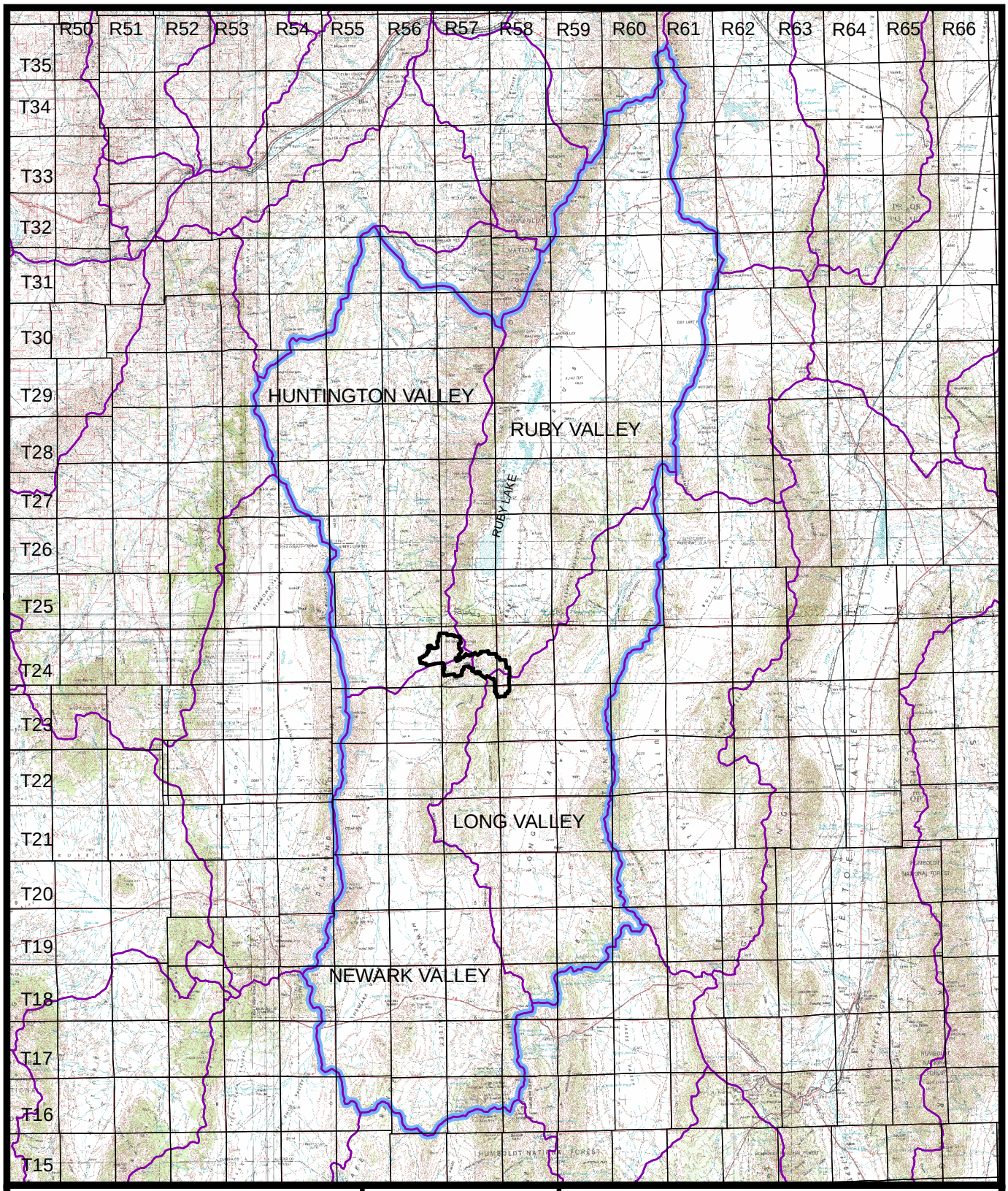


Legend

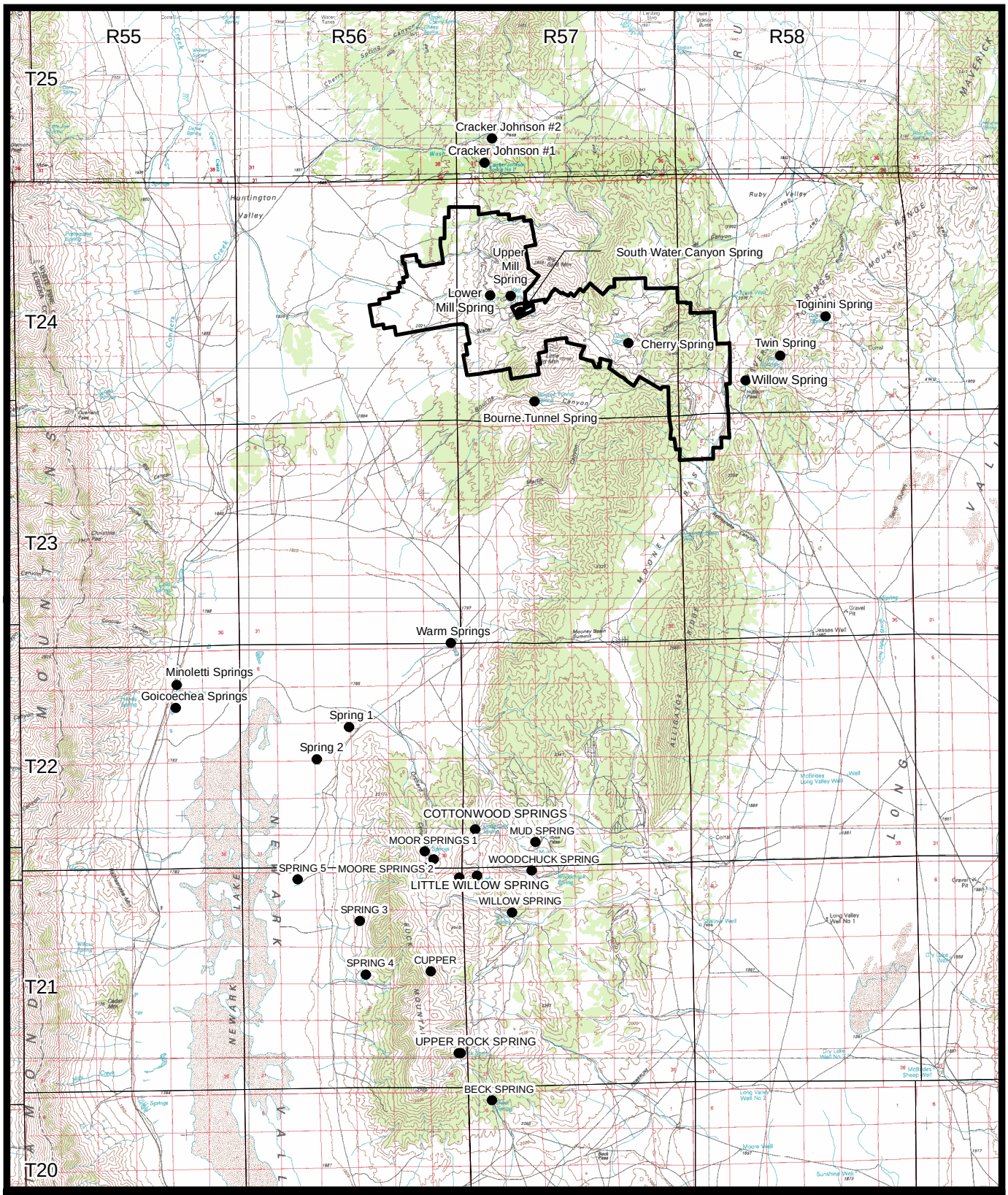
- North Operations Project Boundary
- Hydrographic Basin Boundaries
- Water Cumulative Assessment Study Area Boundary

N

0 40,000 80,000
Feet
1:960,000

BALD MOUNTAIN MINE
NORTH OPERATIONS AREA PROJECT FEIS

FIGURE 3-1
HYDROGRAPHIC BASINS



Legend

North Operations Project Boundary

Springs (Tetra Tech, 2007)

N

0 10,000 20,000

Feet

1:240,000

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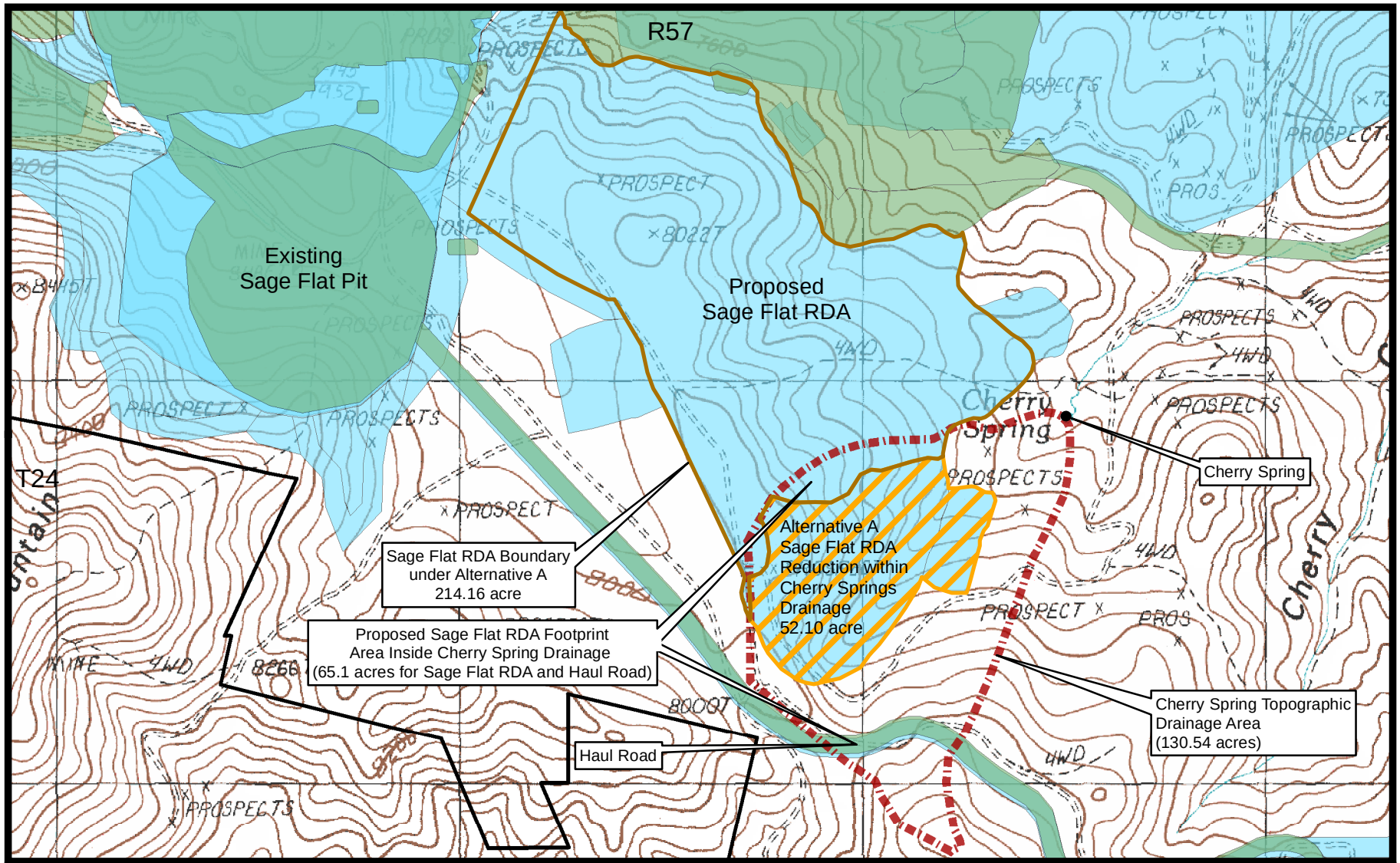
FIGURE 3-2
SEEP AND SPRING LOCATIONS



Legend

- North Operations Project Boundary
- Existing/Authorized Disturbance Area
- Proposed Disturbance Area
- Cherry Spring Topographic Drainage Area
- Sage Flat RDA Boundary Under Alternative A
- Alternative A Reduction Area

N

0 600 1,200 1,800
Feet
1:14,400

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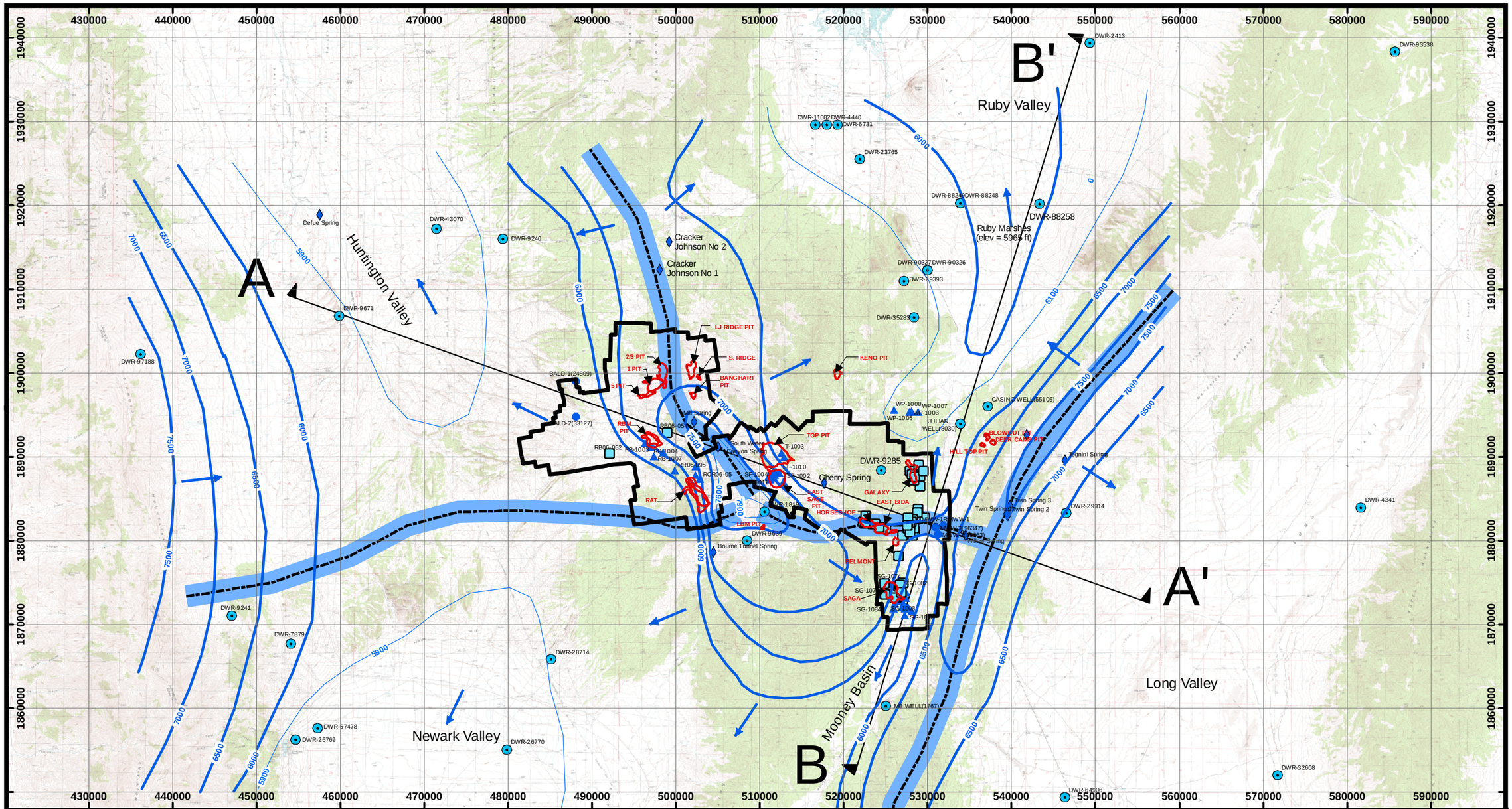
FIGURE 3-3
CHERRY SPRING DRAINAGE AREA



Legend

- North Operations Project Boundary
- Existing pits in 2007
- Groundwater 500 ft Contours
- Groundwater minor Contours
- Groundwater Divide
- Exploration Drill Hole Sites
- Division of Water Resource Wells
- International Directional Survey Log Sites
- Water Wells
- Springs
- Flow Direction
- Cross Section Shown on Figure 3-5 and Figure 3-6

SOURCE: UTM NAD27 DATA FROM MINEMAPPERS LLC, 2007

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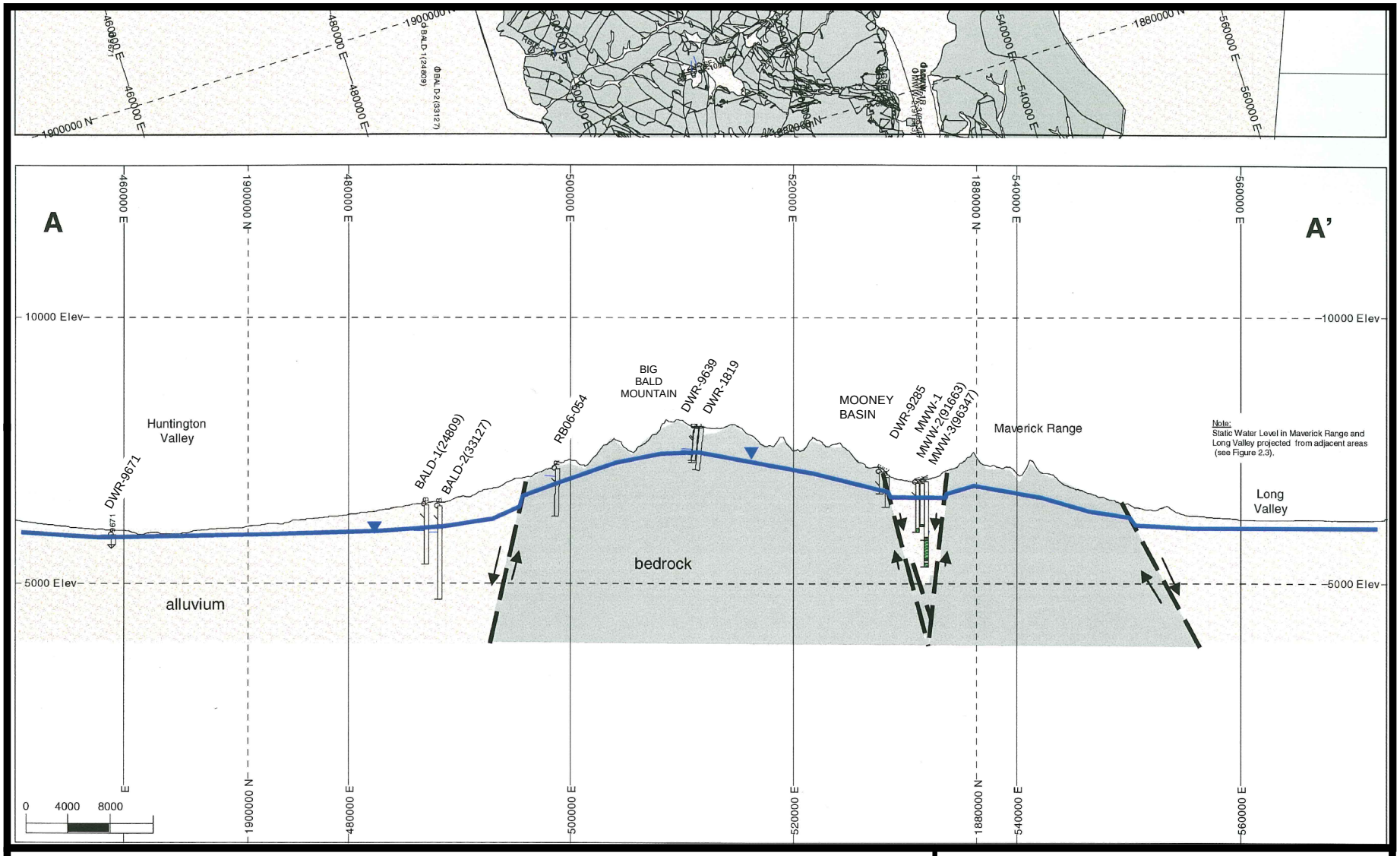
FIGURE 3-4
POTENTIOMETRIC SURFACE



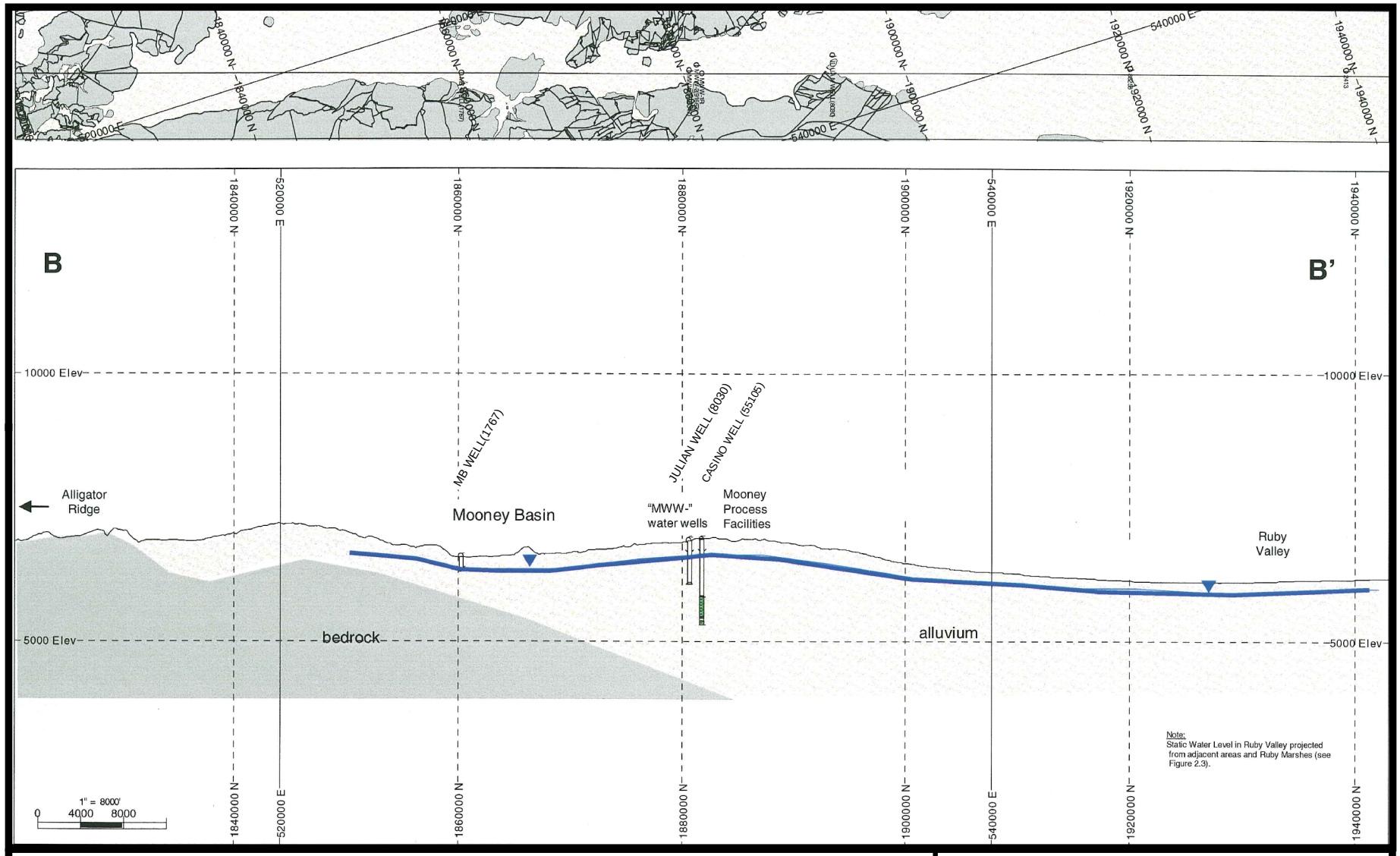
VERTICAL CROSS-SECTION A-A' (NW-SE). SEE FIGURE 3-4 FOR SECTION LOCATION. VERTICAL EXAGGERATION = 5X HORIZONTAL SCALE.

SOURCE: MINEMAPPERS LLC, 2007

BALD MOUNTAIN MINE
NORTH OPERATIONS AREA PROJECT FEIS

FIGURE 3-5

POTENTIOMETRIC SURFACE CROSS-SECTION A



VERTICAL CROSS-SECTION B-B' (SW-NE). SEE FIGURE 3-4 FOR SECTION LOCATION. VERTICAL EXAGGERATION = 5X HORIZONTAL SCALE.

SOURCE: MINEMAPPERS LLC, 2007

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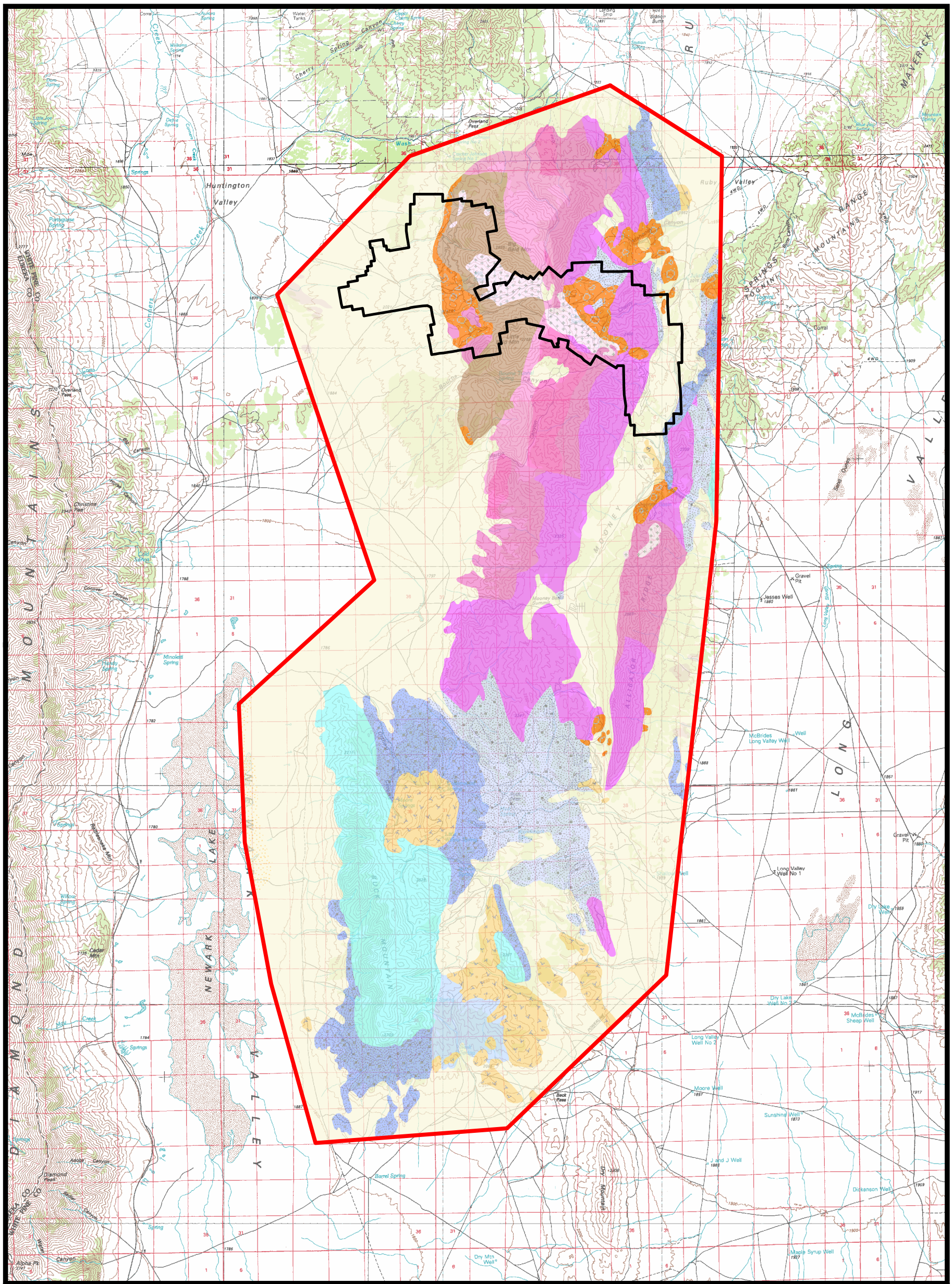
FIGURE 3-6
POTENTIOMETRIC SURFACE
CROSS-SECTION B



Legend

- North Operations Project Boundary
- Geology Cumulative Assessment Study Area
- IPMcl - Shale, siltstone, sandstone, and conglomerate (Middle Pennsylvanian to Lower Mississippian)
- br - Mixed breccias including volcanic, thrust, jasperoid, and landslide megabreccia (Tertiary to Jurassic)
- Ts3 - Younger tuffaceous sedimentary rocks (Pliocene and Miocene)
- Tr1 - Older rhyolitic flows and shallow intrusive rocks (lower Oligocene to middle Eocene)
- Tfi - Felsic phaneritic intrusive rocks (Miocene to Eocene)
- Ta1 - Older andesite and intermediate flows and breccias (lower Oligocene to middle Eocene)
- SOc - Dolomite, limestone, and shale (Lower Silurian to Middle Ordovician)
- Qpl - Playa, lake bed, and flood plain deposits
- Qal - Alluvium, undifferentiated
- Psc - Siltstone, sandstone, limestone, and dolomite (Lower Permian, Leonardian and Wolfcampian)
- PIPc - Limestone, dolomite, siltstone, sandstone, and shale (Lower Permian and Pennsylvanian)
- OCc - Limestone, dolomite, and quartzite (Middle Ordovician to Upper Cambrian)
- MDcl - Siltstone, limestone, shale, and sandstone (Lower Mississippian and Upper Devonian)
- Dcd - Dolomite, sandstone, and limestone (Middle and Lower Devonian)
- Dc - Limestone and minor dolomite (Upper and Middle Devonian)
- Cc - Dolomite, limestone, and shale (Cambrian)

N

0 7,500 15,000
Feet

1:180,000

SOURCE: USGS GEOLOGIC MAP, I2691
ftp://nas.library.unr.edu/keck/31901nvgeolmapmd/usgs_i2691.zip

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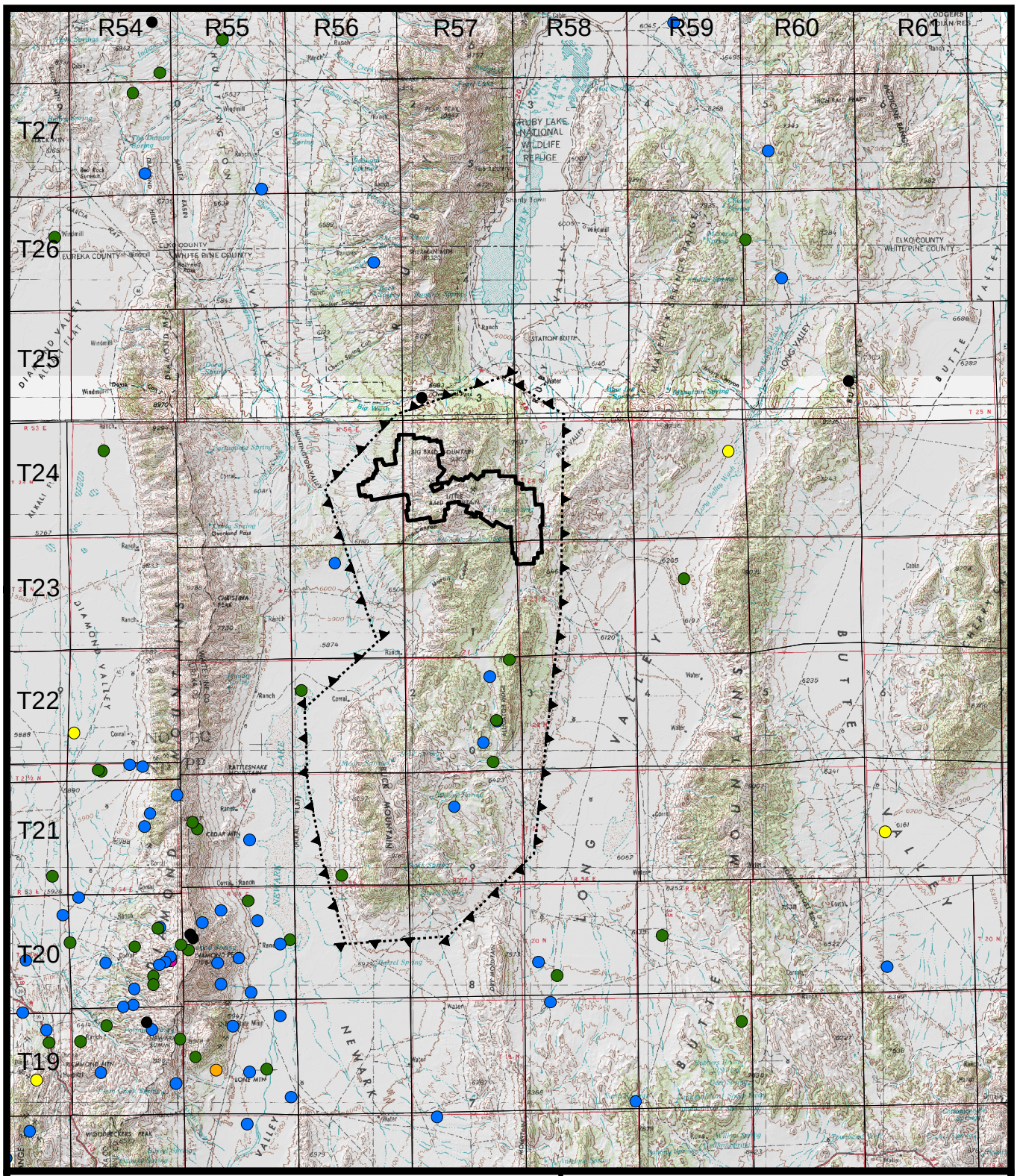
FIGURE 3-7

GEOLOGIC MAP



Legend

- North Operations Project Boundary
- Cumulative Assessment Study Area for Geology, Minerals, Paleontology, Noise and Vibration
- Magnitude 0 - .99
- Magnitude 1 - 1.99
- Magnitude 1.99 - 2.99
- Magnitude 2.99 - 3.99
- Magnitude 3.99 - 4.99
- Magnitude 4.99 - 5.99

N

0 20,000 40,000
Feet

1:480,000

BALD MOUNTAIN MINE
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FIGURE 3-8

HISTORIC SEISMIC ACTIVITY