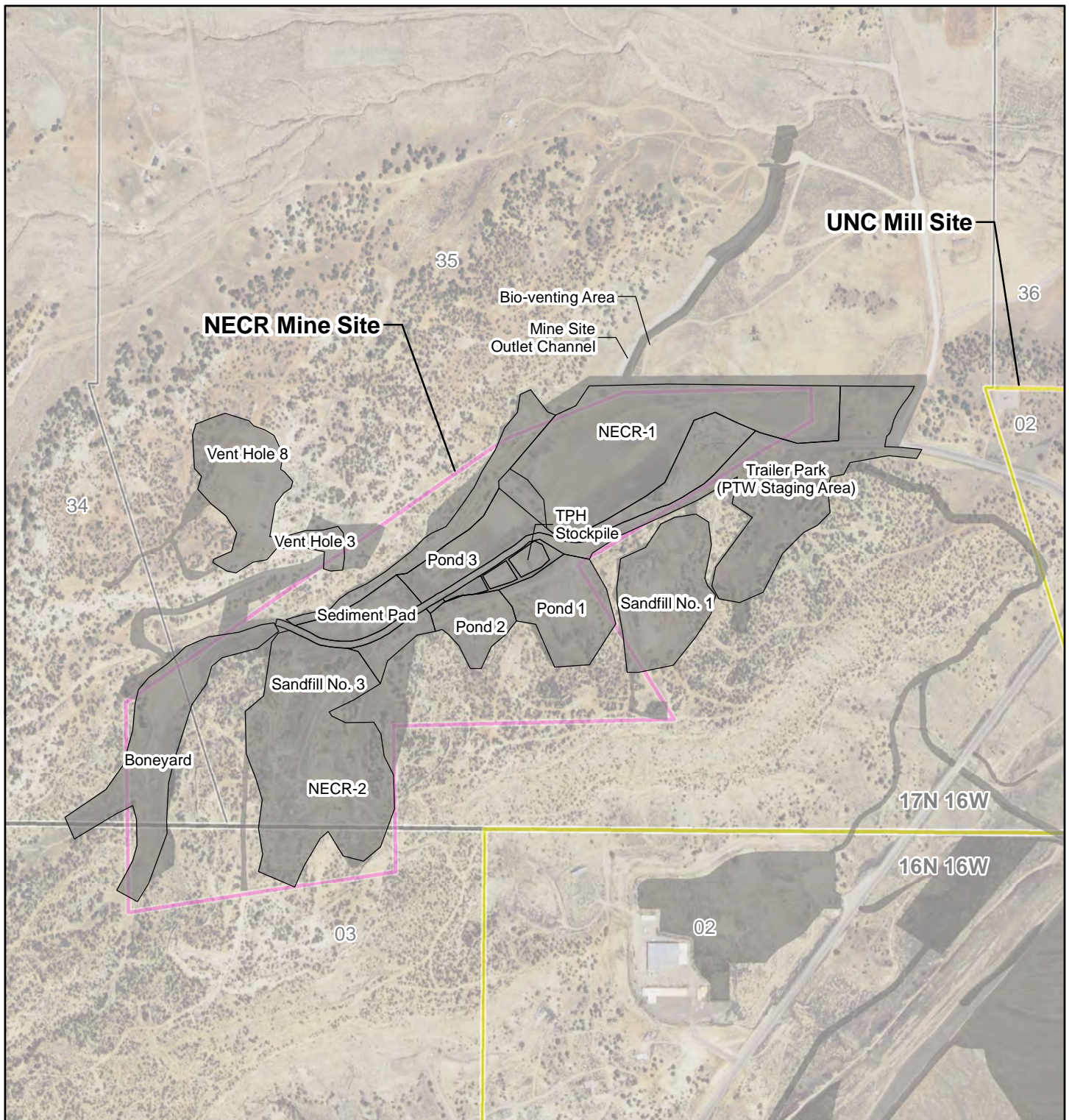


Figure 1.1-1
Proposed Action
NECR Mine and UNC Mill Sites

Supplemental Environmental Report for the United Nuclear Corporation
Mill Site

Source Material License Amendment Request, McKinley County, New Mexico, USA

Chapter 2 Figures



Legend

- NECR Mine Site
- UNC Mill Site
- Mine Site Removal Areas
- Limits of Disturbance
- 17N 16W PLSS Township
- 11 PLSS Section

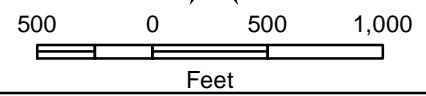
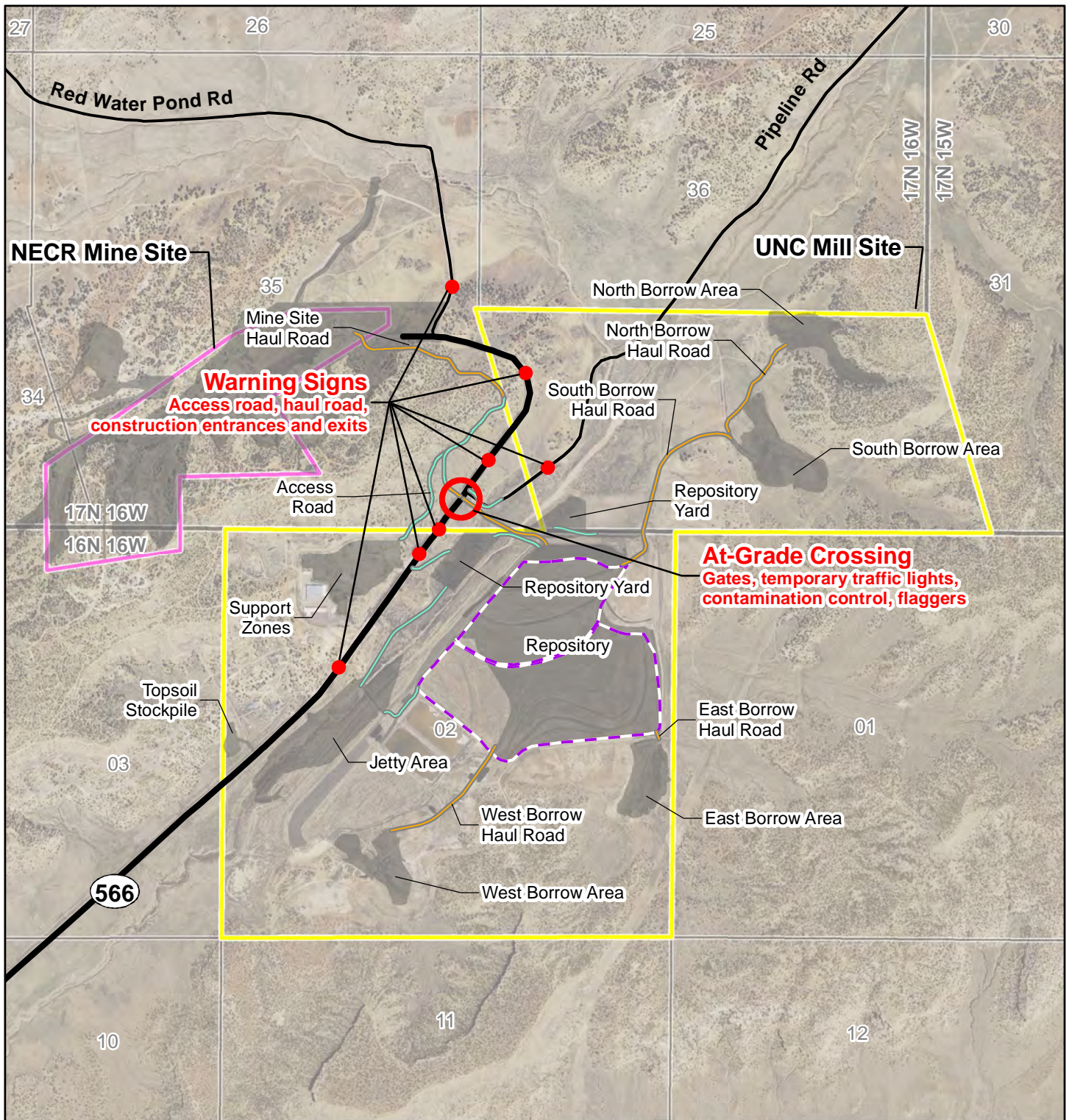


Figure 2.0-1
Mine Site Removal
NECR Mine and UNC Mill Sites





Legend

- | | | | |
|--|--------------------|--|-----------------------|
| | NECR Mine Site | | Tailings Disposal |
| | UNC Mill Site | | Limits of Disturbance |
| | One-Lane Haul Road | | Road |
| | Two-Lane Haul Road | | PLSS Township |
| | | | PLSS Section |

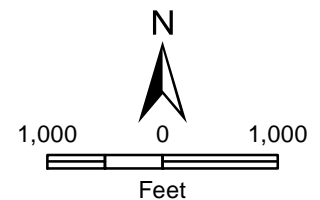
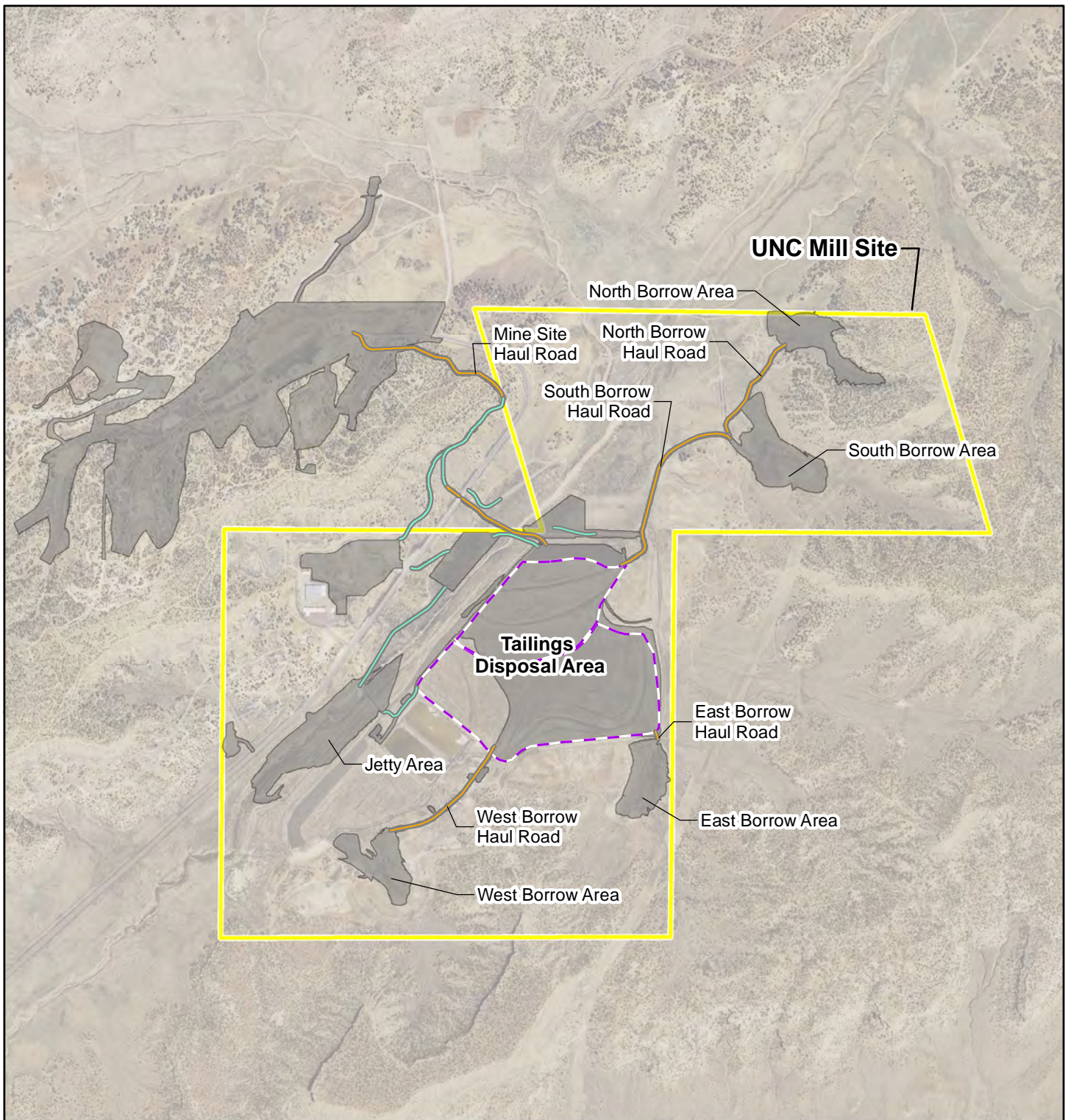







Figure 2.0-2
Haul Roads
and Crossing
NECR Mine and UNC Mill Sites



Legend

-  UNC Mill Site
-  Tailings Disposal Area
-  Limits of Disturbance
-  One-Lane Haul Road
-  Two-Lane Haul Road

DRAFT

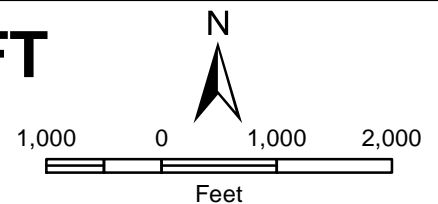


Figure 2.0-3
Mill Site
 NECR Mine and UNC Mill Sites



Source(s):

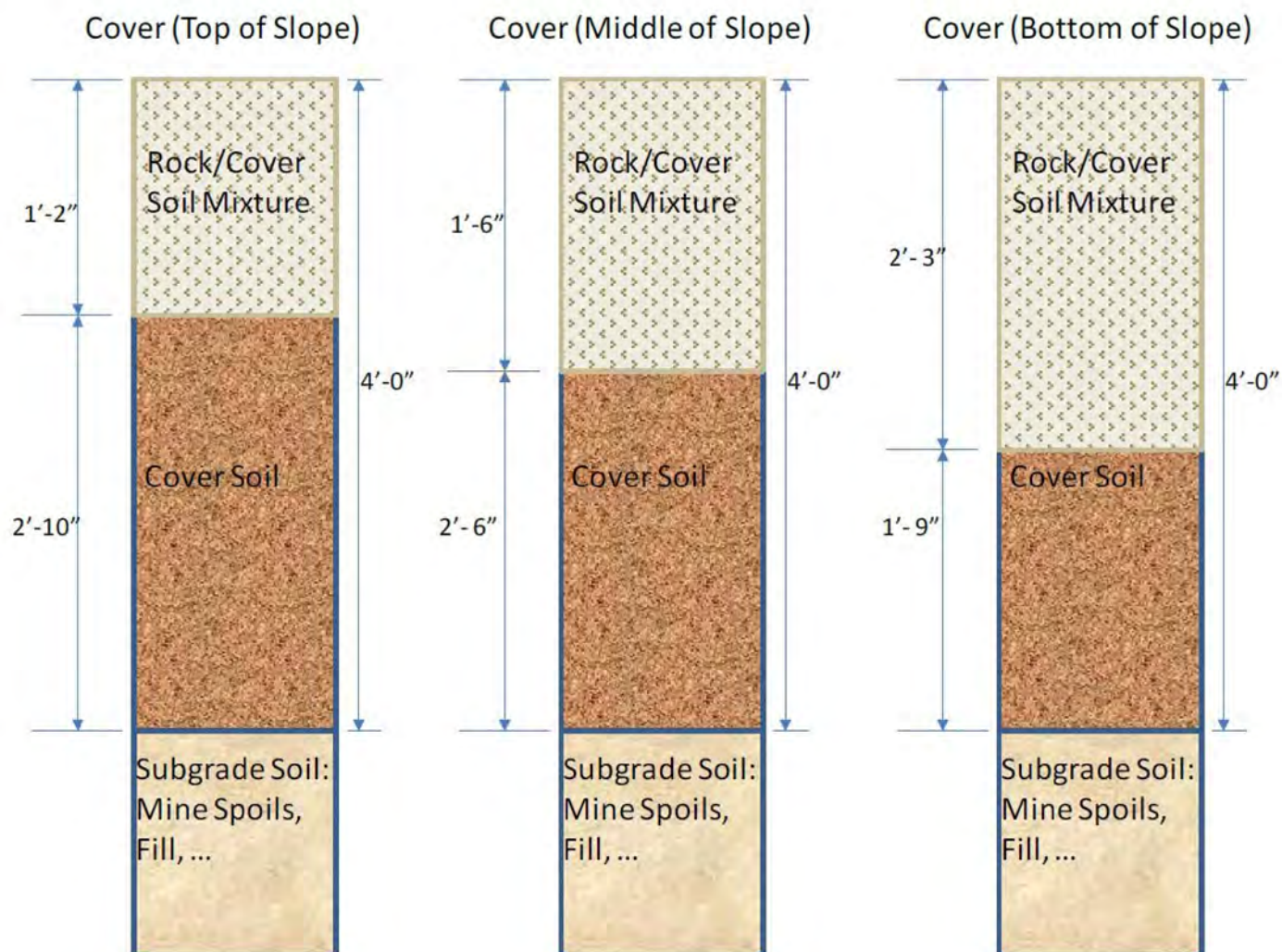







Figure 2.0-4
Cover Profile
NECR Mine and UNC Mill Sites



Legend

- | | | | |
|---|-----------------|---|------------------|
|  | NECR Mine Site |  | Cities and Towns |
|  | UNC Mill Site |  | Road |
|  | County Boundary | | |

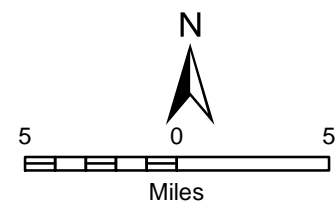


Figure 2.0-5
Off-Site Borrow Areas
NECR Mine and UNC Mill Sites

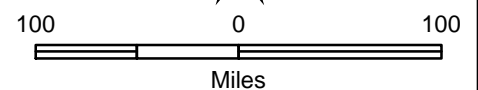
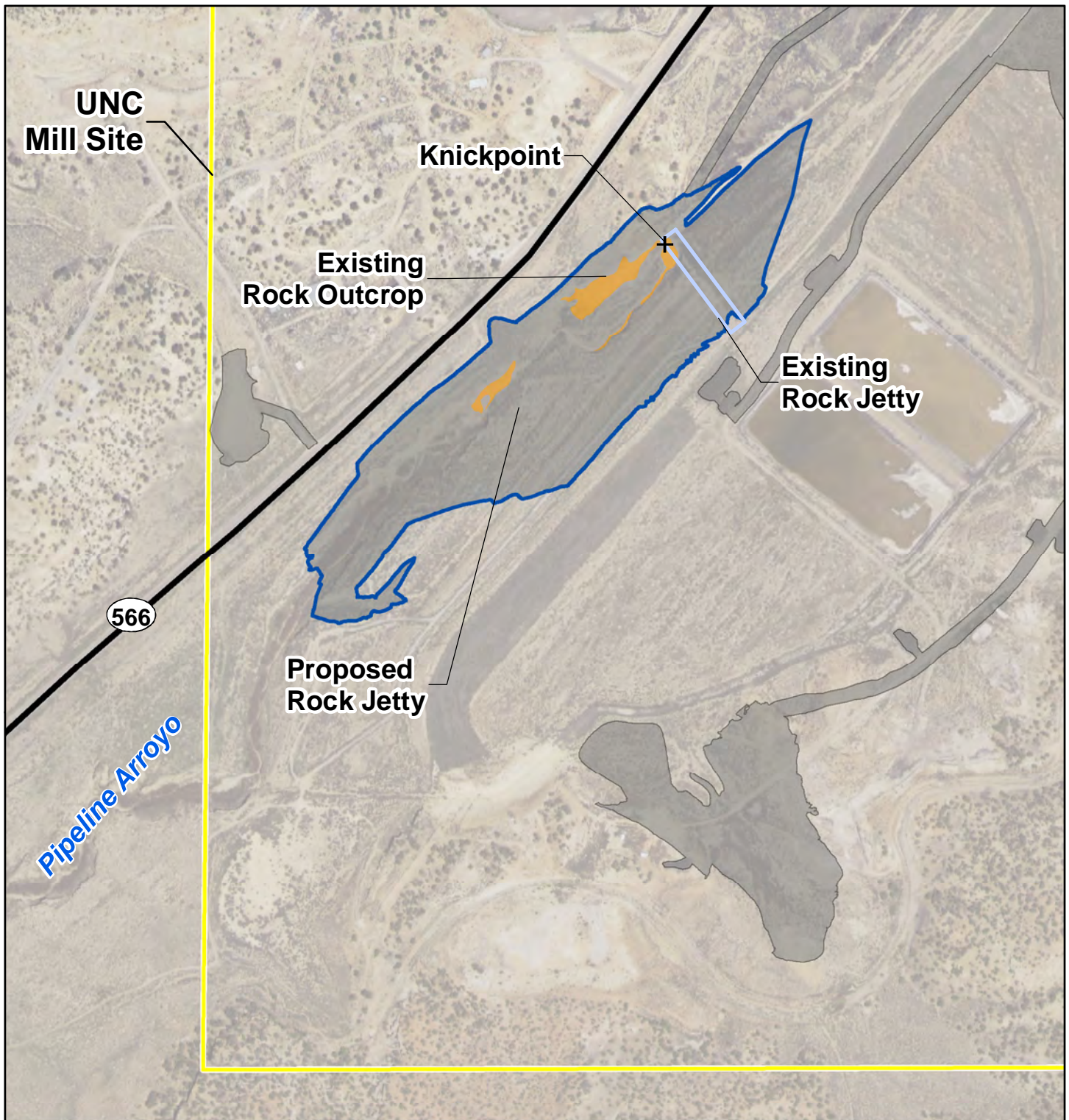









Figure 2.0-6
PTW Reprocessing
NECR Mine and UNC Mill Sites



Legend

- | | | | |
|---|-----------------------|---|-----------------------|
|  | UNC Mill Site |  | Proposed Rock Jetty |
|  | Limits of Disturbance |  | Existing Rock Jetty |
|  | Road |  | Knickpoint |
| | |  | Existing Rock Outcrop |

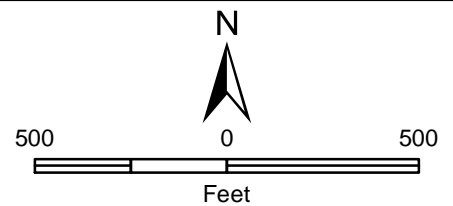


Figure 2.0-7
Jetty Area
NECR Mine and UNC Mill Sites



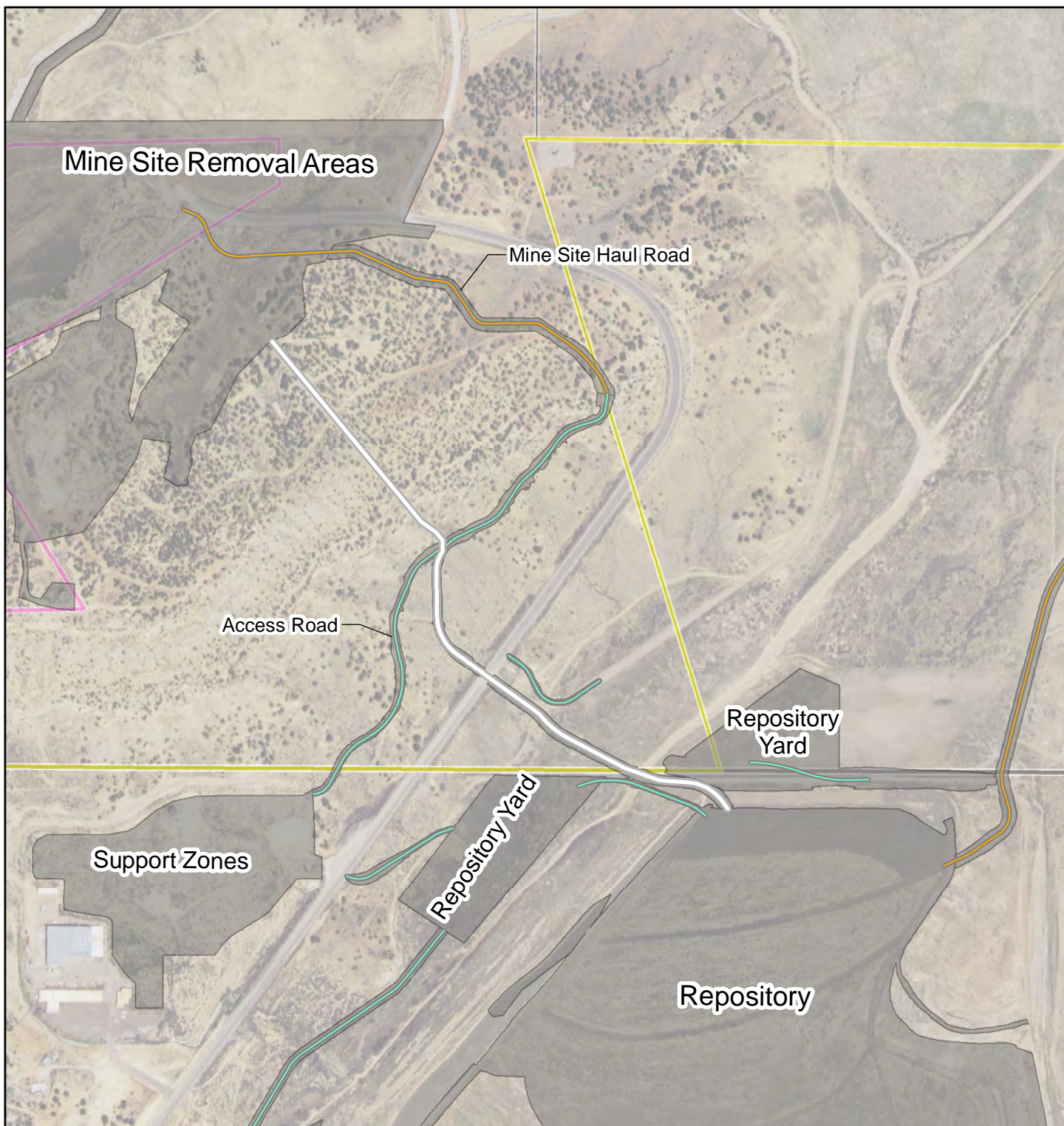
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Source(s): Photo courtesy of Deseret News Publishing Company, used with permission

Figure 2.1-1
Alternative B
NECR Mine and UNC Mill Sites



Legend

- | | |
|--|---|
|  Conveyance System |  Limits of Disturbance |
|  One-Lane Haul Road |  NECR Mine Site |
|  Two-Lane Haul Road |  UNC Mill Site |

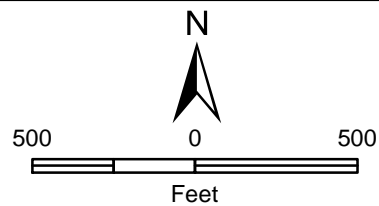


Figure 2.1- 2
Alternative B - Conveyance
NECR Mine and UNC Mill Sites

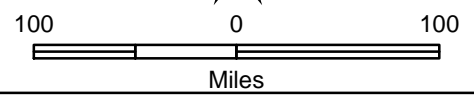
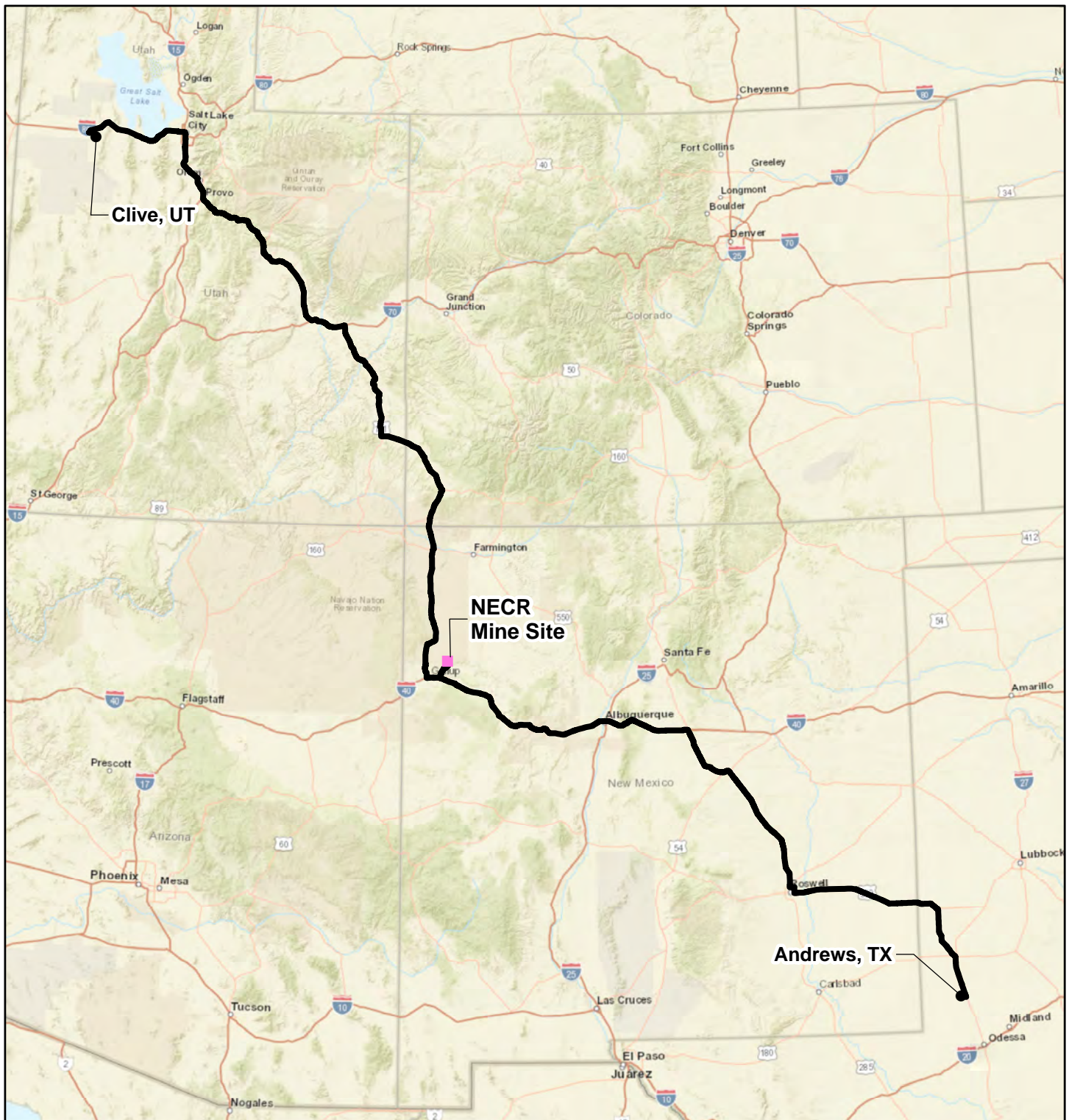
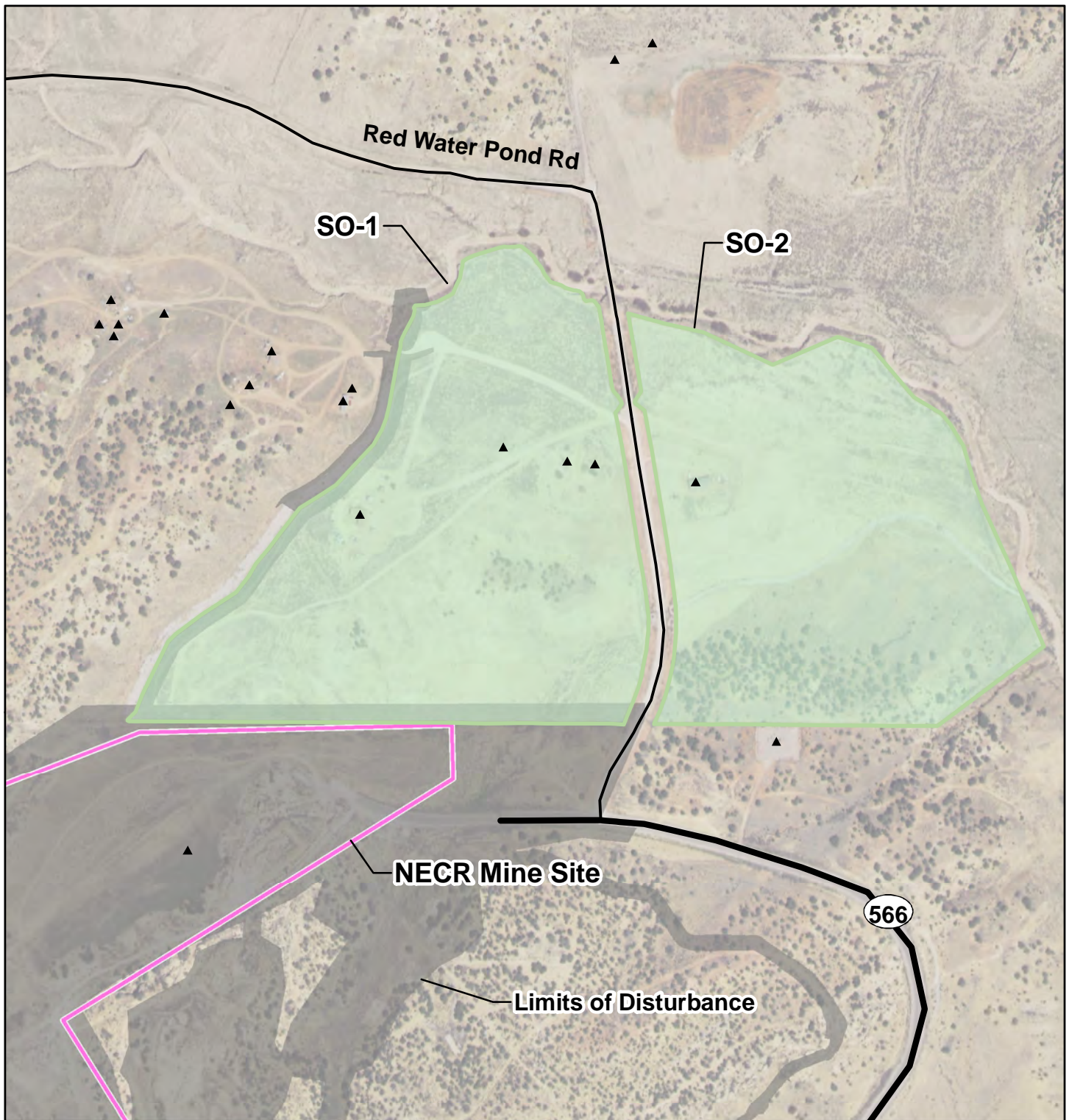







Figure 2.1-3
Alternative D
NECR Mine and UNC Mill Sites



Legend

- | | | | |
|---|-----------------------|---|------------|
|  | NECR Mine Site |  | Structures |
|  | Limits of Disturbance |  | Road |
|  | Step Out Areas | | |

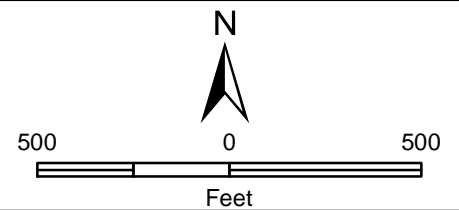
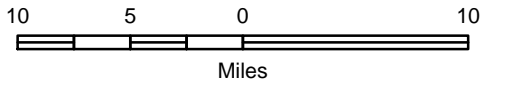


Figure 2.1-4
Interim Removal Actions
NECR Mine and UNC Mill Sites

**Supplemental Environmental Report for the United Nuclear Corporation
Mill Site**

Source Material License Amendment Request, McKinley County, New Mexico, USA

Chapter 3 Figures



Sources: Mineral ownership from BLM (2017);
Roads from US Census TIGER (2016)

Legend

Roads

- Primary Road
- Secondary Road

Federal Mineral Ownership

- All minerals (20%)
- Coal only (2%)
- No minerals (75%)
- Oil and gas only (0.11%)
- Oil, gas, and coal (0.16%)
- Other minerals (2.0)

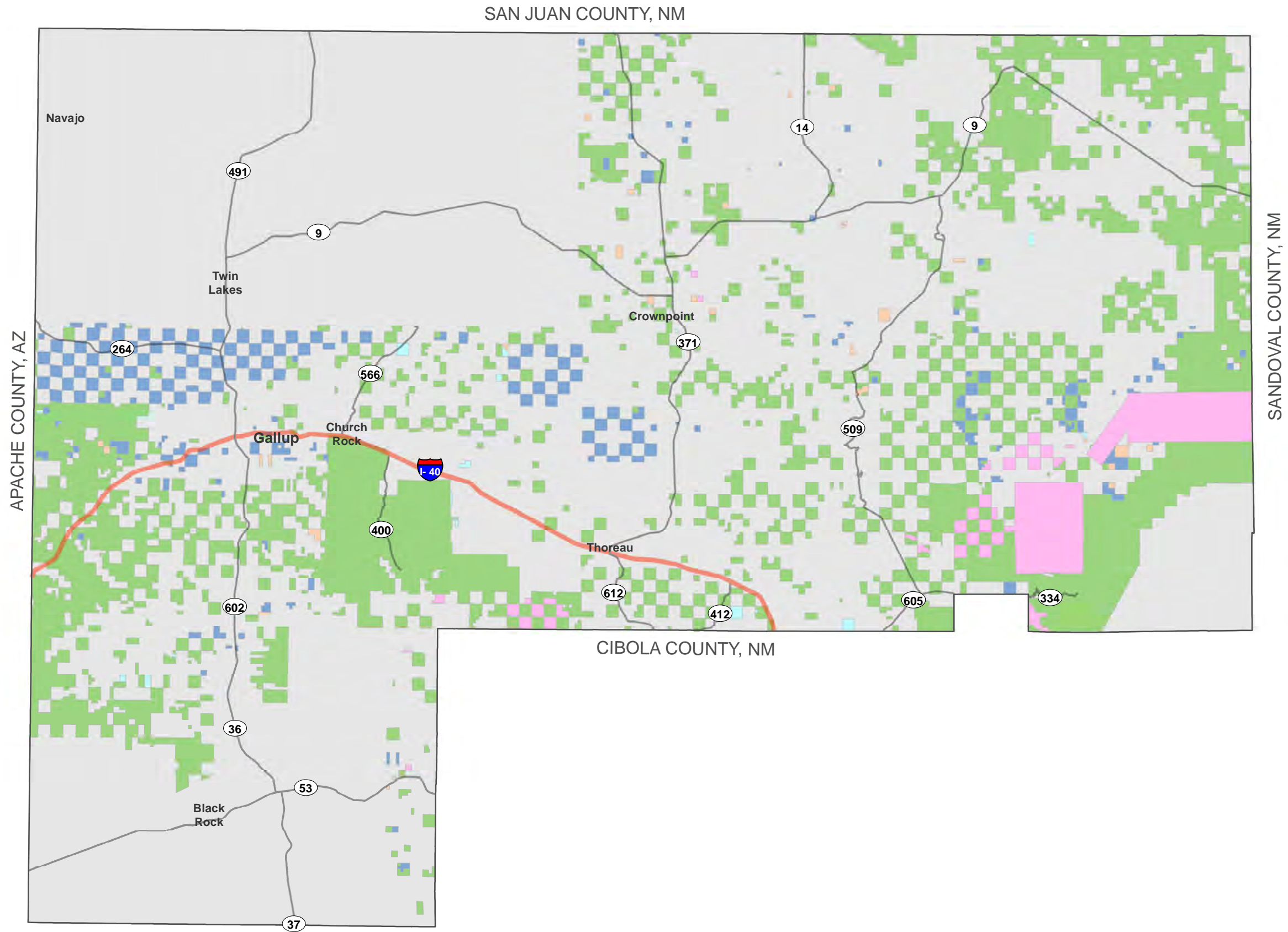
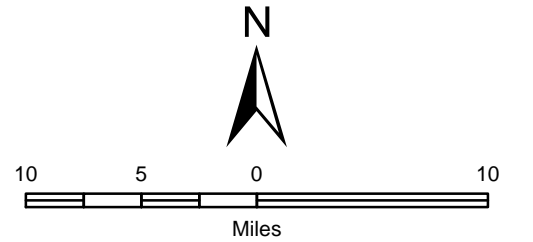
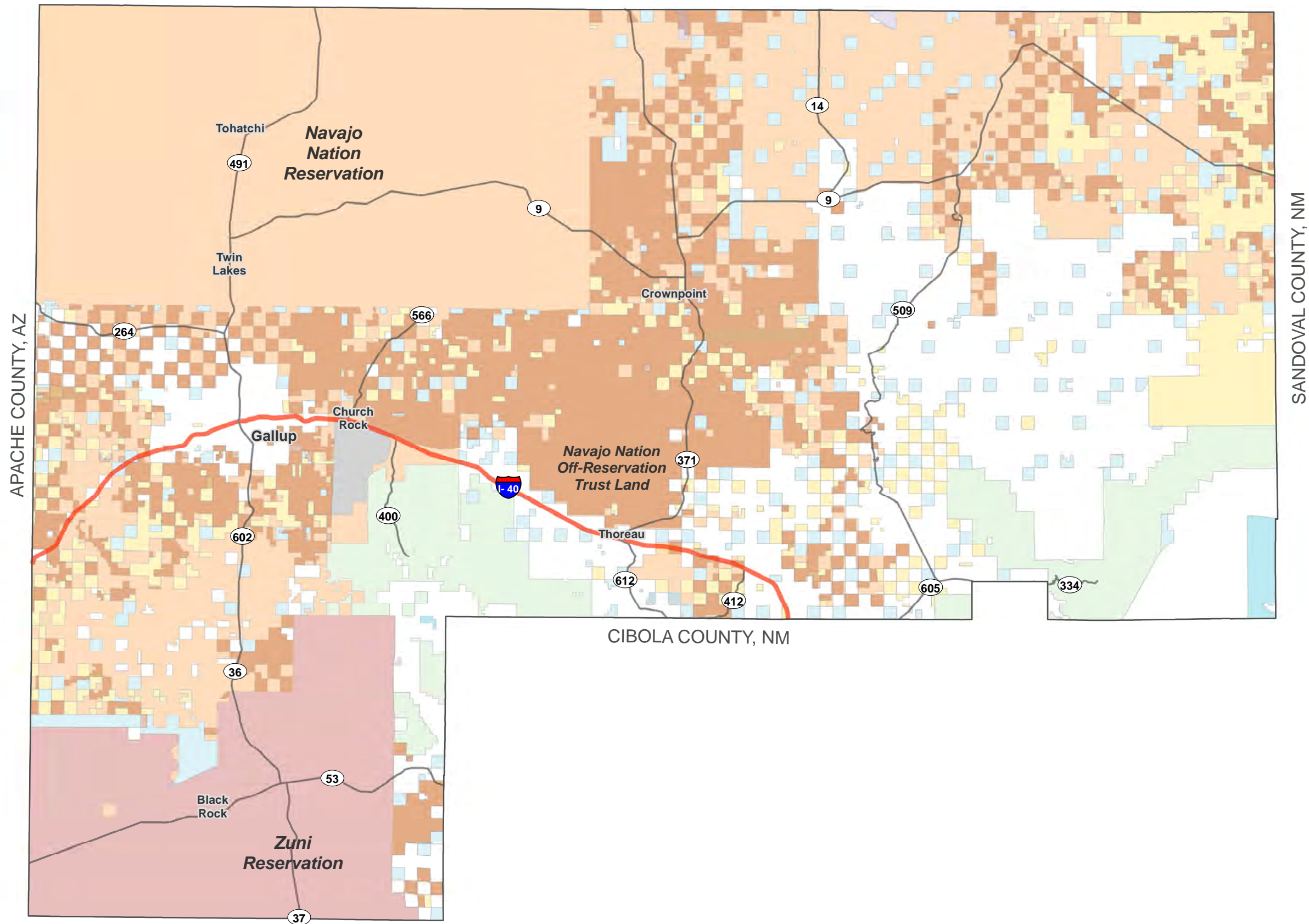


Figure 3.1-1
Federal Mineral Ownership
NECR Mine and UNC Mill Sites

SAN JUAN COUNTY, NM



Sources: Land ownership from US Census Bureau TIGER (2017) and BLM (2016)
Roads from US Census Bureau TIGER (2016)

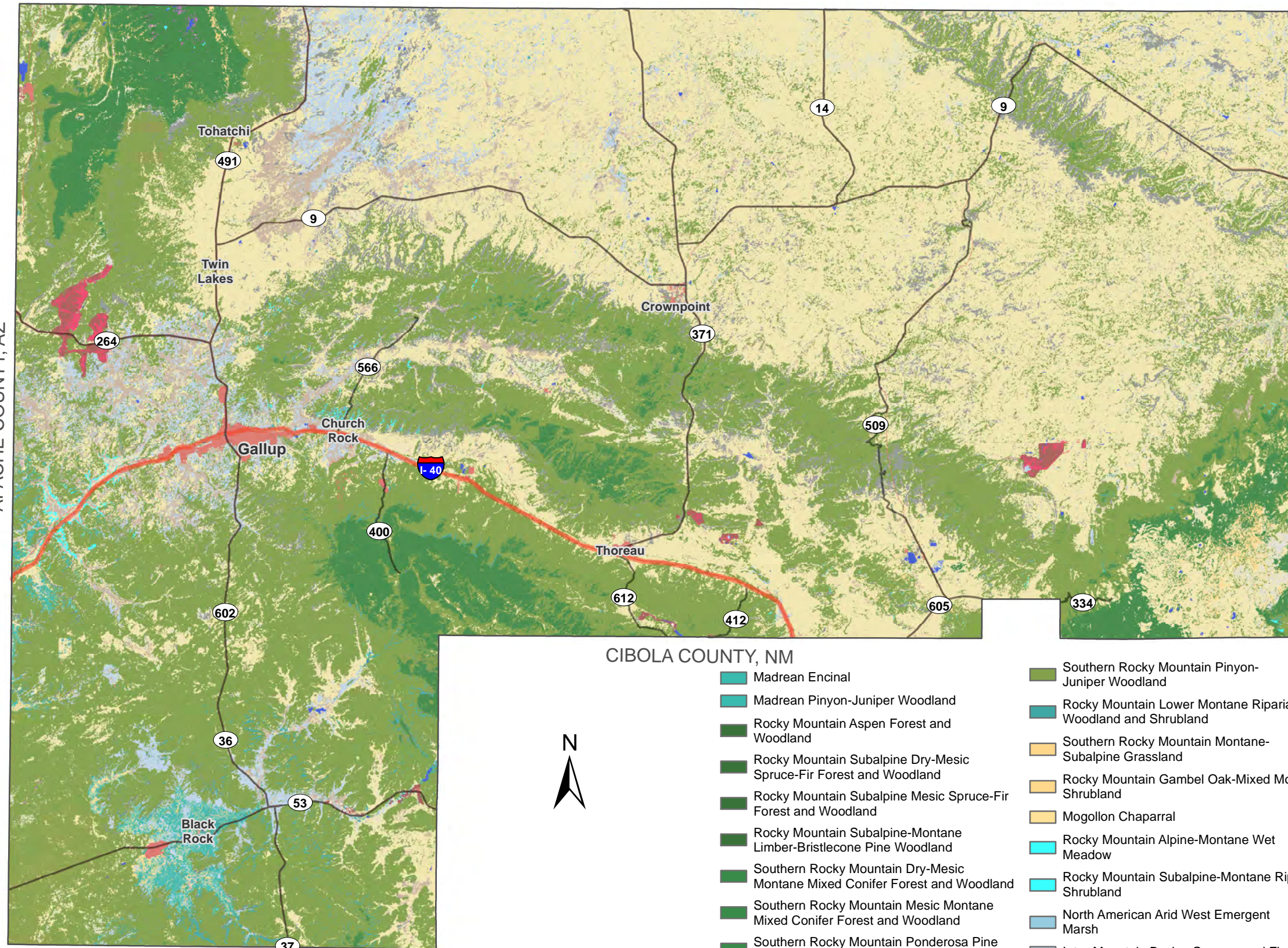
Legend

- Primary Road
- Secondary Road
- Ownership**
- Bureau of Land Management (7%)
- Department of Defence (0.4%)
- Forest Service (5%)
- National Park Service (0.08%)
- Private (20%)
- State (5%)
- State Game and Fish (0.3%)
- State Park (0.03%)
- Navajo Nation Reservation (36%)
- Navajo Nation Off-Reservation Trust Land (18%)
- Navajo Nation Reservation
- Zuni Reservation (9%)

Figure 3.1-2
Surface Land Ownership in
McKinley County
NECR Mine and UNCMill Sites

APACHE COUNTY, AZ

SANDOVAL COUNTY, NM

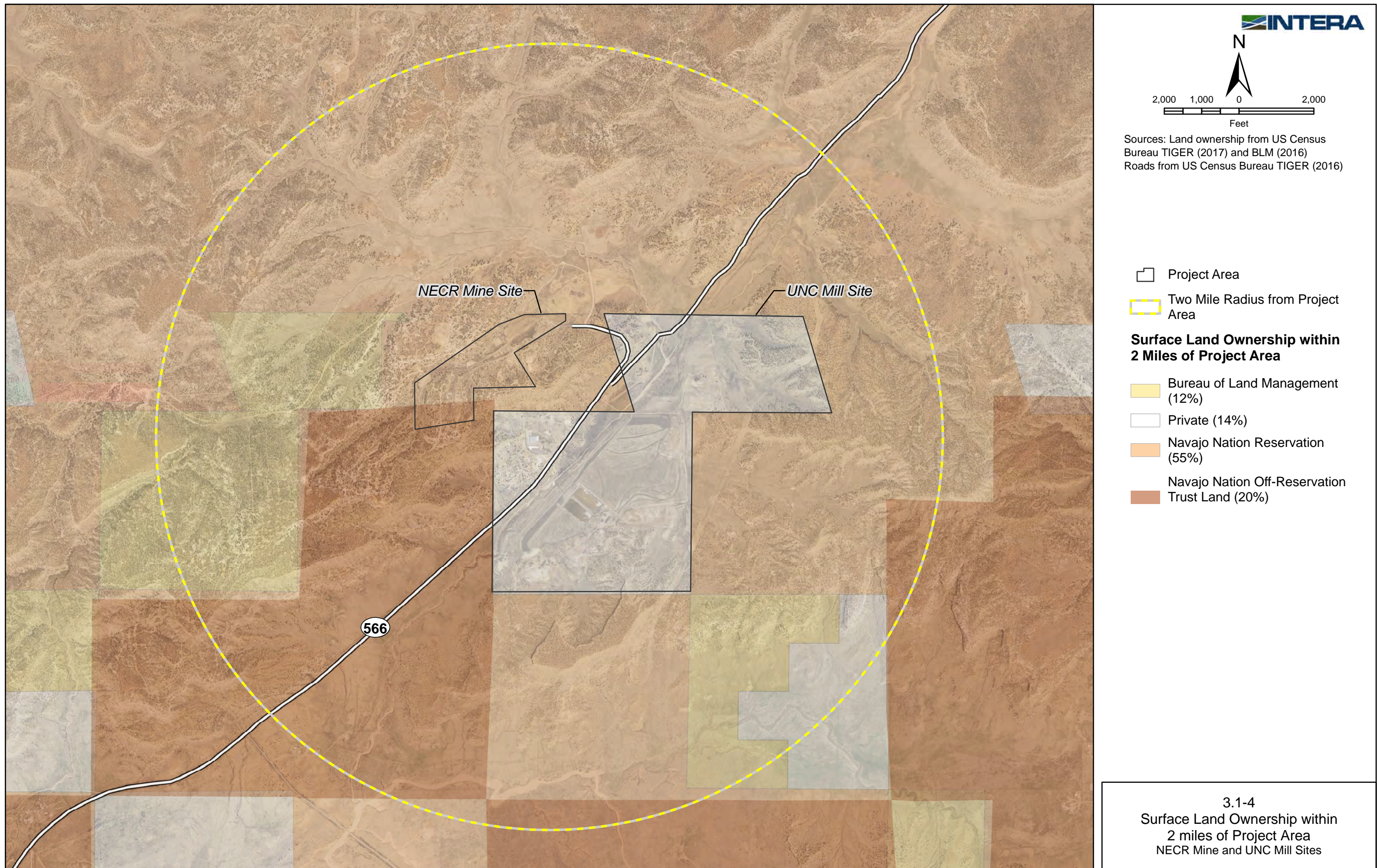


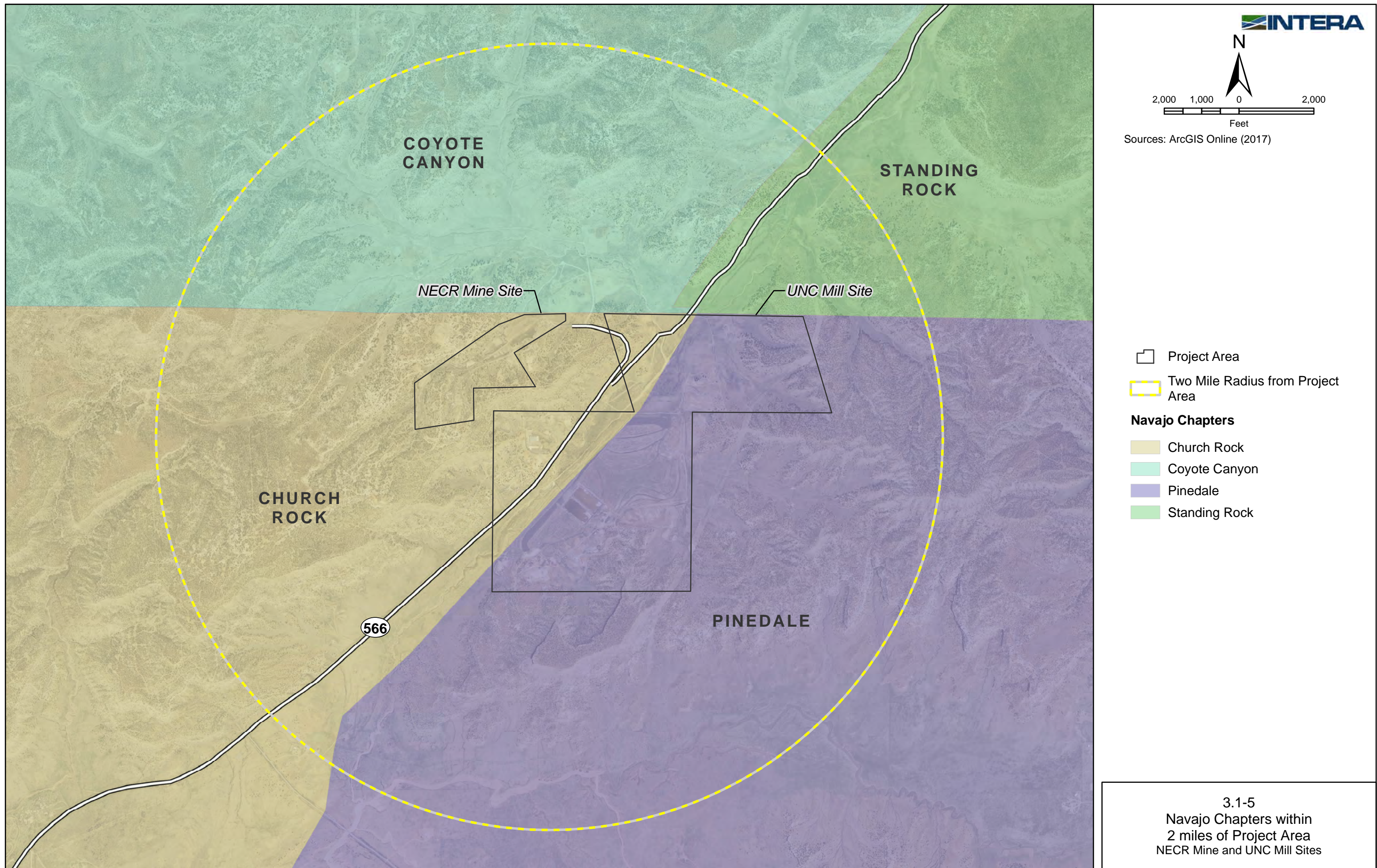
CIBOLA COUNTY, NM

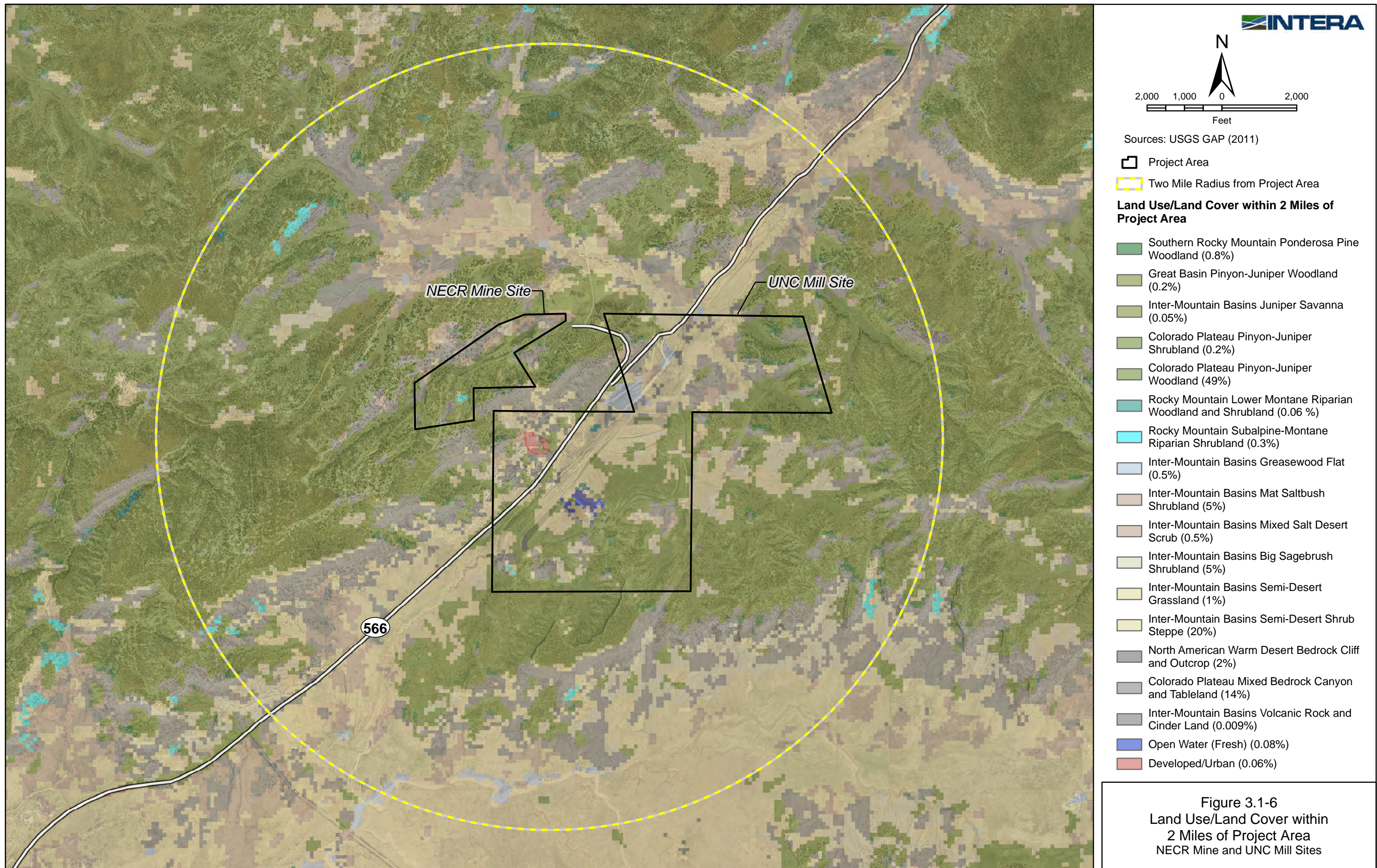
- Madrean Encinal
- Madrean Pinyon-Juniper Woodland
- Rocky Mountain Aspen Forest and Woodland
- Rocky Mountain Subalpine Dry-Mesic Spruce-Fir Forest and Woodland
- Rocky Mountain Subalpine Mesic Spruce-Fir Forest and Woodland
- Rocky Mountain Subalpine-Montane Limber-Bristlecone Pine Woodland
- Southern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest and Woodland
- Southern Rocky Mountain Mesic Montane Mixed Conifer Forest and Woodland
- Southern Rocky Mountain Ponderosa Pine Woodland
- Great Basin Pinyon-Juniper Woodland
- Inter-Mountain Basins Juniper Savanna
- Colorado Plateau Pinyon-Juniper Shrubland
- Colorado Plateau Pinyon-Juniper Woodland
- Southern Rocky Mountain Pinyon-Juniper Woodland
- Rocky Mountain Lower Montane Riparian Woodland and Shrubland
- Southern Rocky Mountain Montane-Subalpine Grassland
- Rocky Mountain Gambel Oak-Mixed Montane Shrubland
- Mogollon Chaparral
- Rocky Mountain Alpine-Montane Wet Meadow
- Rocky Mountain Subalpine-Montane Riparian Shrubland
- North American Arid West Emergent Marsh
- Inter-Mountain Basins Greasewood Flat
- Inter-Mountain Basins Playa
- Apacherian-Chihuahuan Semi-Desert Grassland and Steppe
- Madrean Juniper Savanna
- Inter-Mountain Basins Mat Saltbush Shrubland

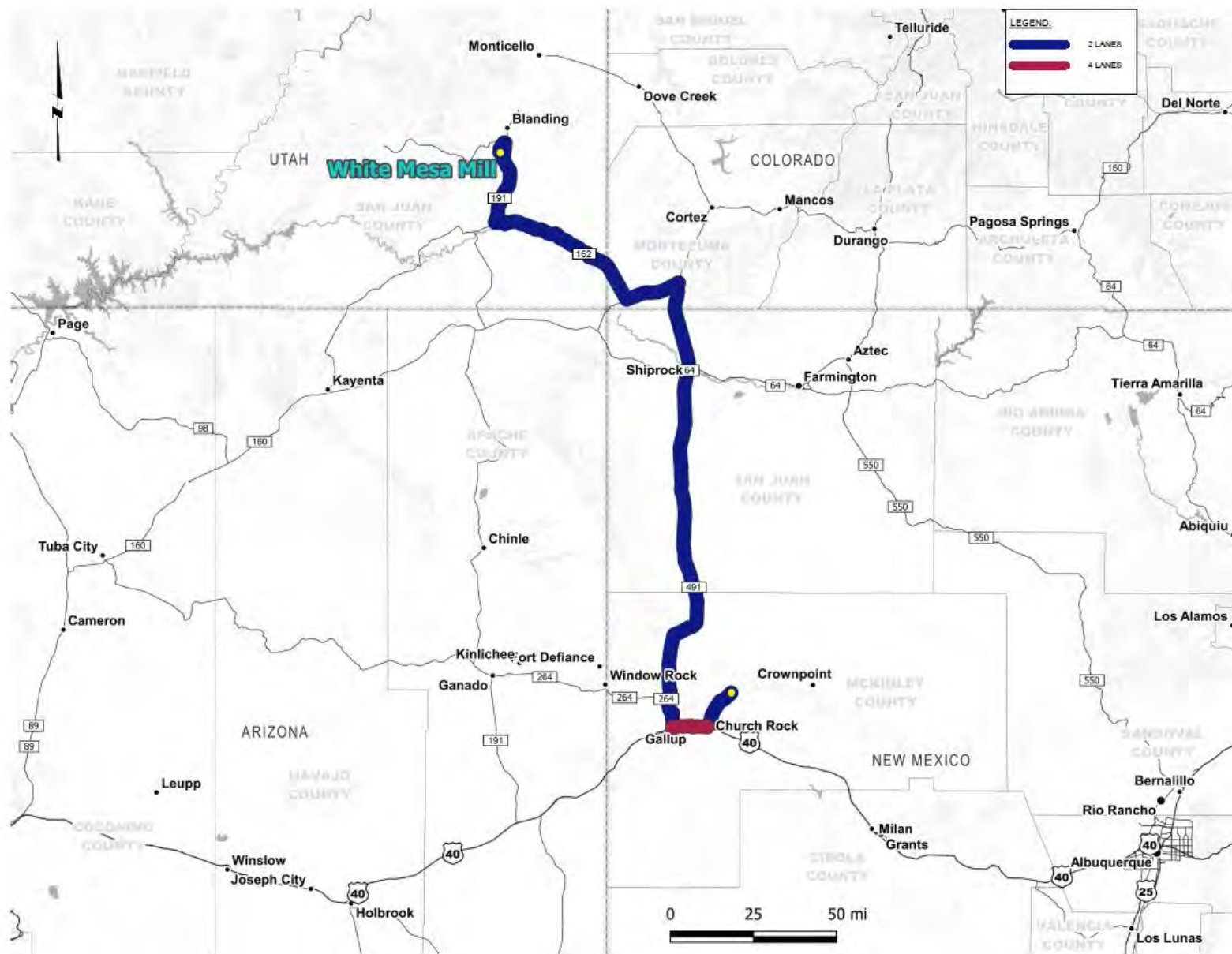
- Inter-Mountain Basins Mixed Salt Desert Scrub
- Inter-Mountain Basins Wash
- Inter-Mountain Basins Big Sagebrush Shrubland
- Colorado Plateau Mixed Low Sagebrush Shrubland
- Colorado Plateau Blackbrush-Mormon-tea Shrubland
- Inter-Mountain Basins Semi-Desert Grassland
- Inter-Mountain Basins Semi-Desert Shrub Steppe
- Southern Colorado Plateau Sand Shrubland
- Rocky Mountain Cliff, Canyon and Massive Bedrock
- North American Warm Desert Bedrock Cliff and Outcrop
- Colorado Plateau Mixed Bedrock Canyon and Tableland
- Inter-Mountain Basins Shale Badland
- Inter-Mountain Basins Volcanic Rock and Cinder Land
- Undifferentiated Barren Land
- Cultivated Cropland
- Pasture/Hay
- Introduced Upland Vegetation - Annual Grassland
- Introduced Upland Vegetation - Perennial Grassland and Forbland
- Introduced Upland Vegetation - Shrub
- Disturbed/Successional - Grass/Forb Regeneration
- Disturbed/Successional - Shrub Regeneration
- Open Water (Fresh)
- Quarries, Mines, Gravel Pits and Oil Wells
- Developed, Open Space
- Developed, Low Intensity
- Developed, Medium Intensity
- Developed, High Intensity

Figure 3.1-3
Land Use/Land Cover within
McKinley County
NECR Mine and UNC Mill Sites





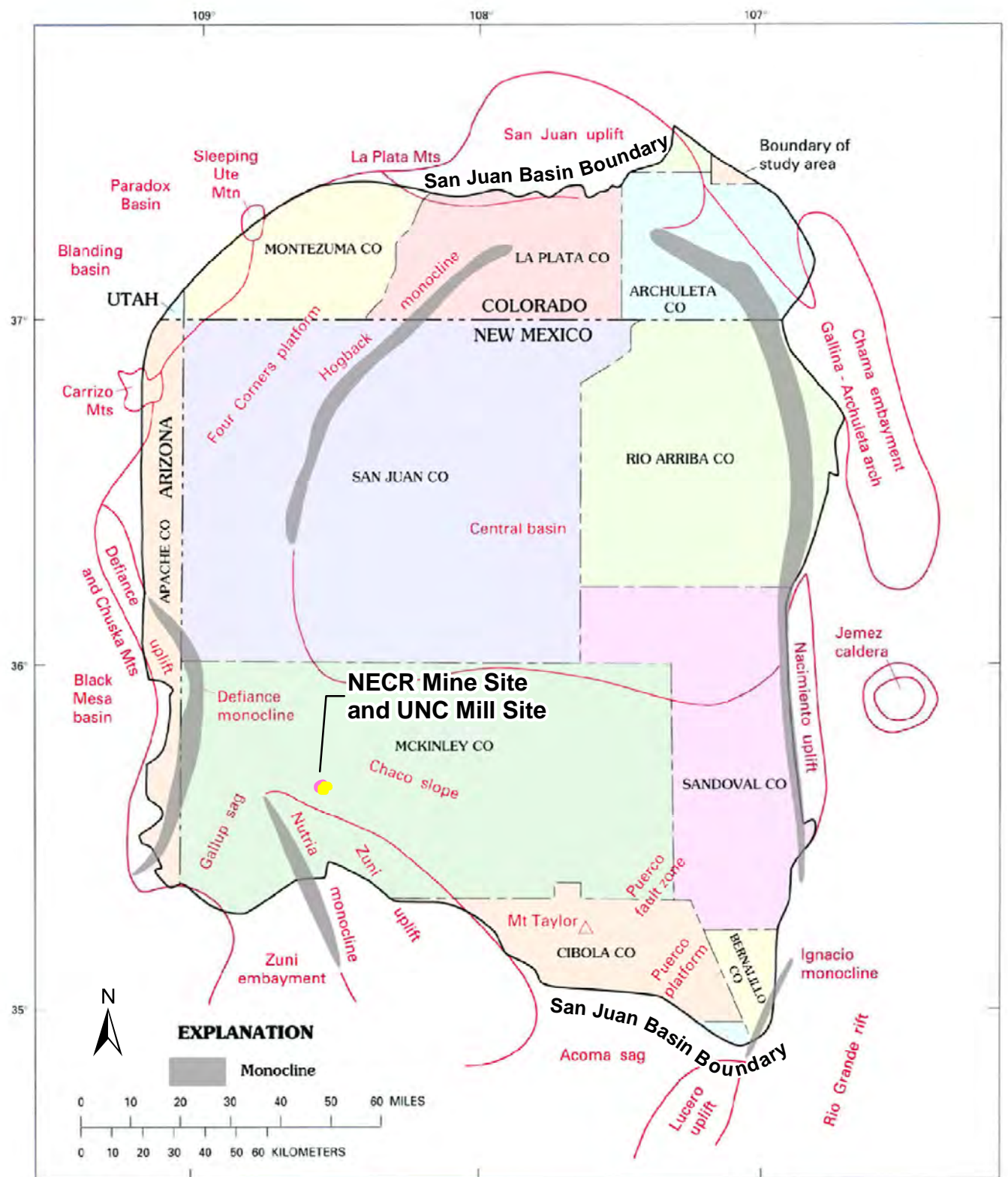




**Figure 3.2-1. Route to Energy Solutions White Mesa Mill in Blanding, Utah
NECR Mine and UNC Mill Sites**

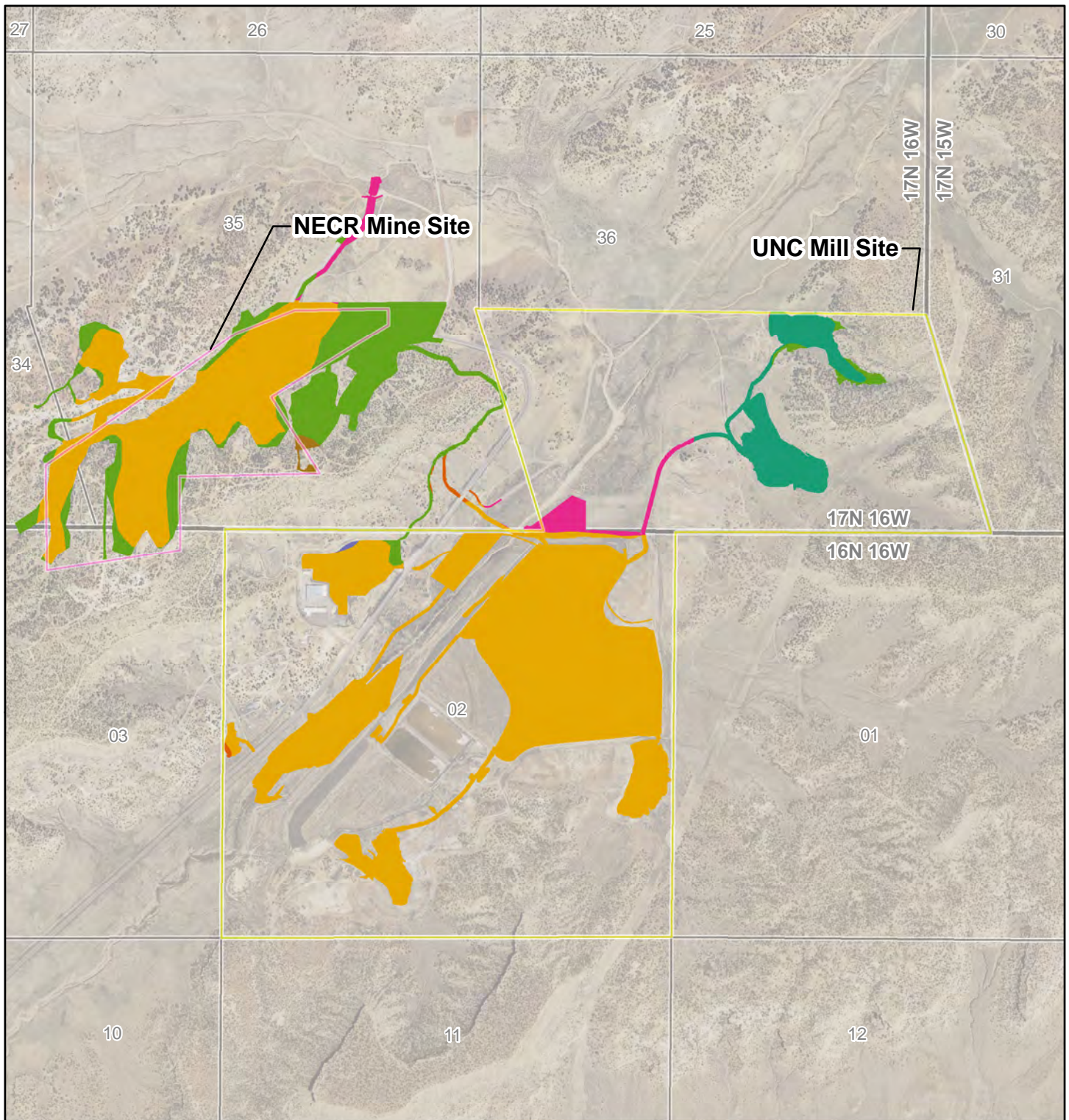


Figure 3.2-2. Route to Energy Solutions Facility in Clive, Utah
NECR Mine and UNC Mill Sites



*Adapted from Kelley (1963), Levings et al. (1996), and Craigg (2001).

Figure 3.3-1
Structural Features of the
San Juan Basin
NECR Mine and UNC Mill Sites



Legend

- | | | |
|----------------|---|---|
| NECR Mine Site | Buckle fine sandy loam, 1 to 8 percent slopes | Sparank-San Mateo-Zia complex, 0 to 3 percent slopes |
| UNC Mill Site | Mentmore loam, 1 to 8 percent slopes | Toldohn-Vessilla-Rock outcrop complex, 8 to 35 percent slopes |
| PLSS Township | Rock outcrop-Eagleeye-Atchee complex, 35 to 70 percent slopes | Uranium mined lands |
| PLSS Section | | Vessilla-Rock outcrop complex, 2 to 15 percent slopes |

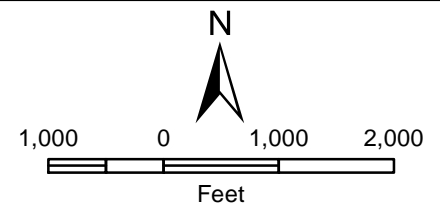
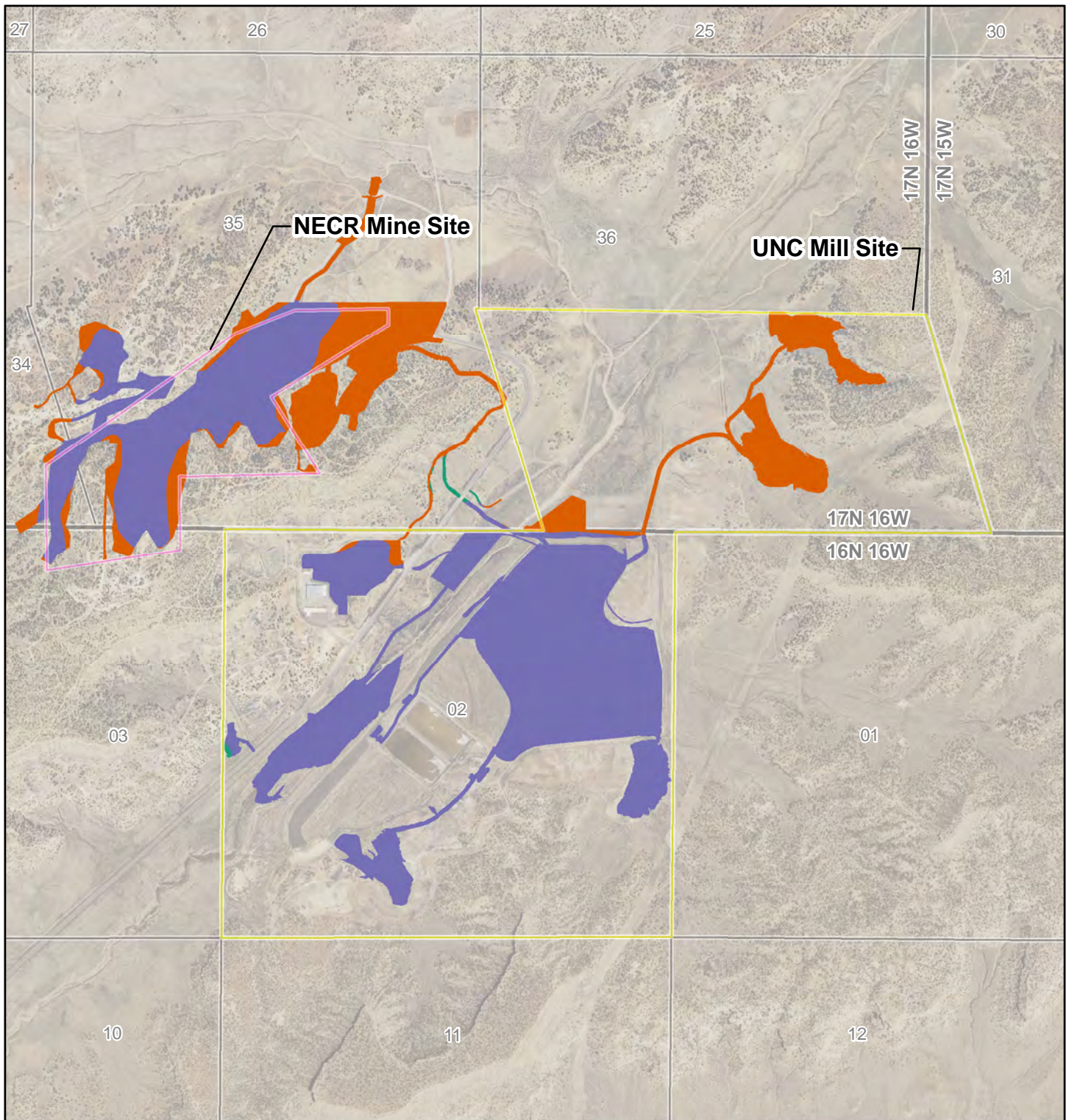


Figure 3.3-2
Soil Map Units
in Area of Analysis
NECR Mine and UNC Mill Sites



Source(s): NRCS



Legend

- | | | | |
|---|----------------|---|--------------|
|  | NECR Mine Site |  | Fair |
|  | UNC Mill Site |  | Poor |
|  | PLSS Township |  | Uranium Mine |
|  | PLSS Section | | |

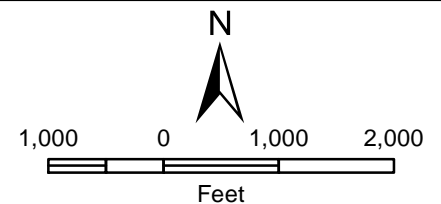
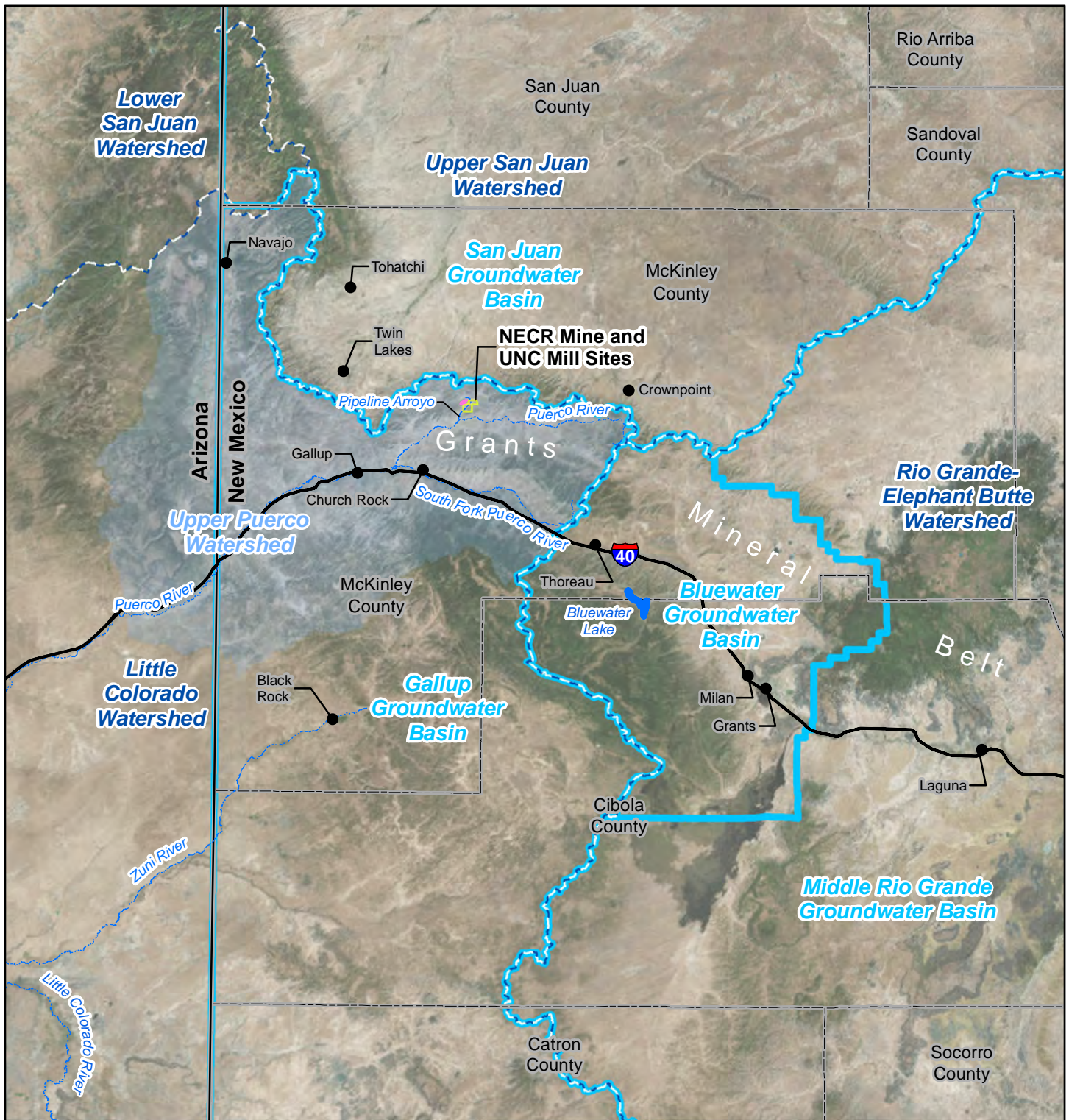


Figure 3.3-3
Soil Rating
for Each Soil Unit
NECR Mine and UNC Mill Sites



Legend

- | | | | |
|--|-----------------------------------|--|------------------|
| | NECR Mine Site | | HUC8 Watershed |
| | UNC Mill Site | | Cities and Towns |
| | Rivers and Streams (Intermittent) | | Road |
| | HUC6 Watershed | | State Boundary |
| | NMOSE Declared Groundwater Basin | | County Boundary |

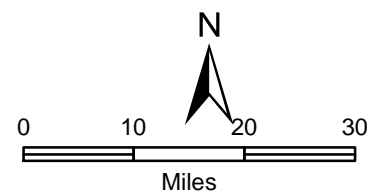











Figure 3.4-1
Little Colorado River Basin
NECR Mine and UNC Mill Sites



Source: USGS, 2007-2014, NMOSE 2017.



Legend

- | | | | |
|---|-----------------------------------|---|------------------|
|  | NECR Mine Site |  | HUC10 Watershed |
|  | UNC Mill Site |  | Cities and Towns |
|  | USGS Stream Gage |  | Road |
|  | Rivers and Streams (Intermittent) |  | County Boundary |
|  | Impaired Stream (IR Category 5) | | |



Source(s): USGS, 2007-2014; NMOSE, 2017.

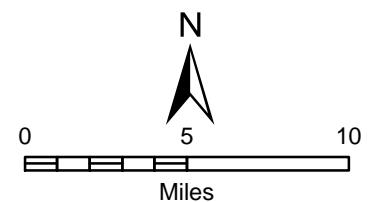


Figure 3.4-2
NECR Site Features
and Drainage
NECR Mine and UNC Mill Sites

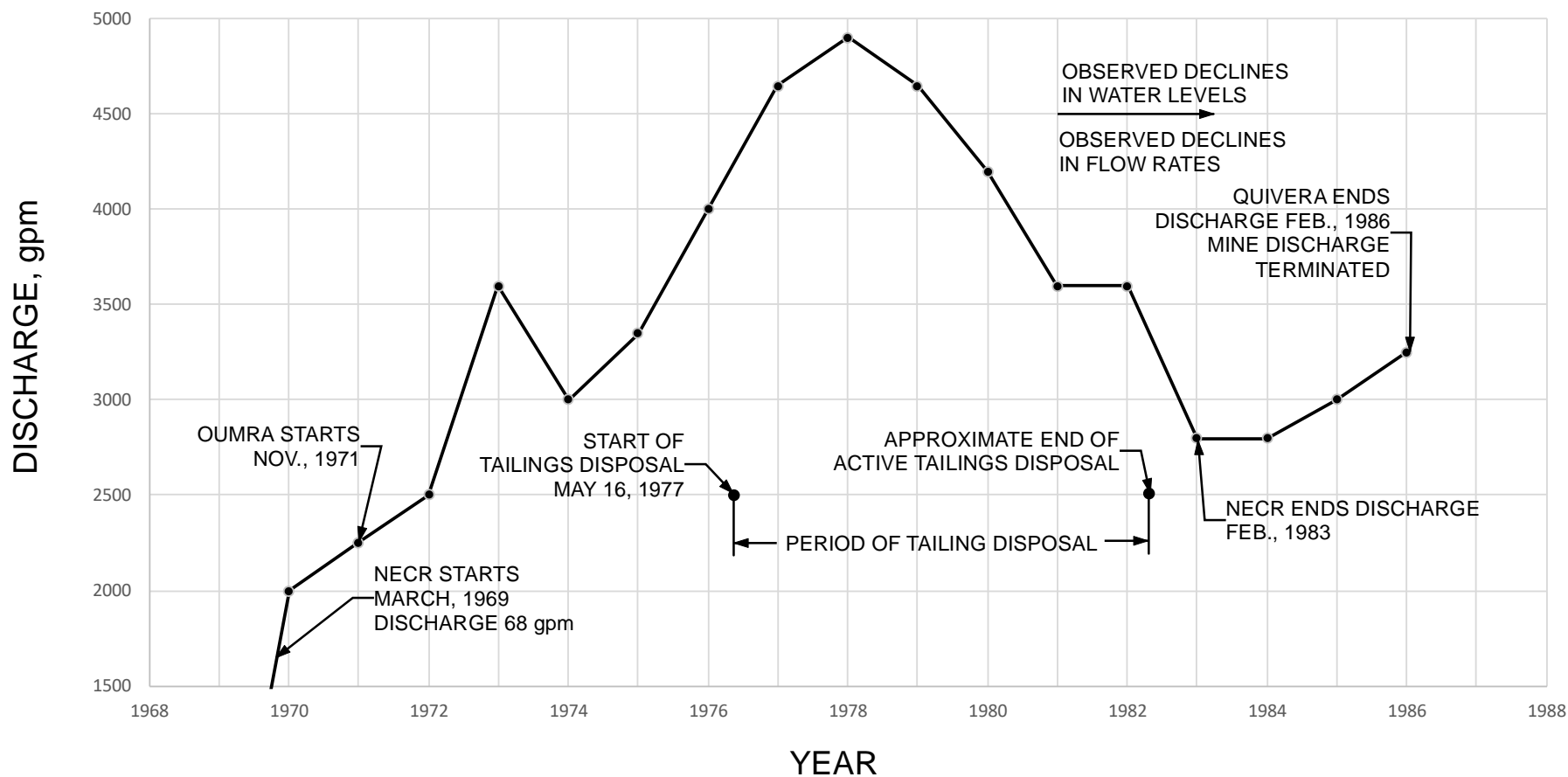


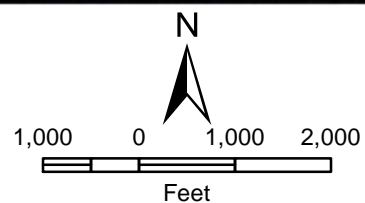
Figure 3.4-3
Mine Water Discharge
Rates Over Time
NECR Mine and UNC Mill Sites



Legend

 2D Model Area Extents

Max Depth (ft) - 100-Year Flood

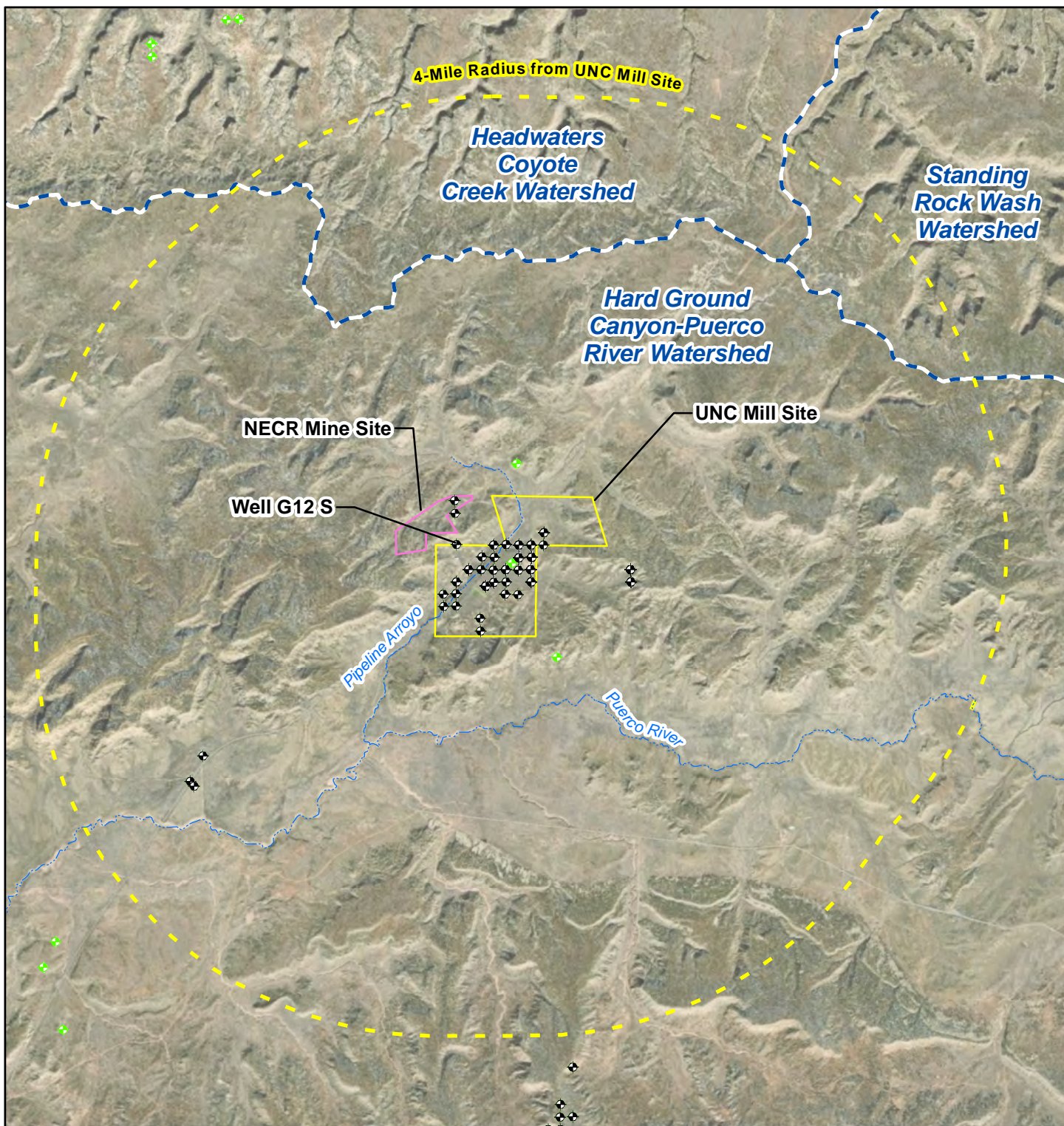


INTERA

Figure 3.4-4
Pipeline Arroyo
100-Year Flood Depth
NECR Mine and
UNC Mill Sites

Coordinate System: NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US

FILE: S:\ABQ\GE_UNC_003_ChurchRock\Graphics_NEW_working\MapDocs\Water\03_04_04_PipelineArroyo100YrFlood.mxd Date: 9/20/2018



Legend



NECR Mine Site



UNC Mill Site



NMOSE Points of Diversion



NMOSE Points of Diversion: Owned by UNC



Rivers and Streams (Intermittent)



HUC10 Watershed

N

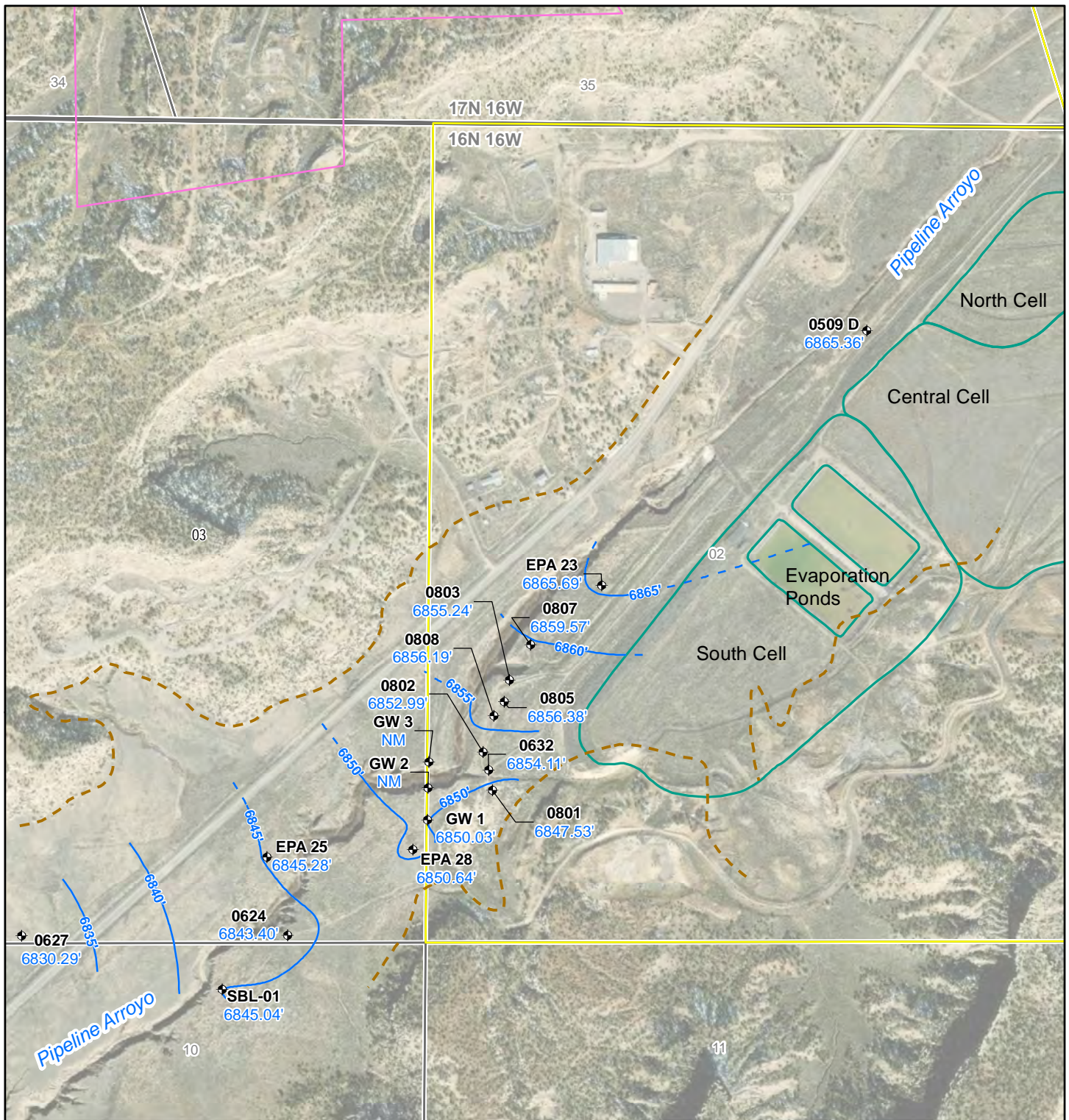


Miles

Figure 3.4-5
Water Wells in Project Area
NECR Mine and UNC Mill Sites



Sources: USGS, 2007-2014; NMOSE, 2018.



Legend

- NECR Mine Site
- UNC Mill Site
- Southwest Alluvium Monitoring Well
- Groundwater Elevation Contour
- Inferred Groundwater Elevation Contour
- Approximate Extent of Alluvium
- Cell Boundary
- Township Boundary
- Section Boundary

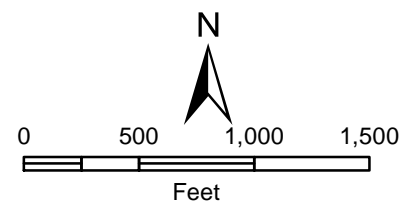
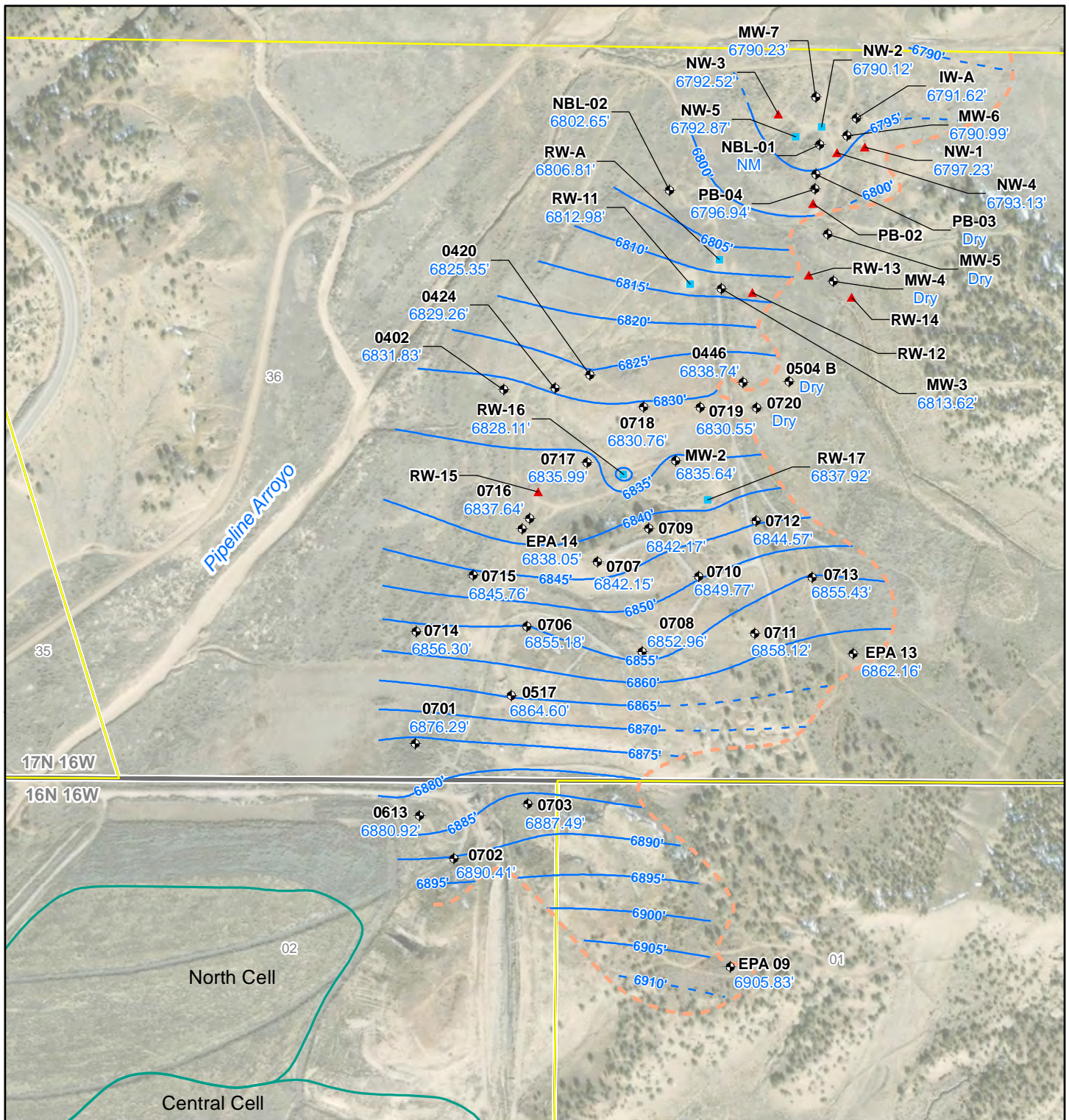


Figure 3.4-6
Southwest Alluvium
Potentiometric Surface
NECR Mine and UNC Mill Sites



Legend

- UNC Mill Site
- ⬢ Monitoring Well
- ▲ Non-Pumping Well
- Pumping Well
- Approximate Eastern Boundary of Zero Saturation
- Groundwater Elevation Contour
- Inferred Groundwater Elevation Contour
- Cell Boundary
- Township Boundary
- Section Boundary

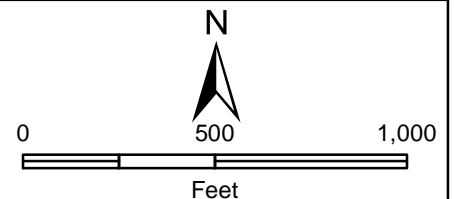
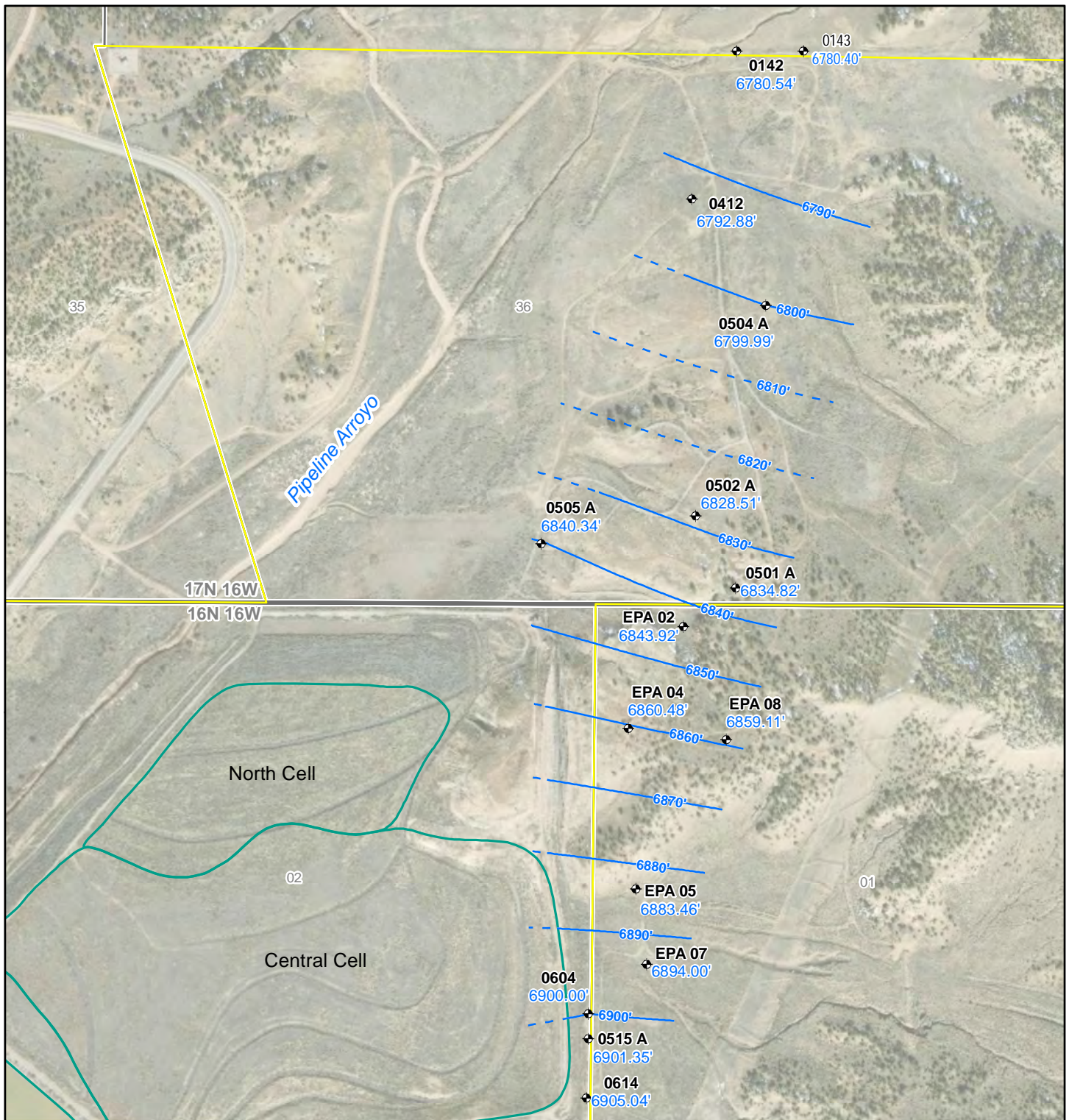


Figure 3.4-7
Zone 3
Potentiometric Surface
NECR Mine and UNC Mill Sites



Legend

- UNC Mill Site
- Zone 1 Monitoring Well
- Groundwater Elevation Contour
- Inferred Groundwater Elevation Contour
- Cell Boundary
- Township Boundary
- Section Boundary

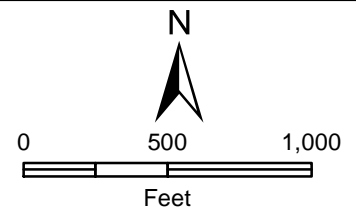
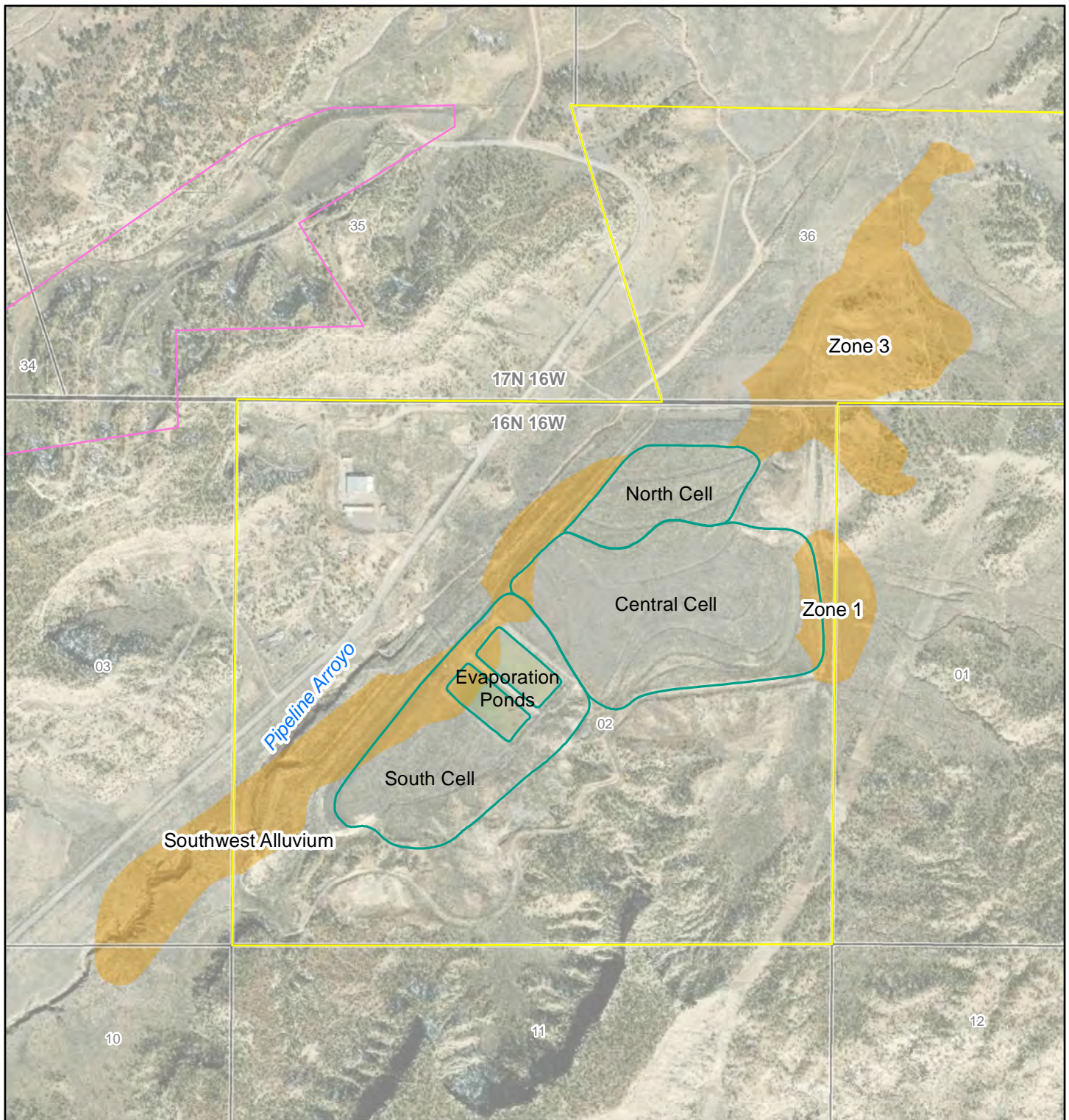








Figure 3.4-8
Zone 1
Potentiometric Surface
NECR Mine and UNC Mill Sites





Legend

-  NECR Mine Site
-  UNC Mill Site
-  Seepage-Impacted Groundwater
-  Cell Boundary
-  17N 16W Township Boundary
-  11 Section Boundary

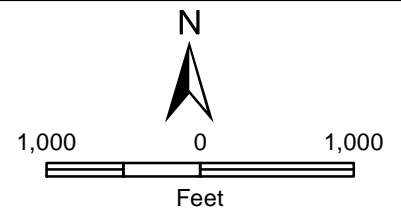
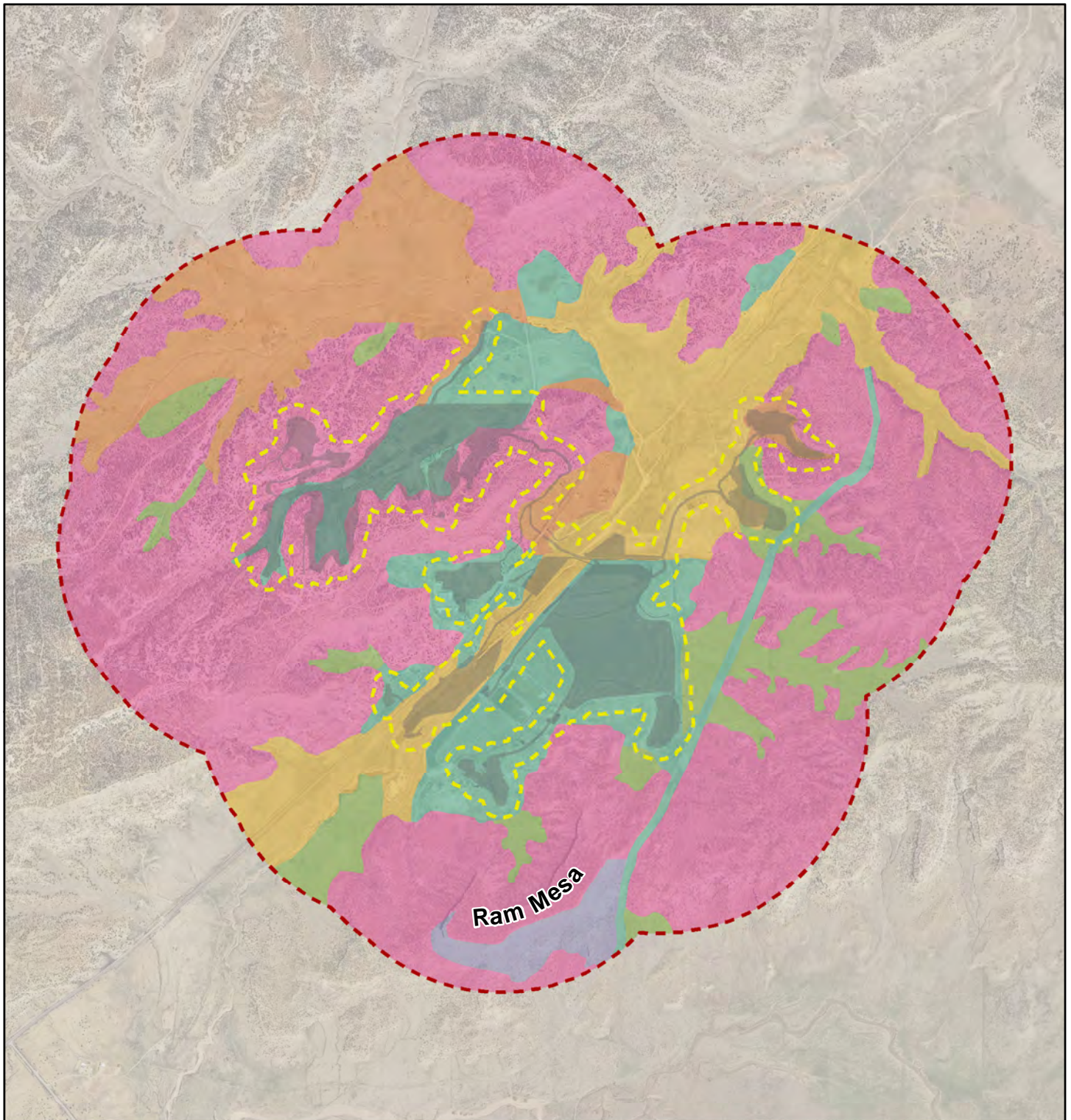





Figure 3.4-9
Extent of Seepage-Impacted
Groundwater, October 2017
NECR Mine and UNC Mill Sites



Legend

-  Limits of Disturbance
-  1,000 Meter Wildlife Survey Boundary
-  200 Foot Vegetation Survey Boundary

Vegetation Community

-  Bottomland
-  Grassland
-  Pinon Juniper
-  Reclaimed
-  Rock
-  Shrubland

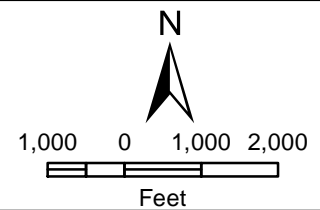
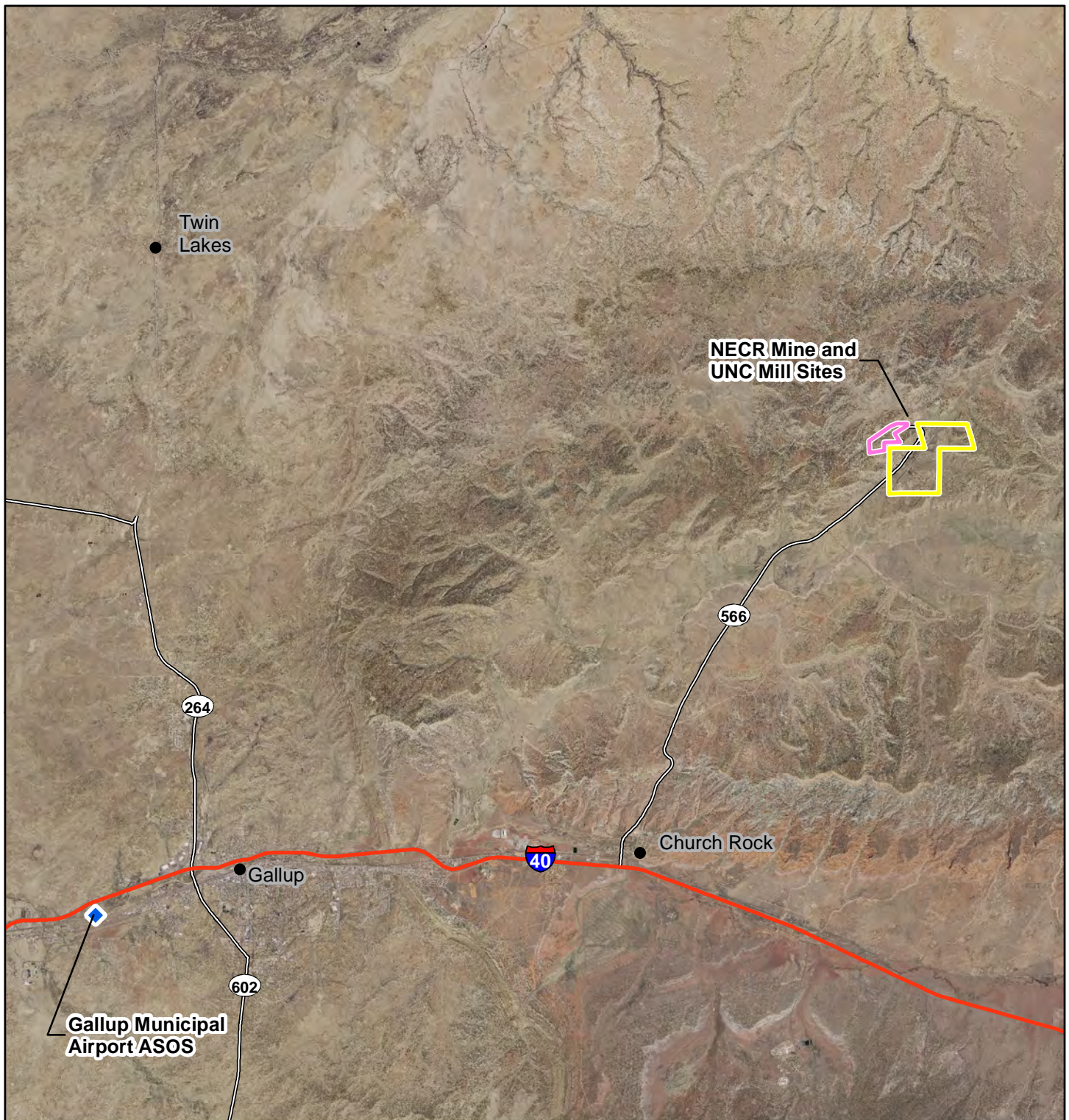







Figure 3.5-1
Area of Analysis,
Ecological Resources
NECR Mine and UNC Mill Sites



Legend

-  NECR Mine Site
-  UNC Mill Site
-  Interstate
-  State Route
-  Weather Monitoring Station

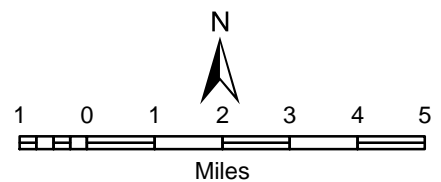
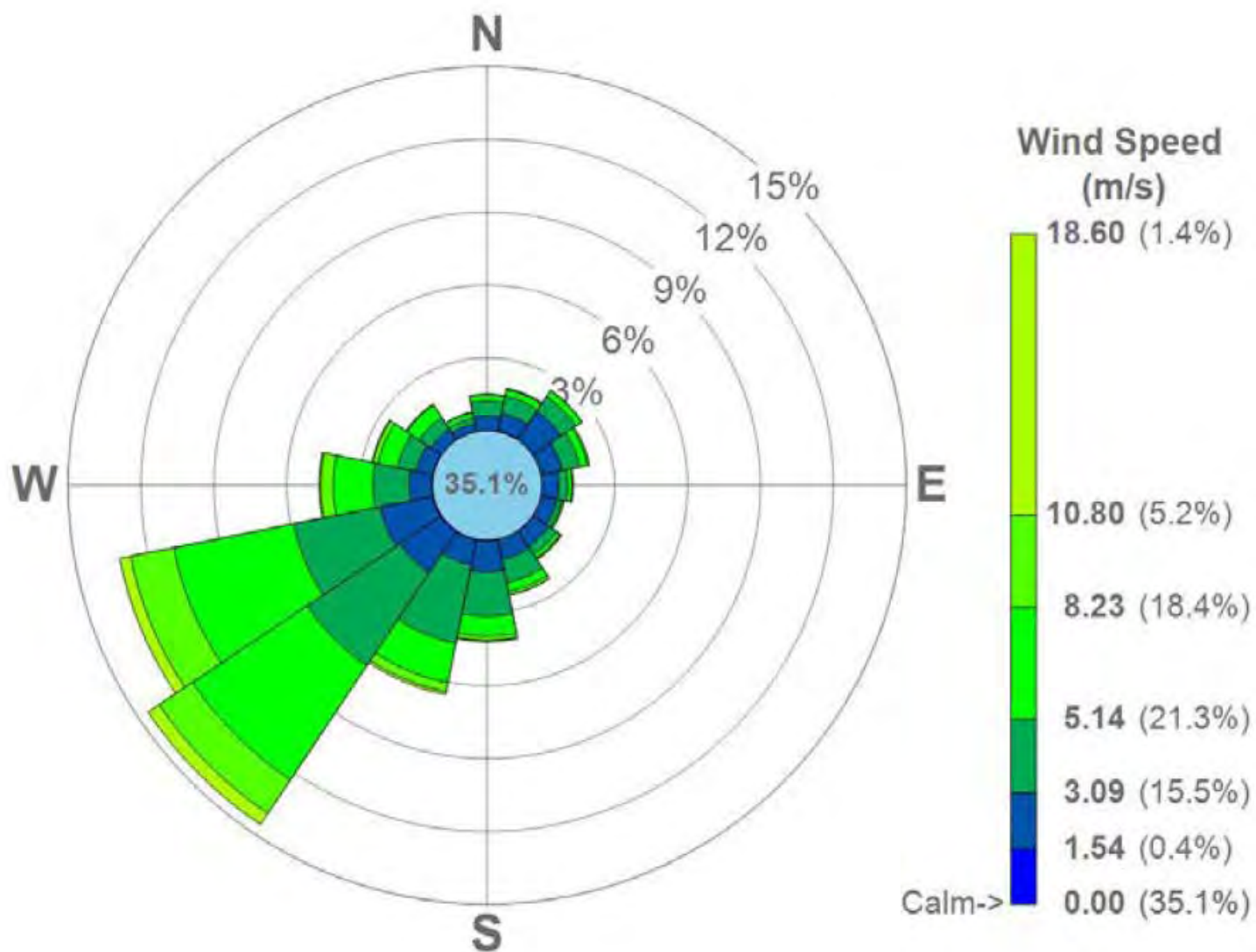


Figure 3.6-1
Regional Weather Stations
NECR Mine and UNC Mill Sites



Sources: Imagery, NAIP 2016;
Monitoring station data, NOAA <http://www.weather.gov/>,
[http://www.ncdc.noaa.gov/cdo-web/datasets/ANNUAL/](http://www.ncdc.noaa.gov/cdo-web/datasets/ANNUAL/locations/CITY:US350007/detail#stationlist)
[locations/CITY:US350007/detail#stationlist](http://www.ncdc.noaa.gov/cdo-web/datasets/ANNUAL/locations/CITY:US350007/detail#stationlist)



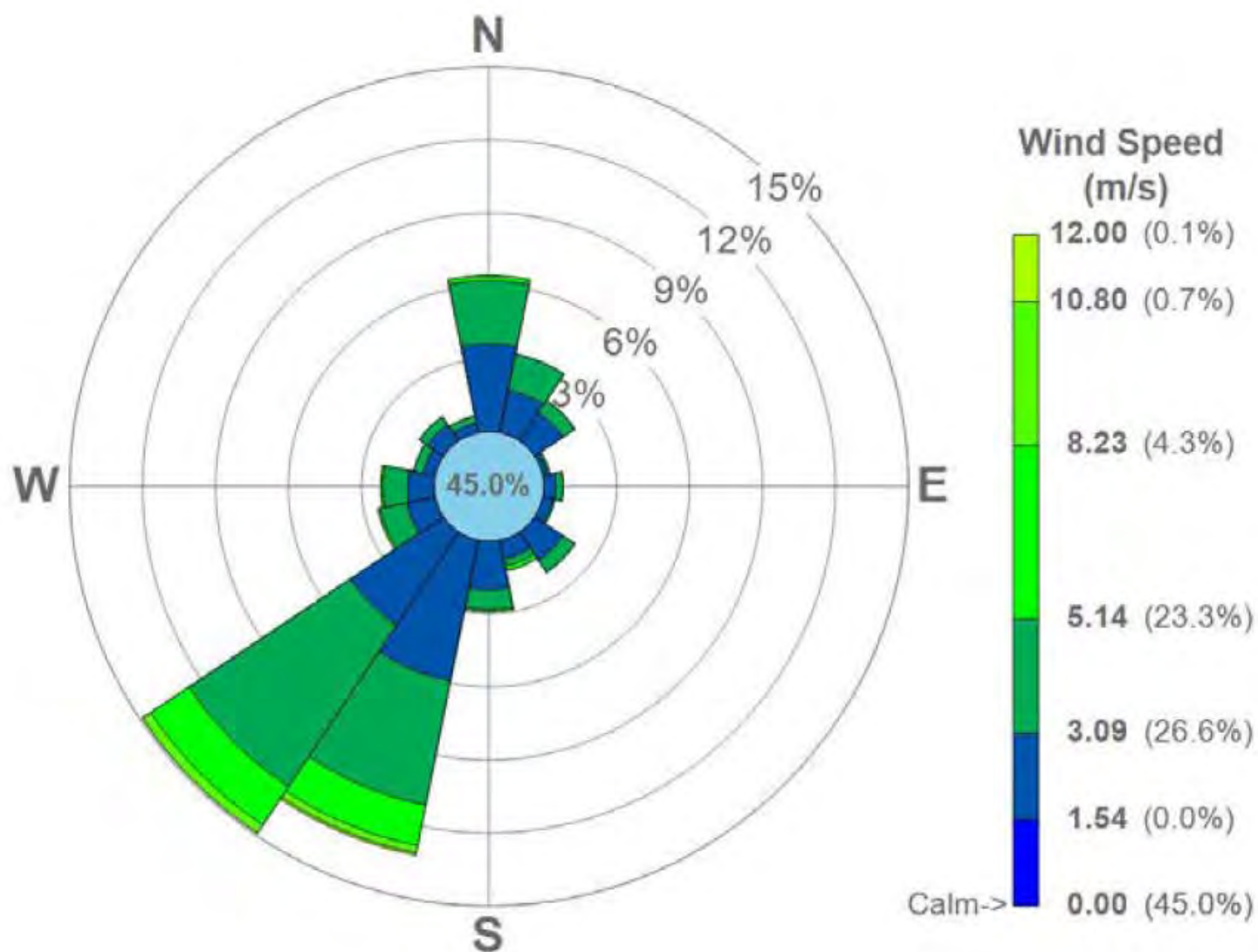


Figure 3.6-3. Church Rock Meteorological Tower Wind Rose for May 1977 through April 1978, Corrected for Calm Winds
NECR Mine and UNC Mill Sites

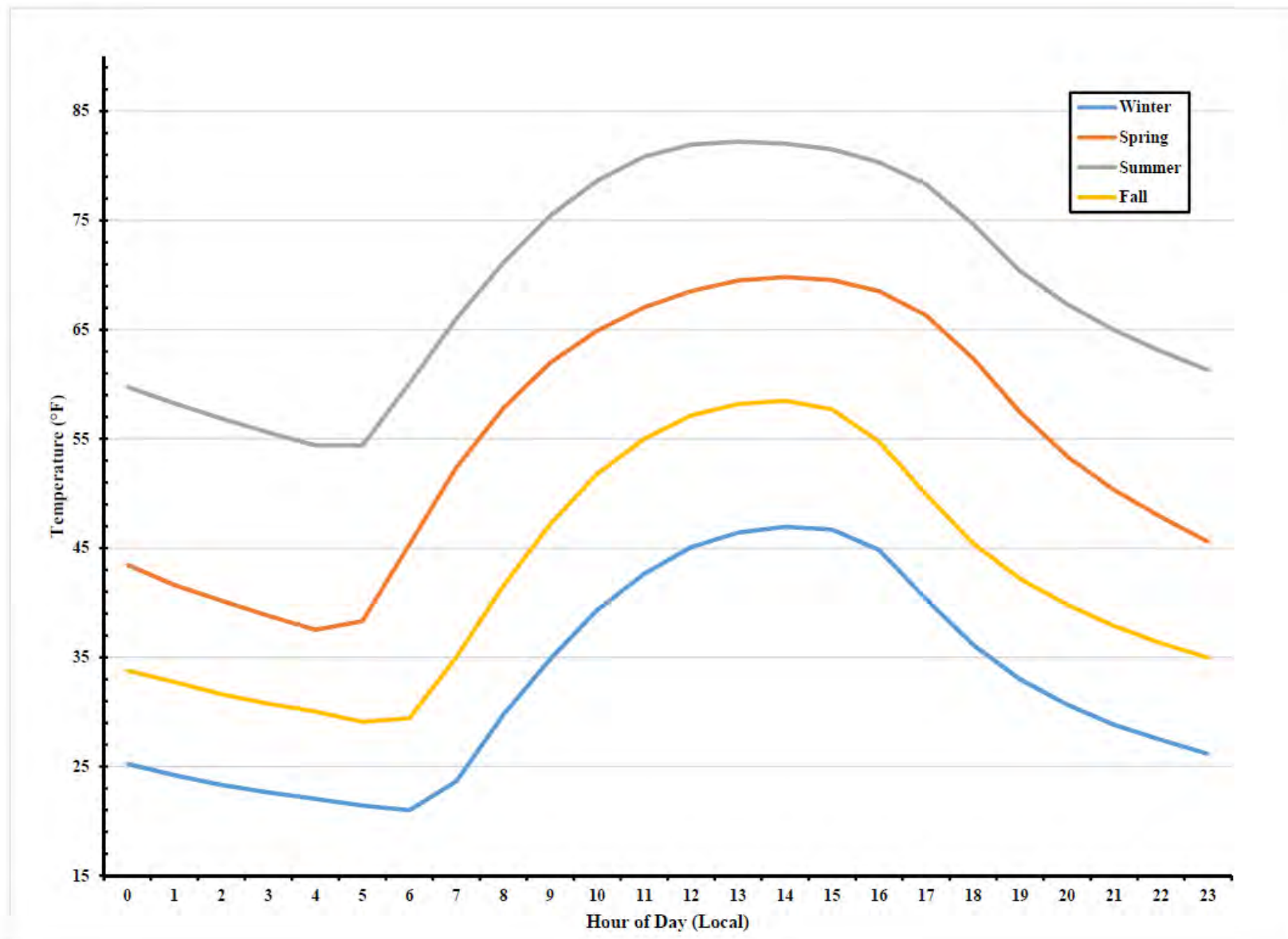


Figure 3.6-4. Diurnal Cycle of Ambient Temperature
NECR Mine and UNC Mill Sites

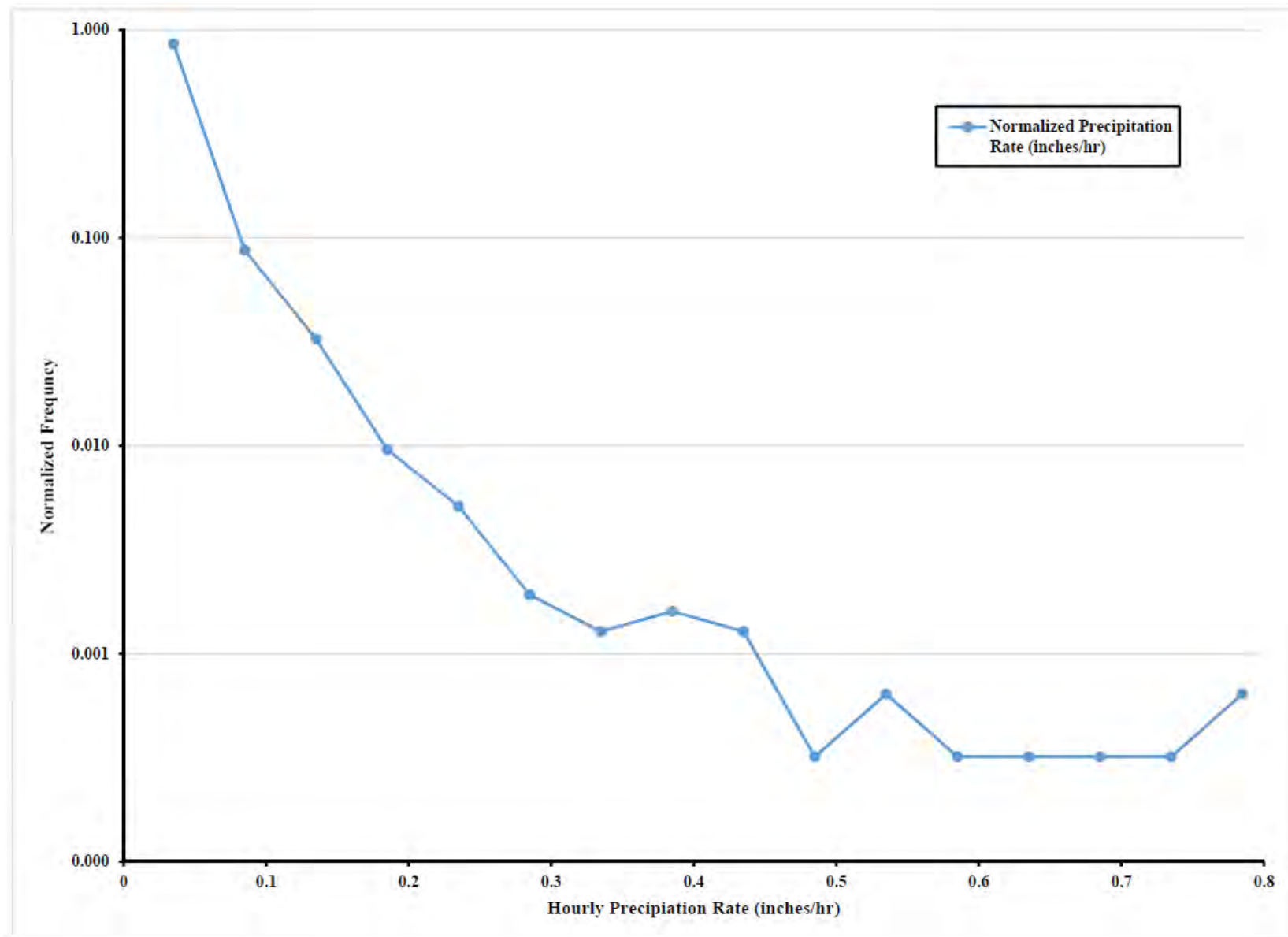
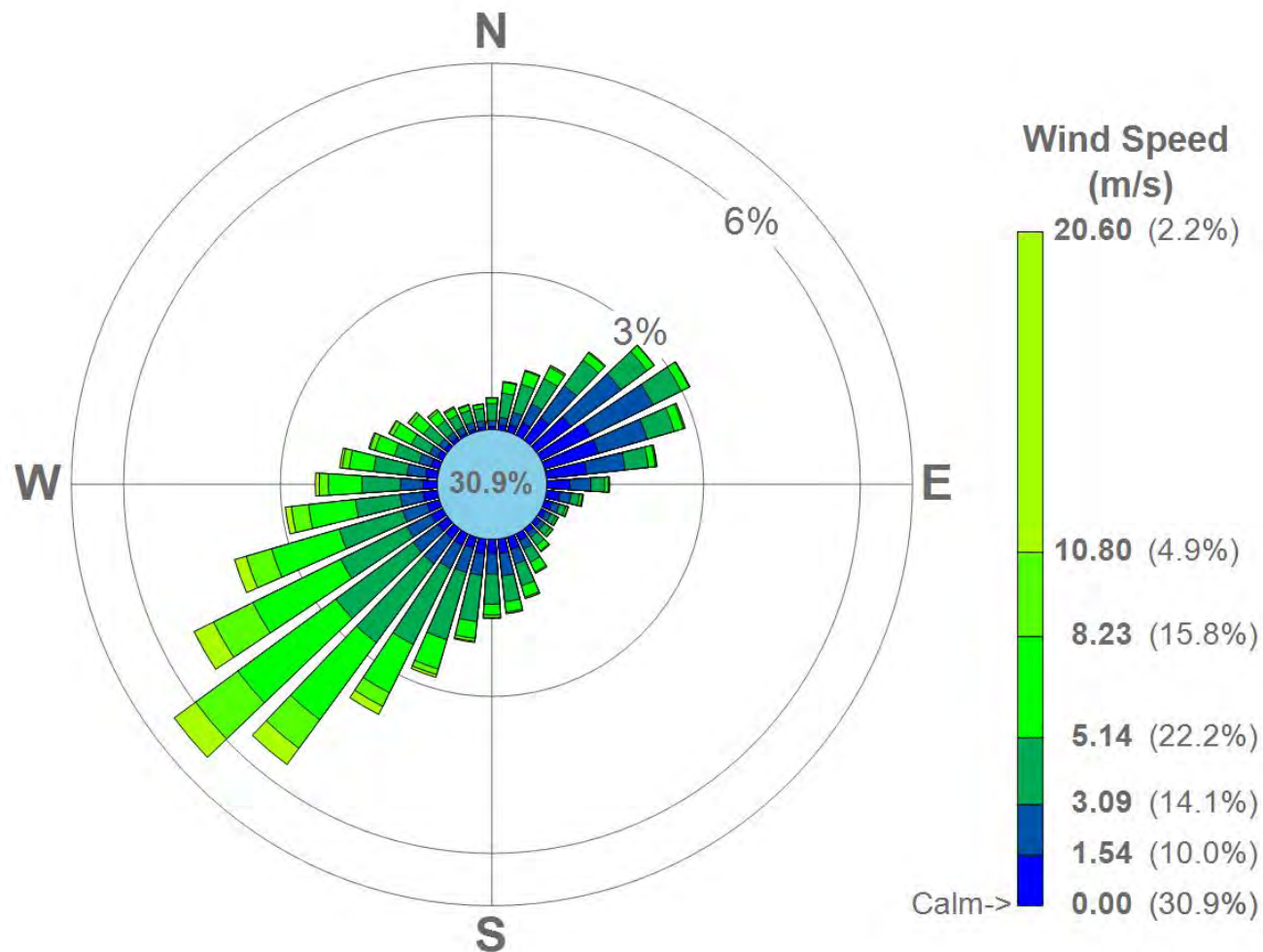
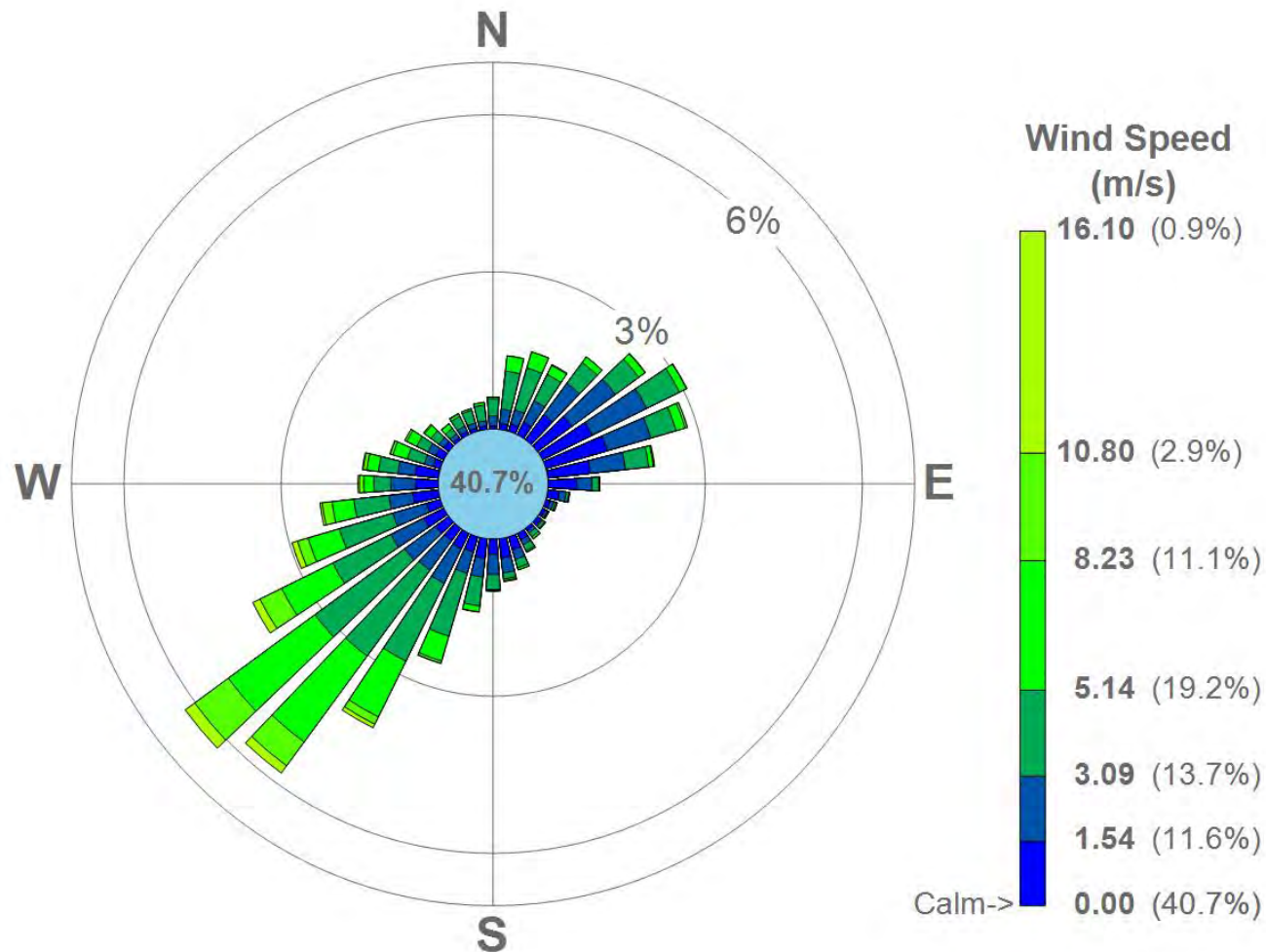
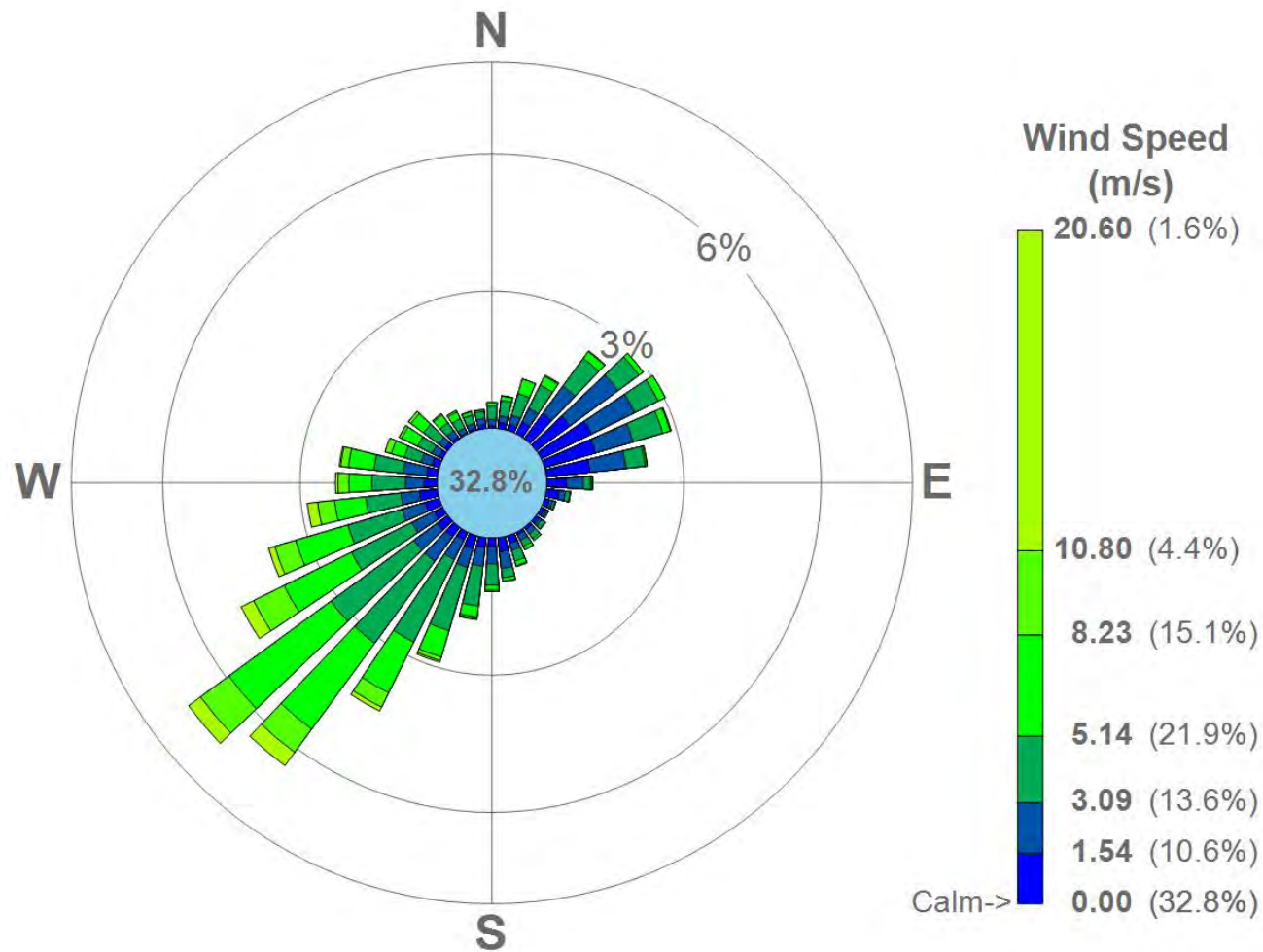
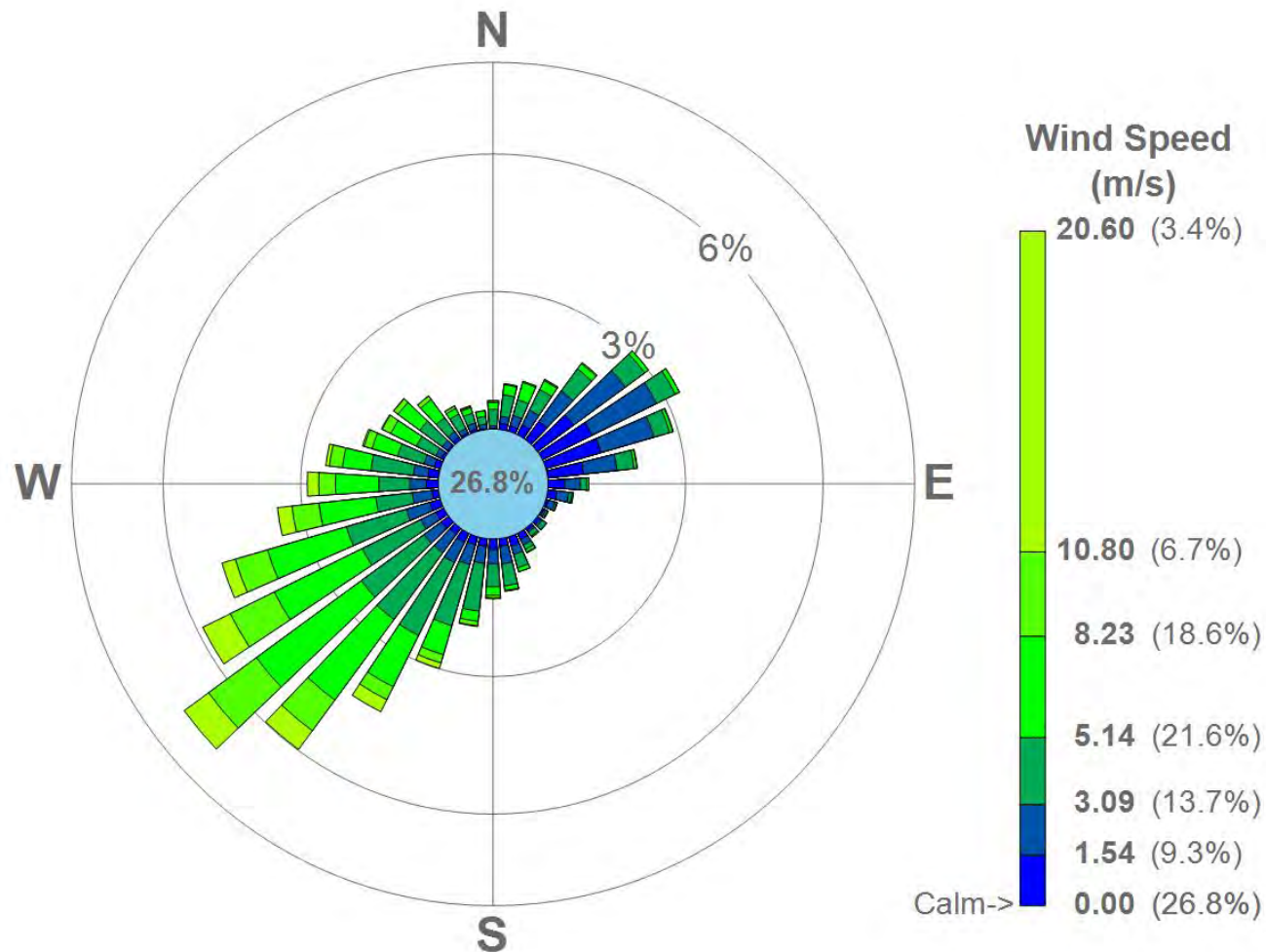


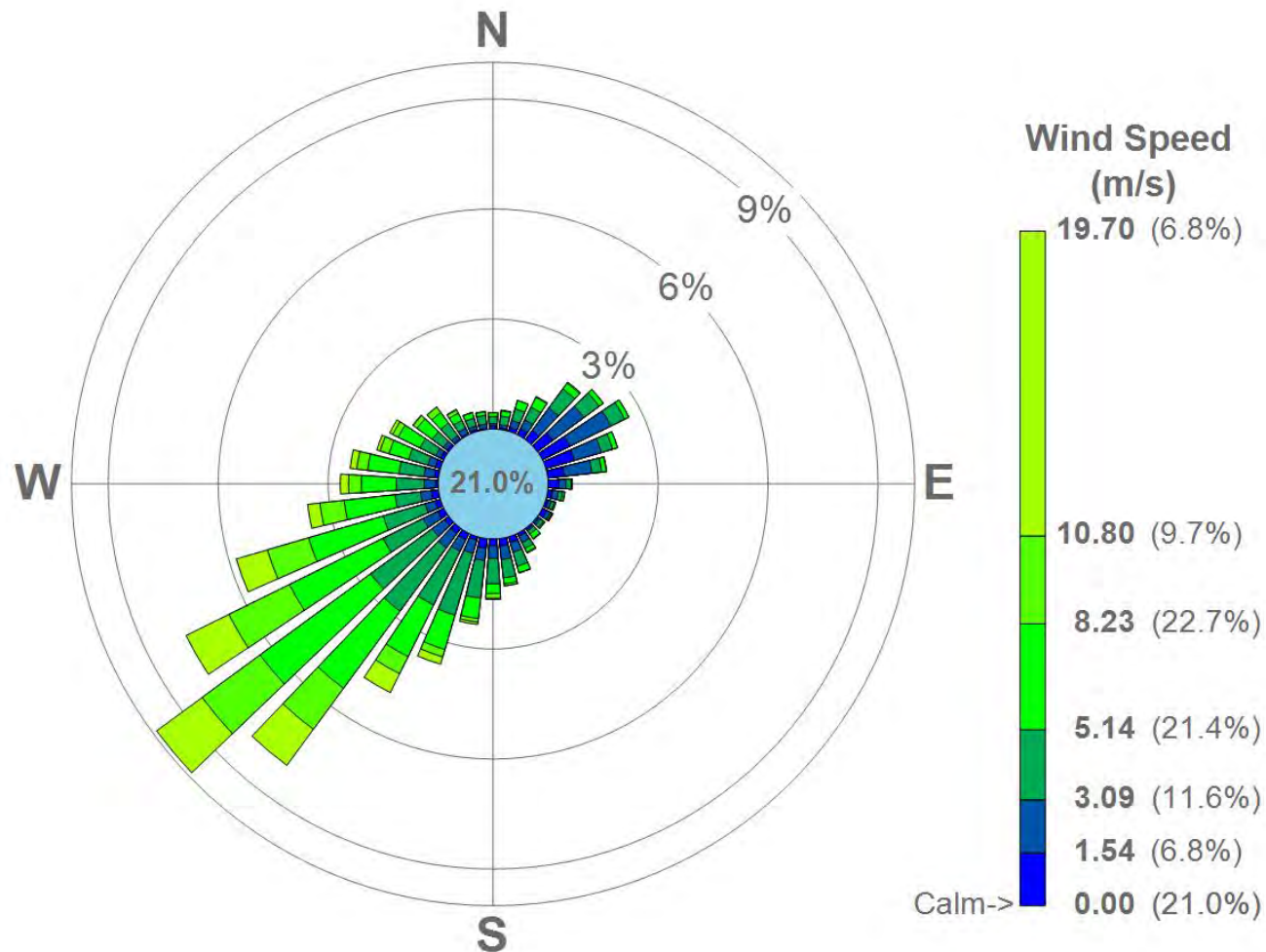
Figure 3.6-5. Normalized Frequency of Precipitation Rate
NECR Mine and UNC Mill Sites











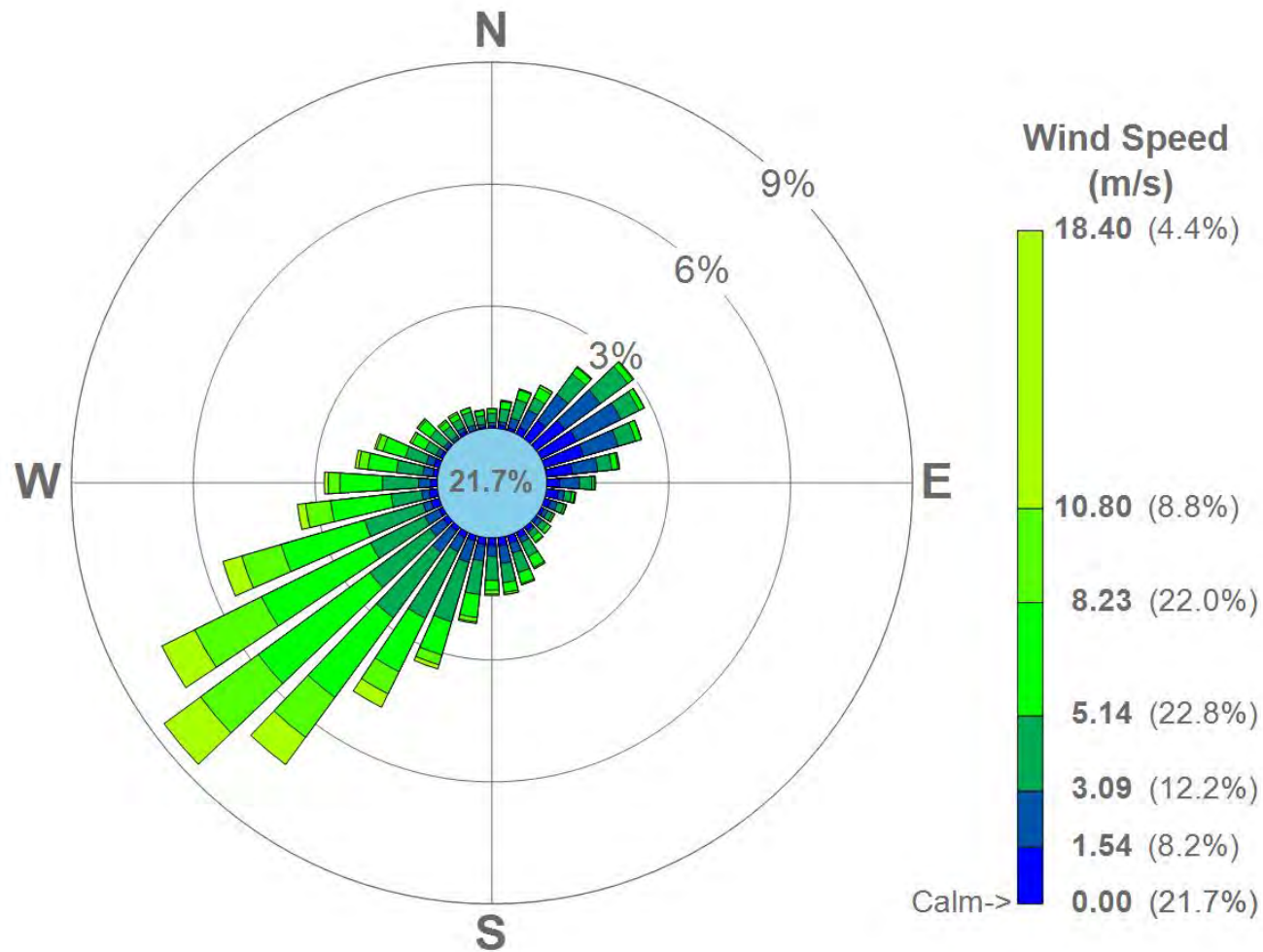
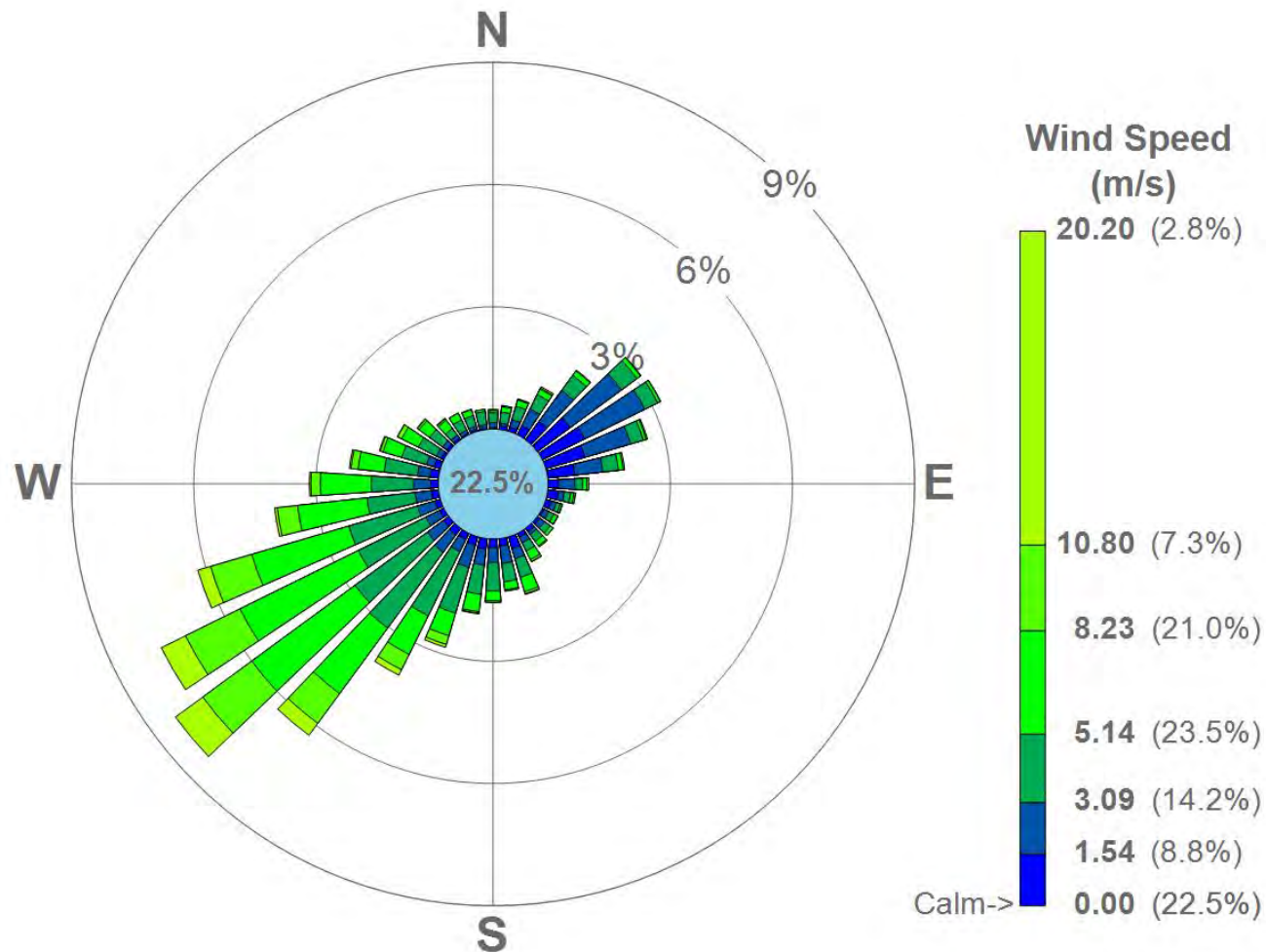


Figure 3.6-11. May Average Gallup ASOS Wind Rose
NECR Mine and UNC Mill Sites



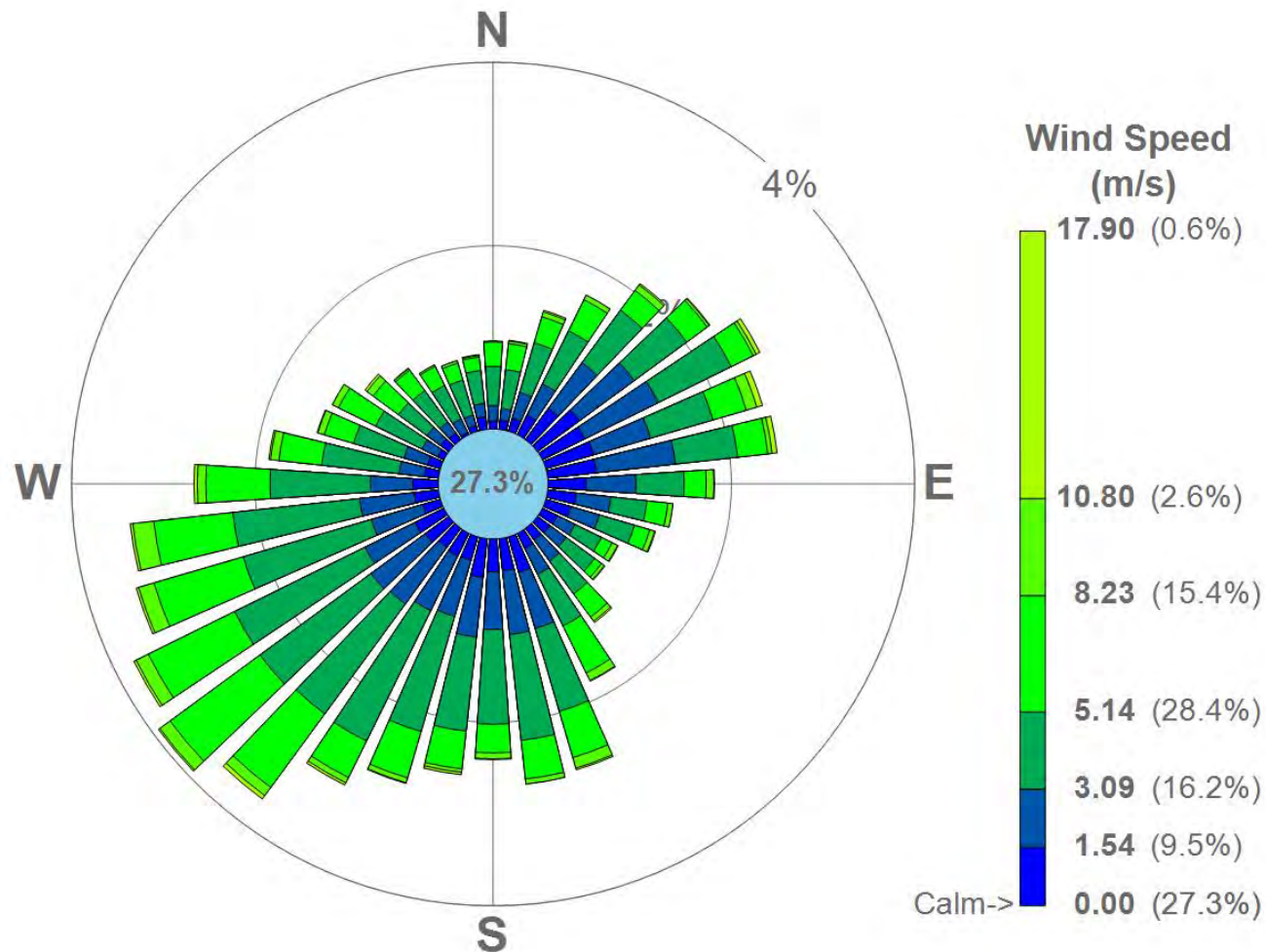


Figure 3.6-13. July Average Gallup ASOS Wind Rose
NECR Mine and UNC Mill Sites

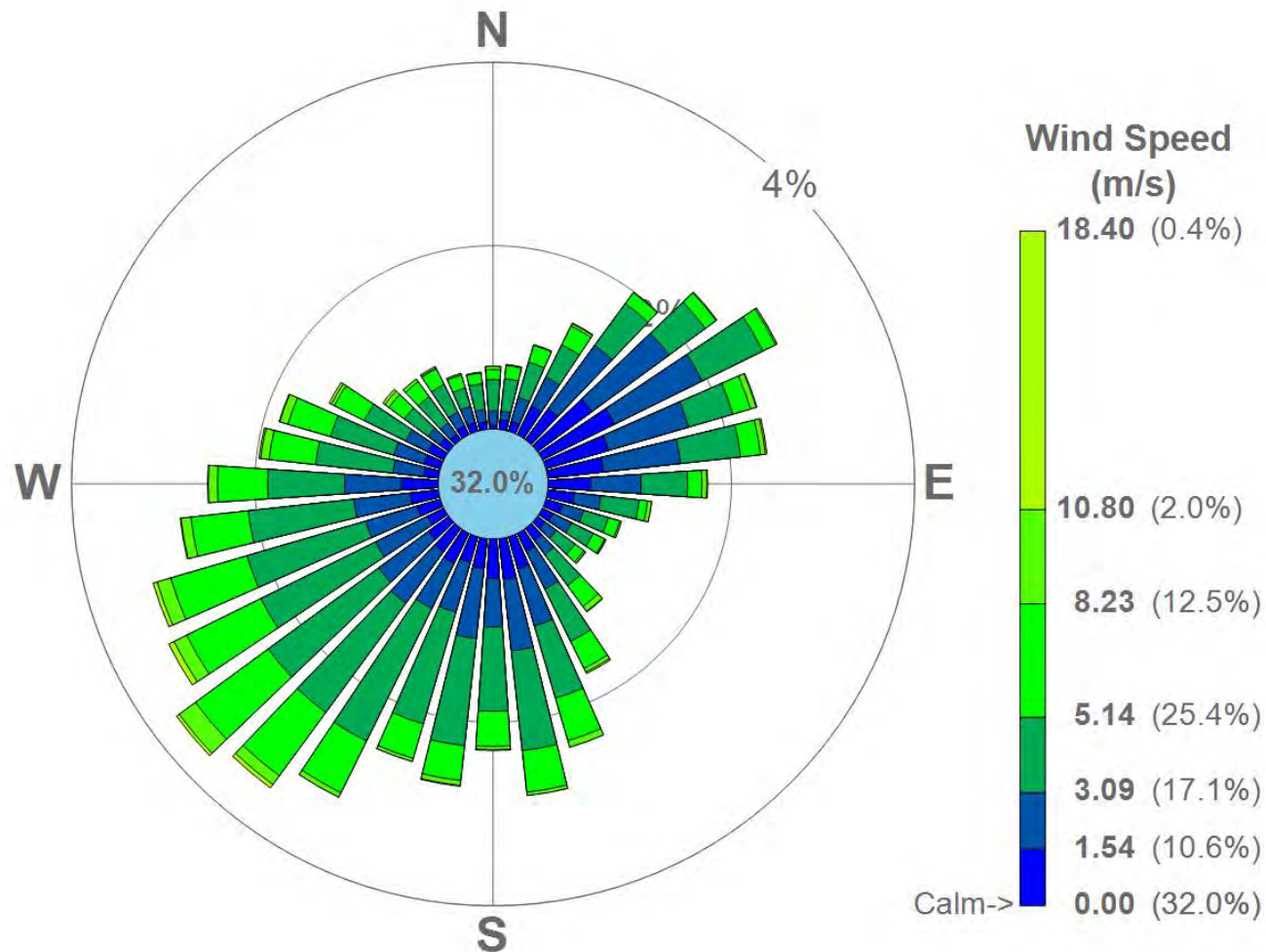
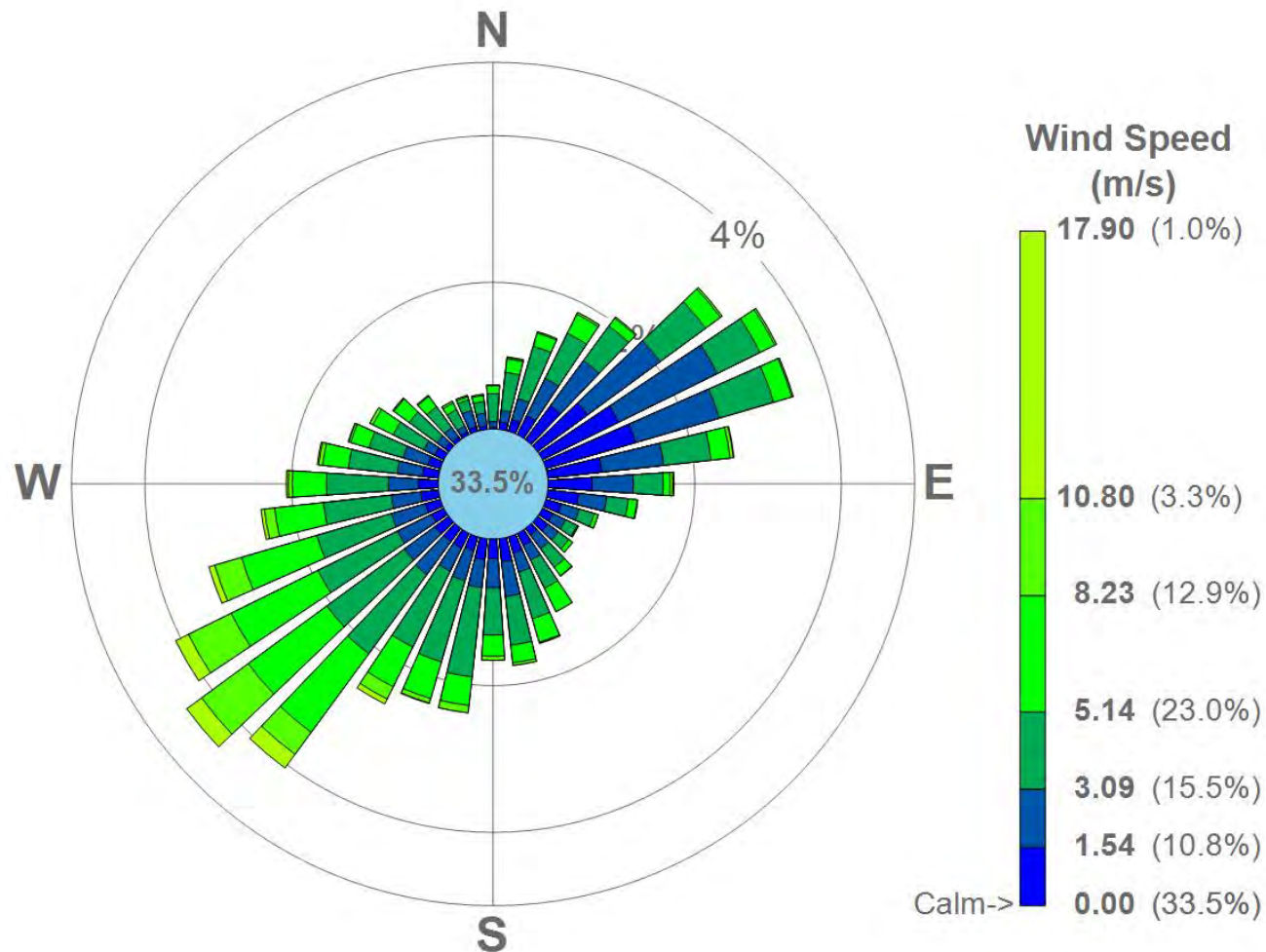
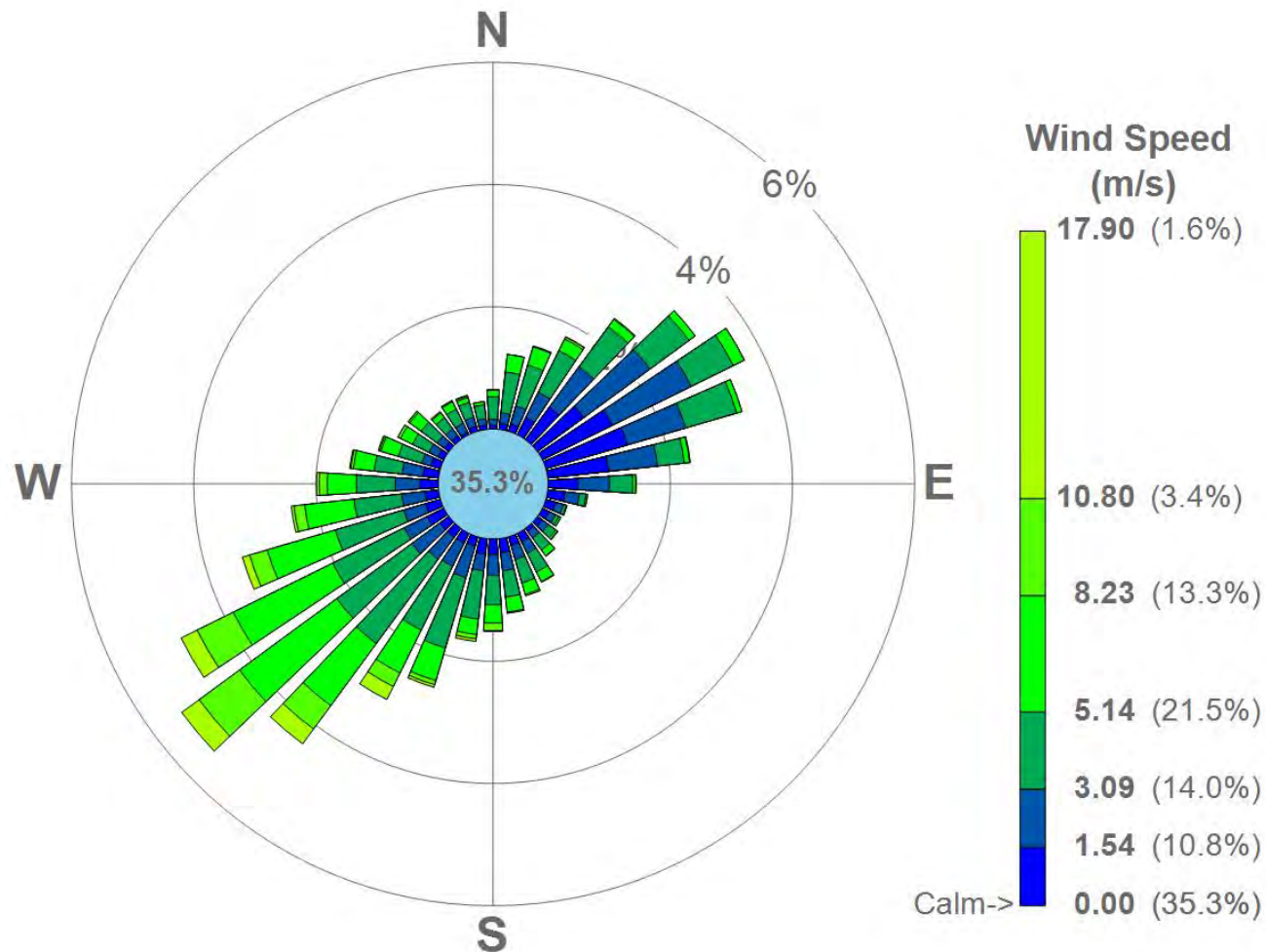
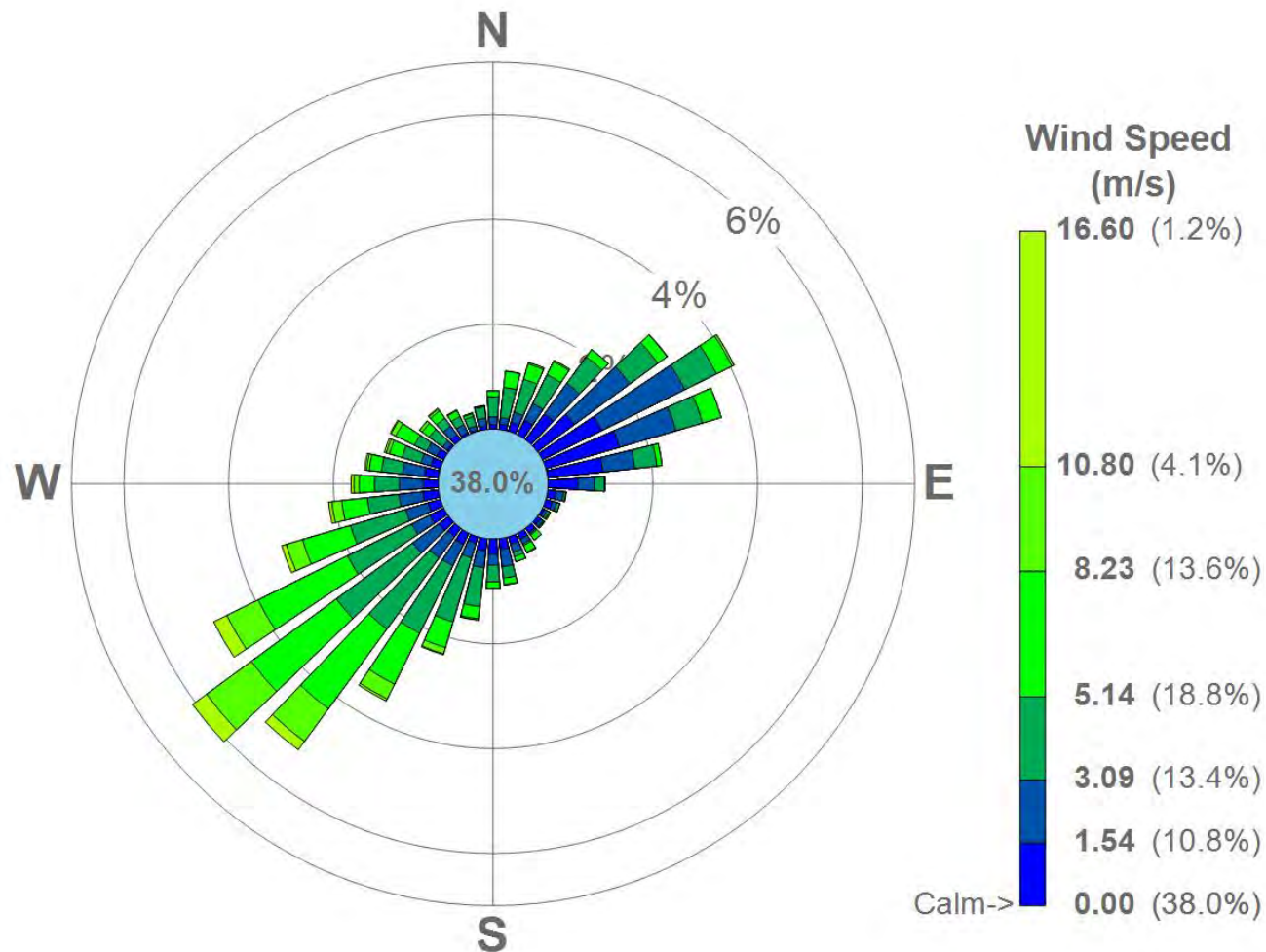
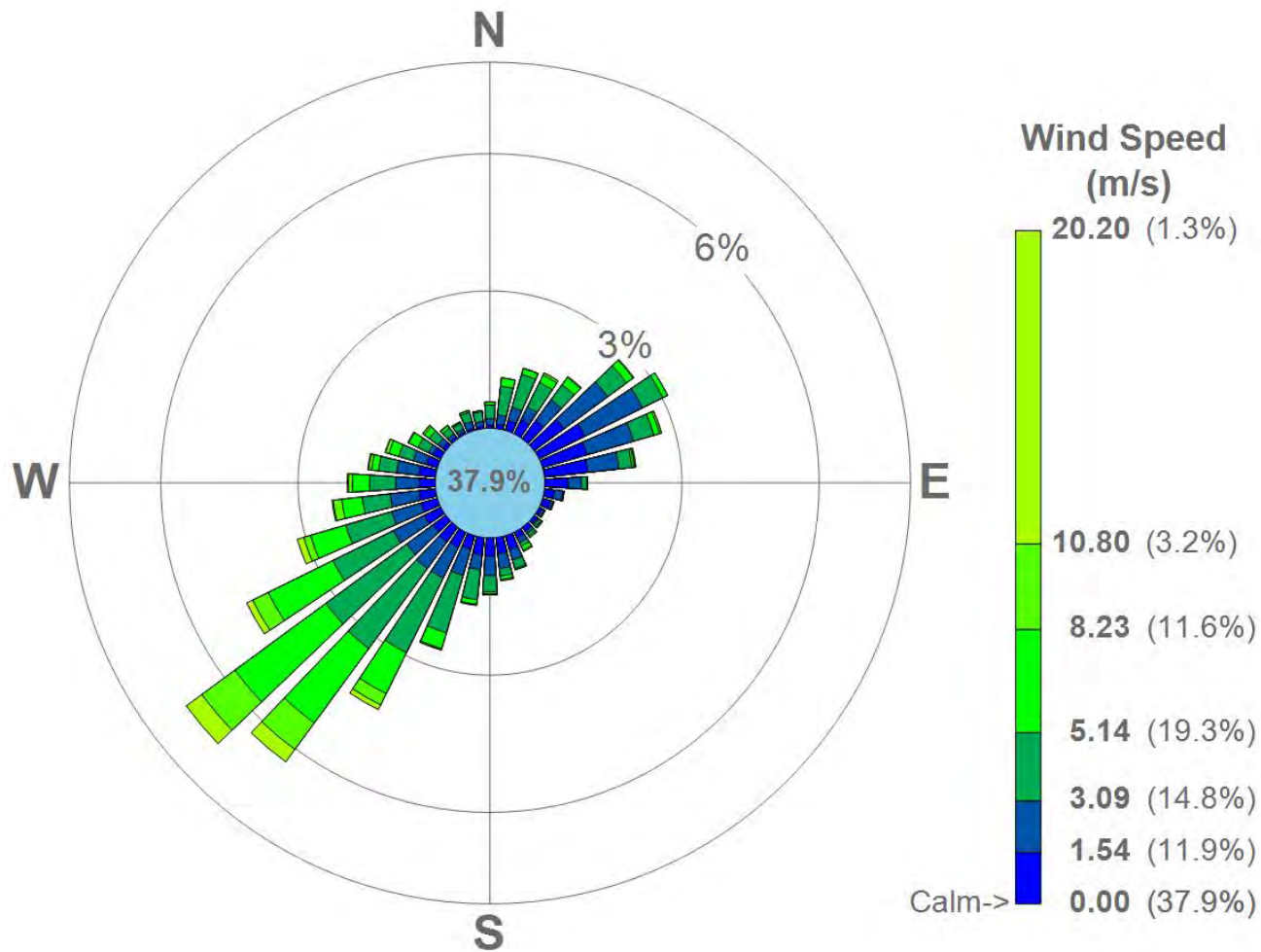


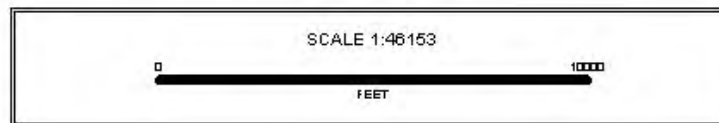
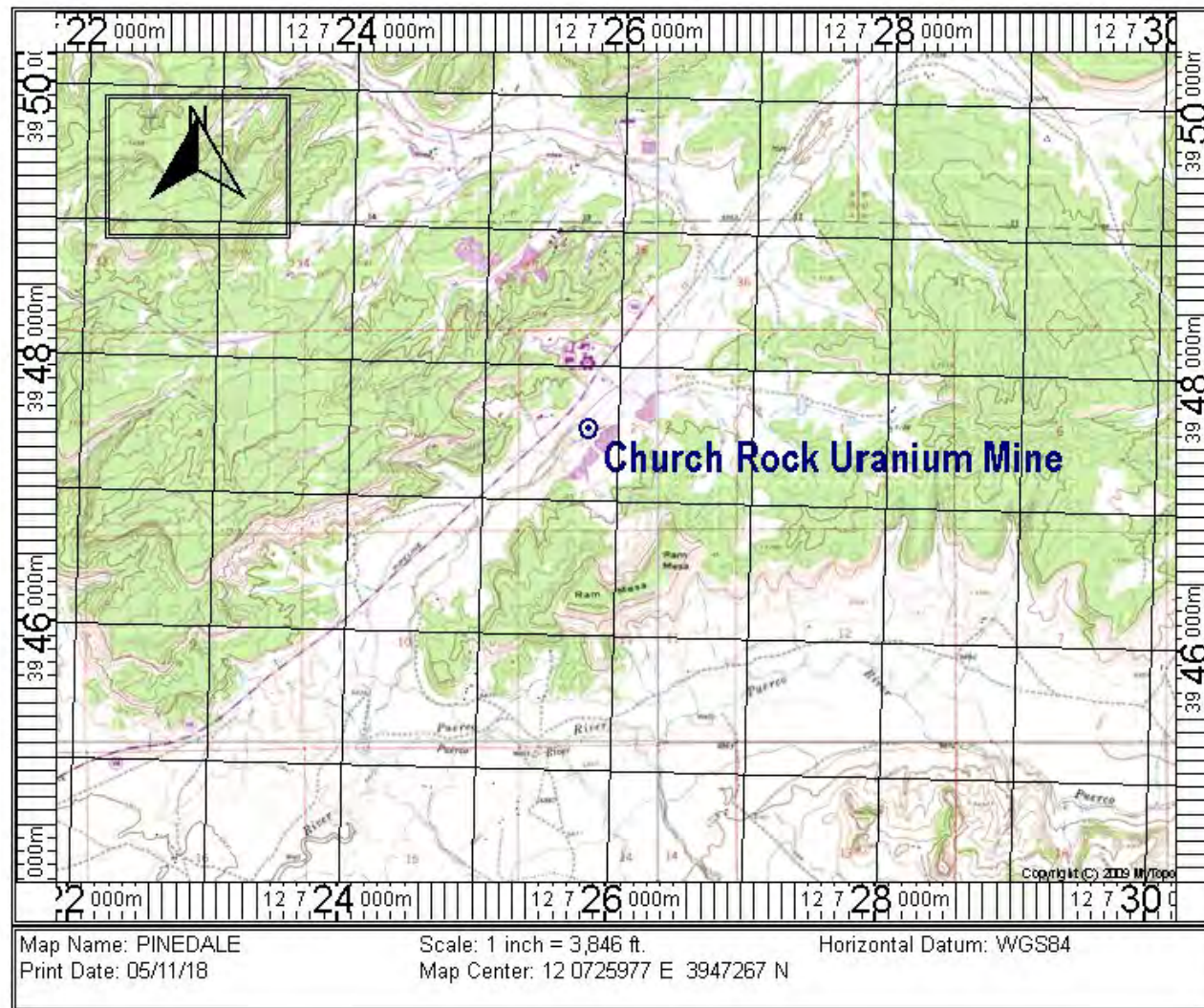
Figure 3.6-14. August Average Gallup ASOS Wind Rose.
NECR Mine and UNC Mill Sites











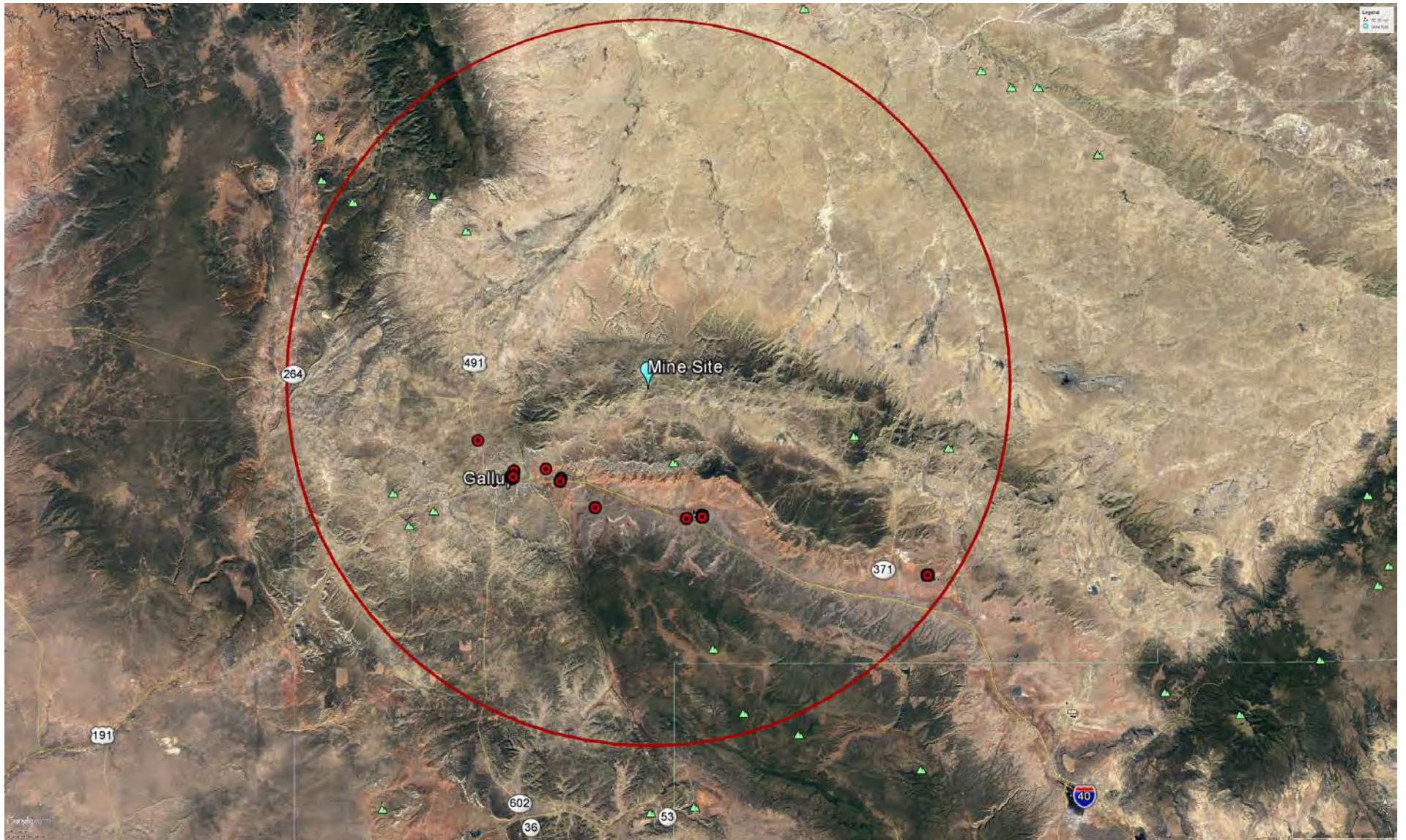
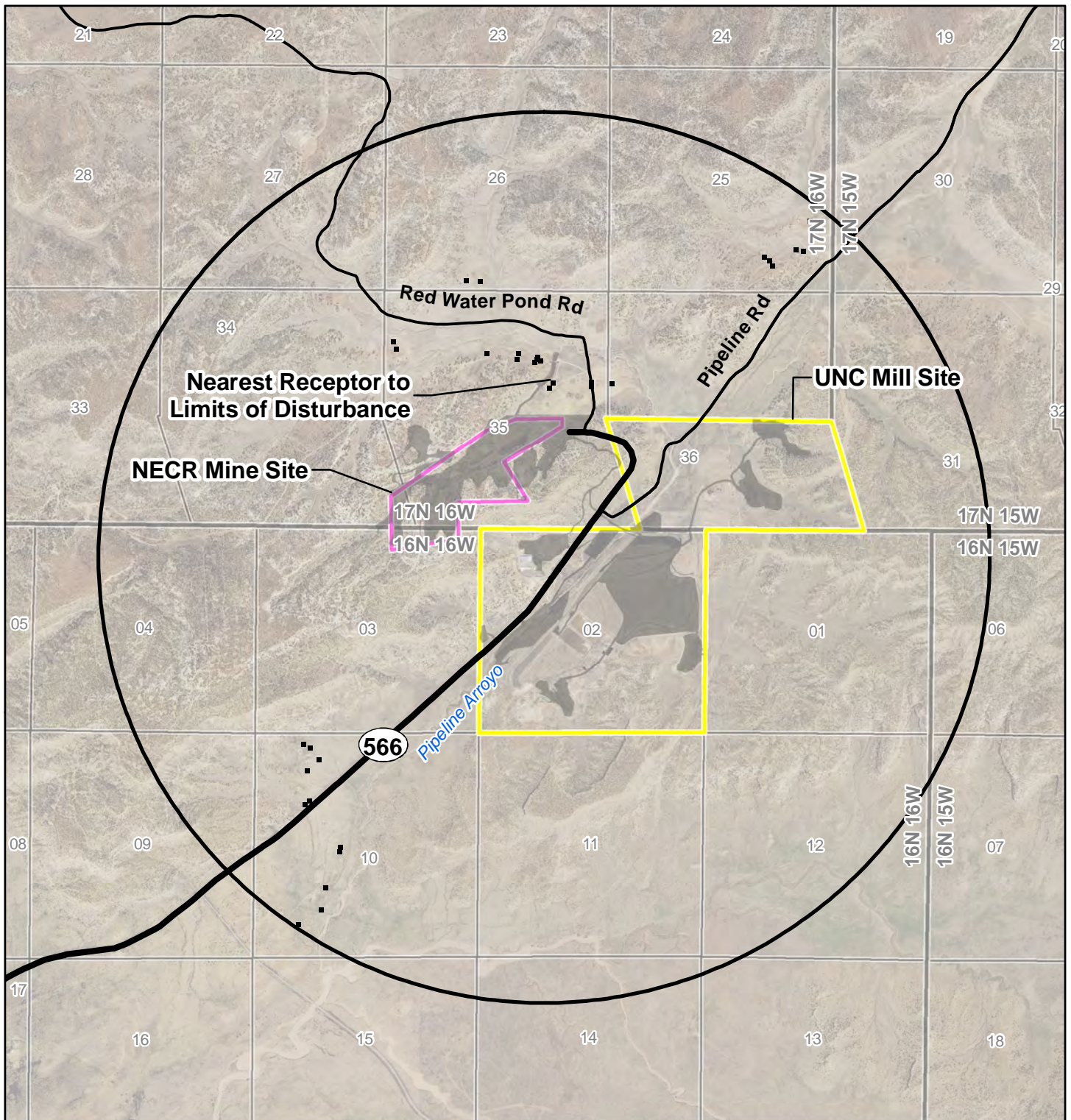










Figure 3.6-20. Location of Nearby Sources
NECR Mine and UNC Mill Sites



Legend

- | | | | |
|---|----------------|---|-----------------------|
|  | NECR Mine Site |  | Residence |
|  | UNC Mill Site |  | Limits of Disturbance |
|  | PLSS Township |  | Road |
|  | PLSS Section |  | Two Mile Radius |

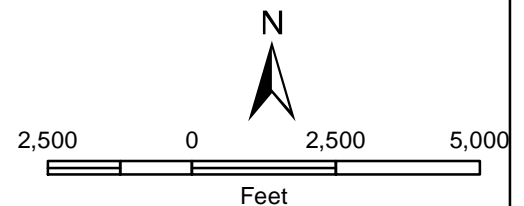
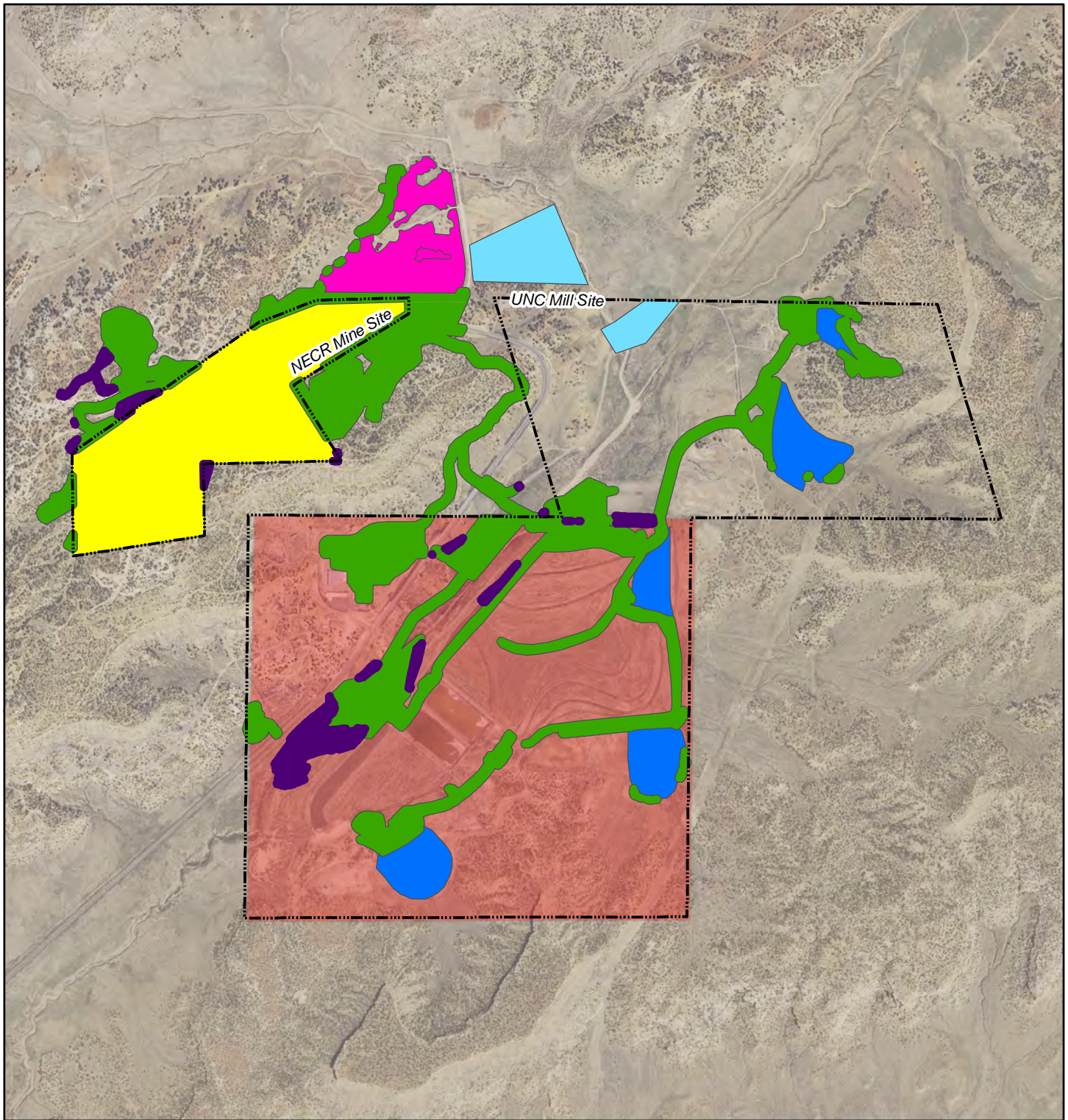









Figure 3.7-1
Location of Nearest Receptors
NECR Mine and UNC Mill Sites



Source(s): UNC Annual Land Use Report, 2017



- | | |
|--|--|
|  UNC (1975) |  Martin et al. (2017) |
|  Boggess and Begay (2005) |  Begay (2018) |
|  Martin and Begay (2009) | |
|  Begay and Wero (2011) | |
|  Begay (2013) | |

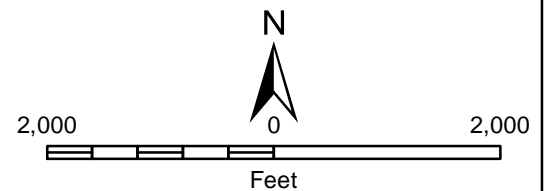
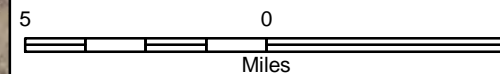
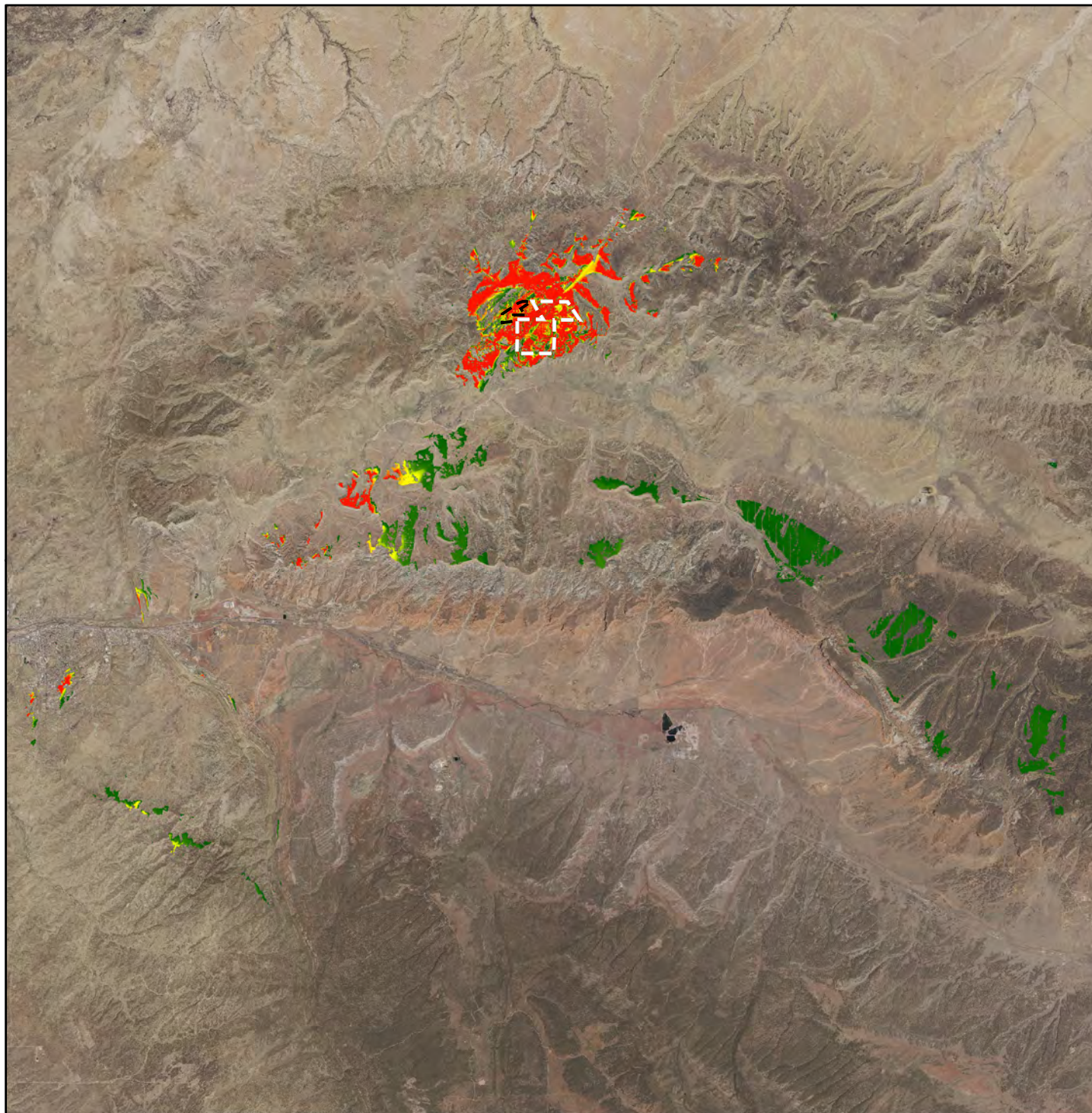


Figure 3.8-1
Completed Surveys
NECR Mine and UNC Mill Sites



Source(s): Stantec; NAIP, 2016




Legend

 UNC Mill Site

 NECR Mine Site

Viewshed Boundary Raster

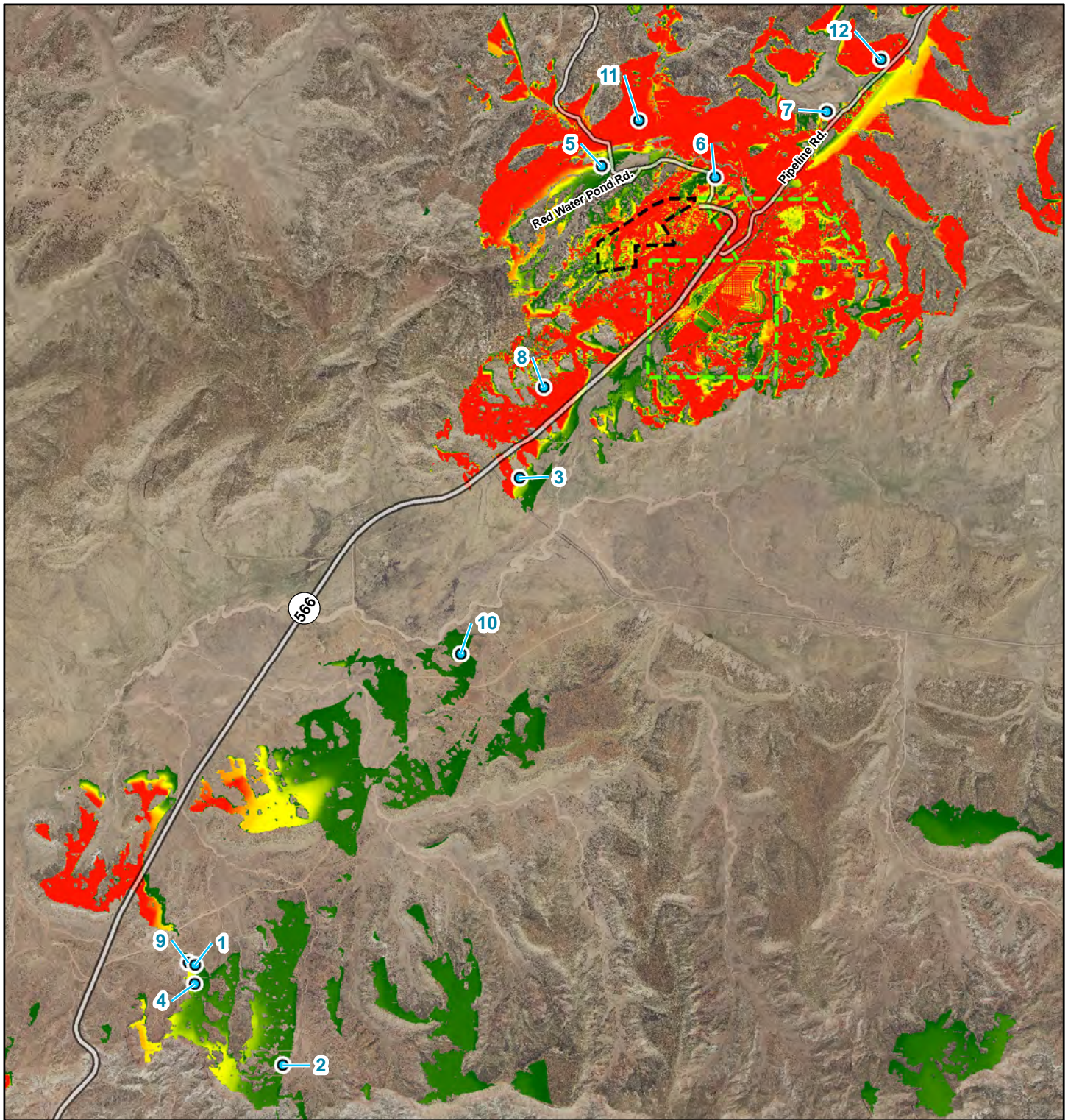
Value (viewing frequency)

 High : 8697

Low : 0

Source(s): NAIP 2016 imagery; Site boundaries from Stantec

Figure 3.9-1
Viewshed Boundary NECR
Mine and UNC Mill Sites



Legend

- Initial Key Viewpoints
- Viewshed Boundary Raster
- Value
- High : 8697
- Low : 0
- UNC Mill Site
- NECR Mine Site

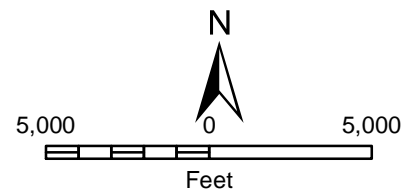
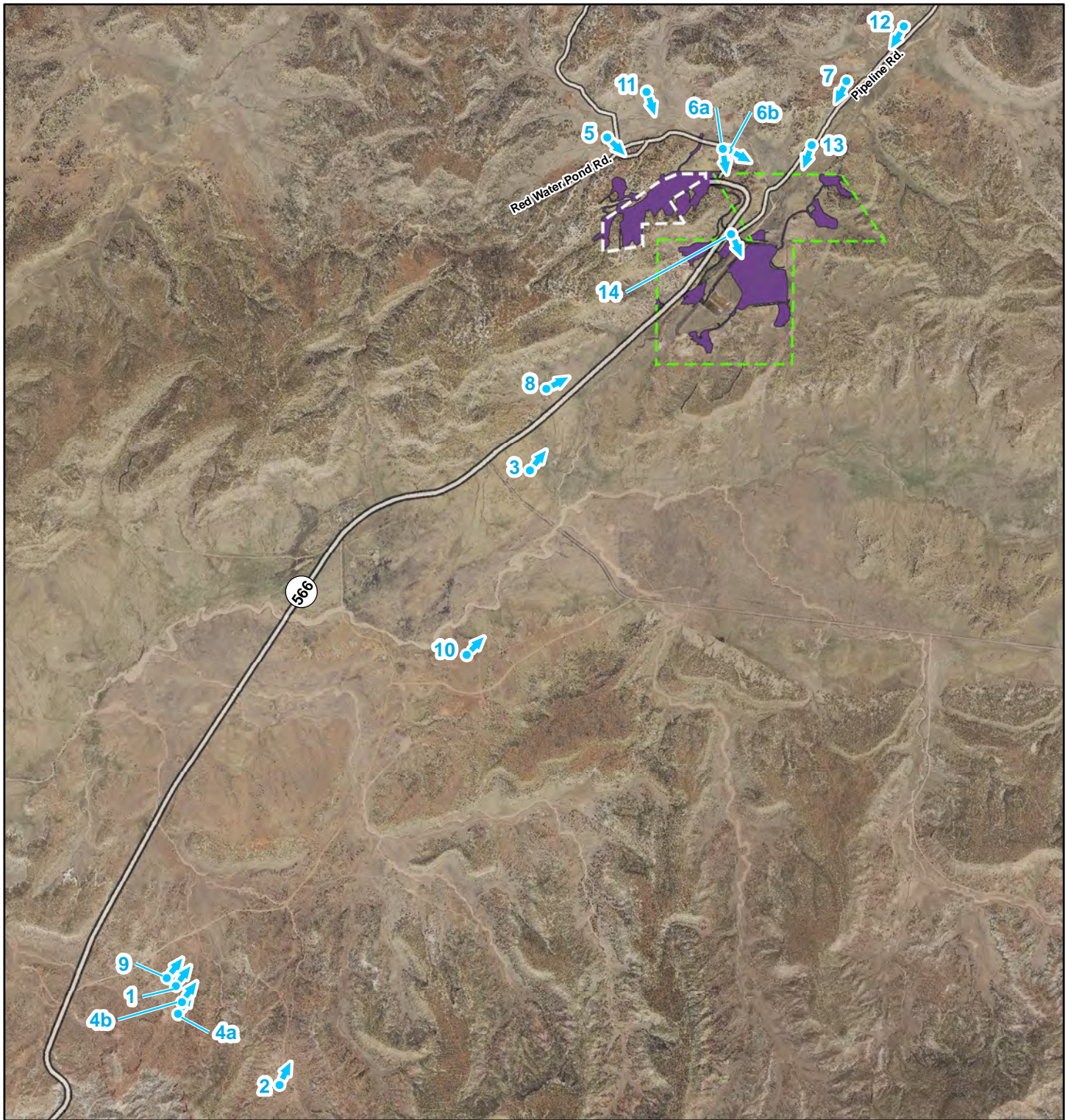






Figure 3.9-2
Initial Key Viewpoints with
Viewshed Boundary Raster
NECR Mine and UNC Mill Sites



Source(s): NAIP 2016 imagery; key viewpoints from ArcGIS Online;
Mine and Mill Site boundaries from Stantec.



Legend

-  Final Key Viewpoints
-  Proposed Action
-  UNC Mill Site
-  NECR Mine Site

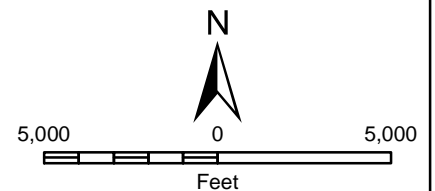
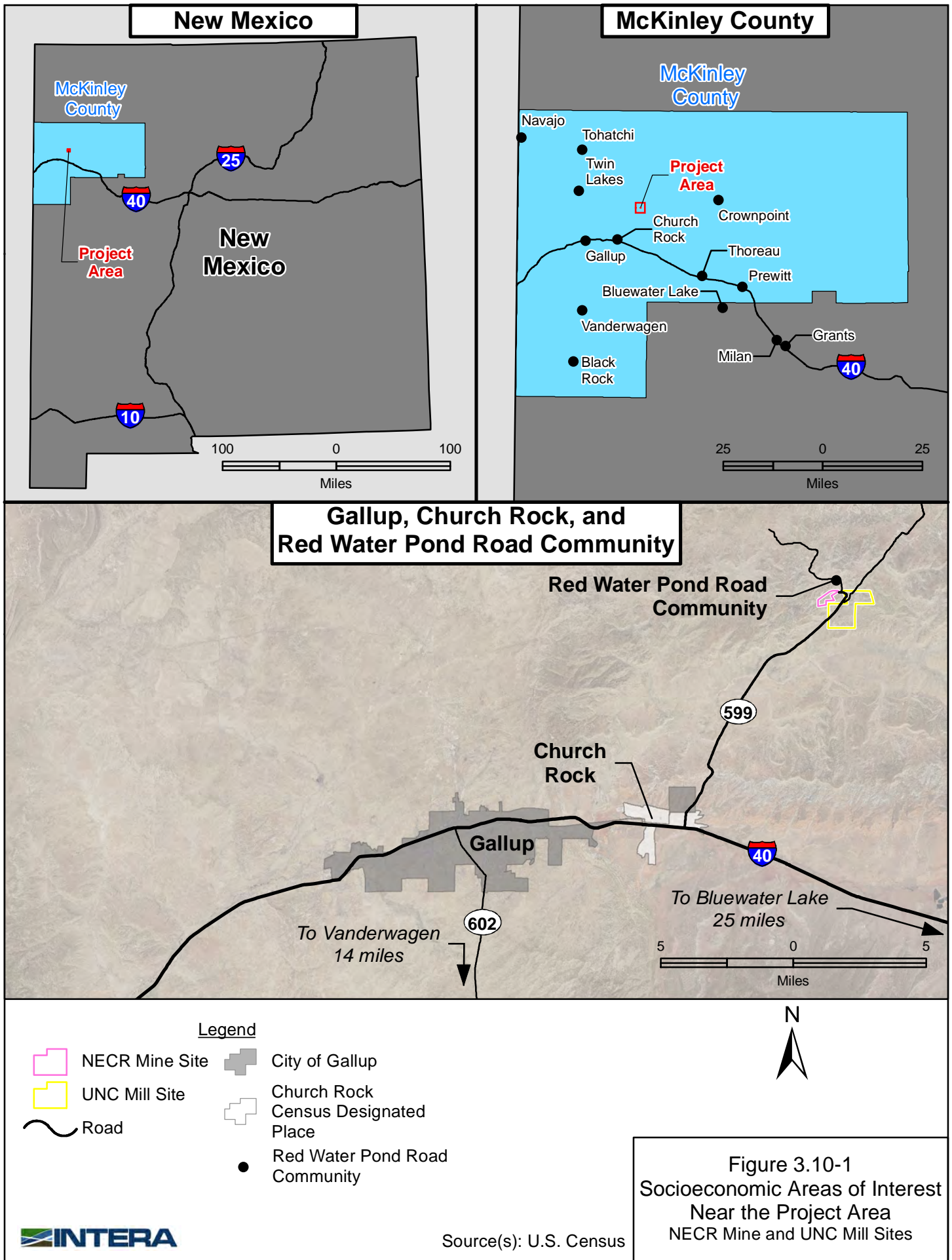
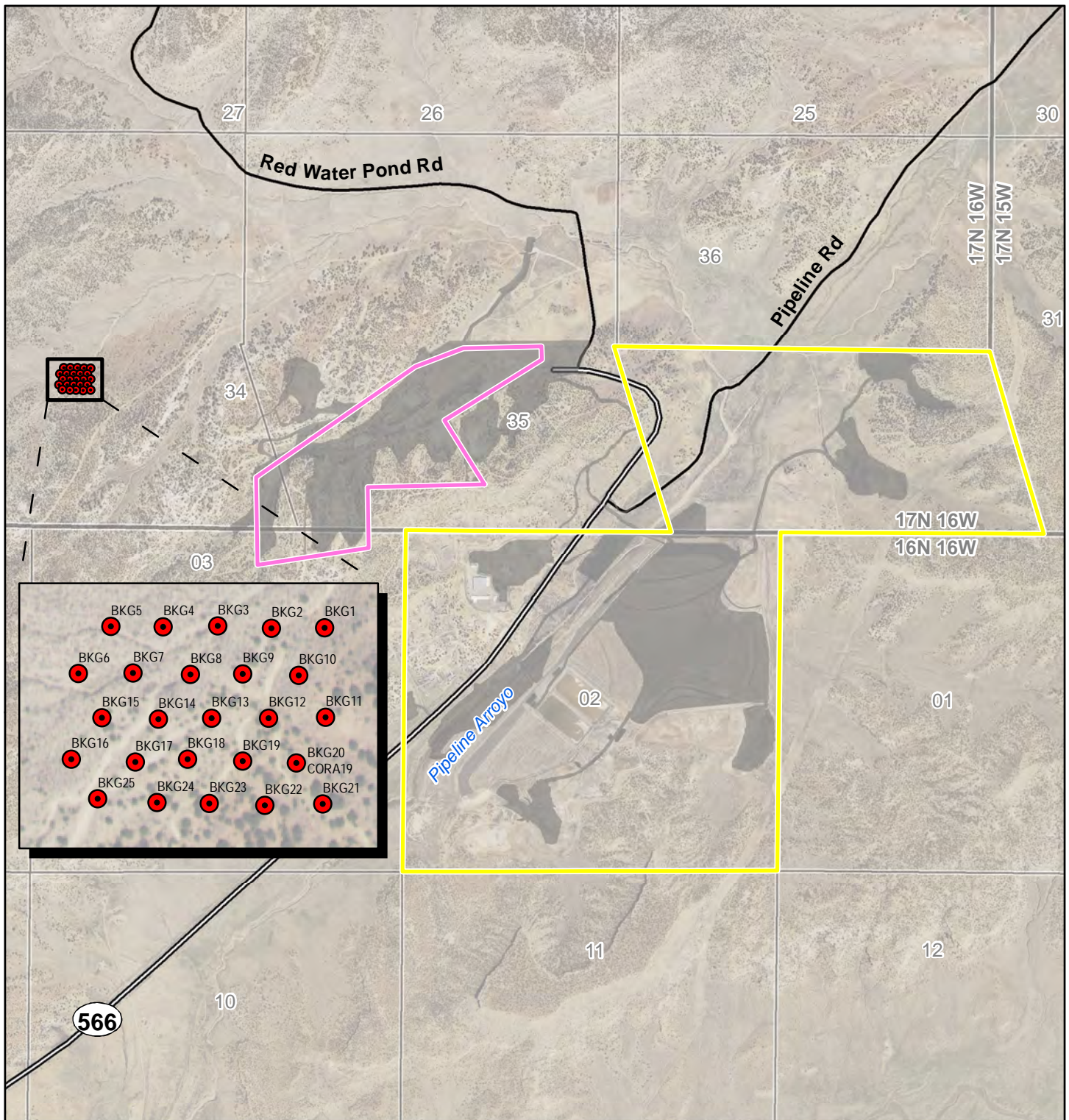


Figure 3.9-3
Final Key Viewpoints
NECR Mine and UNC Mill Sites









Source(s): NAIP 2016 imagery; key viewpoints from ArcGIS Online/field work;
Mine and Mill Site boundaries from Stantec.





Legend

- | | | | |
|---|----------------|---|-------------------------------|
|  | NECR Mine Site |  | Limits of Disturbance |
|  | UNC Mill Site |  | Background Sampling Locations |
|  | PLSS Township | | |
|  | PLSS Section | | |

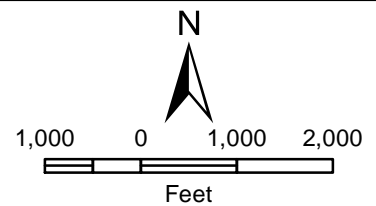
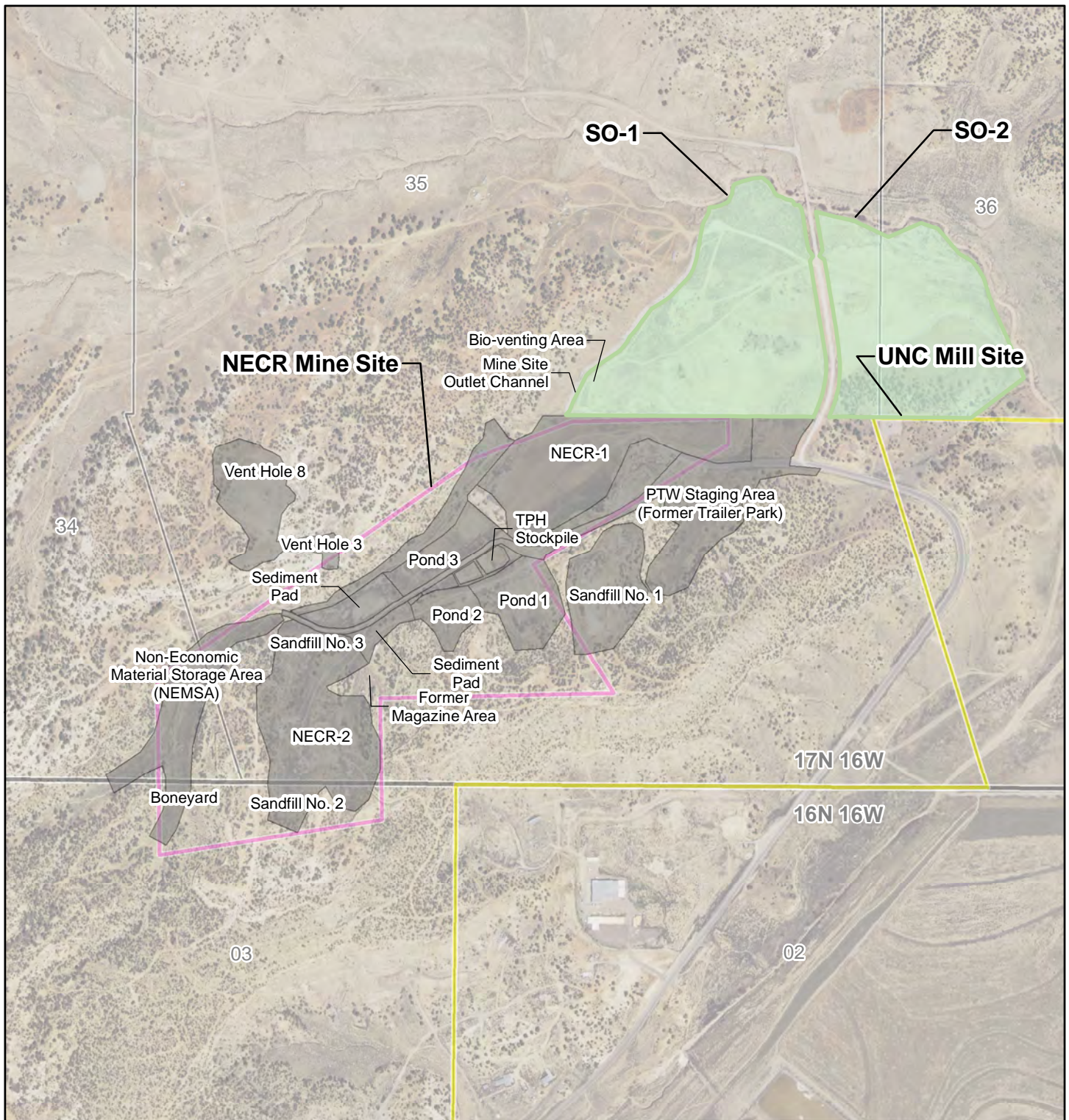







Figure 3.11-1
NECR Mine Site and
UNC Mill Site Location Map
NECR Mine and UNC Mill Sites



Legend

- | | | | |
|---|-------------------------|---|-----------------------|
|  | NECR Mine Site |  | 17N 16W PLSS Township |
|  | UNC Mill Site |  | 11 PLSS Section |
|  | Mine Site Removal Areas | | |
|  | Step Out Areas | | |

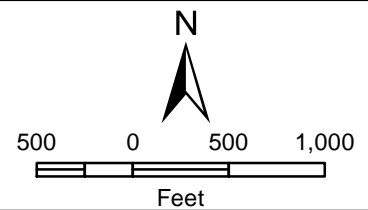
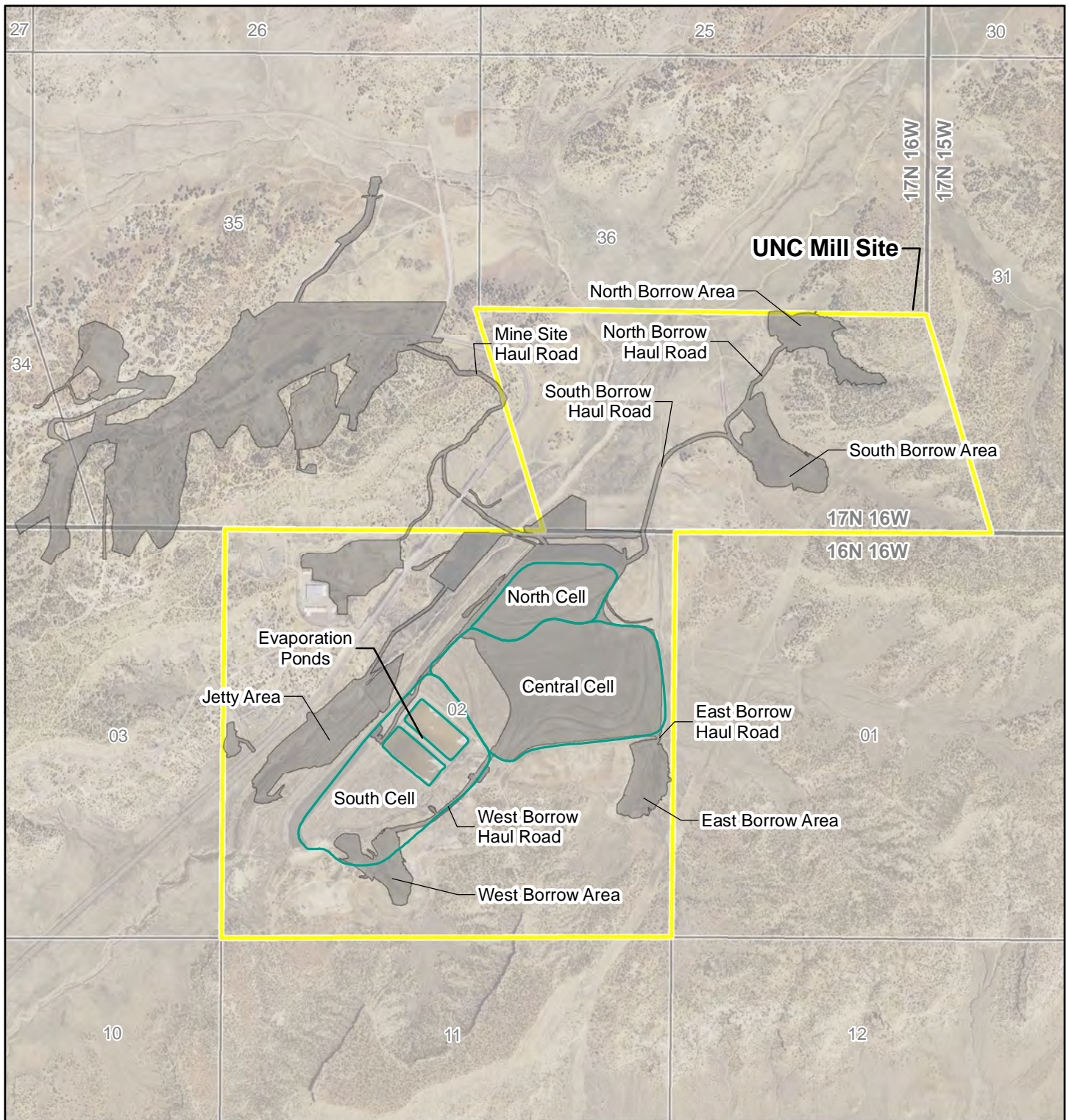







Figure 3.11-2
Mine Site
 NECR Mine and UNC Mill Sites



Legend

-  UNC Mill Site
-  Cell Boundary
-  Limits of Disturbance
-  PLSS Township
-  PLSS Section

INTERA

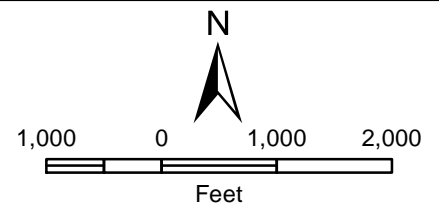
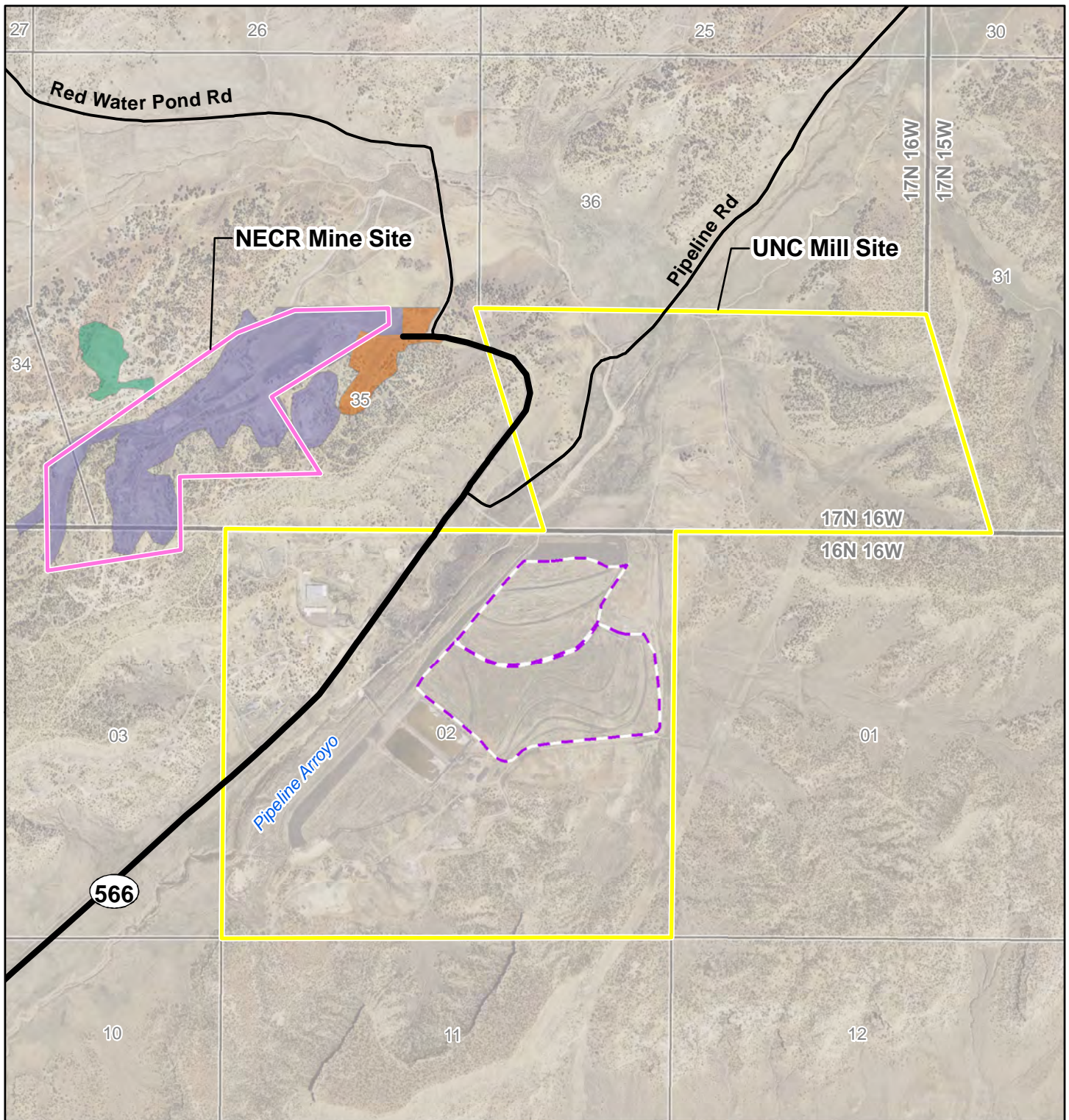


Figure 3.11-3
Mill Site
 NECR Mine and UNC Mill Sites



- | Legend | |
|--------|------------------------|
| | NECR Mine Site |
| | UNC Mill Site |
| | Road |
| | PLSS Township |
| | PLSS Section |
| | Area 1 |
| | Area 2 |
| | Area 3 |
| | Tailings Disposal Area |

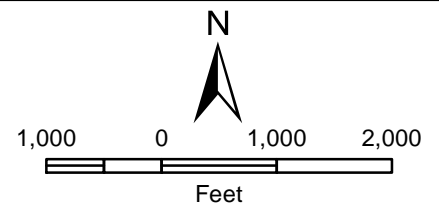
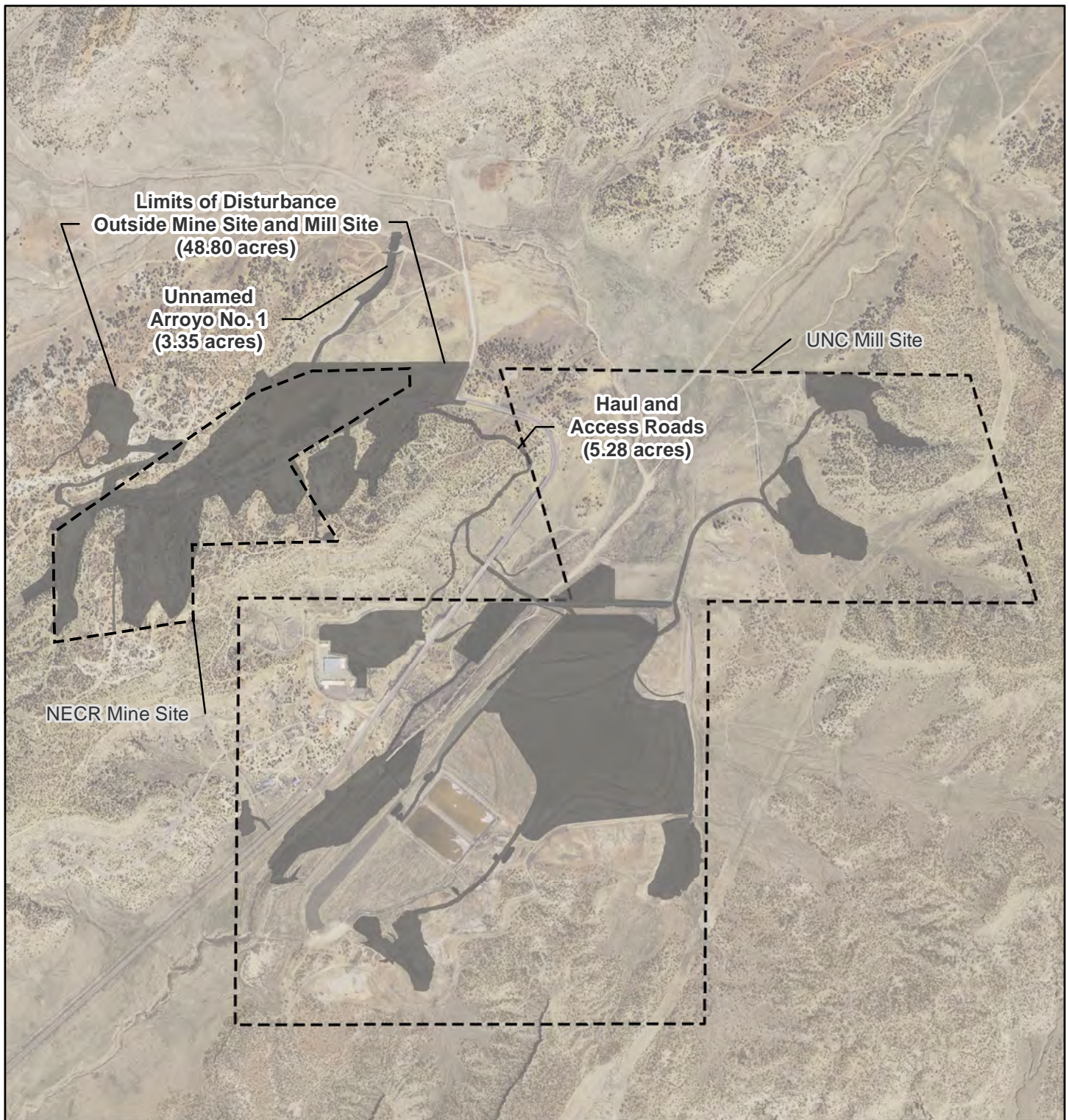


Figure 3.11-4
Exposure Areas and
Tailings Impoundment
NECR Mine and UNC Mill Sites



Supplemental Environmental Report for the United Nuclear Corporation
Mill Site

Source Material License Amendment Request, McKinley County, New Mexico, USA

Chapter 4 Figures



Legend

- | | | |
|---|--------------------------------------|--|
|  | NECR Mine Site and
UNC Mill Sites | <i>Restricted Use Now and
During Proposed Action</i> |
|  | Limits of Disturbance | <i>Restricted Use During
Proposed Action</i> |

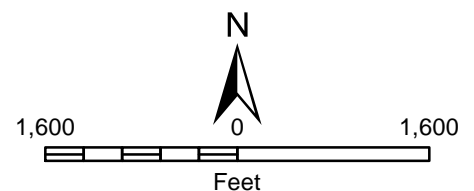
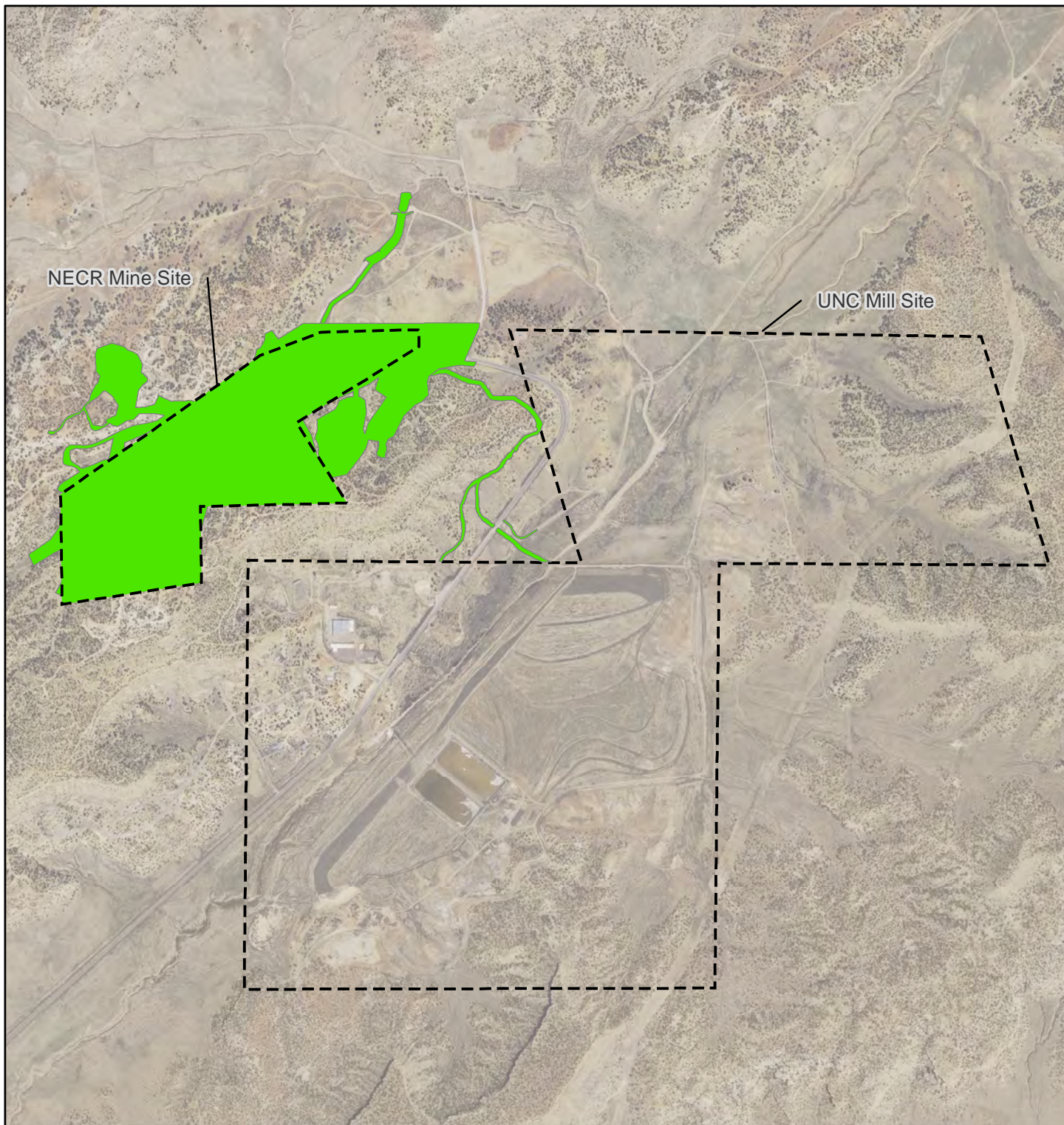




Figure 4.1-1
Restricted Use Areas
Proposed Action
NECR Mine and UNC Mill Sites



Source(s): Base imagery: NAIP 2016; Site features: Stantec



Legend

-  NECR Mine Site and UNC Mill Site
-  Available for Unrestricted Use After Clean-Up

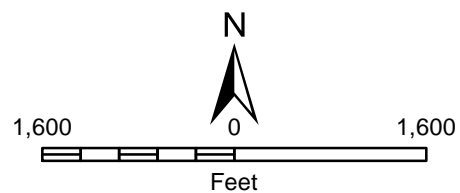
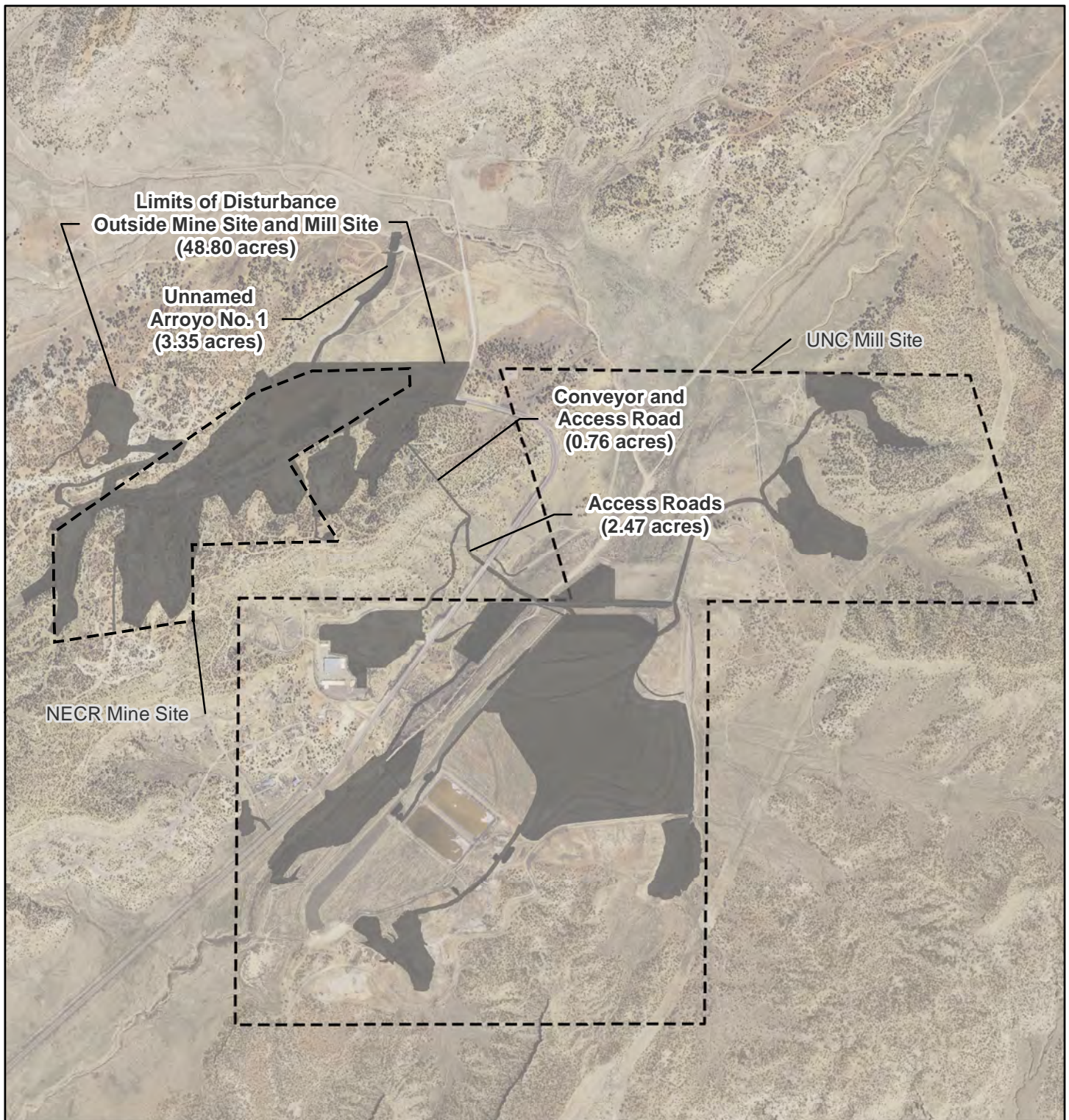




Figure 4.1-2
Land Available After Clean-Up
NECR Mine and UNC Mill Sites



Source(s): Base imagery: NAIP 2016; Site features: Stantec



Legend

- | | | |
|---|-------------------------------------|--|
|  | NECR Mine Site and
UNC Mill Site | <i>Restricted Use Now and
During Proposed Action</i> |
|  | Limits of Disturbance | <i>Restricted Use During
Proposed Action</i> |

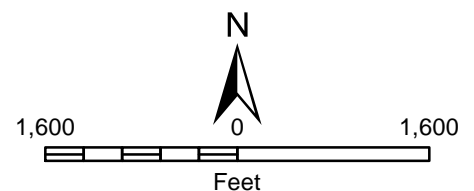
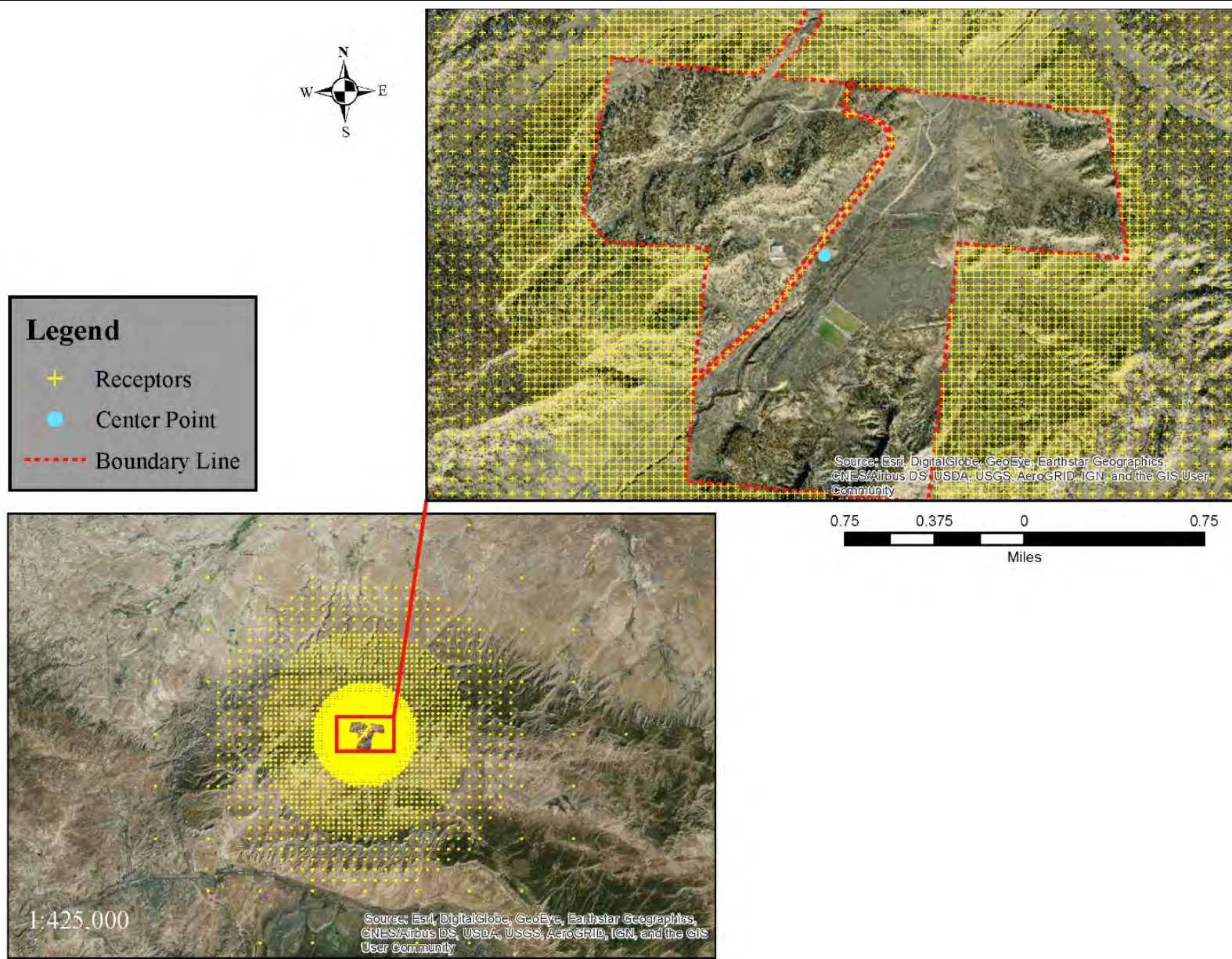


Figure 4.1-3
Restricted Use Areas
Alternative B
NECR Mine and UNC Mill Sites



Source(s): Base imagery: NAIP 2016; Site features: Stantec



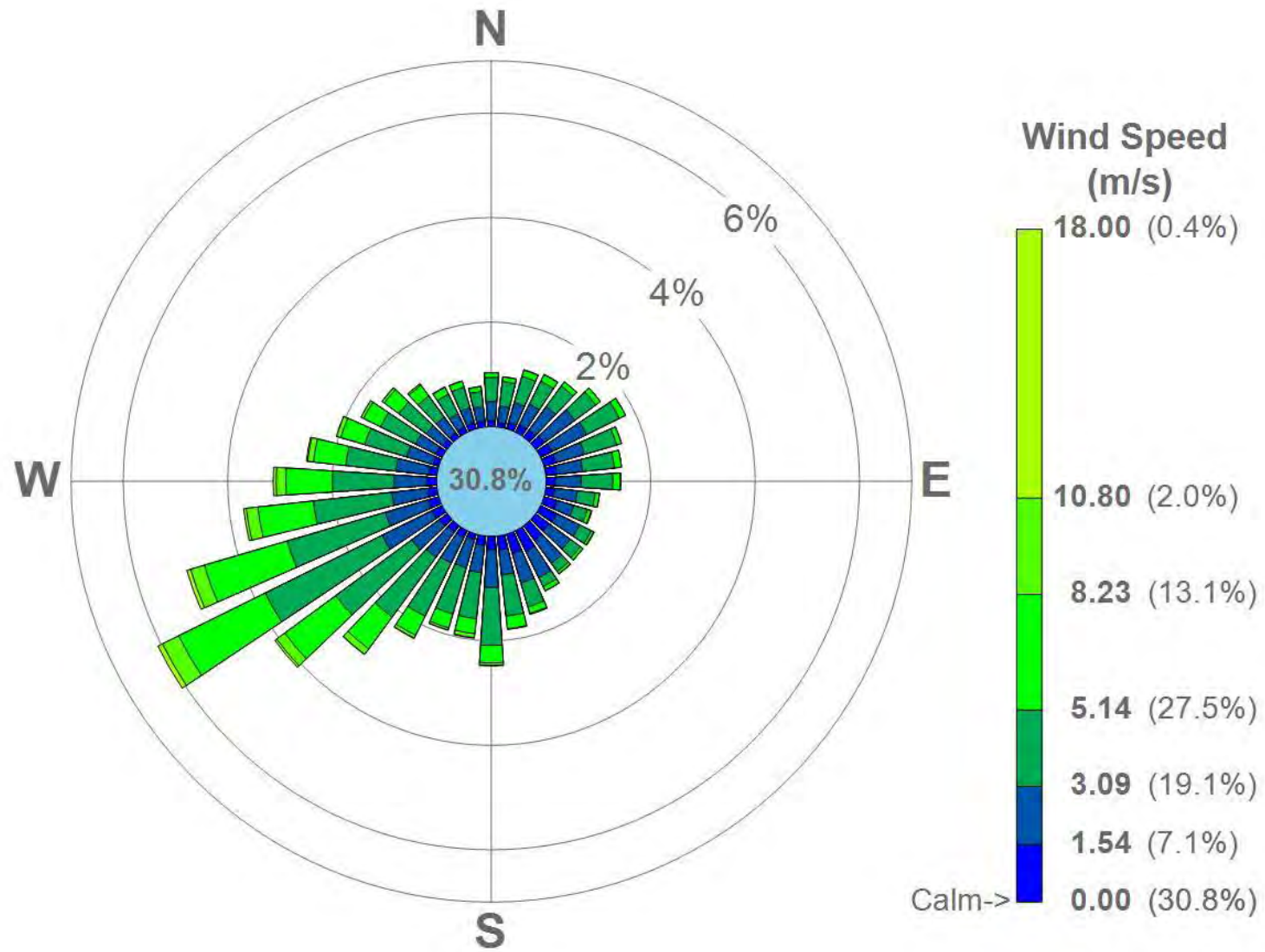


Figure 4.6-2. Wind Rose for Gallup ASOS (1987-1991)

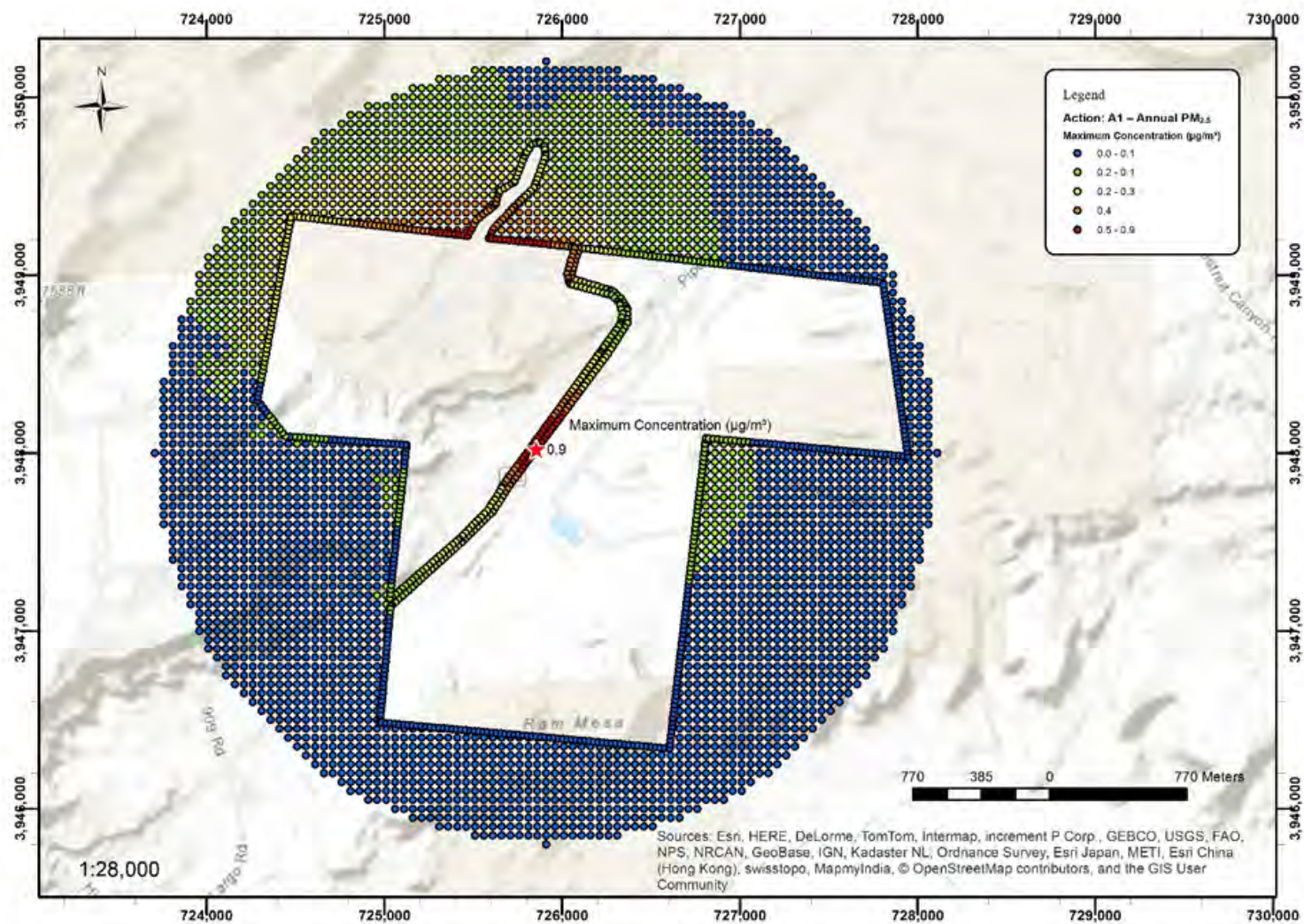
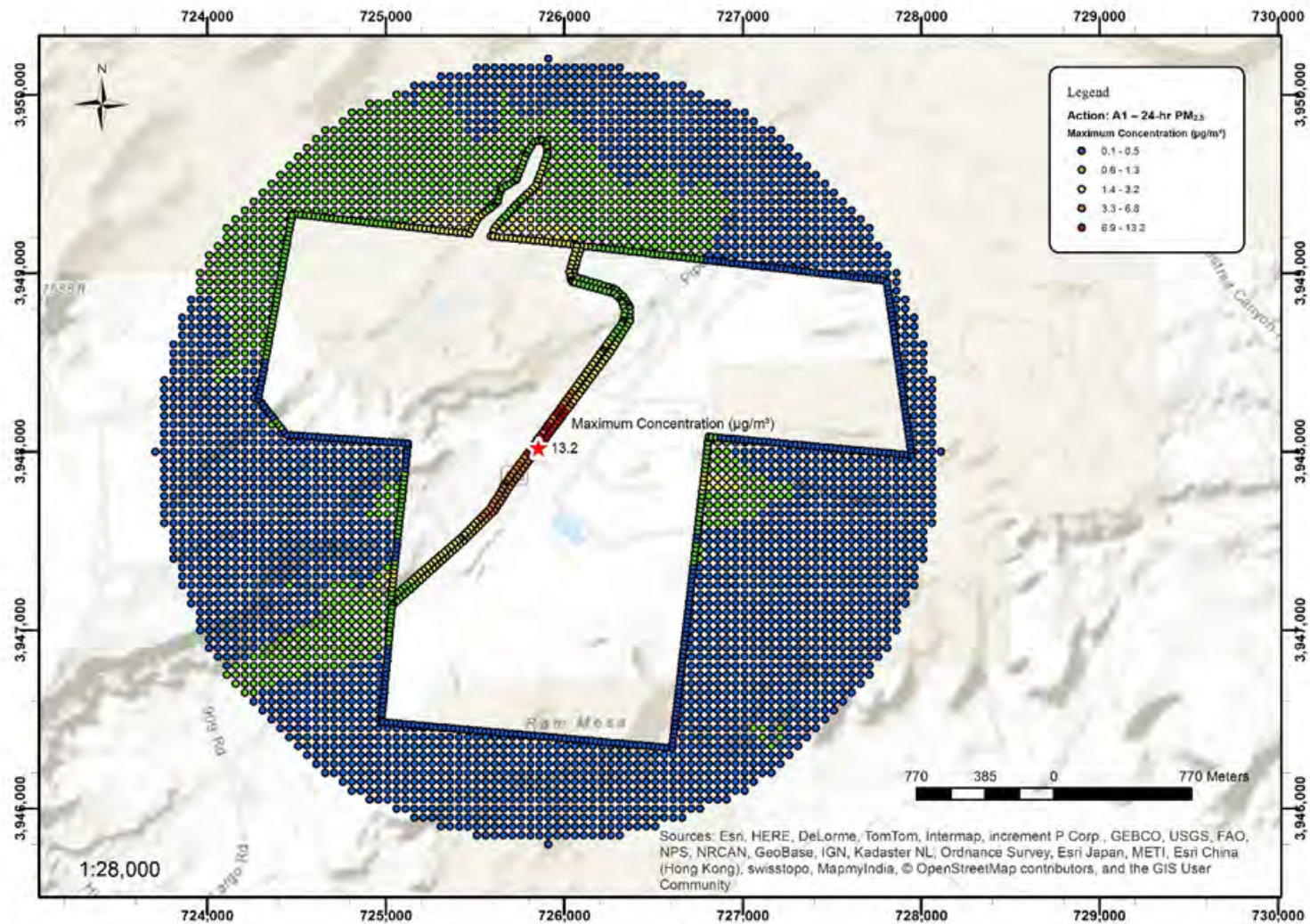


Figure 4.6-3. Air Dispersion Modeling Results – Proposed Action (Scenario A1) - $PM_{2.5}$ Annual Concentrations



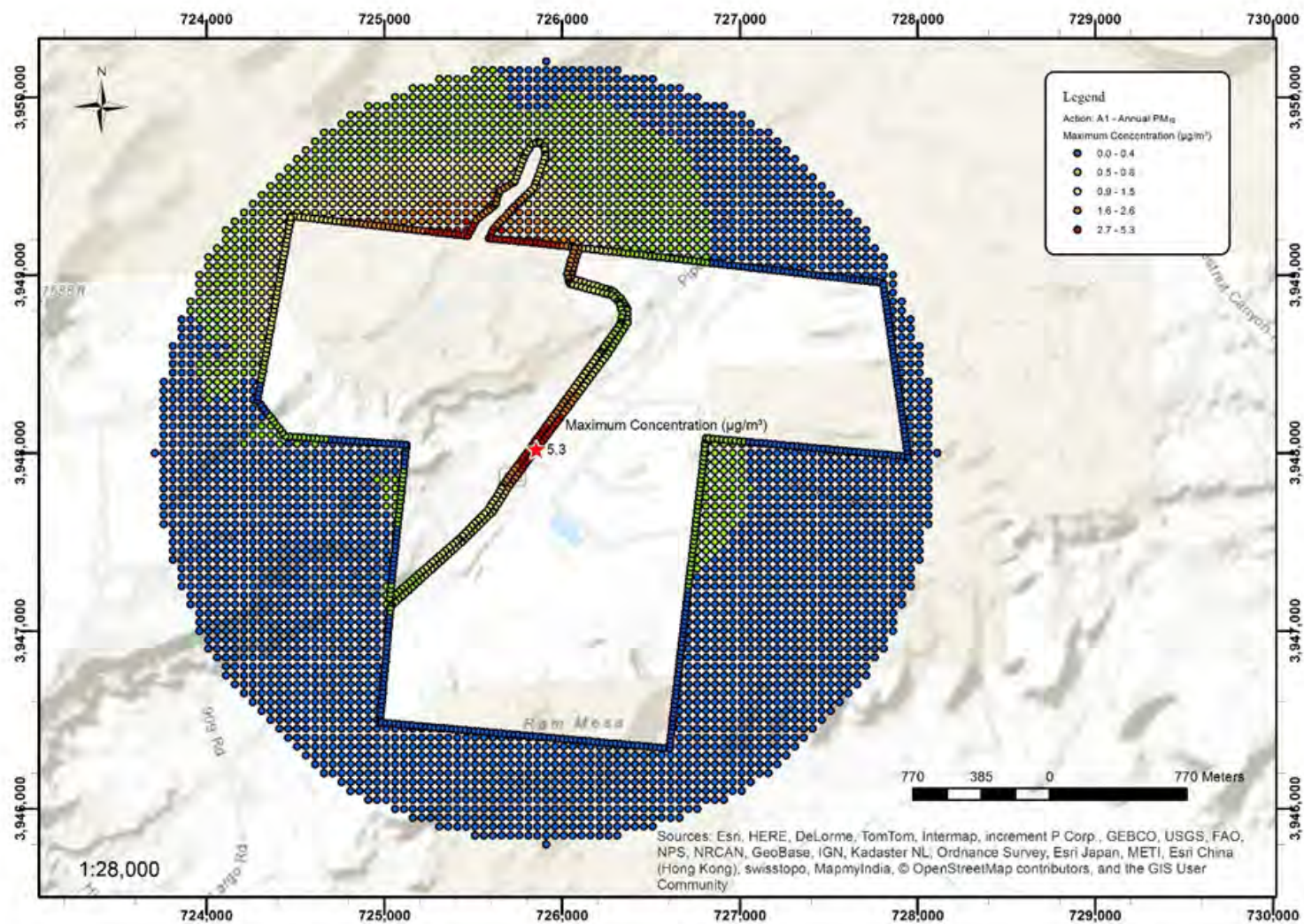


Figure 4.6-5. Air Dispersion Modeling Results – Proposed Action (Scenario A1) - PM₁₀ Annual Concentrations

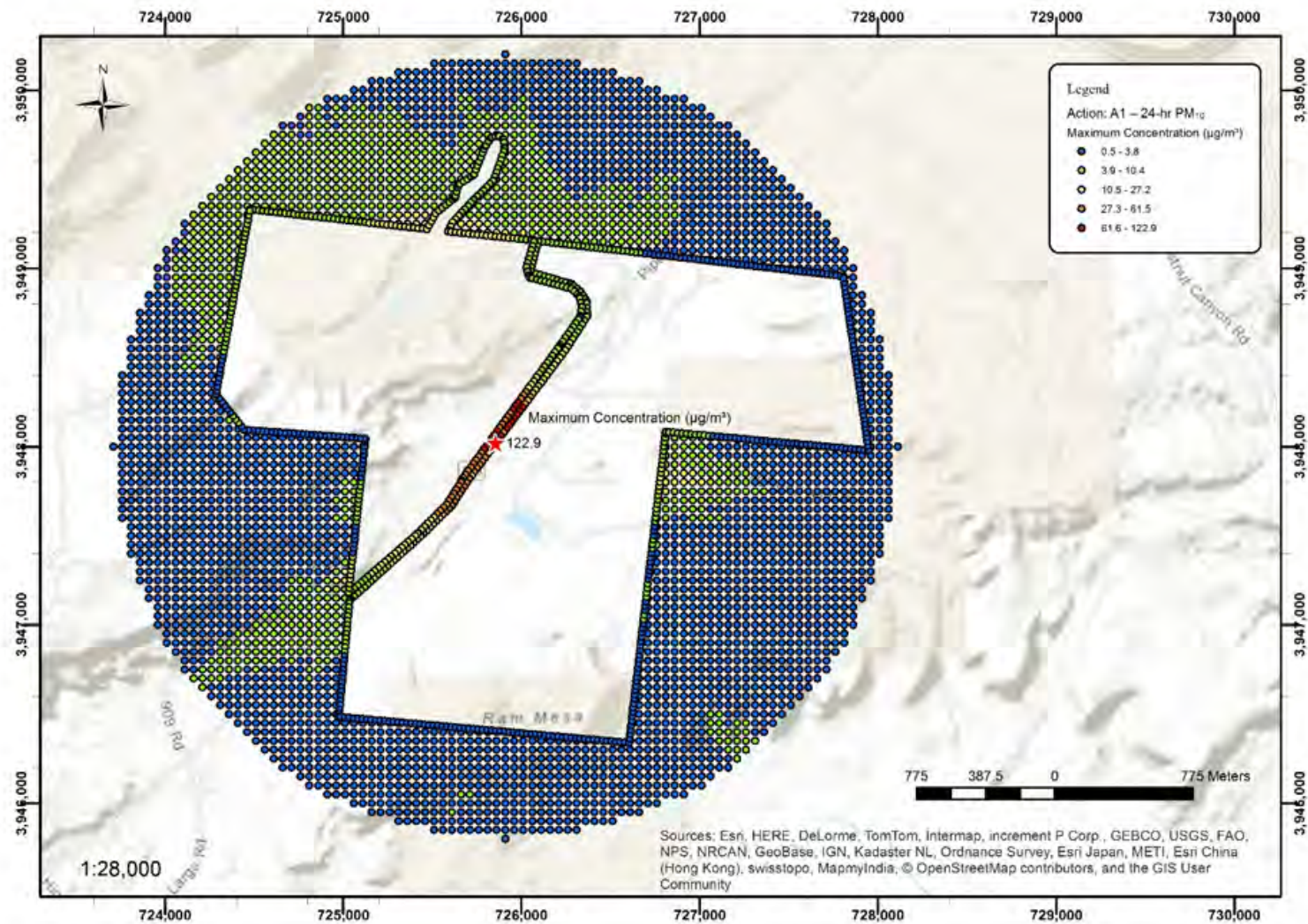
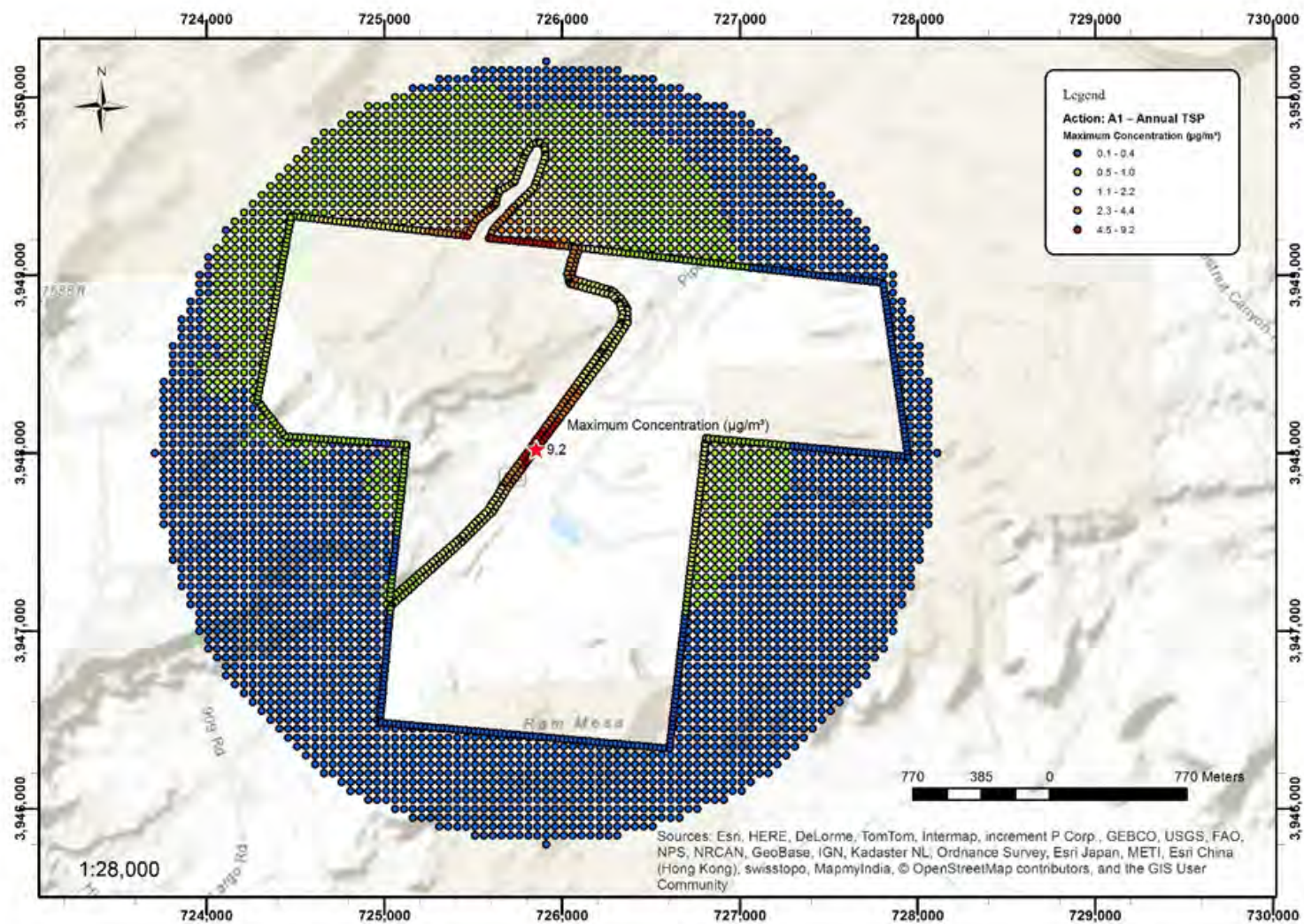
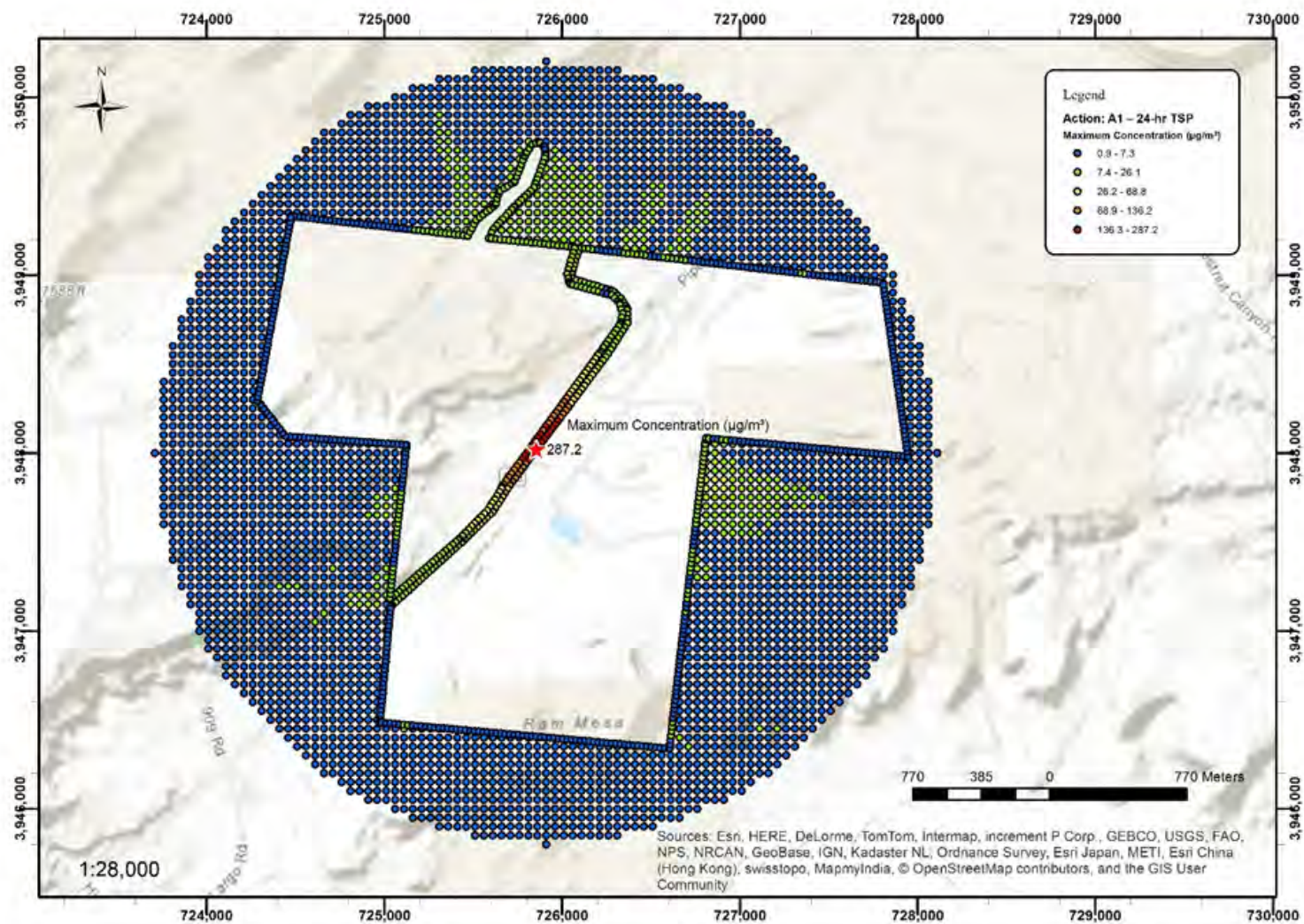
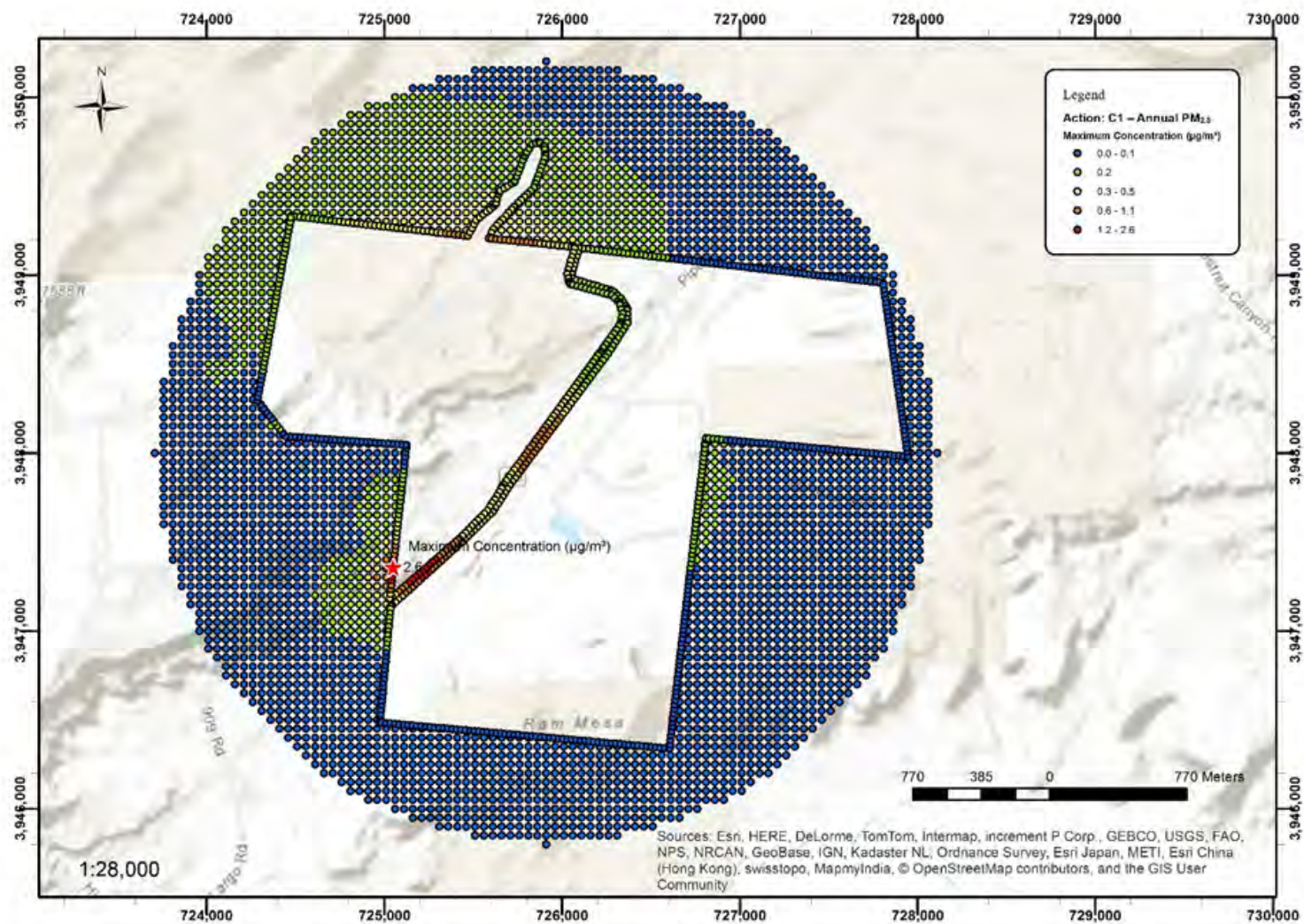


Figure 4.6-6. Air Dispersion Modeling Results – Proposed Action (Scenario A1) - PM₁₀ 24-hr Concentrations







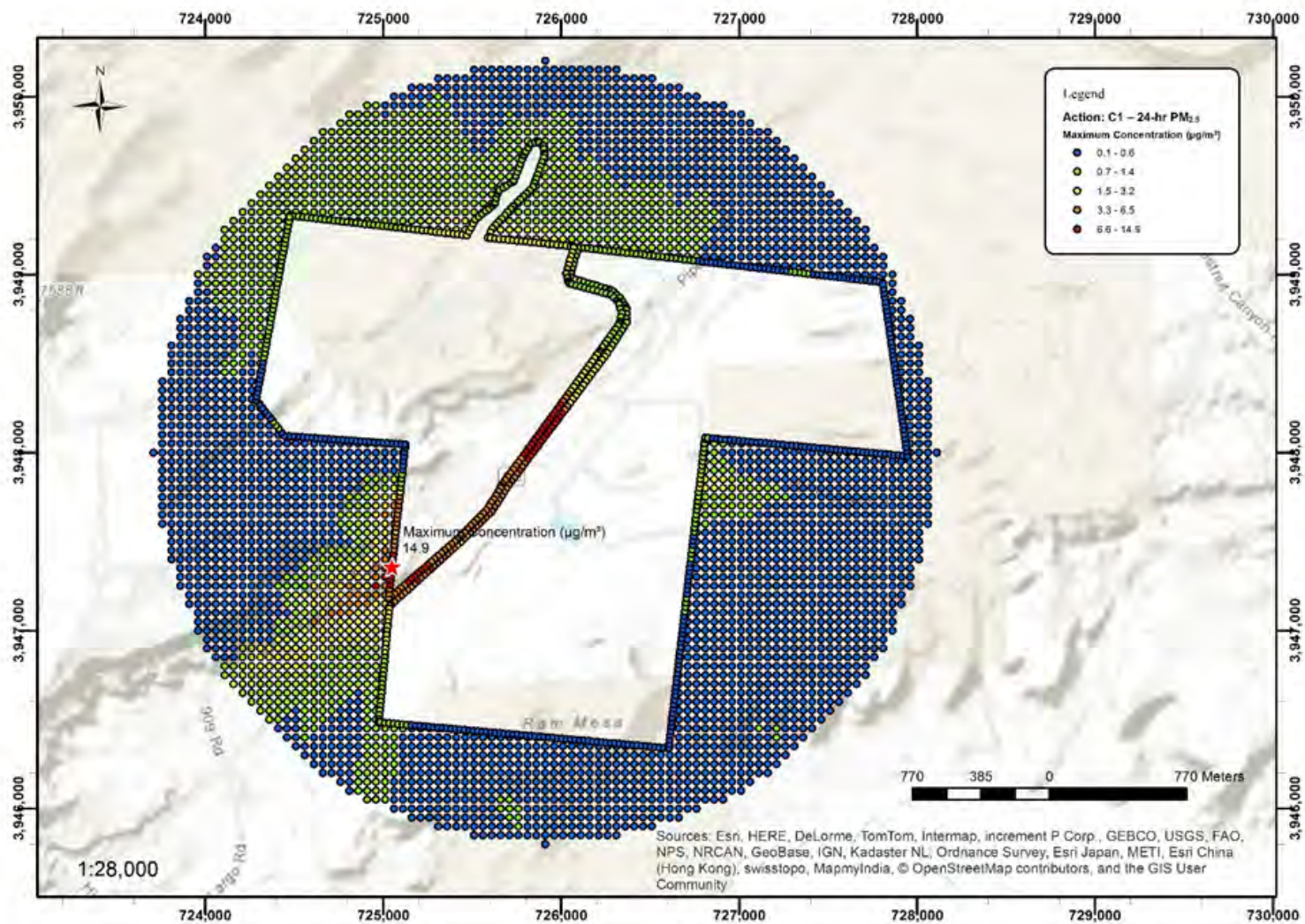
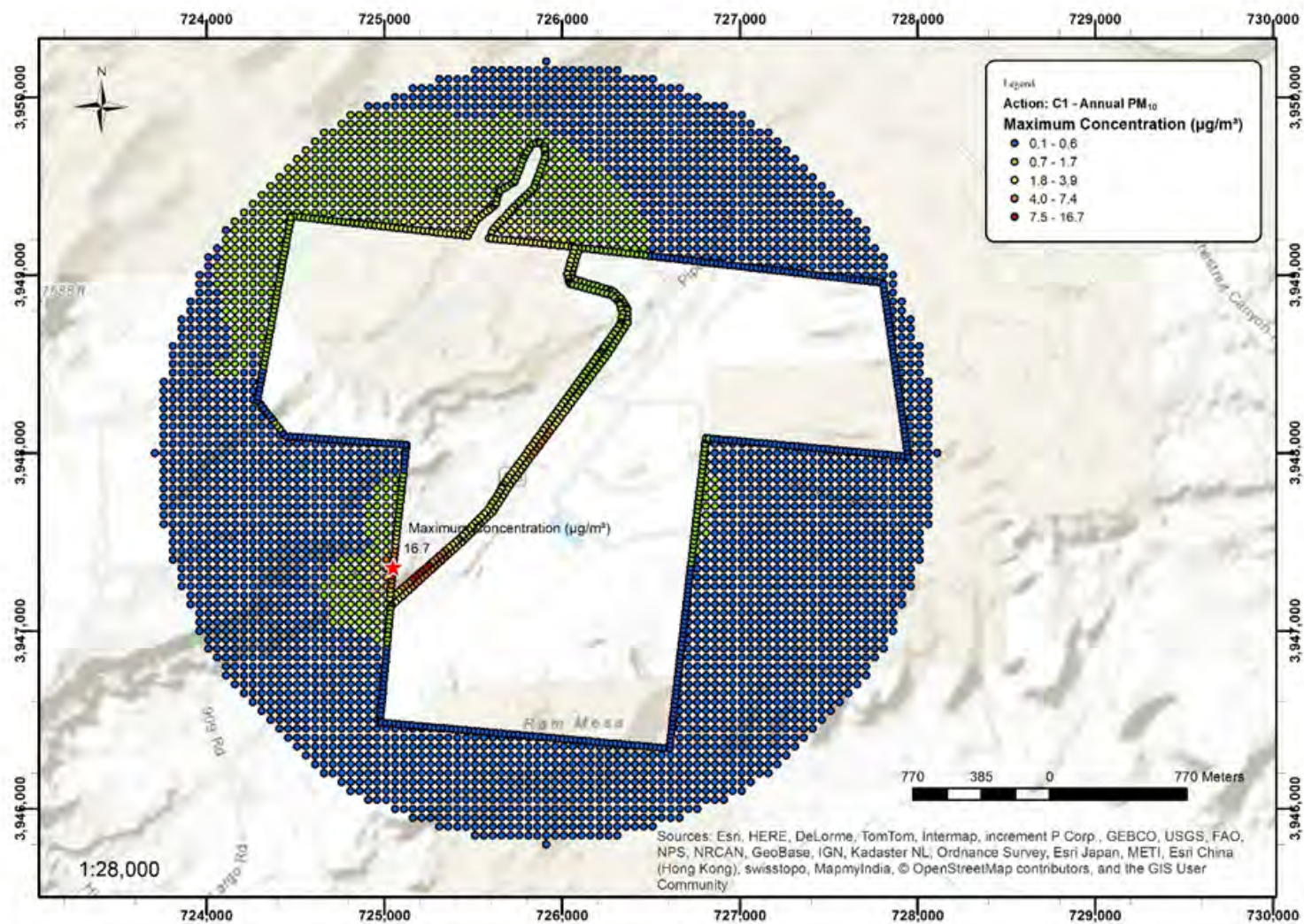


Figure 4.6-10. Air Dispersion Modeling Results – Proposed Action (Scenario C1/D1) - PM_{2.5} 24-hr Concentrations



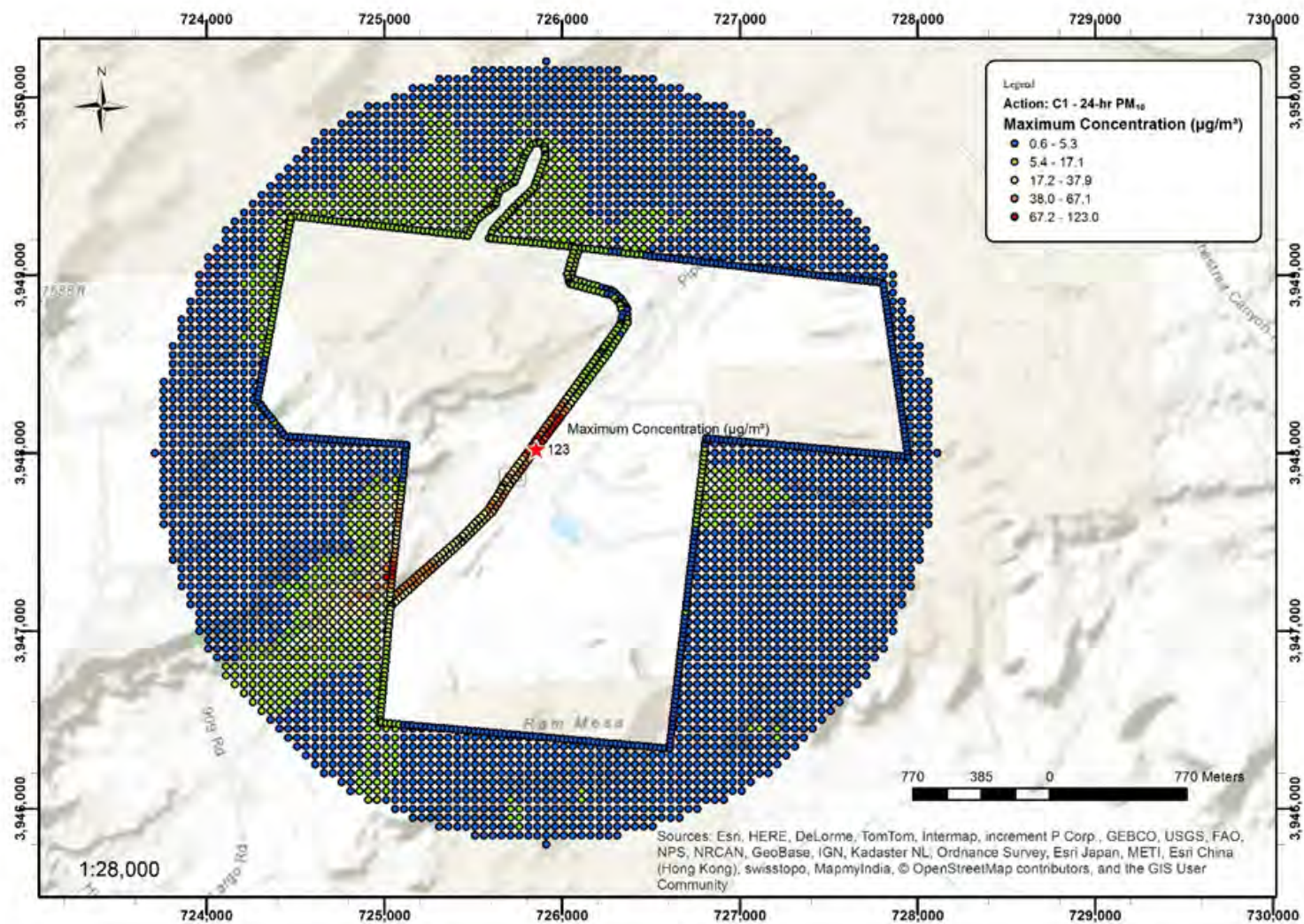


Figure 4.6-12. Air Dispersion Modeling Results – Proposed Action (Scenario C1/D1) - PM₁₀ 24-hr Concentrations

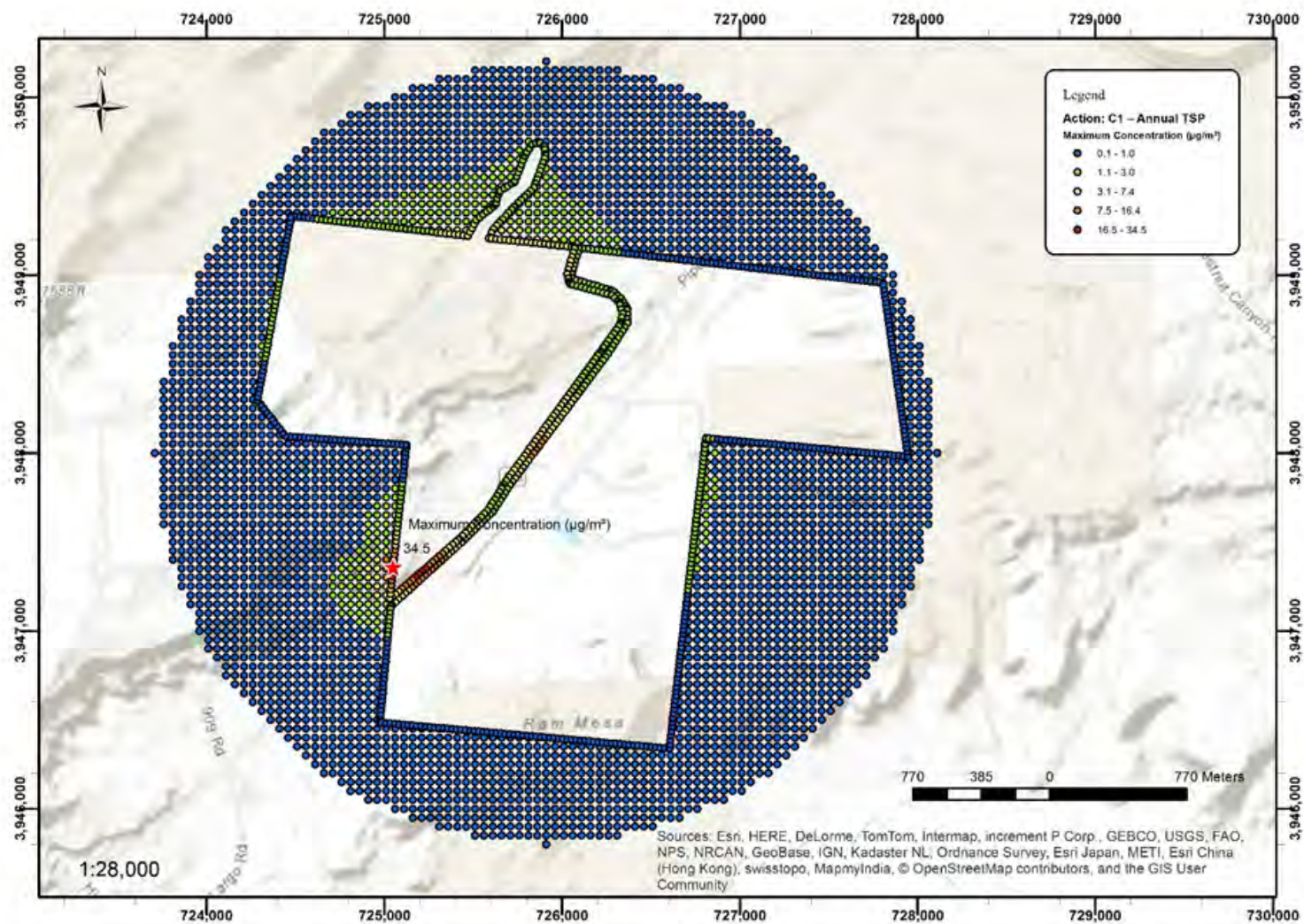
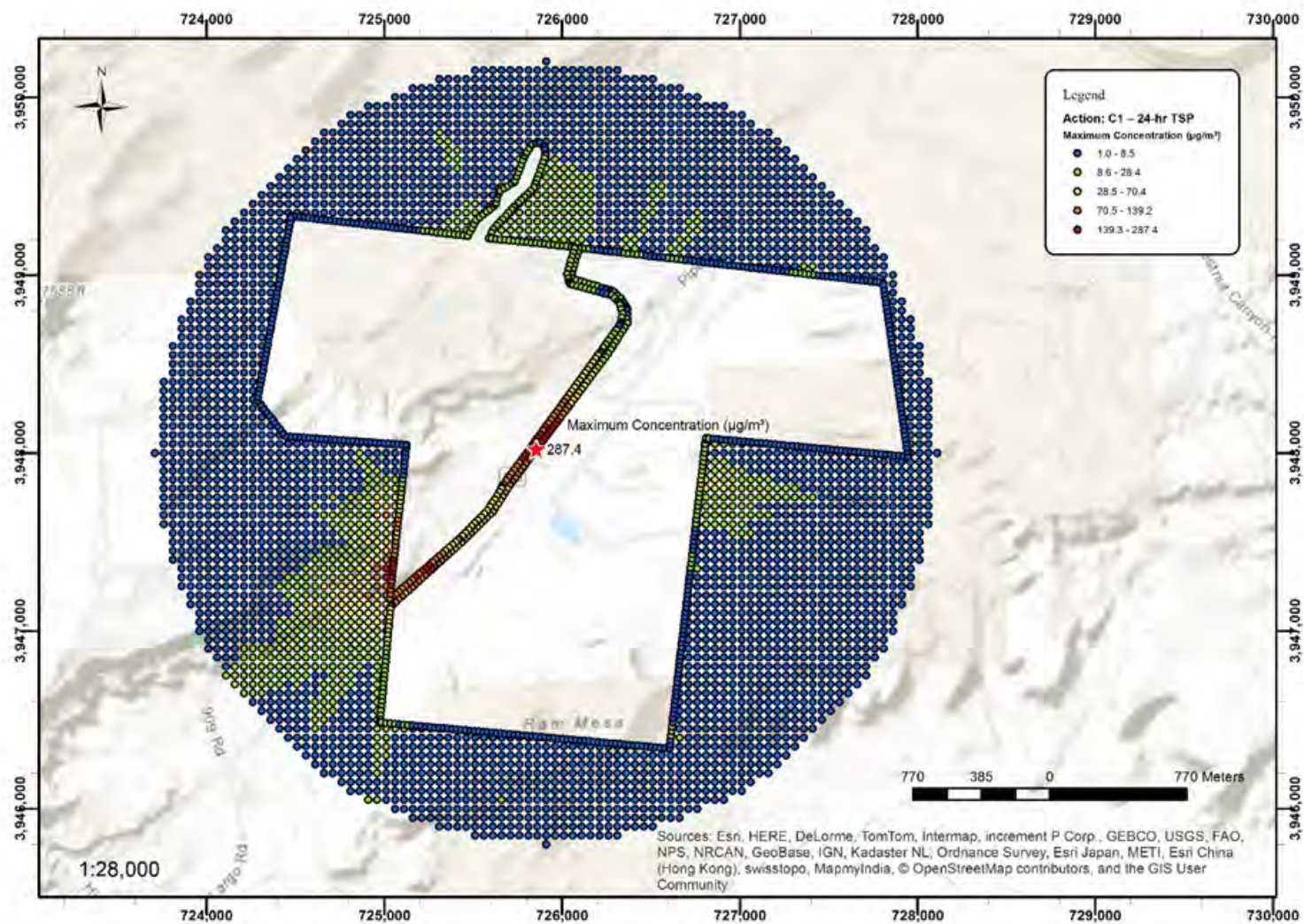


Figure 4.6-13. Air Dispersion Modeling Results – Proposed Action (Scenario C1/D1) - TSP Annual Concentrations



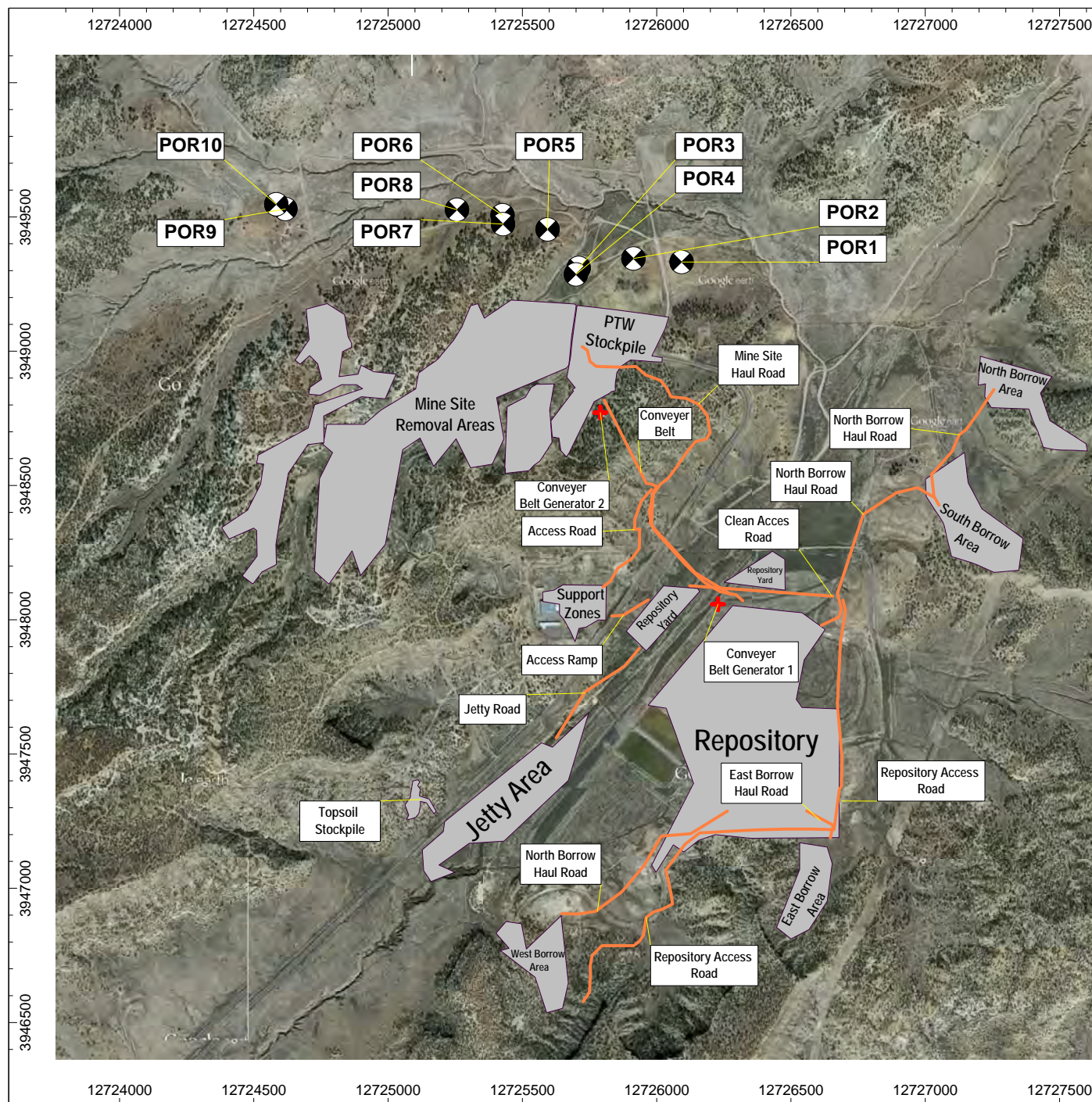


Figure 4.7-1

**Location of Modeled
Noise Sources & Receivers**

**United Nuclear Corporation
& Northeast Church Rock Mine
McKinley County, New Mexico**



Scale 1:22,000

- + Point Source
- Line Source
- Area Source
- Receptor (POR)

Figure 4.7-2

**Steady Sound Level Contours
Alternative A - Proposed Action
Scenario A1**

**Worst-case Operating Scenario
for Daytime Period
at 1.5 m Above Grade**

**United Nuclear Corporation
& Northeast Church Rock Mine
McKinley County, New Mexico**



Scale 1:22,000

— = 55 dBA
— = 65 dBA
— = 75 dBA

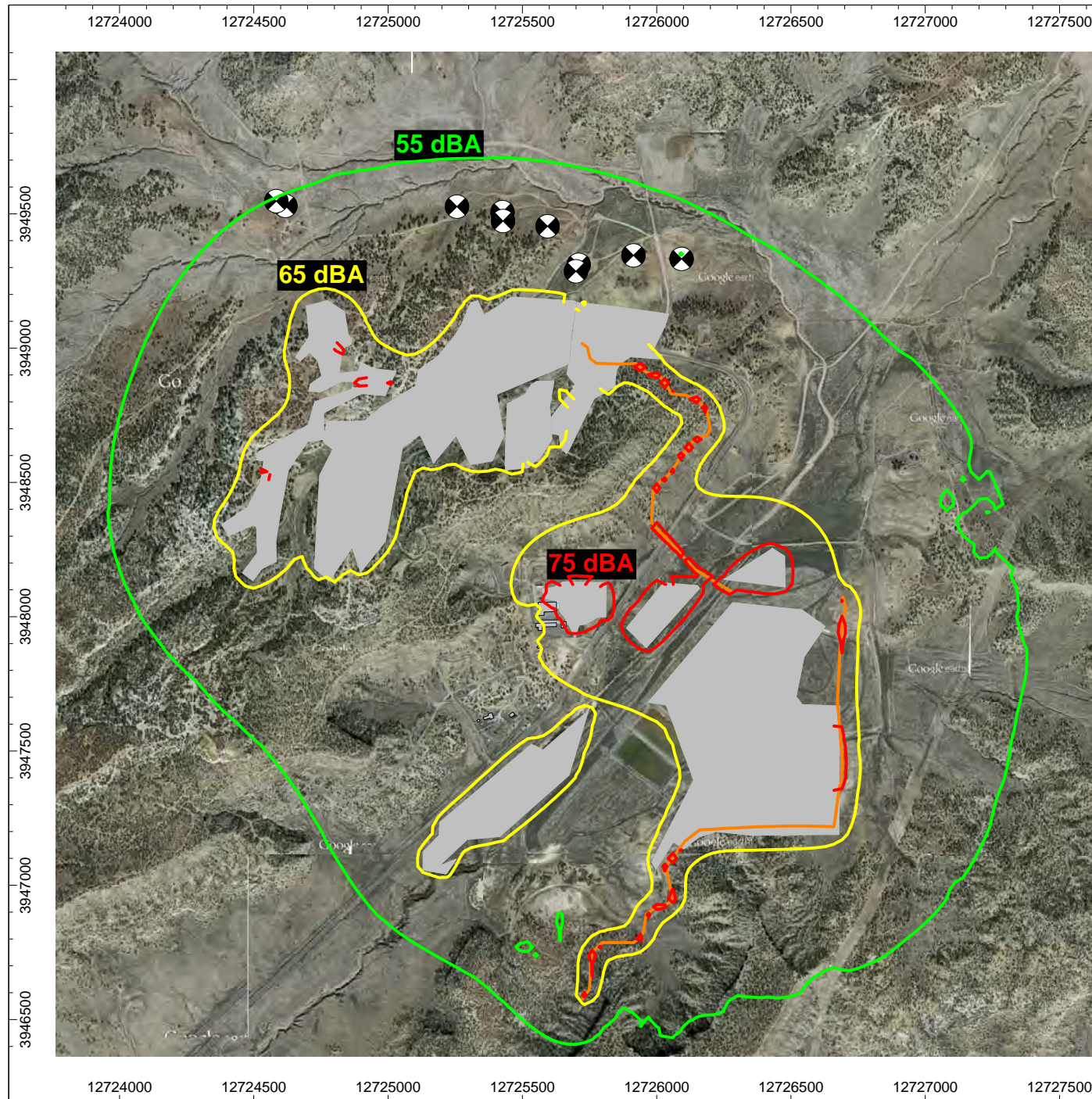


Figure 4.7-3

**Steady Sound Level Contours
Alternative A - Proposed Action
Scenario A2**

**Worst-case Operating Scenario
for Daytime Period
at 1.5 m Above Grade**

**United Nuclear Corporation
& Northeast Church Rock Mine
McKinley County, New Mexico**



Scale 1:22,000

— = 55 dBA
— = 65 dBA
— = 75 dBA

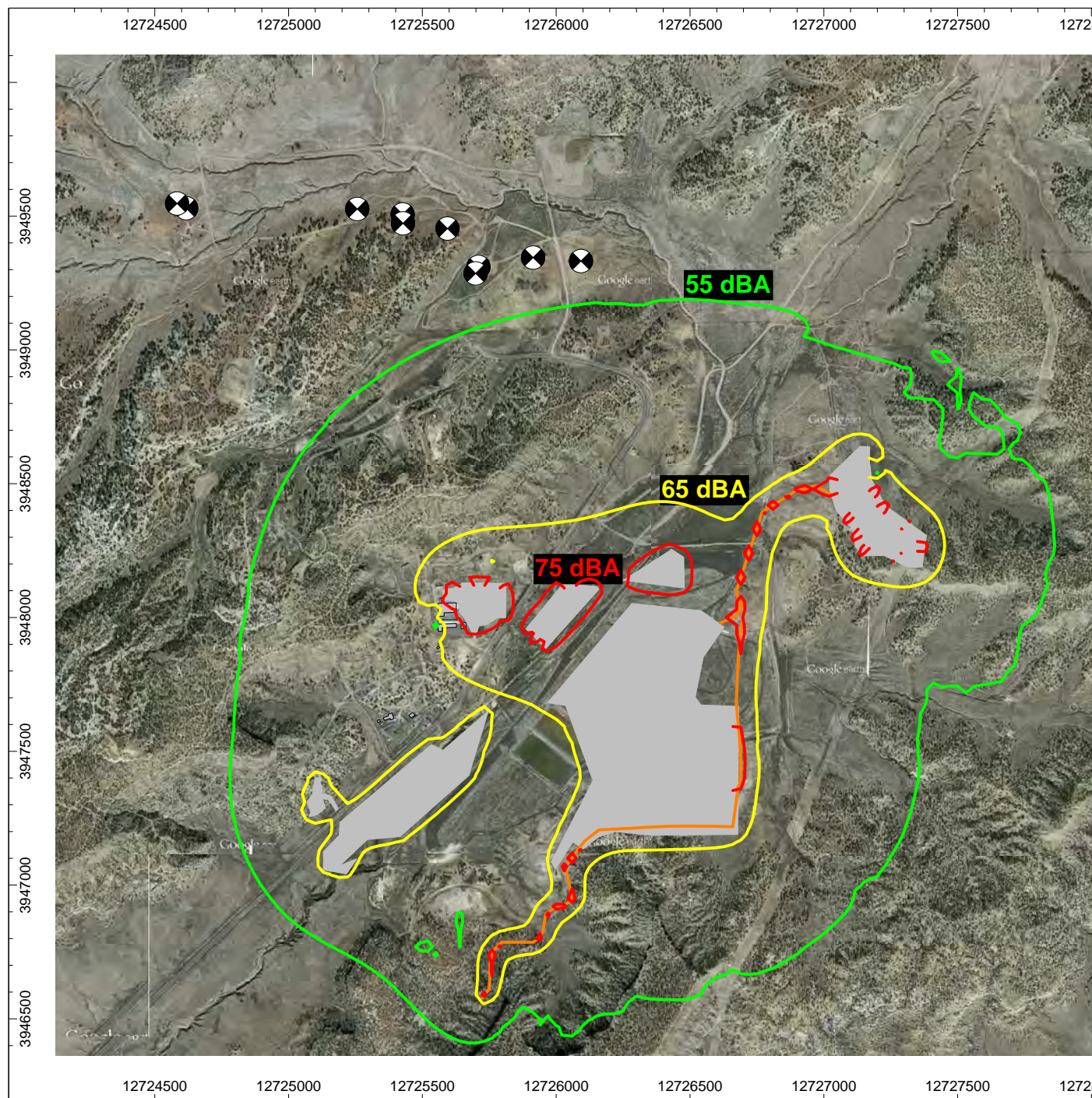


Figure 4.7-4

**Steady Sound Level Contours
Alternative A - Proposed Action
Scenario A3**

**Worst-case Operating Scenario
for Daytime Period
at 1.5 m Above Grade**

**United Nuclear Corporation
& Northeast Church Rock Mine
McKinley County, New Mexico**



Scale 1:22,000

— = 55 dBA
— = 65 dBA
— = 75 dBA

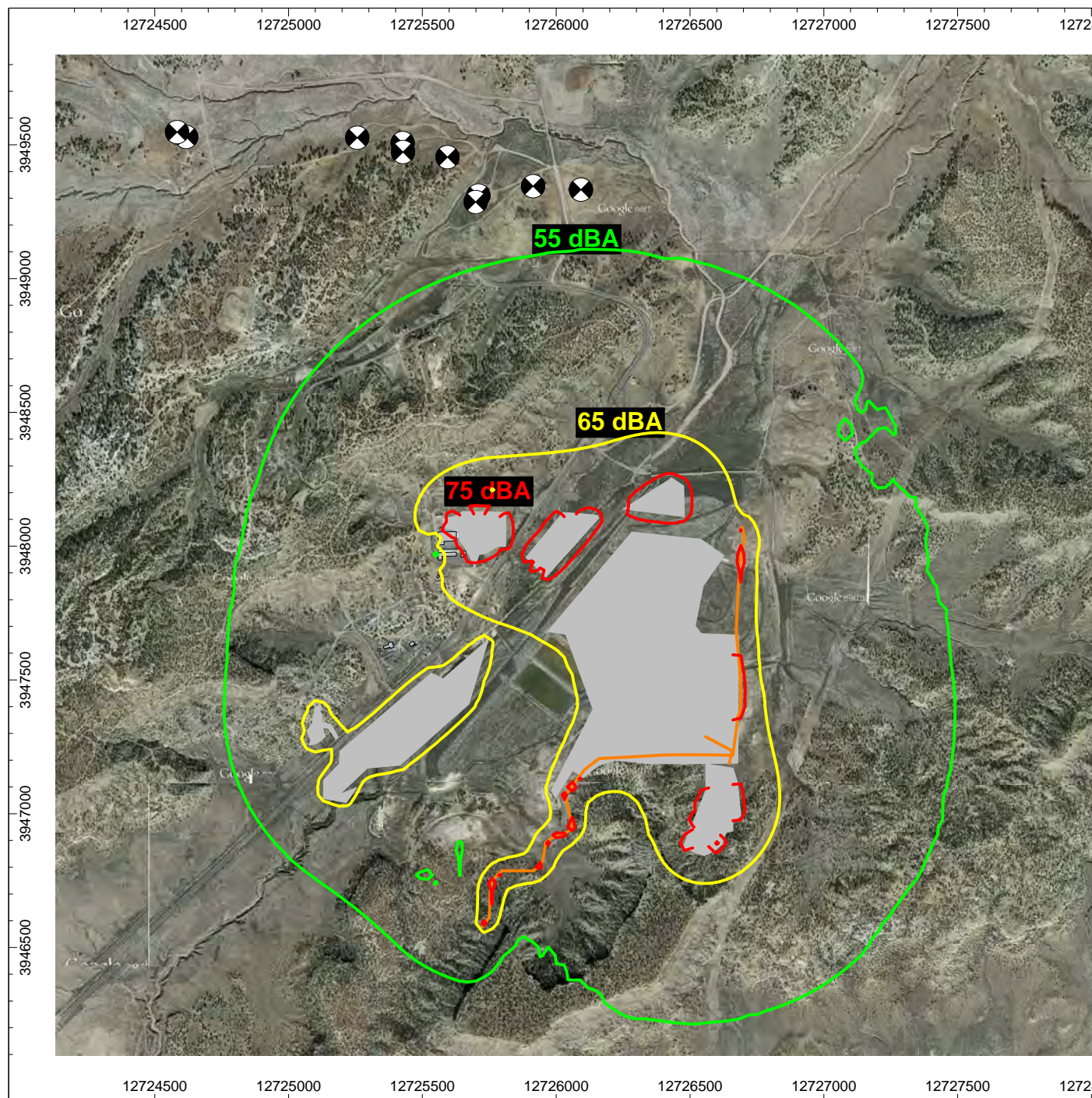


Figure 4.7-5

**Steady Sound Level Contours
Alternative A - Proposed Action
Scenario A4**

**Worst-case Operating Scenario
for Daytime Period
at 1.5 m Above Grade**

**United Nuclear Corporation
& Northeast Church Rock Mine
McKinley County, New Mexico**



Scale 1:22,000

— = 55 dBA
— = 65 dBA
— = 75 dBA

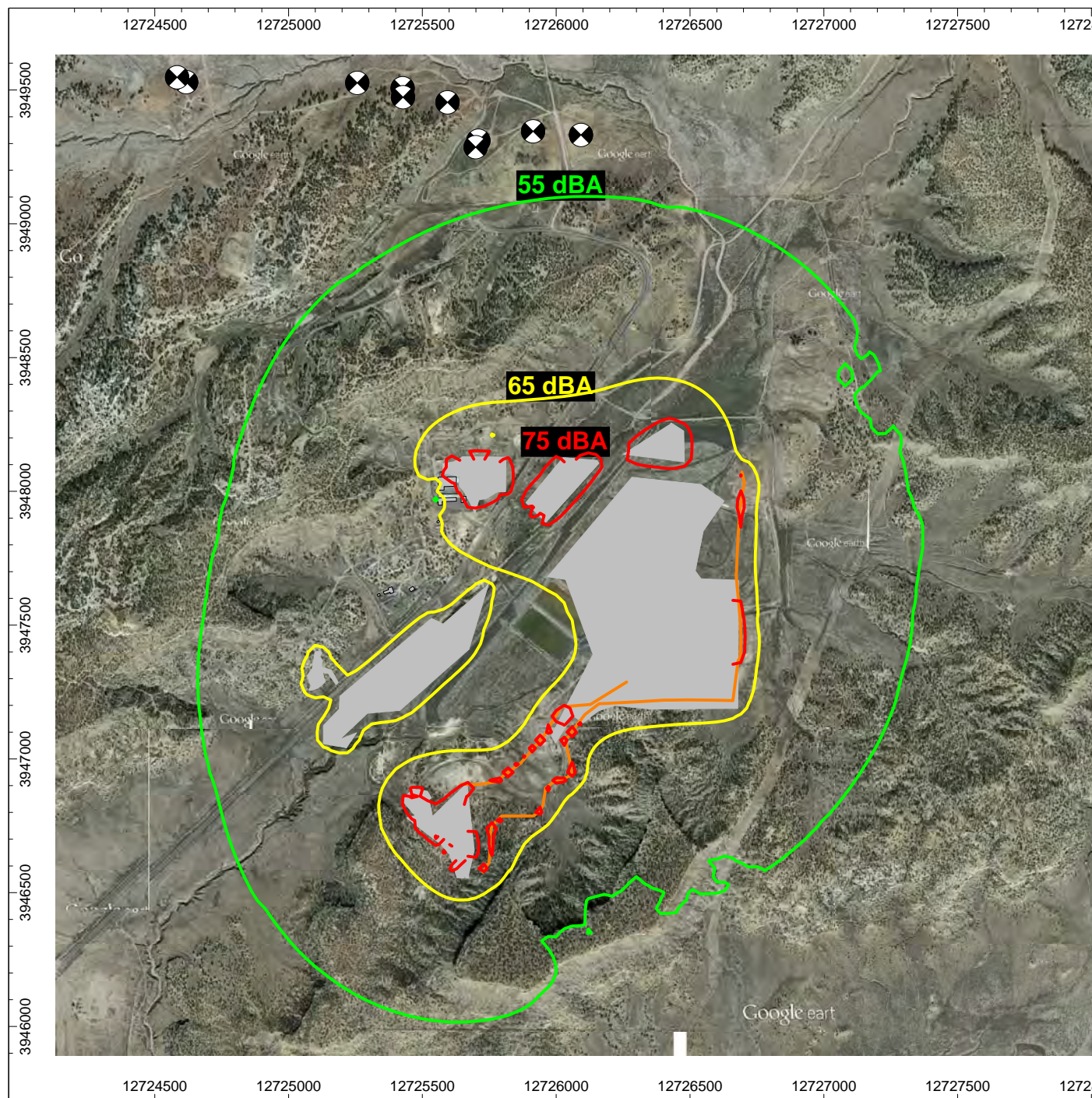


Figure 4.7-6

**Steady Sound Level Contours
Alternative A - Proposed Action
Scenario A5**

**Worst-case Operating Scenario
for Daytime Period
at 1.5 m Above Grade**

**United Nuclear Corporation
& Northeast Church Rock Mine
McKinley County, New Mexico**



Scale 1:22,000

— = 55 dBA
— = 65 dBA
— = 75 dBA

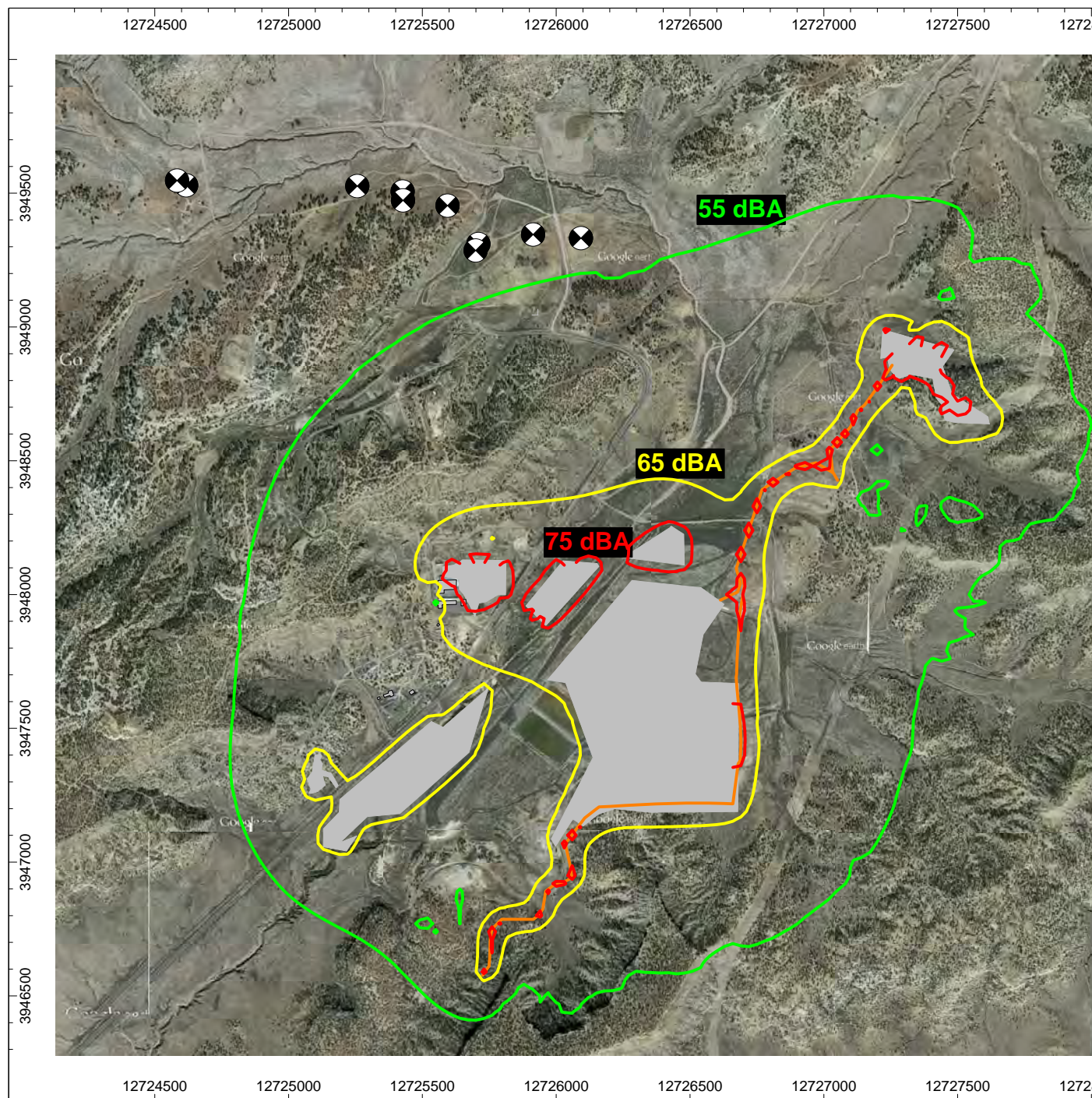


Figure 4.7-7

**Steady Sound Level Contours
Alternative B - Conveyers
Scenario B1**

**Worst-case Operating Scenario for
Daytime Period
at 1.5 m Above Grade**

**United Nuclear Corporation
& Northeast Church Rock Mine
McKinley County, New Mexico**



Scale 1:22,000

— = 55 dBA
— = 65 dBA
— = 75 dBA

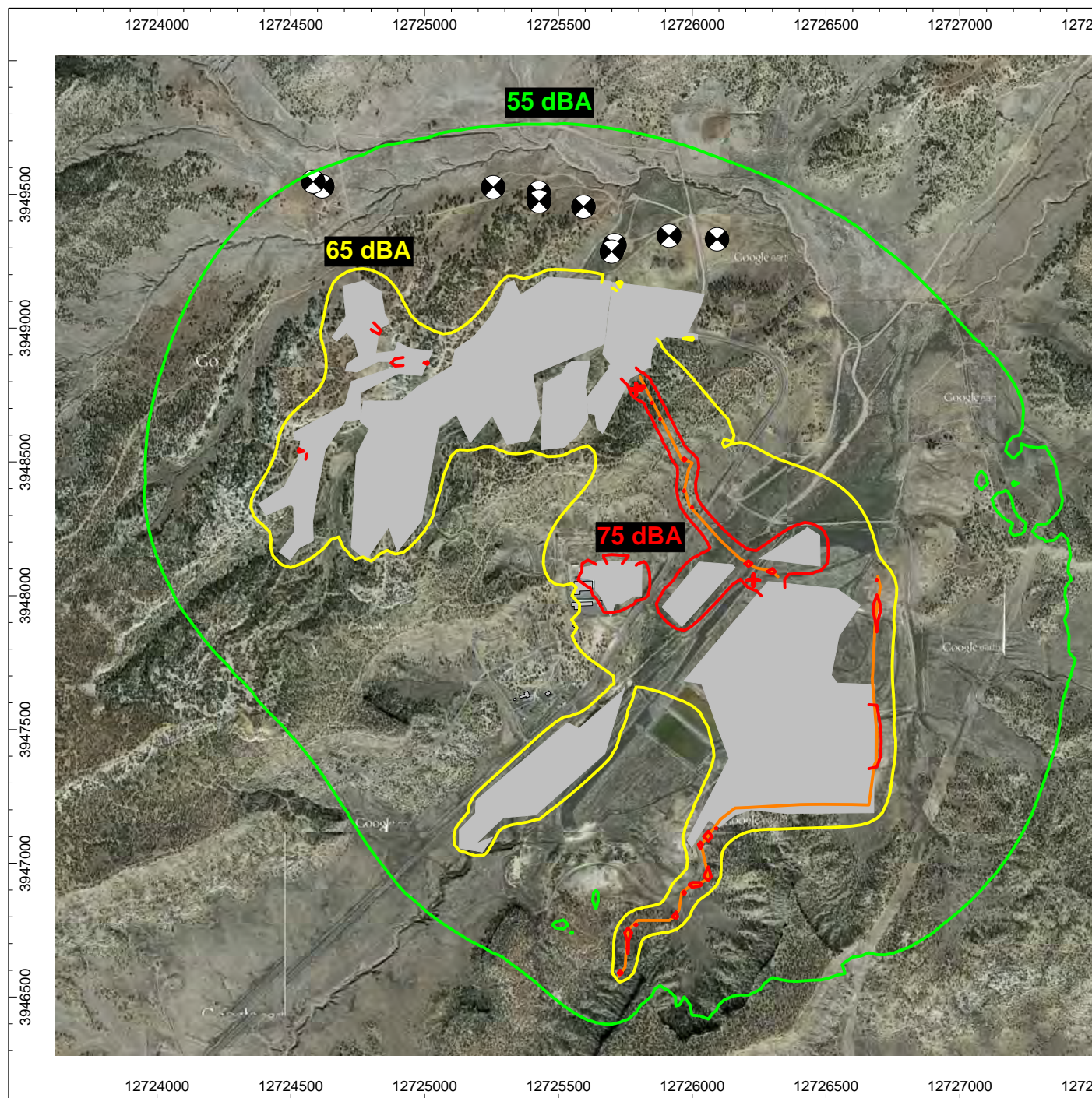


Figure 4.7-8

Steady Sound Level Contours
Alternative C - Jetty Areas
Scenario C1

Worst-case Operating Scenario for
Daytime Period
at 1.5 m Above Grade

United Nuclear Corporation
& Northeast Church Rock Mine
McKinley County, New Mexico



Scale 1: 22,000

— = 55 dBA
— = 65 dBA
— = 75 dBA

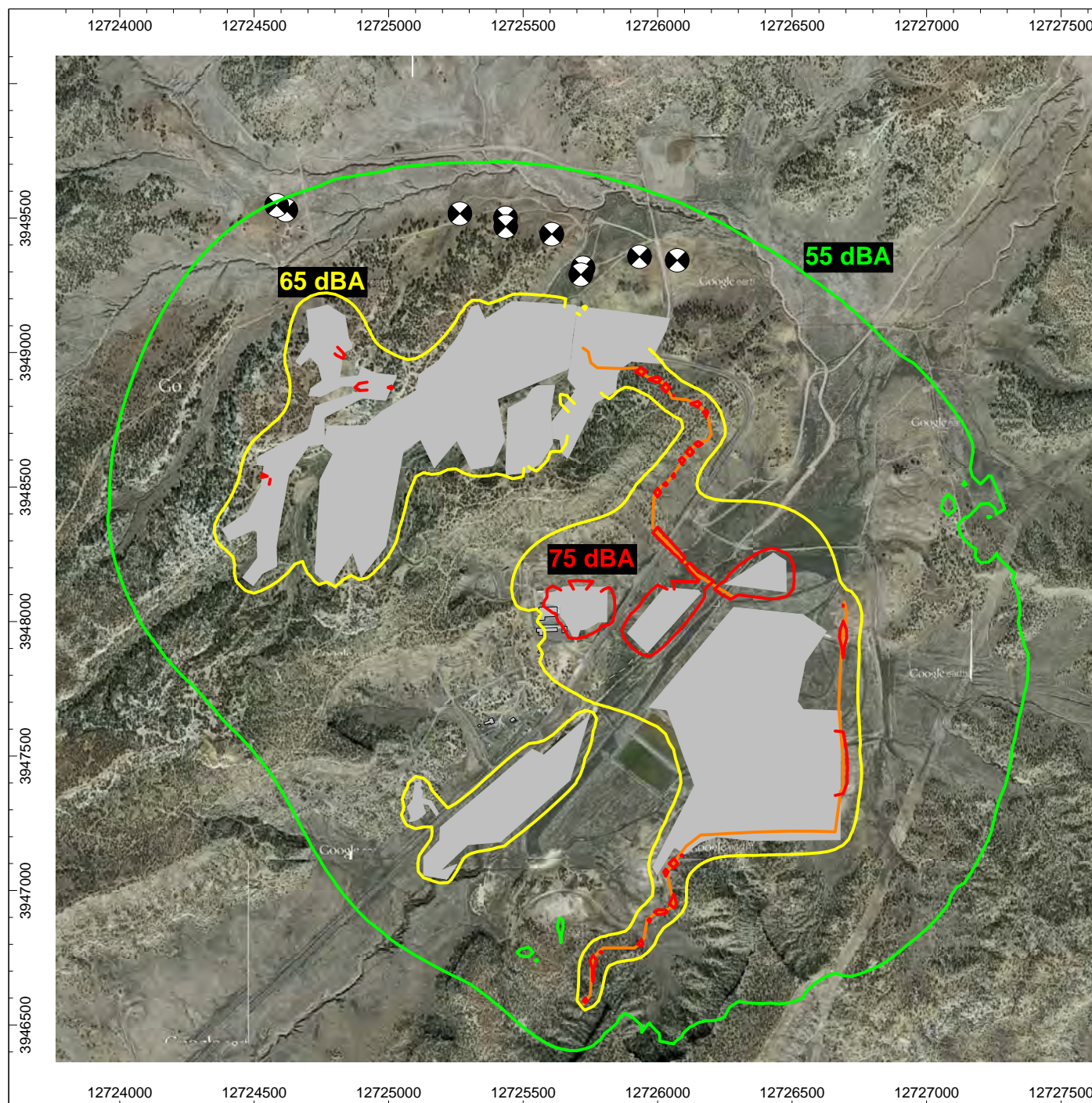


Figure 4.7-9

**Steady Sound Level Contours
Alternative C - Jetty Areas
Scenario C2**

**Worst-case Operating Scenario
for Daytime Period
at 1.5 m Above Grade**

**United Nuclear Corporation
& Northeast Church Rock Mine
McKinley County, New Mexico**



Scale 1: 22,000

— = 55 dBA
— = 65 dBA
— = 75 dBA

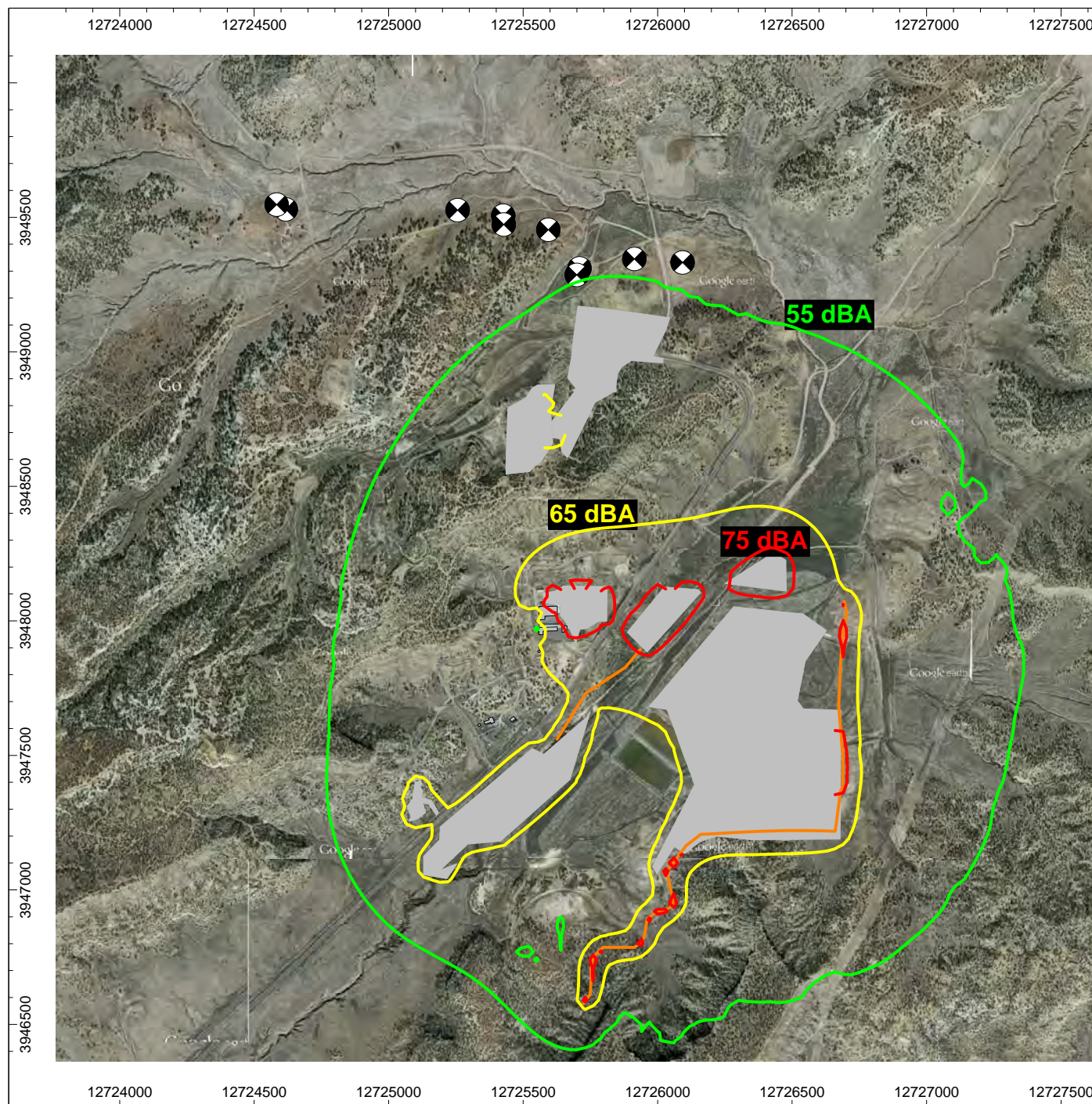


Figure 4.7-10

**Steady Sound Level Contours
Alternative D - PTW
Scenario D1**

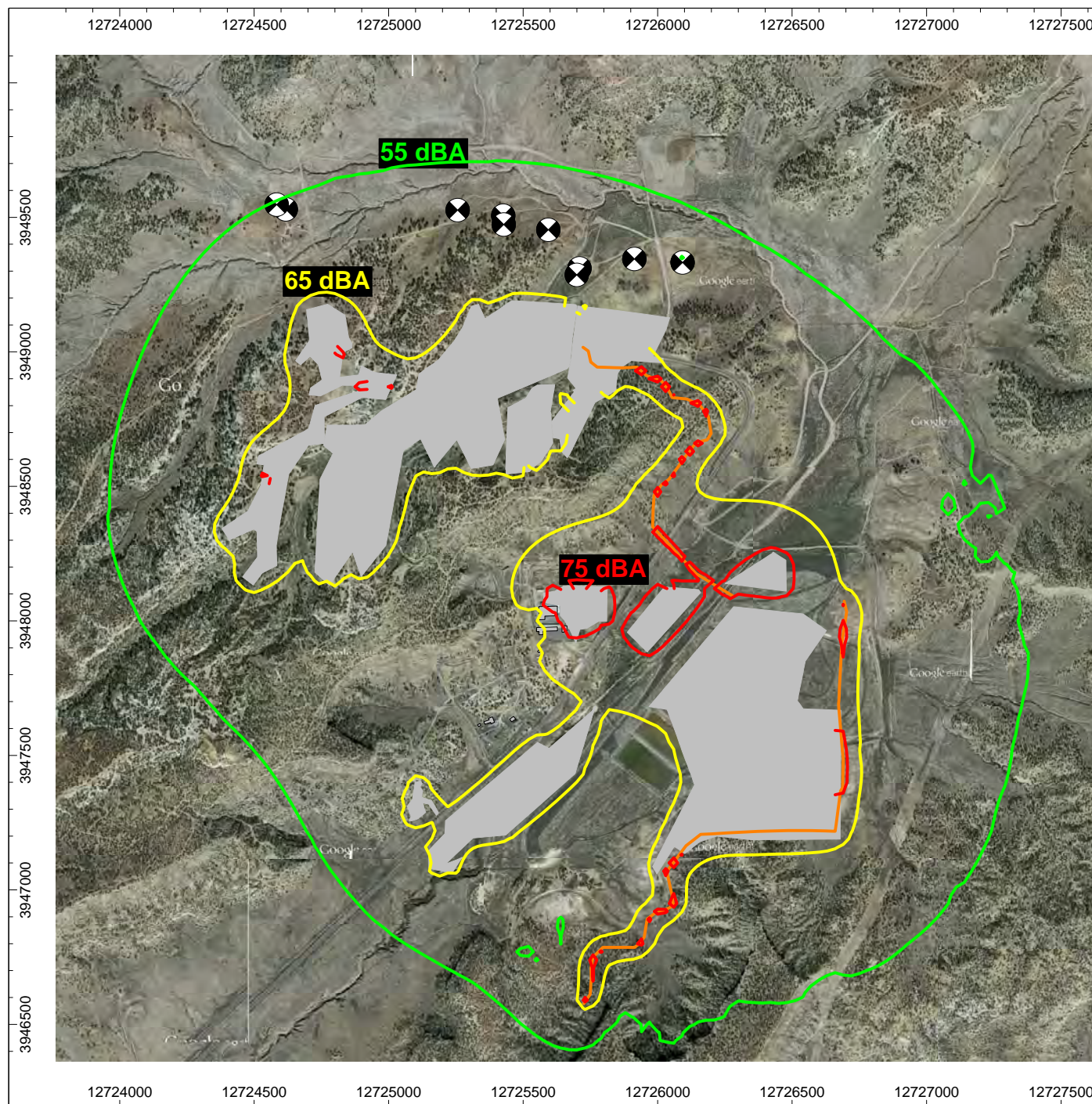
**Worst-case Operating Scenario for
Daytime Period
at 1.5 m Above Grade**

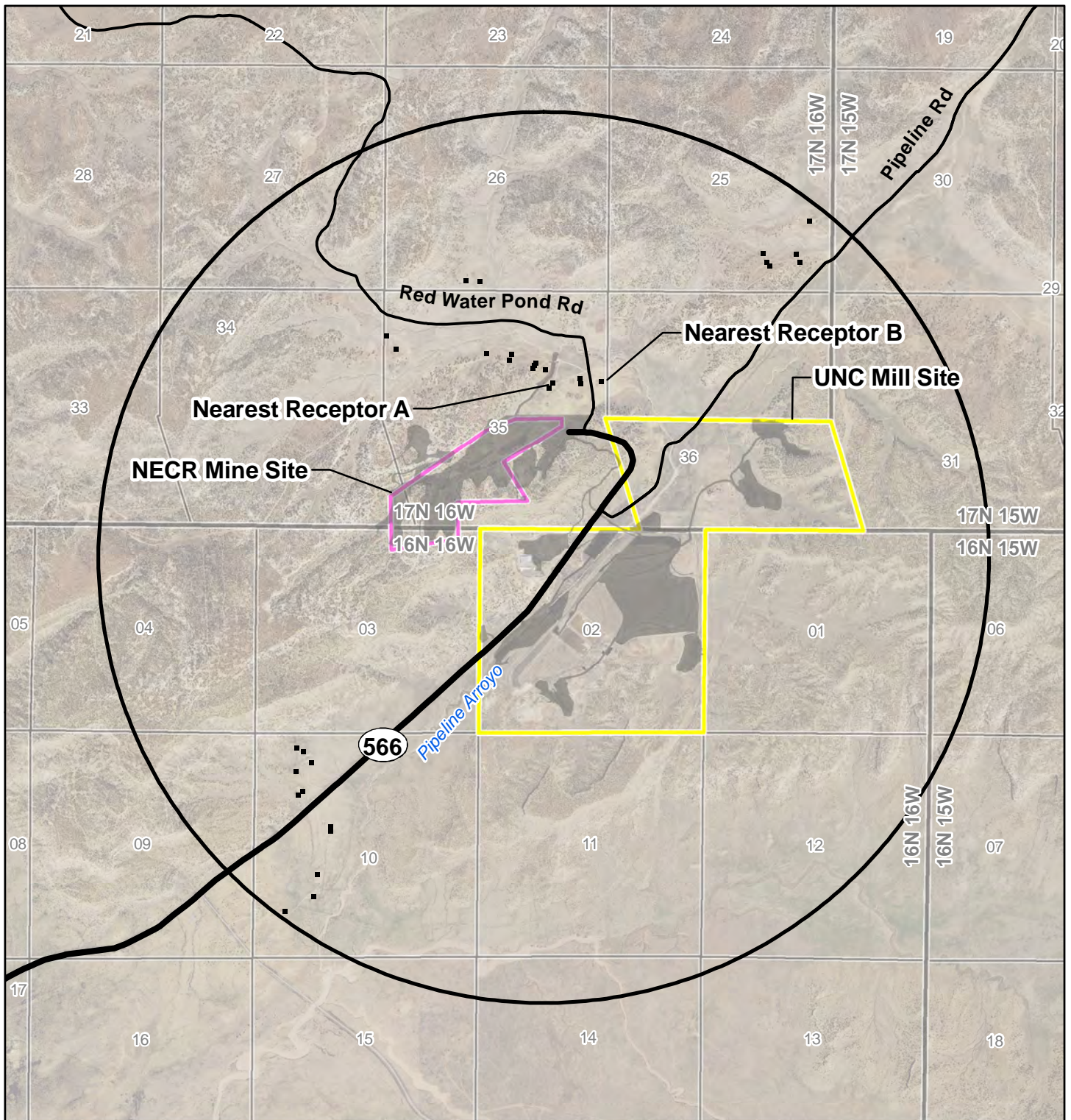
**United Nuclear Corporation
& Northeast Church Rock Mine
McKinley County, New Mexico**











Scale 1:22,000

— = 55 dBA
— = 65 dBA
— = 75 dBA





Legend

-  NECR Mine Site
-  UNC Mill Site
-  17N 16W PLSS Township
-  11 PLSS Section
-  Residence
-  Limits of Disturbance
-  Road
-  Two Mile Radius

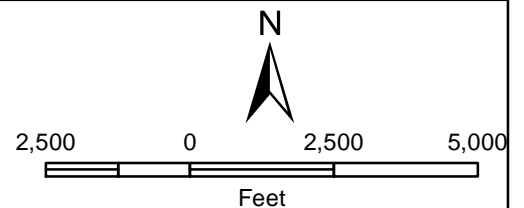
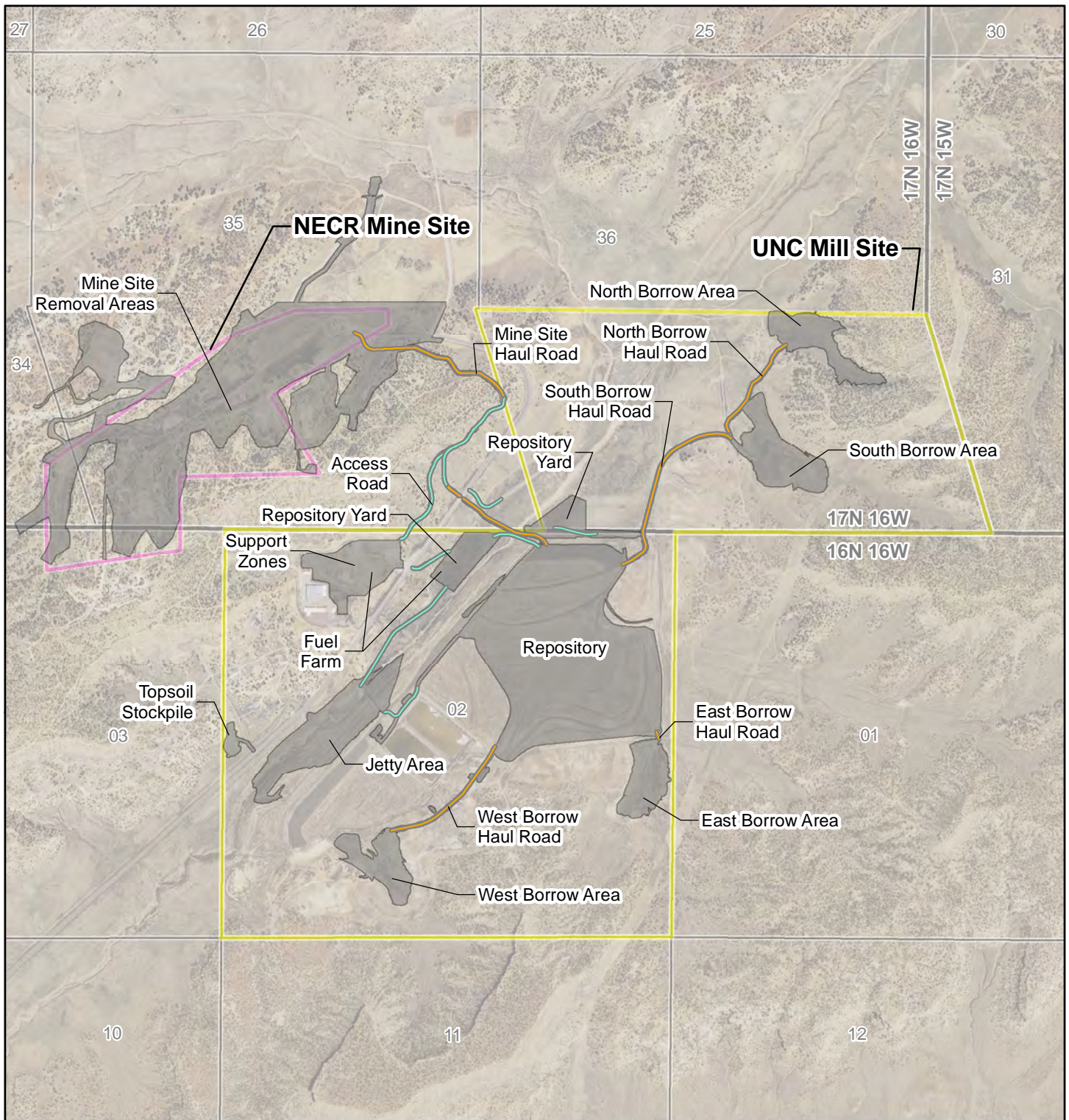









Figure 4.12-1
Location of Nearest Receptors
NECR Mine and UNC Mill Sites



Legend

- | | | | |
|--|-----------------------|---|-----------------------|
|  | NECR Mine Site |  | One-Lane Haul Road |
|  | UNC Mill Site |  | Two-Lane Haul Road |
|  | Limits of Disturbance |  | 17N 16W PLSS Township |
| | |  | 11 PLSS Section |

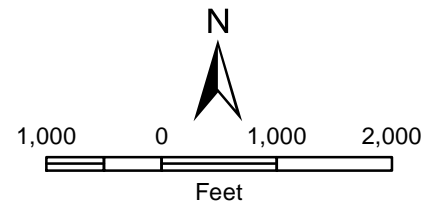
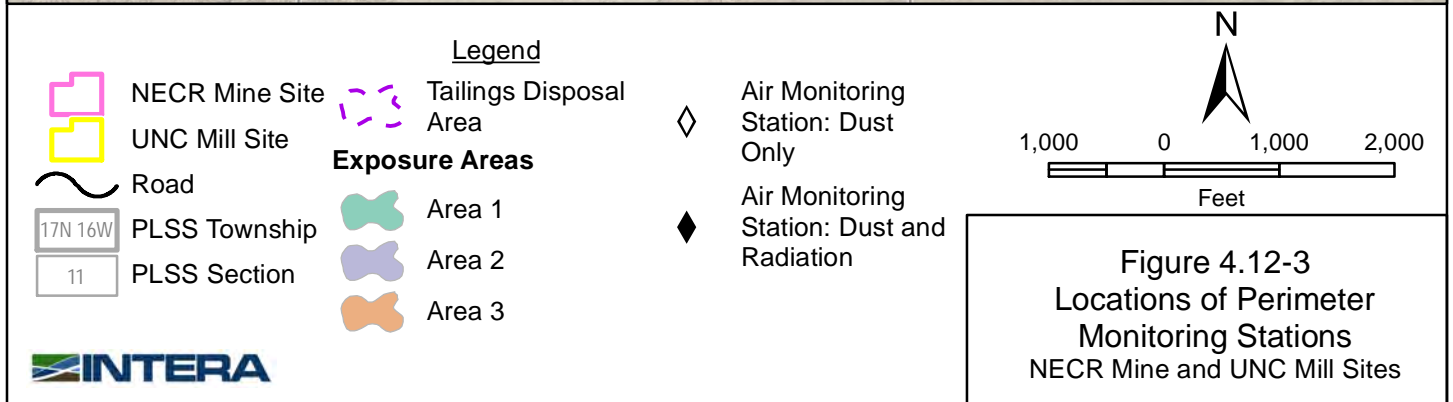
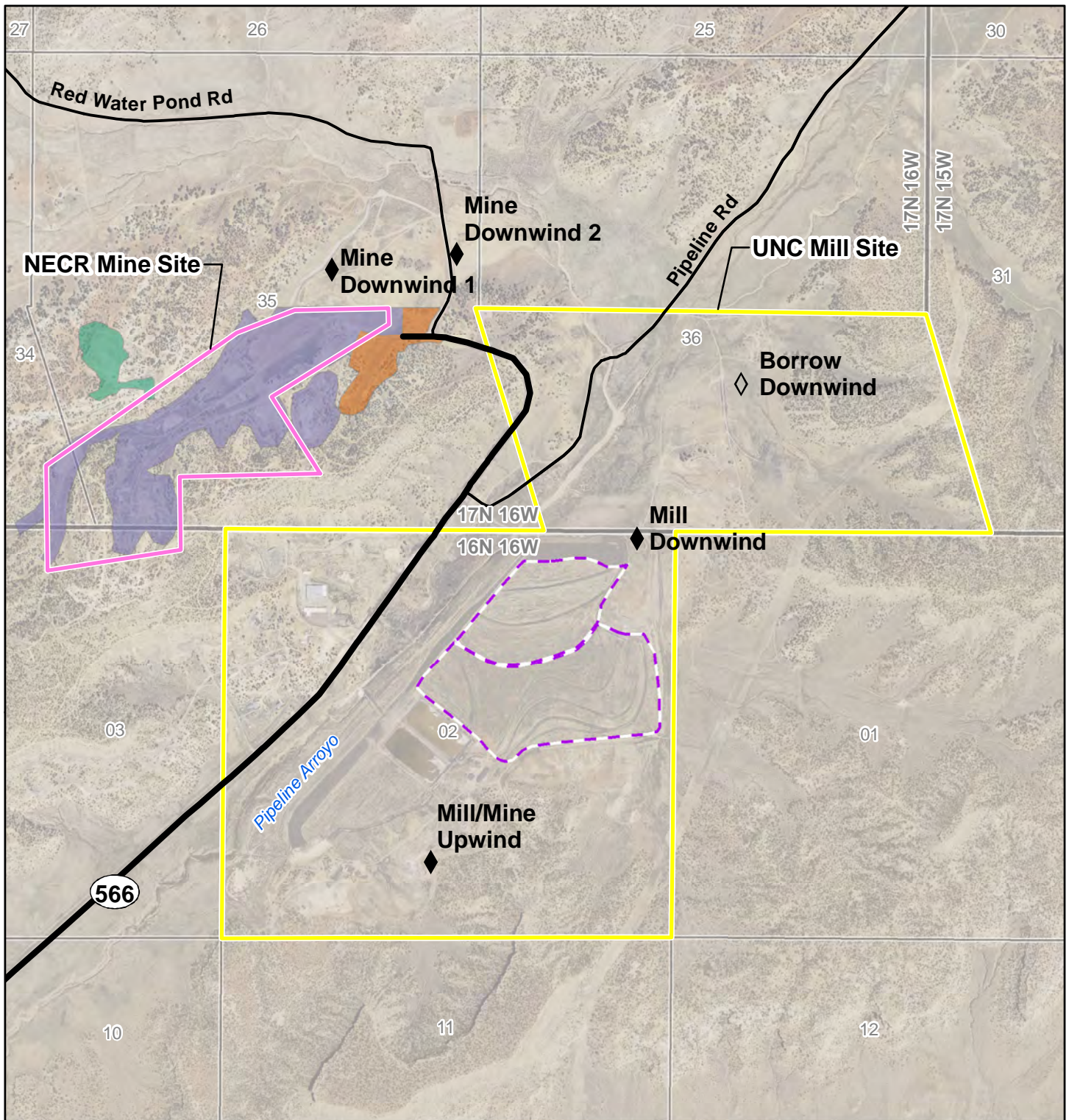


Figure 4.12-2
Physical Layout of
Nonradioactive Materials
NECR Mine and UNC Mill Sites



Supplemental Environmental Report for the United Nuclear Corporation
Mill Site

Source Material License Amendment Request, McKinley County, New Mexico, USA

Chapter 5 Figures

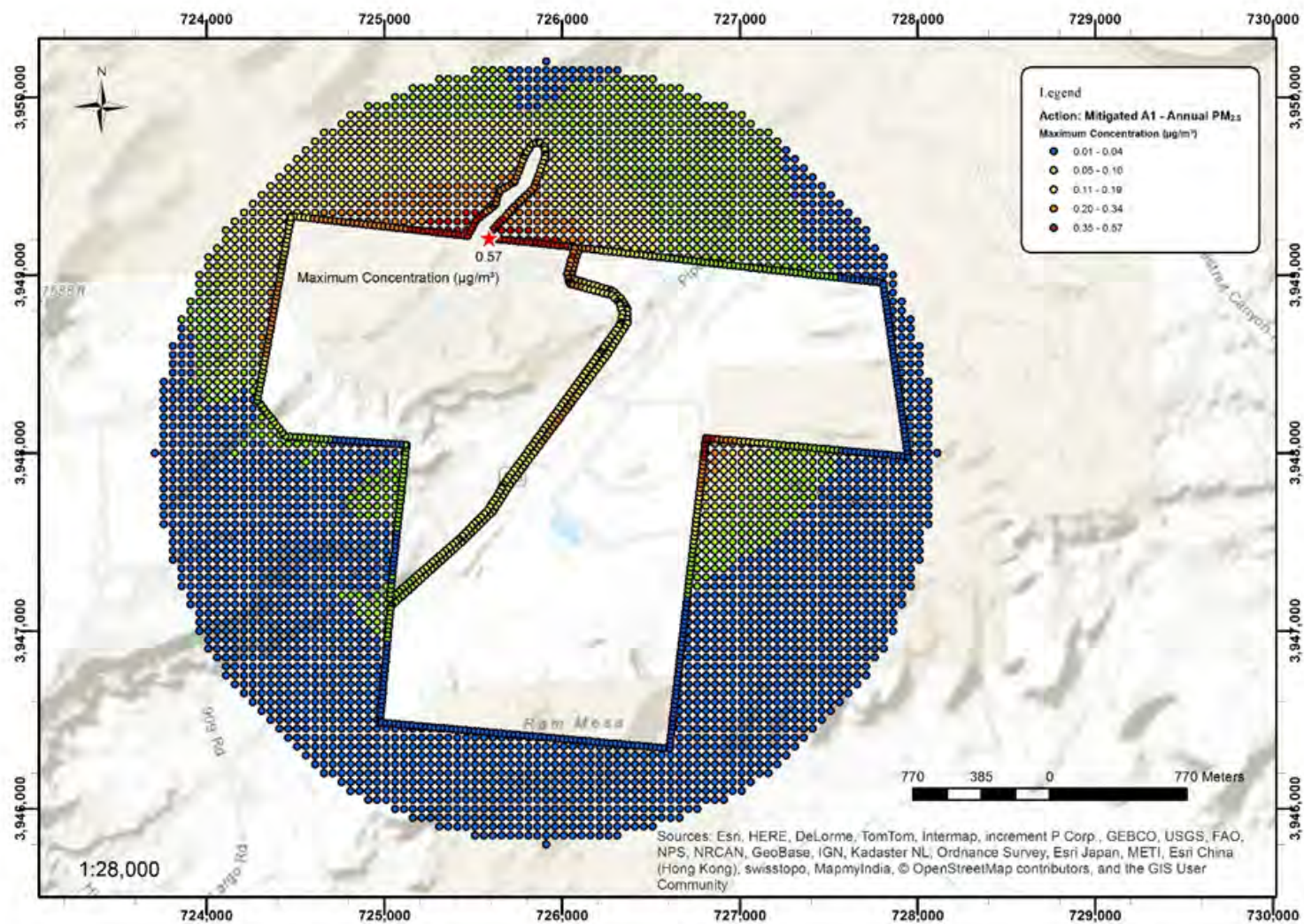


Figure 5.6-1. Air Dispersion Modeling Results – Mitigated Proposed Action (Scenario A1) - PM_{2.5} Annual Concentrations

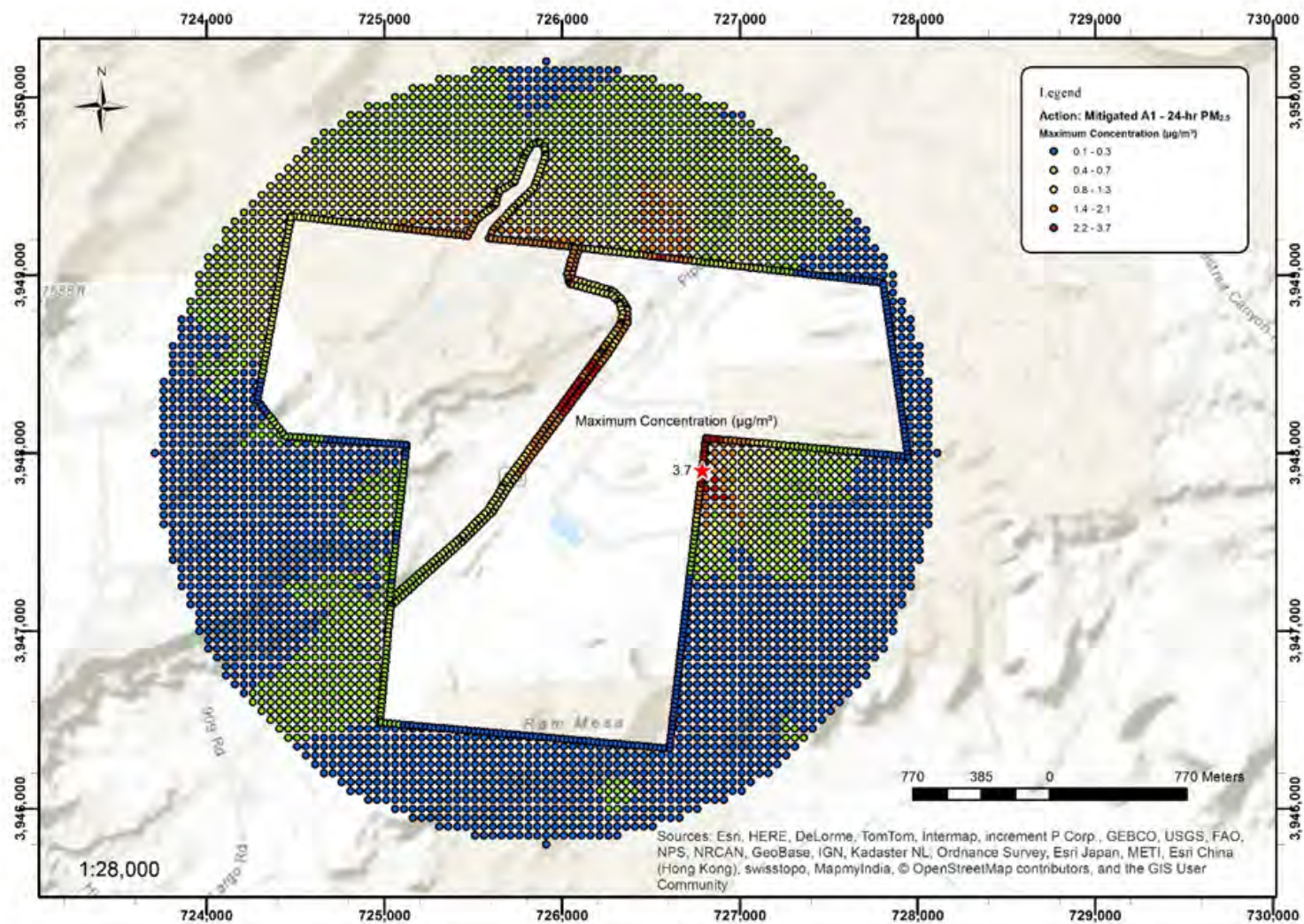


Figure 5.6-2. Air Dispersion Modeling Results – Mitigated Proposed Action (Scenario A1) - PM_{2.5} 24-hr Concentrations

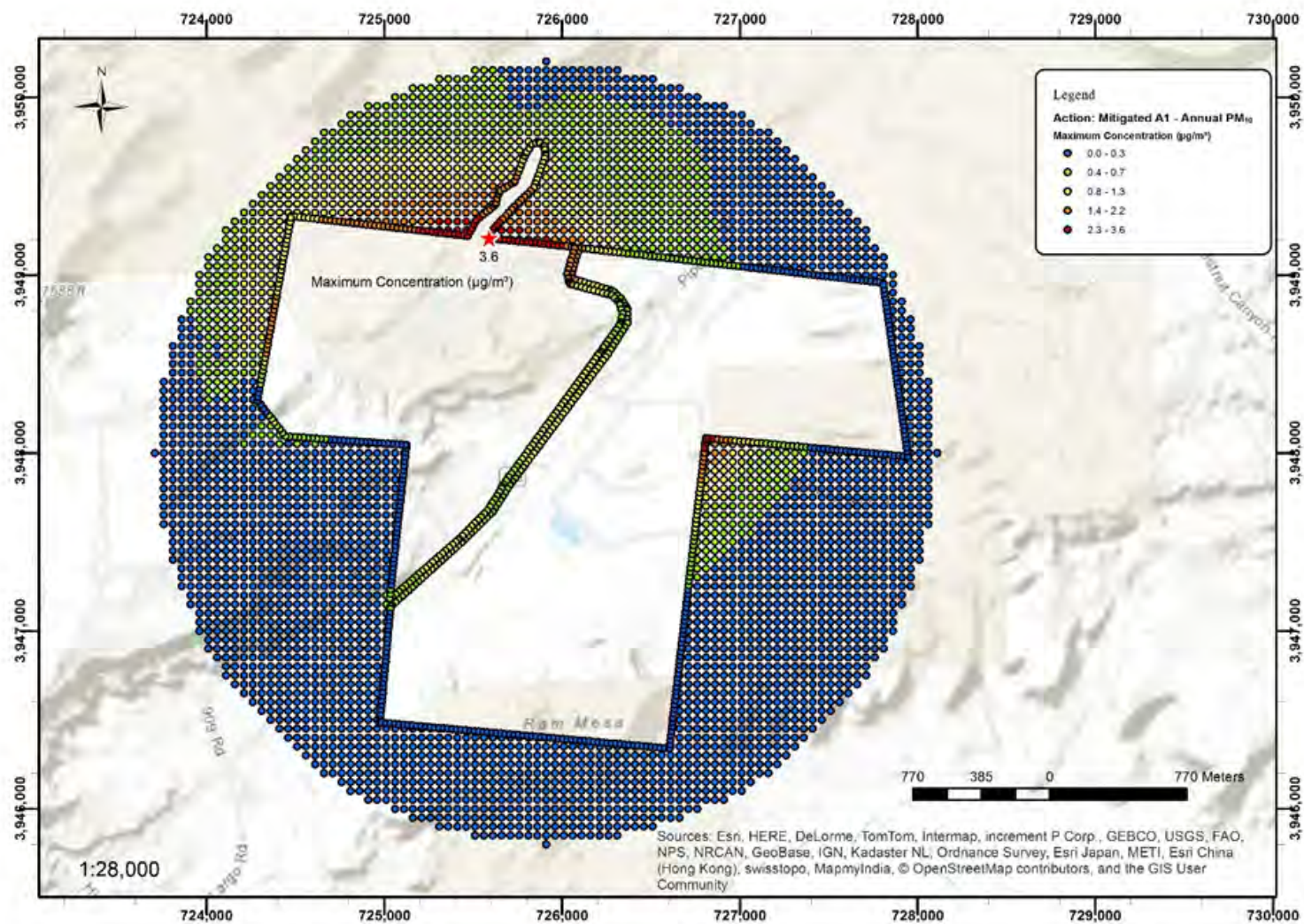


Figure 5.6-3. Air Dispersion Modeling Results – Mitigated Proposed Action (Scenario A1) - PM₁₀ Annual Concentrations

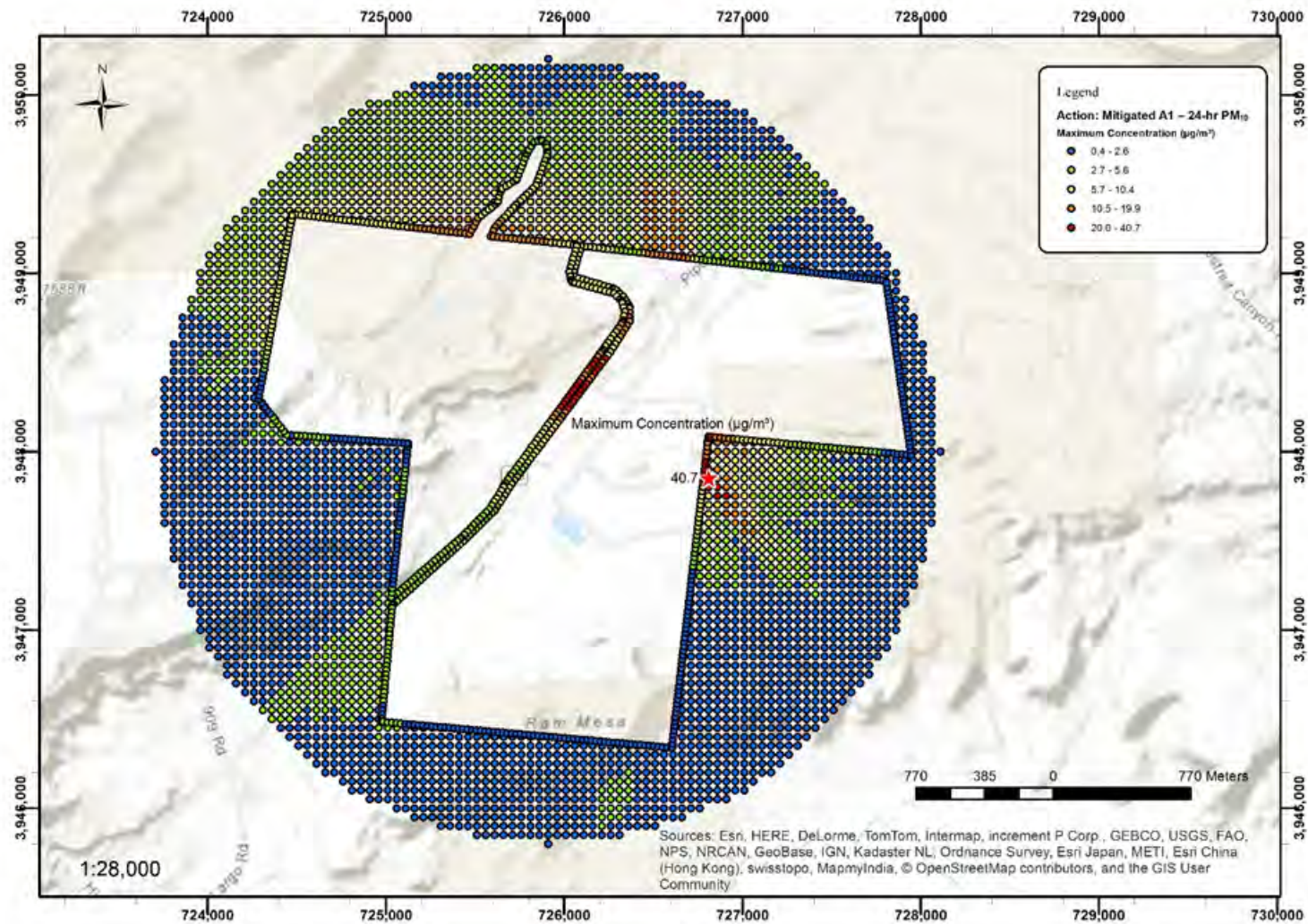


Figure 5.6-4. Air Dispersion Modeling Results – Mitigated Proposed Action (Scenario A1) - PM₁₀ 24-hr Concentrations

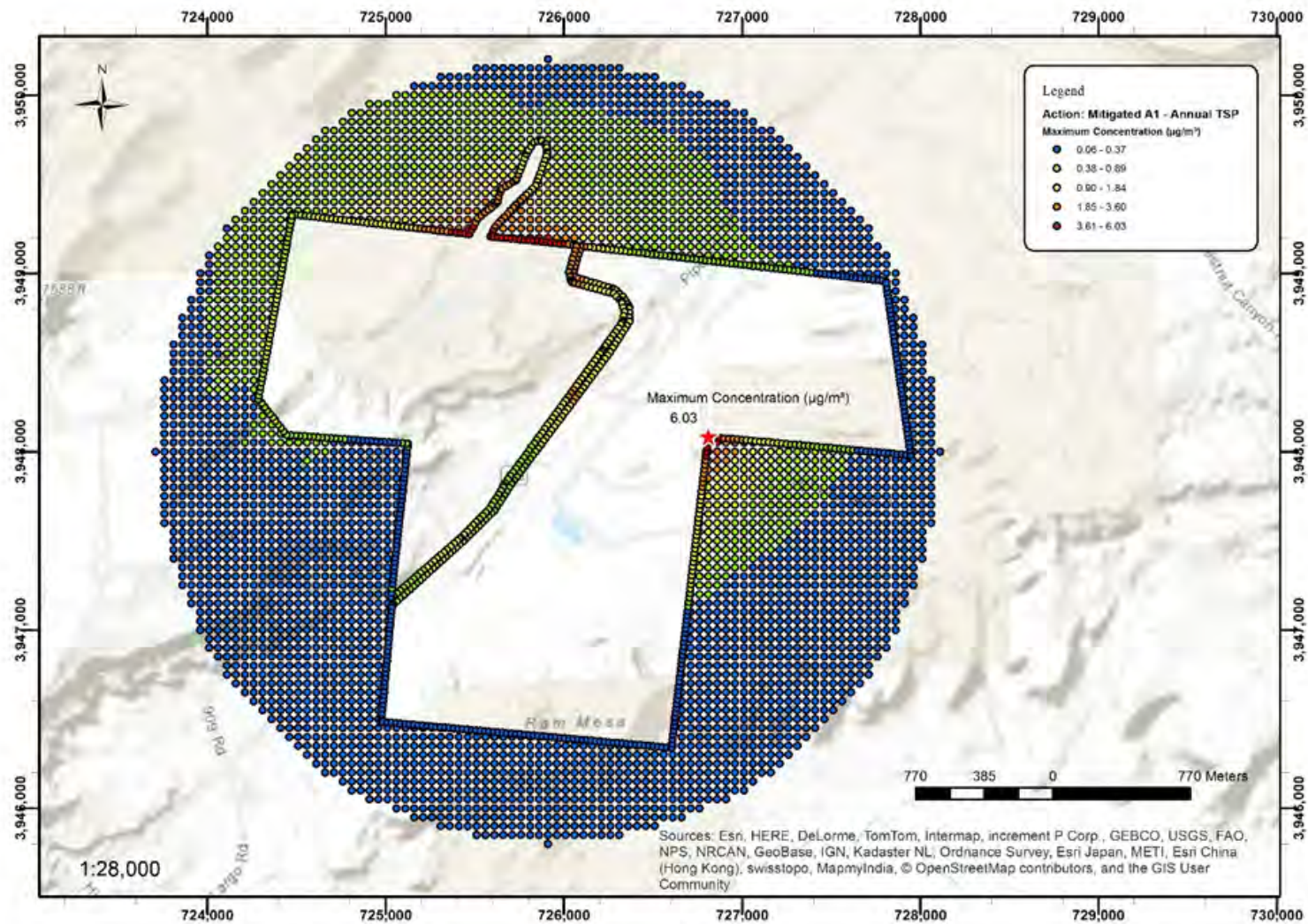


Figure 5.6-5. Air Dispersion Modeling Results – Mitigated Proposed Action (Scenario A1) - TSP Annual Concentrations

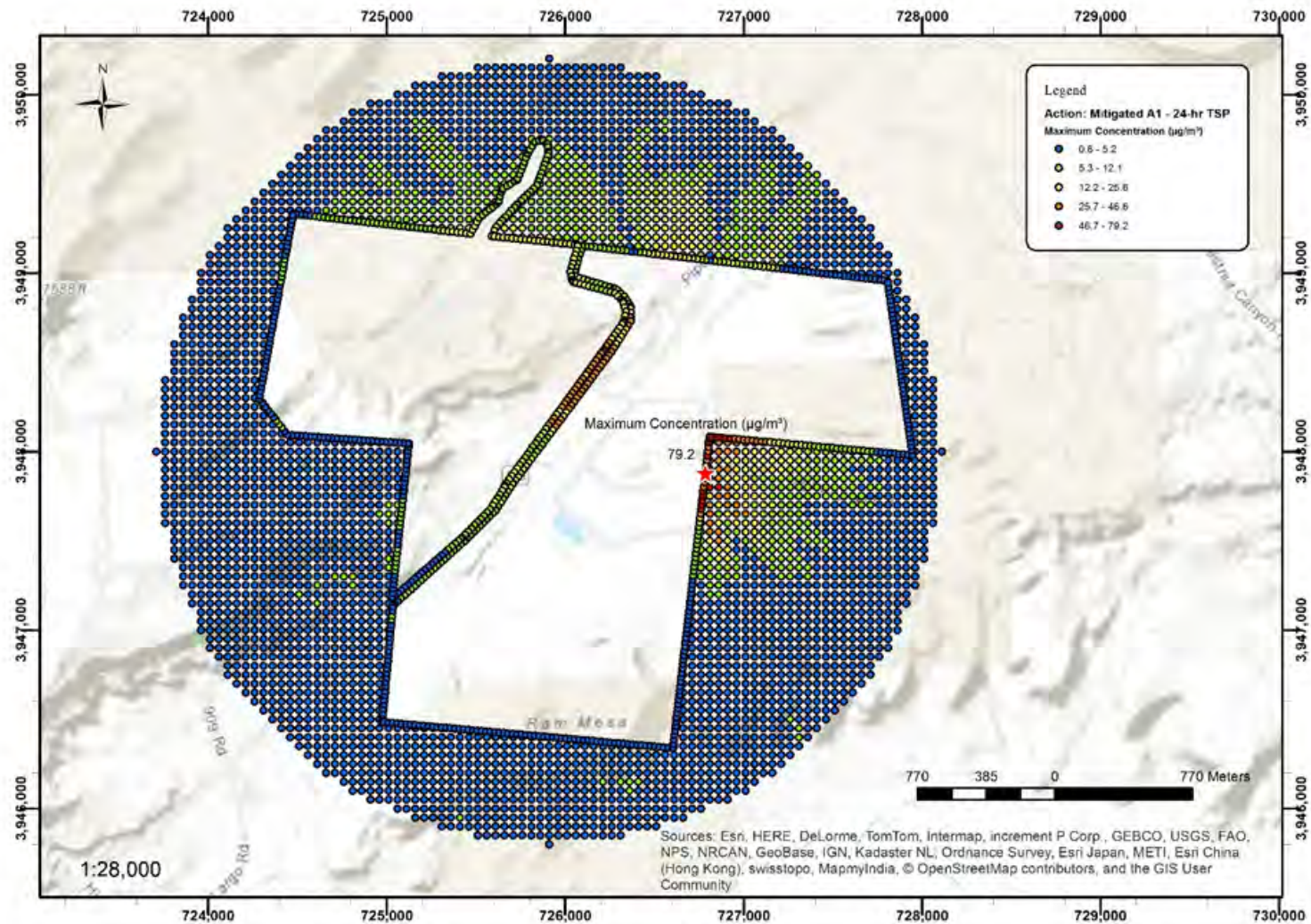


Figure 5.6-6. Air Dispersion Modeling Results – Mitigated Proposed Action (Scenario A1) - TSP 24-hr Concentrations

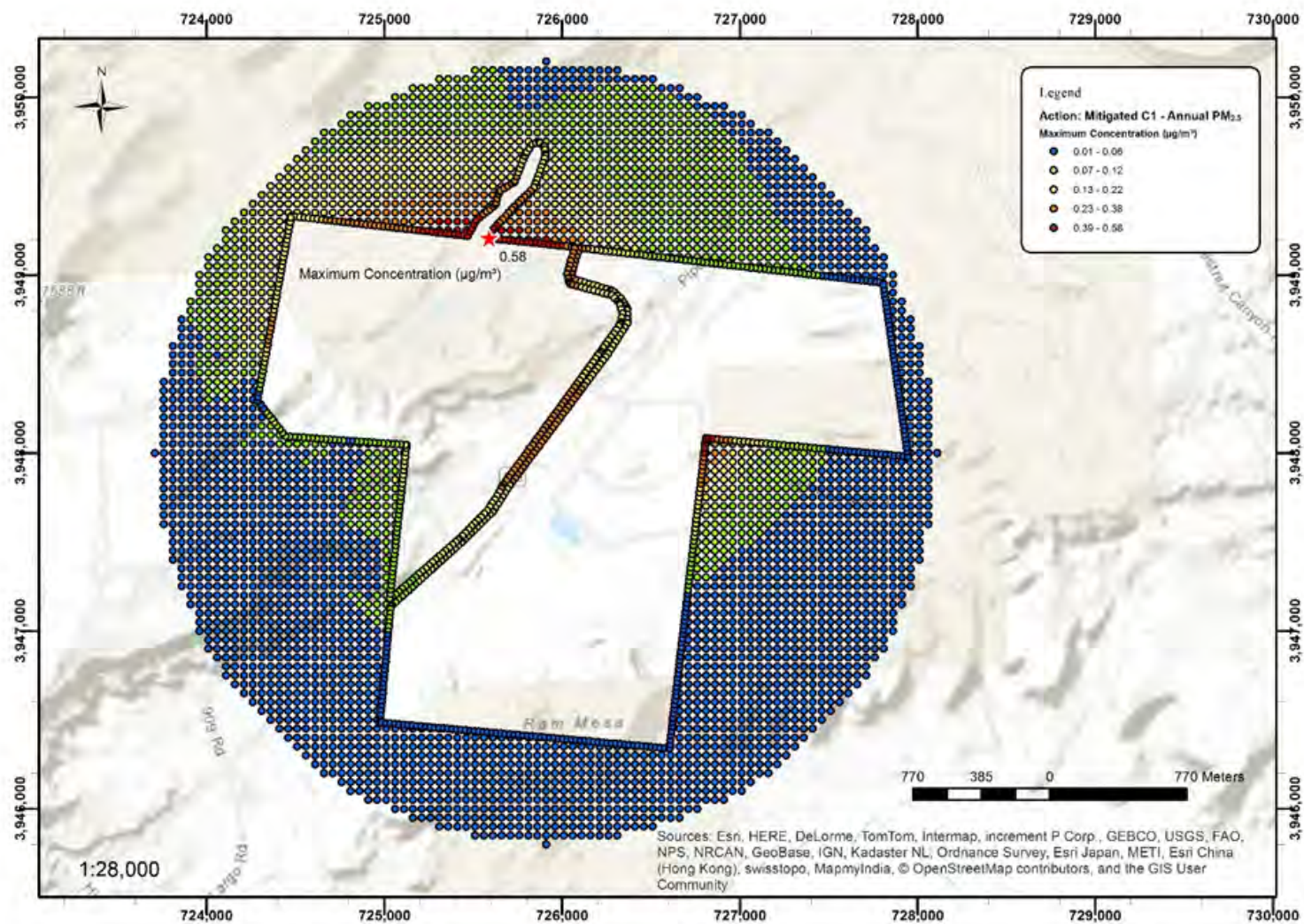


Figure 5.6-7. Air Dispersion Modeling Results – Mitigated Proposed Action (Scenario C1/D1) - PM_{2.5} Annual Concentrations

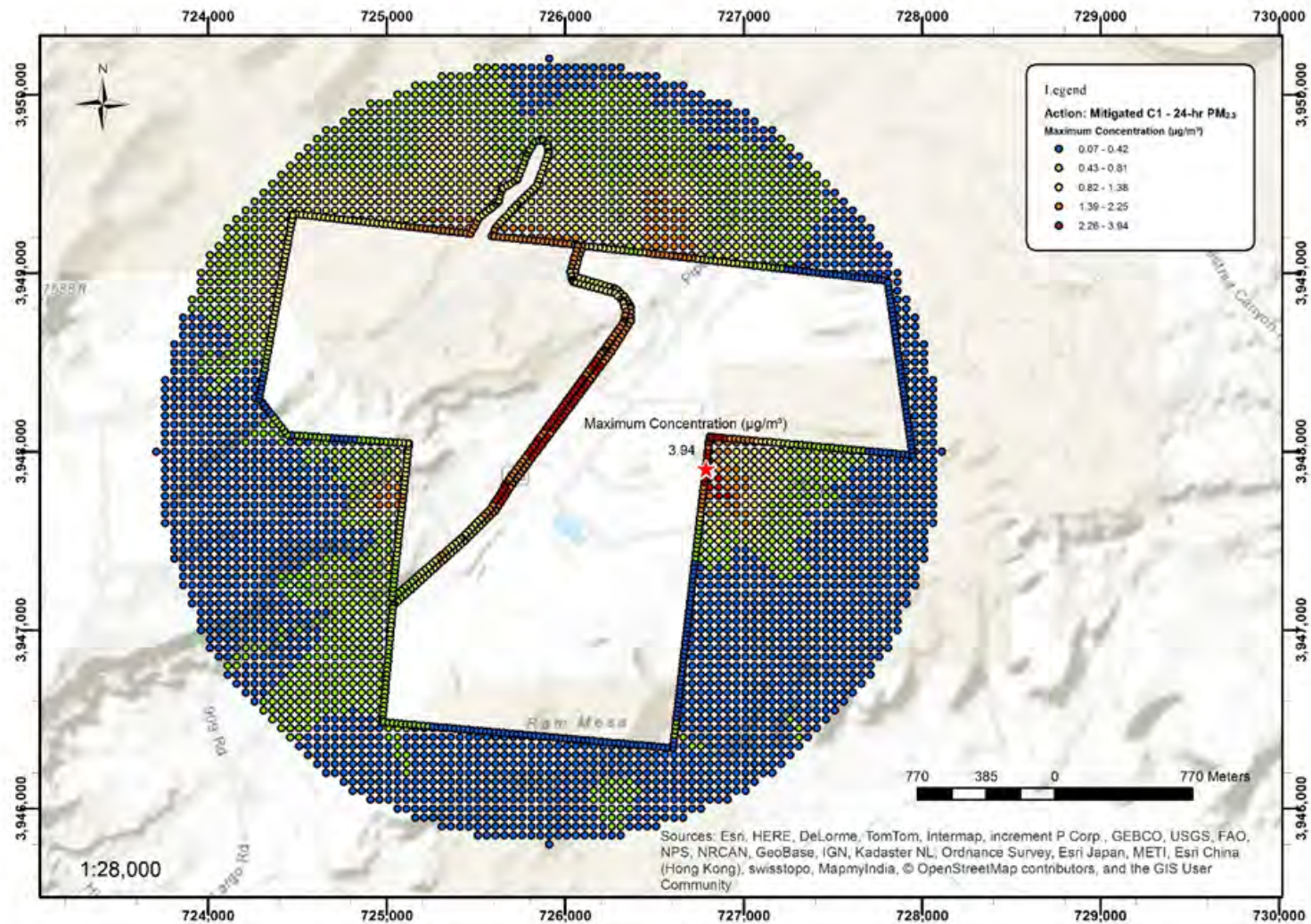
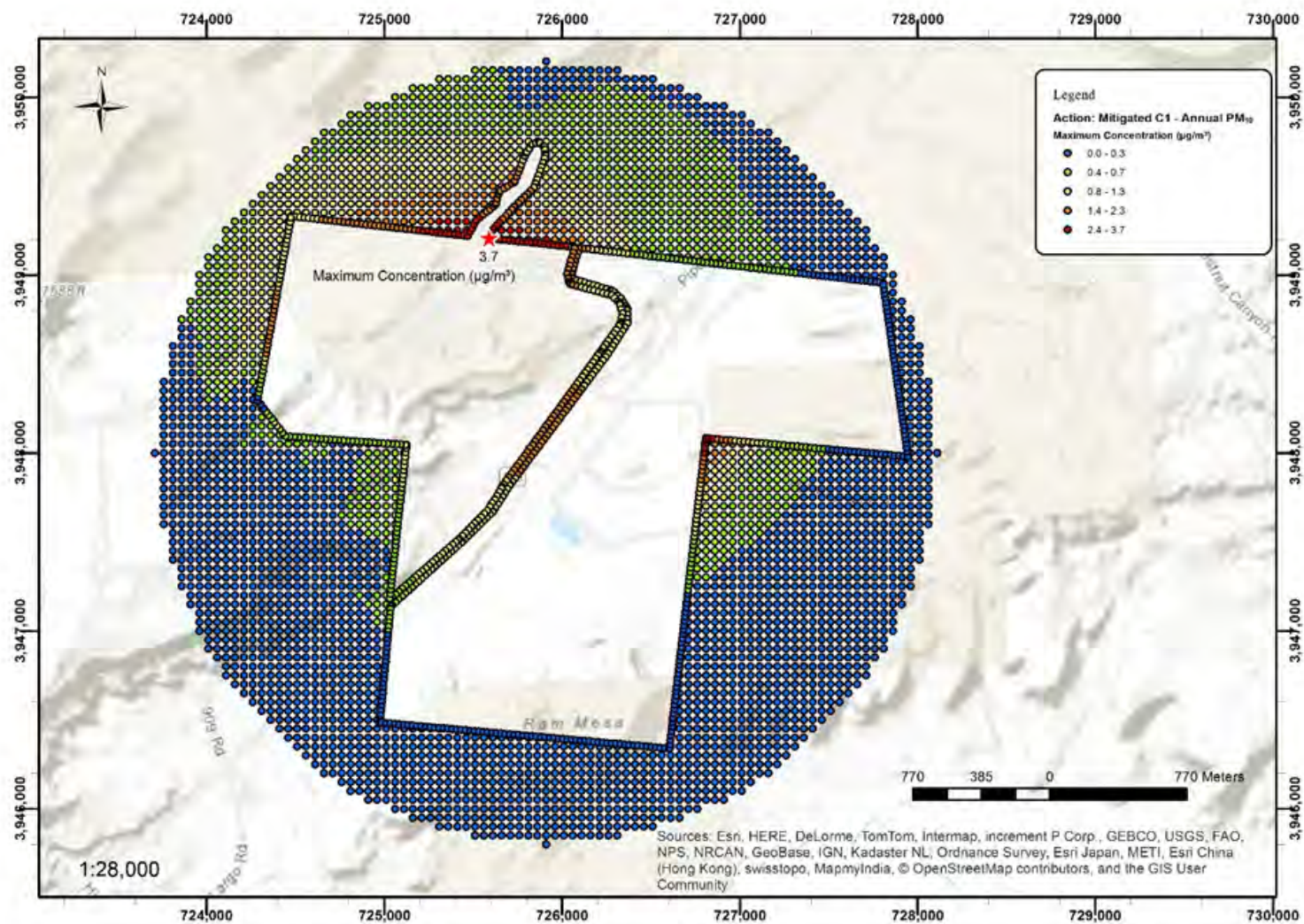


Figure 5.6-8. Air Dispersion Modeling Results – Mitigated Proposed Action (Scenario C1/D1) - PM_{2.5} 24-hr Concentrations



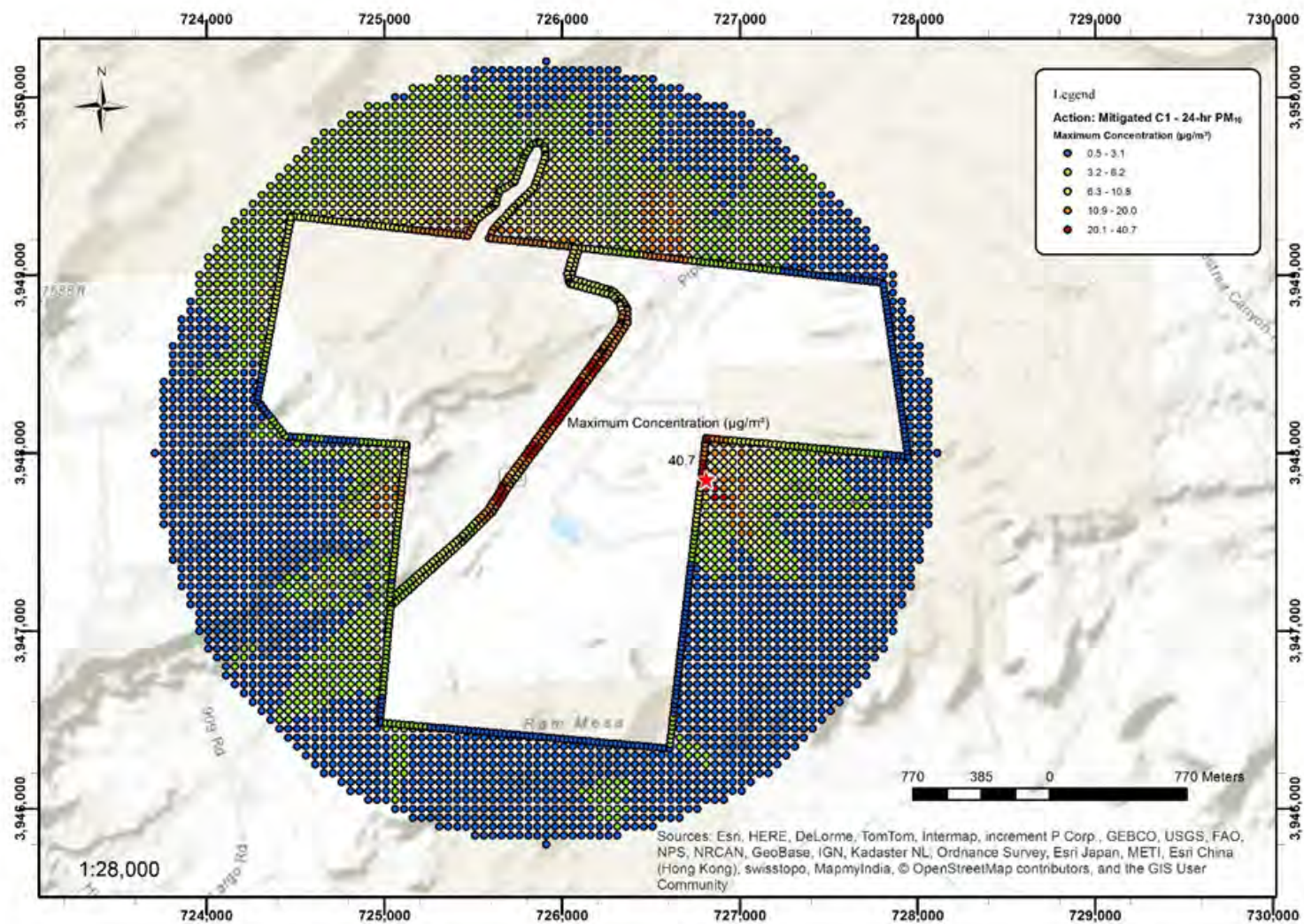


Figure 5.6-10. Air Dispersion Modeling Results – Mitigated Proposed Action (Scenario C1/D1) - PM₁₀ 24-hr Concentrations

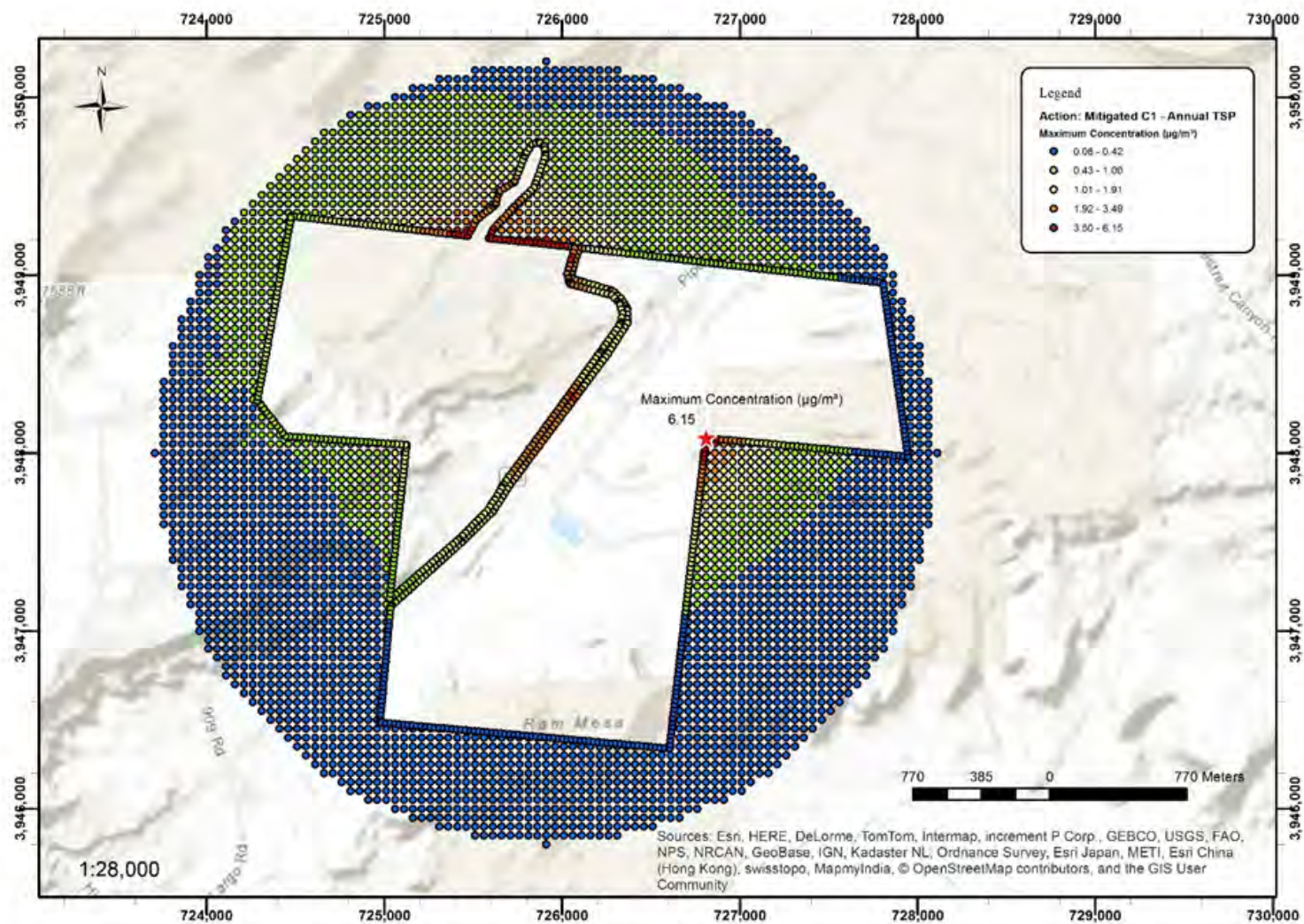


Figure 5.6-11. Air Dispersion Modeling Results – Mitigated Proposed Action (Scenario C1/D1) - TSP Annual Concentrations

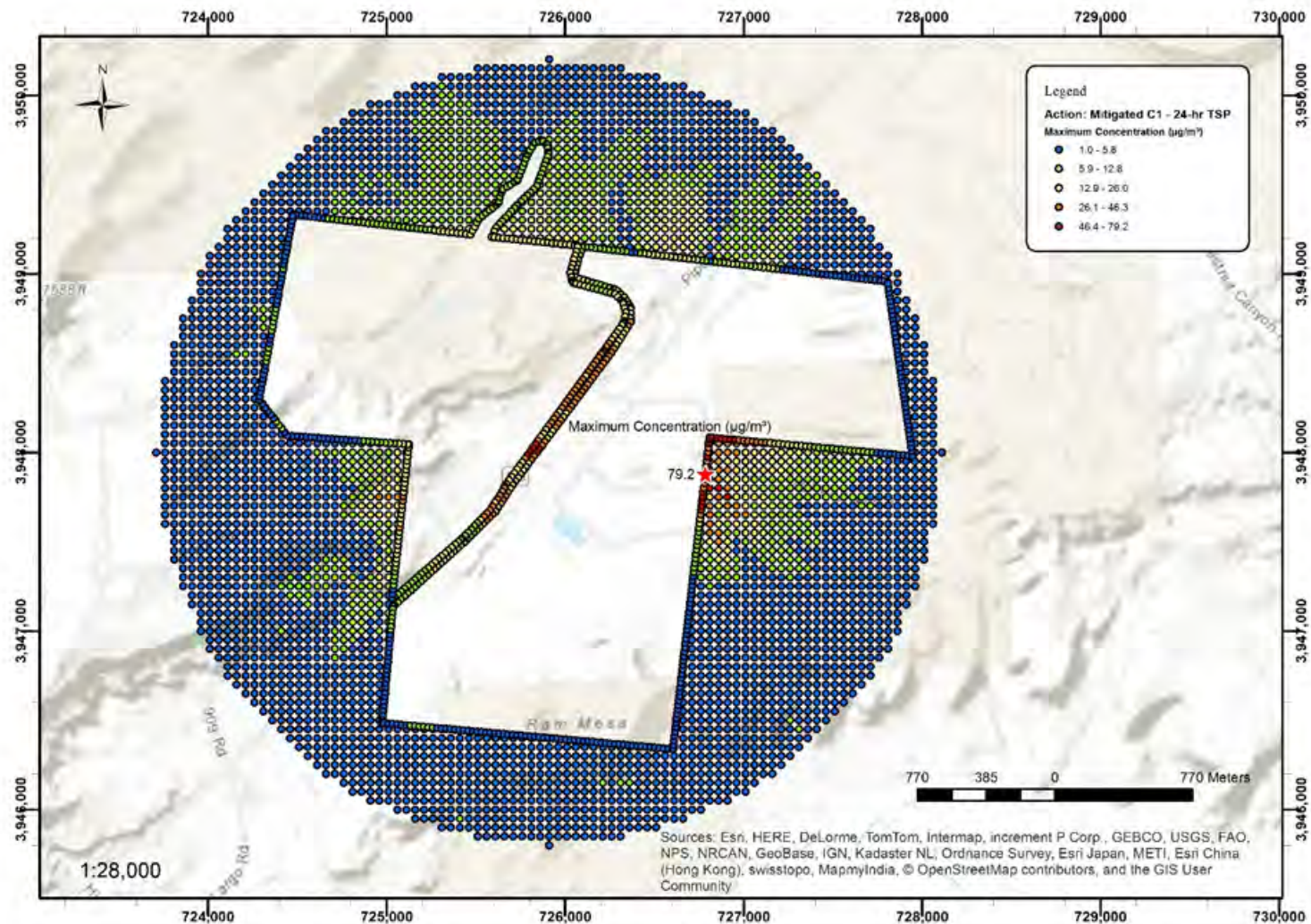


Figure 5.6-12. Air Dispersion Modeling Results – Mitigated Proposed Action (Scenario C1/D1) - TSP 24-hr Concentrations