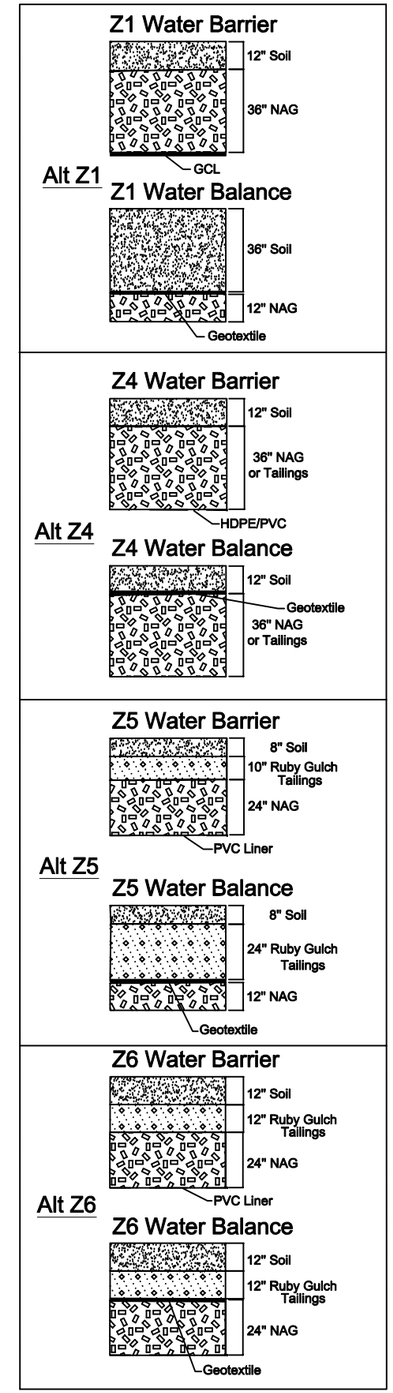
Feature	Alternative Z1	Alternative Z2	Alternative Z3	Alternative Z4	Alternative Z5	Alternative Z6
MINE PITS						
O.K./Ruby Pit	Z1 Water Barrier - 5.98 ac Z1 Water Balance - 28.46 ac	Z6 Water Barrier - 22.02 ac	Z6 Water Barrier - 22.02 ac	Z4 Water Barrier - 20.33 ac Z4 Water Balance - 1.10 ac	Z5 Water Barrier - 10.07 ac Z5 Water Balance - 24.65 ac	Z6 Water Barrier - 22.02 ac
Mint Pit	Z1 Water Barrier - 7.67ac	18" Soil 6" Ruby Gulch Tailings 24" NAG	18" Soil 6" Ruby Gulch Tailings 24" NAG	Z4 Water Barrier - 5.85 ac Z4 Water Balance - 4.71 ac	8" Soil 10" Ruby Gulch Tailings 24" NAG	18" Soil 6" Ruby Gulch Tailings 24" NAG
North Alabama Pit	Z1 Water Barrier - all	12" Soil Native Materials	12" Soil Native Materials	Z4 Water Barrier - 3.10 ac Z4 Water Balance - 5.38 ac	8" Soil 10" Ruby Gulch Tailings	Z6 Water Barrier - 5.41 ac
South Alabama Pit	Z1 Water Barrier - all	12" Soil 24" NAG	11" Soil 7" Ruby Gulch Tailings 24" NAG	Z4 Water Balance - 17.68 ac	8" Soil 10" Ruby Gulch Tailings	18" Soil 6" Ruby Gulch Tailings 24" NAG
Ross Pit	12" Soil 12" NAG	12" Soil 12" NAG	12" Soil 12" NAG	Z4 Water Barrier - 4.30 ac Z4 Water Balance - 14.61 ac	8" Soil 10" Ruby Gulch Tailings	18" Soil 6" Ruby Gulch Tailings 12"-24" NAG
LEACH PADS						
Z 82 Leach Pad Footprint (Pad placed in OK/Ruby Pit)	12" Soil 12" NAG Native Materials	18" Soil 6" Ruby Gulch Tailings Native Materials Limed	18" Soil 6" Ruby Gulch Tailings Native Materials Limed	18" Soil 6" Ruby Gulch Tailings Native Materials Limed	18" Soil 6" Ruby Gulch Tailings Native Materials Limed	18" Soil 6" Ruby Gulch Tailings Native Materials Limed
Z 85/86 Leach Pad	Z1 Water Barrier - 17.77 ac Z1 Water Balance - 15.22 ac	12" Soil 24" NAG	11" Soil 7" Ruby Gulch Tailings 24" NAG	Z4 Water Barrier - 10.36 ac Z4 Water Balance - 22.99 ac	8" Soil 10" Ruby Gulch Tailings 24" NAG	18" Soil 6" Ruby Gulch Tailings 24" NAG
Z 85/86 Drainage Notch	18" Soil 6" Ruby Gulch Tailings 24" NAG	18" Soil 6" Ruby Gulch Tailings 24" NAG	18" Soil 6" Ruby Gulch Tailings 24" NAG	18" Soil 6" Ruby Gulch Tailings 24" NAG	18" Soil 6" Ruby Gulch Tailings 24" NAG	18" Soil 6" Ruby Gulch Tailings 24" NAG
Z 79-81 Leach Pad	Z1 Water Barrier - 4.28 ac Z1 Water Balance - 10.89 ac	More Revegetation	More Revegetation	Z4 Water Barrier - 4.28 ac Z4 Water Balance - 10.89 ac	More Revegetation	More Revegetation
Z 83, 84, 89 Leach Pads	Z1 Water Barrier - 16.66 ac Z1 Water Balance - 24.38 ac	18" Soil 6" Ruby Gulch Tailings 24" NAG	18" Soil 6" Ruby Gulch Tailings 24" NAG	18" Soil 6" Ruby Gulch Tailings 24" NAG	18" Soil 6" Ruby Gulch Tailings 24" NAG	18" Soil 6" Ruby Gulch Tailings 24" NAG
PAD DIKES						
Z 83, 84, 89 Pad Dikes	More Revegetation	More Revegetation	More Revegetation	More Revegetation	More Revegetation	More Revegetation

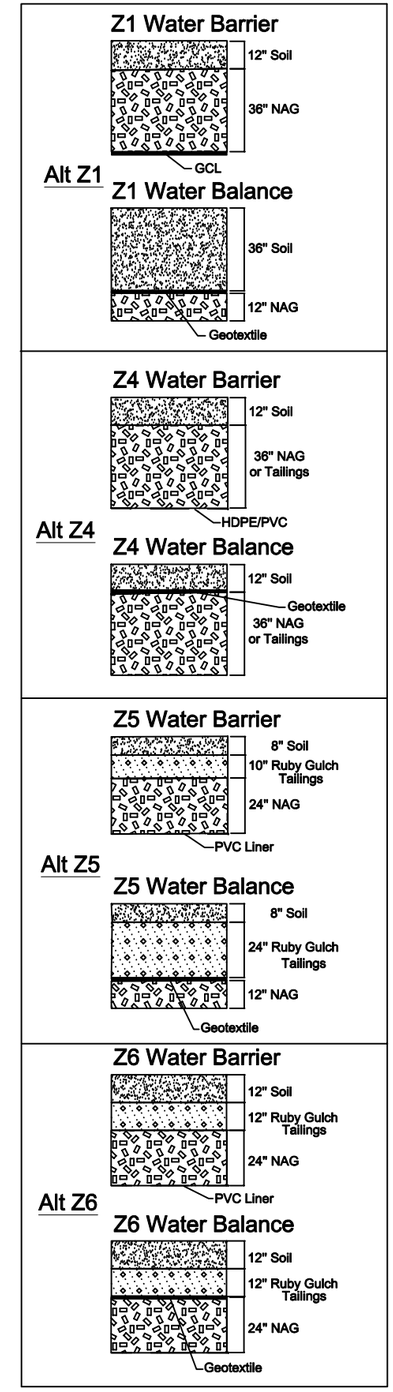


SOURCE: Spectrum Engineering 2001

ZORTMAN MINE RECLAMATION COVERS ALTERNATIVES Z1-Z6

FIGURE 2.4-1a

Feature	Alternative Z1	Alternative Z2	Alternative Z3	Alternative Z4	Alternative Z5	Alternative Z6
DUMPS						
Alder Gulch Waste Rock Dump	12" Soil 12" NAG Native Materials	Already Reclaimed No Action	Already Reclaimed No Action	12" Soil 12" NAG Native Materials	8" Soil 10" Ruby Gulch Tailings Native Materials	Z6 Water Barrier 12.33 ac
South Ruby Waste Rock Dump	12" Soil 12" NAG Native Materials	18" Soil 6" Ruby Gulch Tailings 24" NAG	18" Soil 6" Ruby Gulch Tailings 24" NAG	Z4 Water Barrier - 2.49 ac Z4 Water Balance - 5.17 ac 12" Soil Over 4.93 ac Native Materials	8" Soil 10" Ruby Gulch Tailings 24" NAG	18" Soil 6" Ruby Gulch Tailings 24" NAG
O.K. Waste Rock Dump	12" Soil Native Materials	Already Reclaimed No Action	Already Reclaimed No Action	Z4 Water Balance - 10.32 ac	8" Soil 10" Ruby Gulch Tailings	18" Soil 6" Ruby Gulch Tailings 24" NAG
FACILITIES						
Haul Roads/ Facilities	12" Soil Native Materials	12" Soil Native Materials	12" Soil Native Materials	12" Soil Native Materials	8" Soil Native Materials	18" Soil 6" Ruby Gulch Tailings Native Materials Limed
NEW DISTURBANCES						
Limestone Quarry	12" Soil Native Materials	Not Required	Not Required	12" Soil Native Materials	Not Required	Not Required



SOURCE: Spectrum Engineering 2001

ZORTMAN MINE RECLAMATION COVERS ALTERNATIVES Z1-Z6

FIGURE 2.4-1b