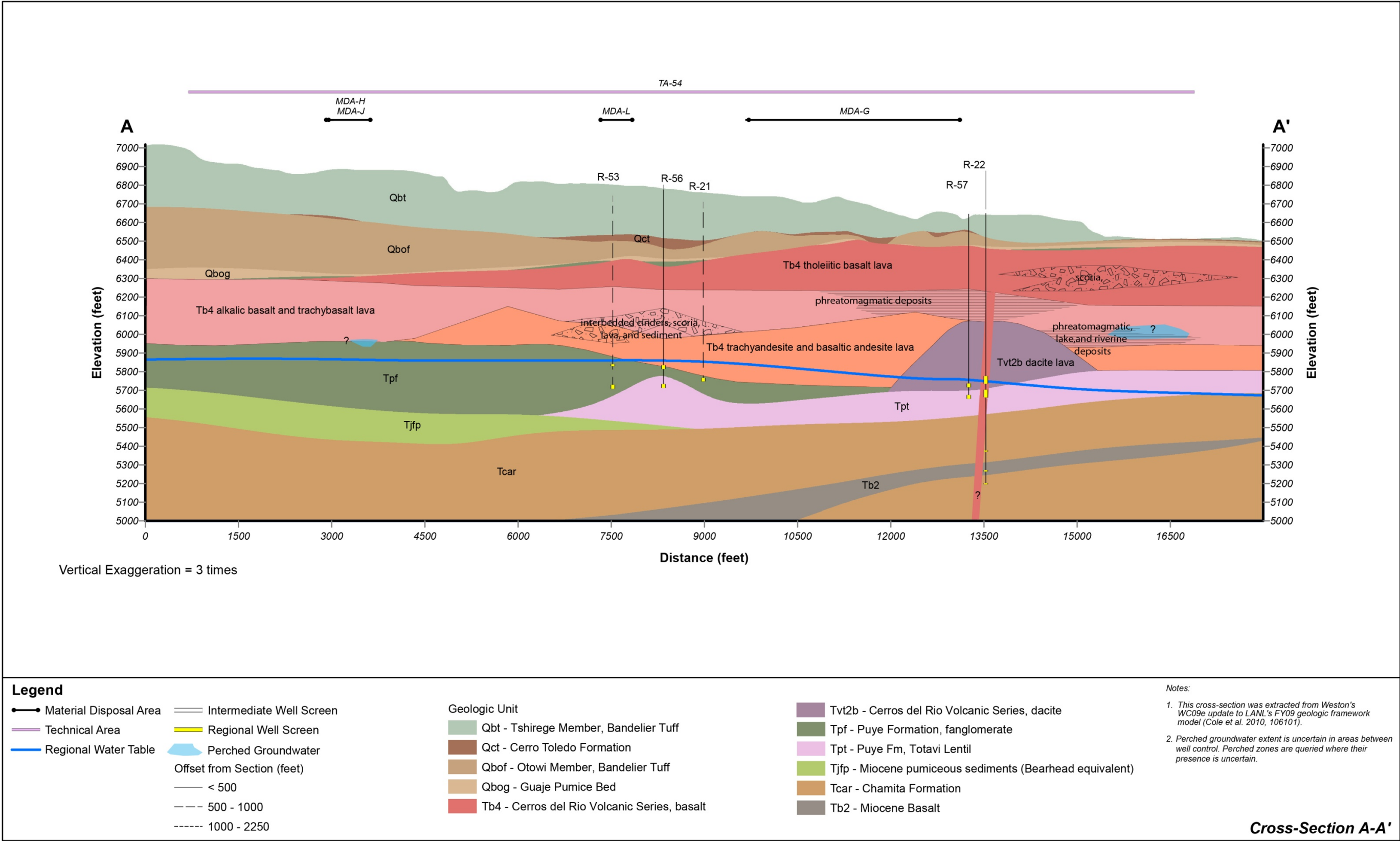
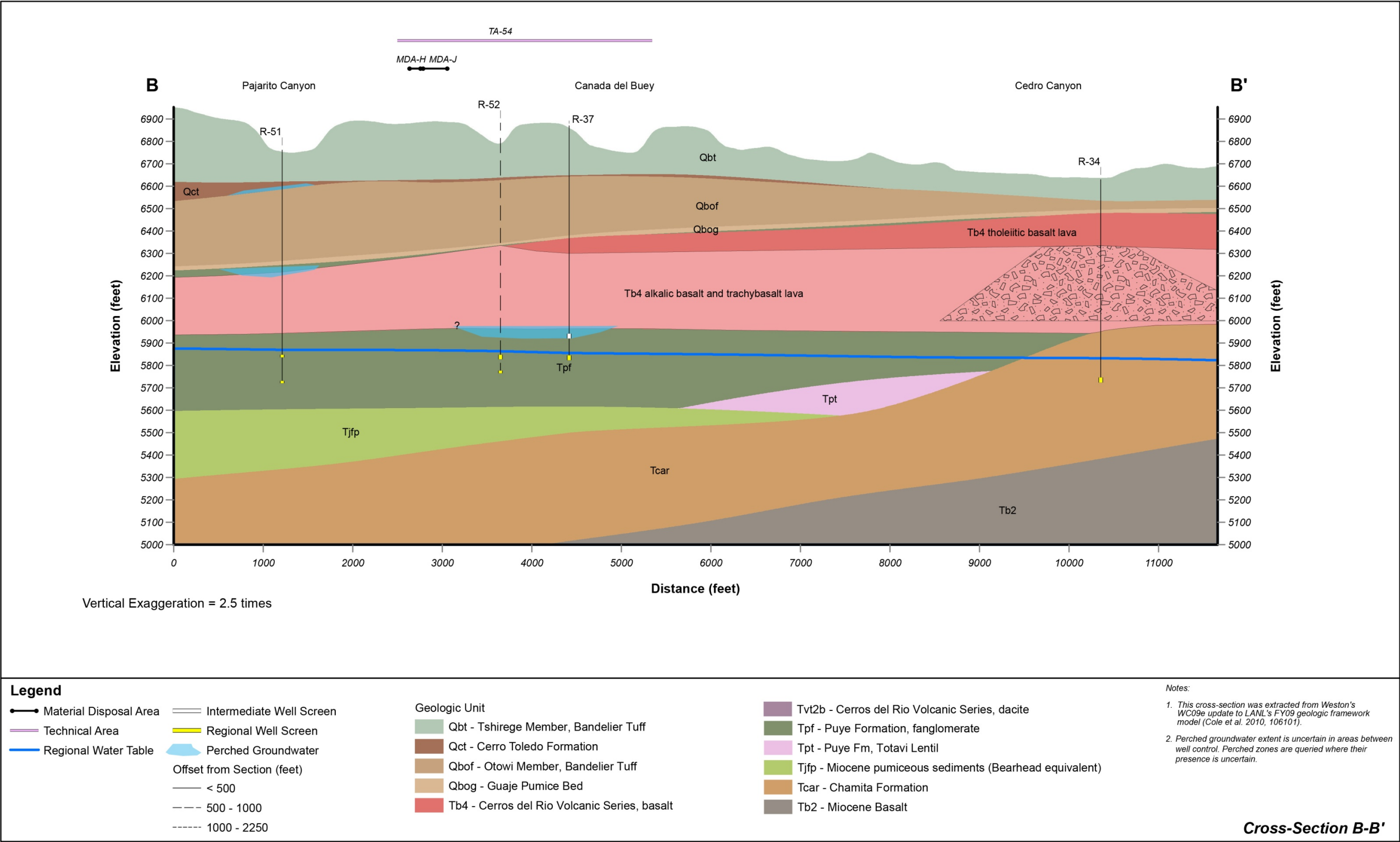


Figure E-2.1-1 Location of regional and intermediate wells in the vicinity of TA-54 and the lines of section for geologic cross-sections shown in Figures E-2.1-2 through E-2.1-8



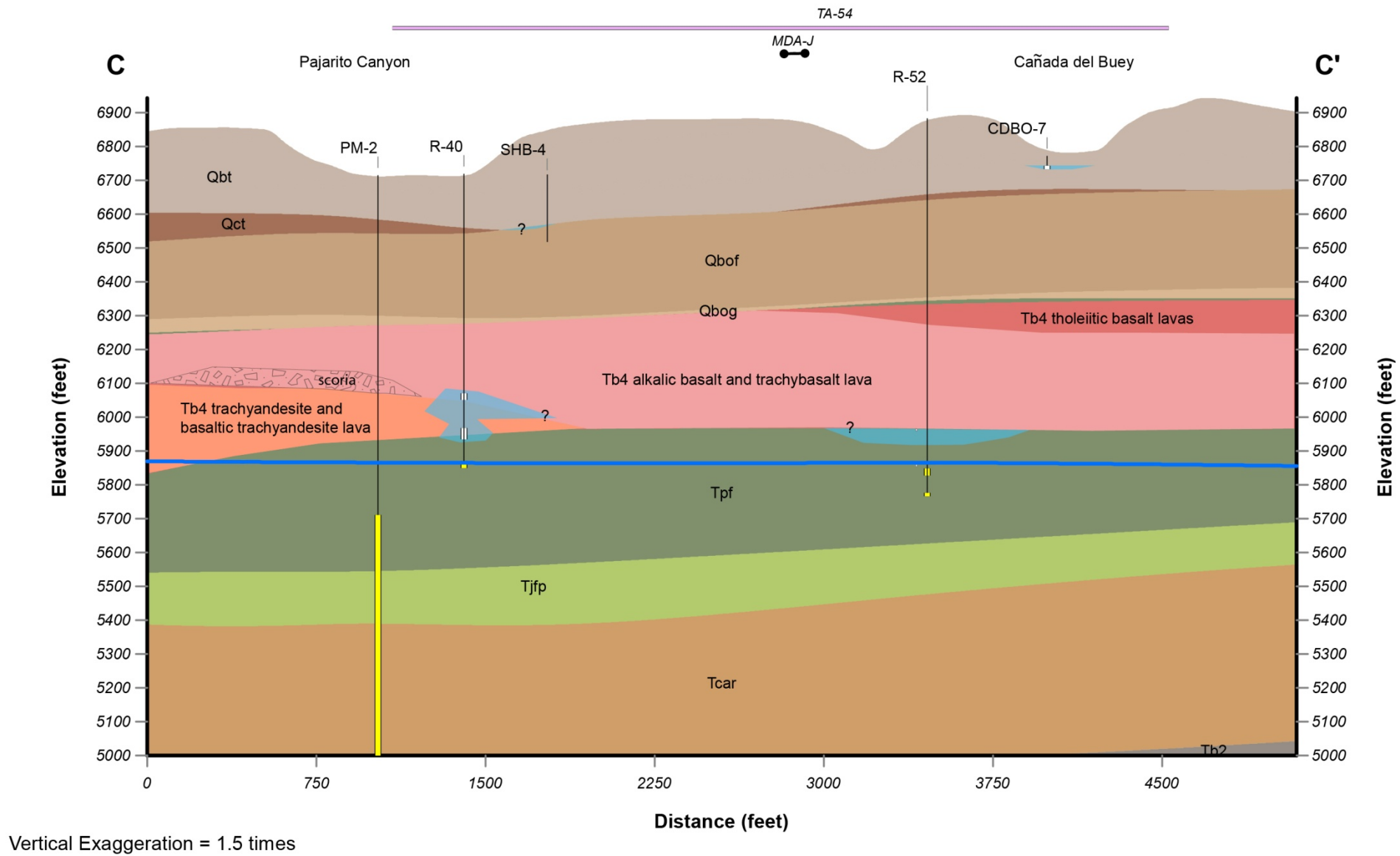
Note: See Figure E-2.1-1 for location of cross-section.

Figure E-2.1-2 Northwest to southeast geologic cross-section A-A' along the axis of Mesita del Buey



Note: See Figure E-2.1-1 for location of cross-section.

Figure E-2.1-3 Southwest to northeast geologic cross-section B-B' through MDA H



Legend

- Material Disposal Area
- Technical Area
- Regional Water Table
- Intermediate Well Screen
- Regional Well Screen
- Perched Groundwater
- Offset from Section (feet)
 - < 500
 - 500 - 1000
 - 1000 - 2500

Geologic Unit

- Qbt - Tshirege Member, Bandelier Tuff
- Qct - Cerro Toledo Formation
- Qbof - Otowi Member, Bandelier Tuff
- Qbog - Guaje Pumice Bed
- Tb4 - Cerros del Rio Volcanic Series, tholeiitic
- Tb4 - Cerros del Rio Volcanic Series, alkalic basalt and trachybasalt

- Tb4 - Cerros del Rio Volcanic Series, trachyandesite and basaltic trachyandesite
- Tvt2b - Cerros del Rio Volcanic Series, dacite
- Tpf - Puye Formation, fanglomerate
- Tpt - Puye Fm, Totavi Lentil
- Tjfp - Miocene pumiceous sediments (Bearhead equivalent)
- Tcar - Chamita Formation
- Tb2 - Miocene Basalt

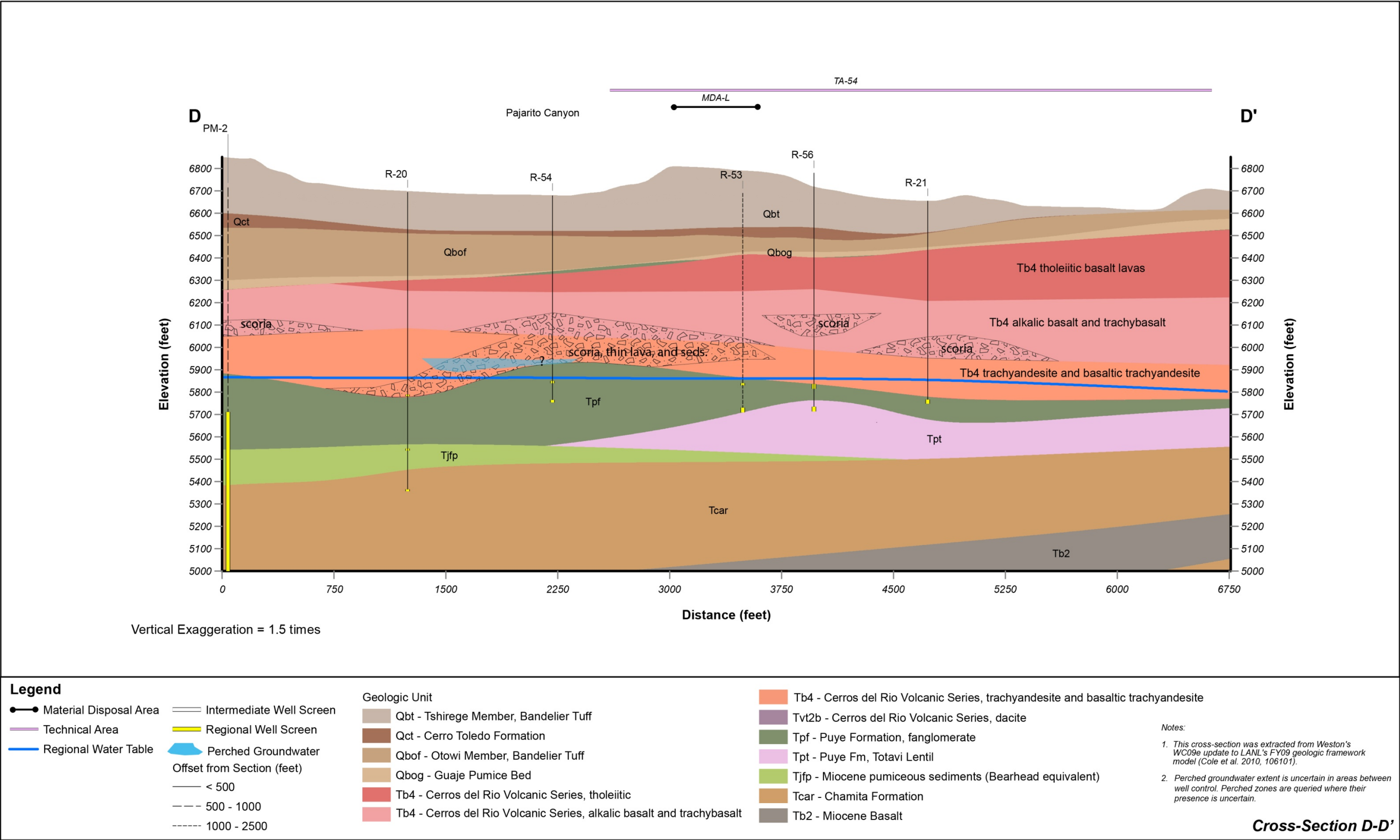
Notes:

- This cross-section was extracted from Weston's WC09e update to LANL's FY09 geologic framework model (Cole et al. 2010, 106101).
- Perched groundwater extent is uncertain in areas between well control. Perched zones are queried where their presence is uncertain.

Cross-Section C-C'

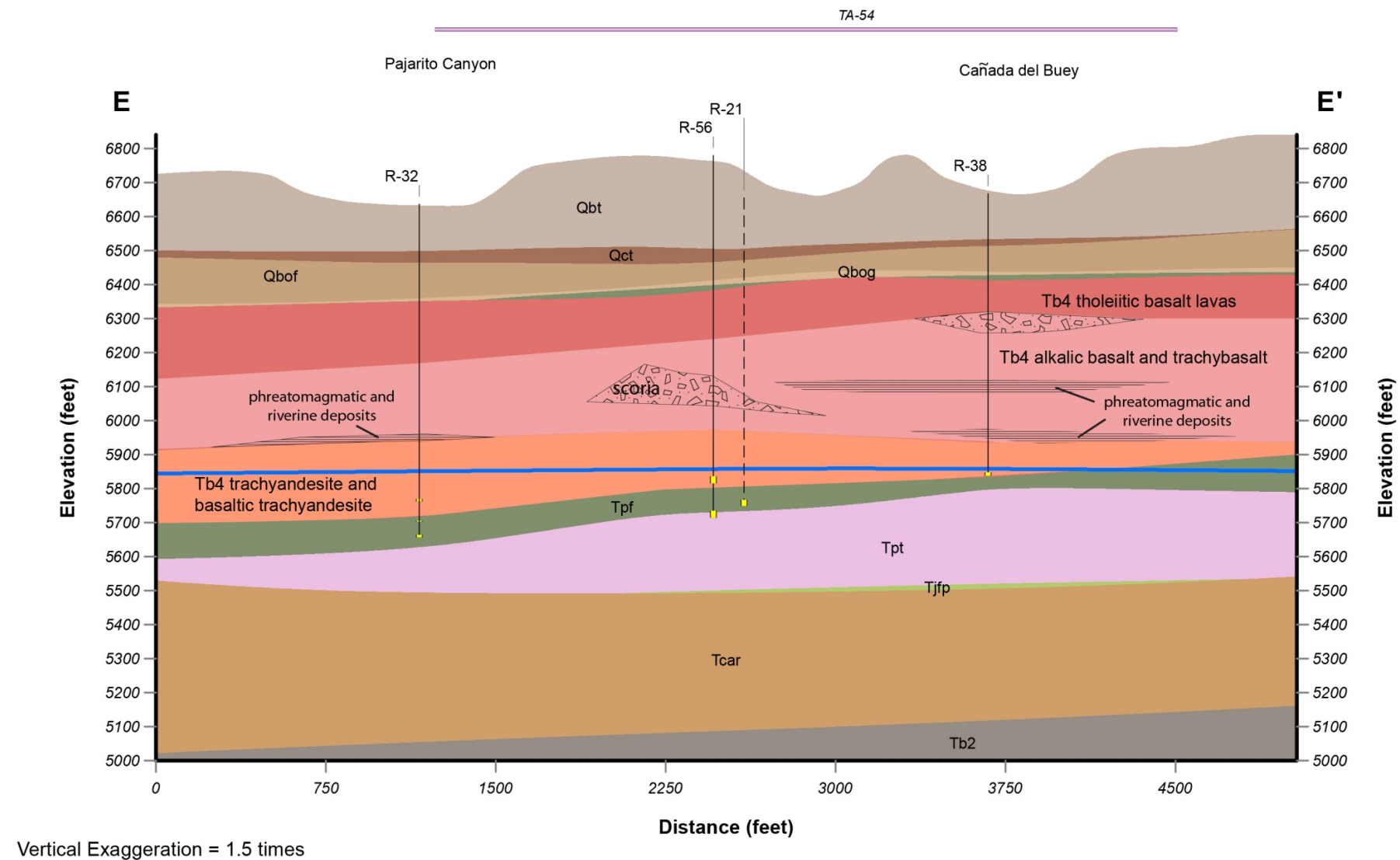
Note: See Figure E-2.1-1 for location of cross-section.

Figure E-2.1-4 South to north geologic cross-section C-C' near MDA H












Note: See Figure E-2.1-1 for location of cross-section.

Figure E-2.1-5 West to east geologic cross-section D-D' through MDA L



Legend

-  Material Disposal Area  Intermediate Well Screen
 Technical Area  Regional Well Screen
 Regional Water Table  Perched Groundwater
Offset from Section (feet)
 < 500
 500 - 1000
 1000 - 2500

- Geologic Unit

- Qbt - Tshirege Member, Bandelier Tuff
- Qct - Cerro Toledo Formation
- Qbof - Otowi Member, Bandelier Tuff
- Qbog - Guaje Pumice Bed
- Tb4 - Cerros del Rio Volcanic Series, tholeiitic
- Tb4 - Cerros del Rio Volcanic Series, alkalic basalt and trachybasalt

- | | |
|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| Tb4 - Cerros del Rio Volcanic Series, trachyandesite and basaltic trachyandesite | |
| Tvt2b - Cerros del Rio Volcanic Series, dacite | Notes: |
| Tpf - Puye Formation, fanglomerate | 1. This cross-section is based on the WC09e USGS model (Calkin et al., 2009) |
| Tpt - Puye Fm, Totavi Lentil | |
| Tjfp - Miocene pumiceous sediments (Bearhead equivalent) | 2. Perched on a well consolidated basement with presence of a clay-rich layer |
| Tcar - Chamita Formation | |
| Tb2 - Miocene Basalt | |

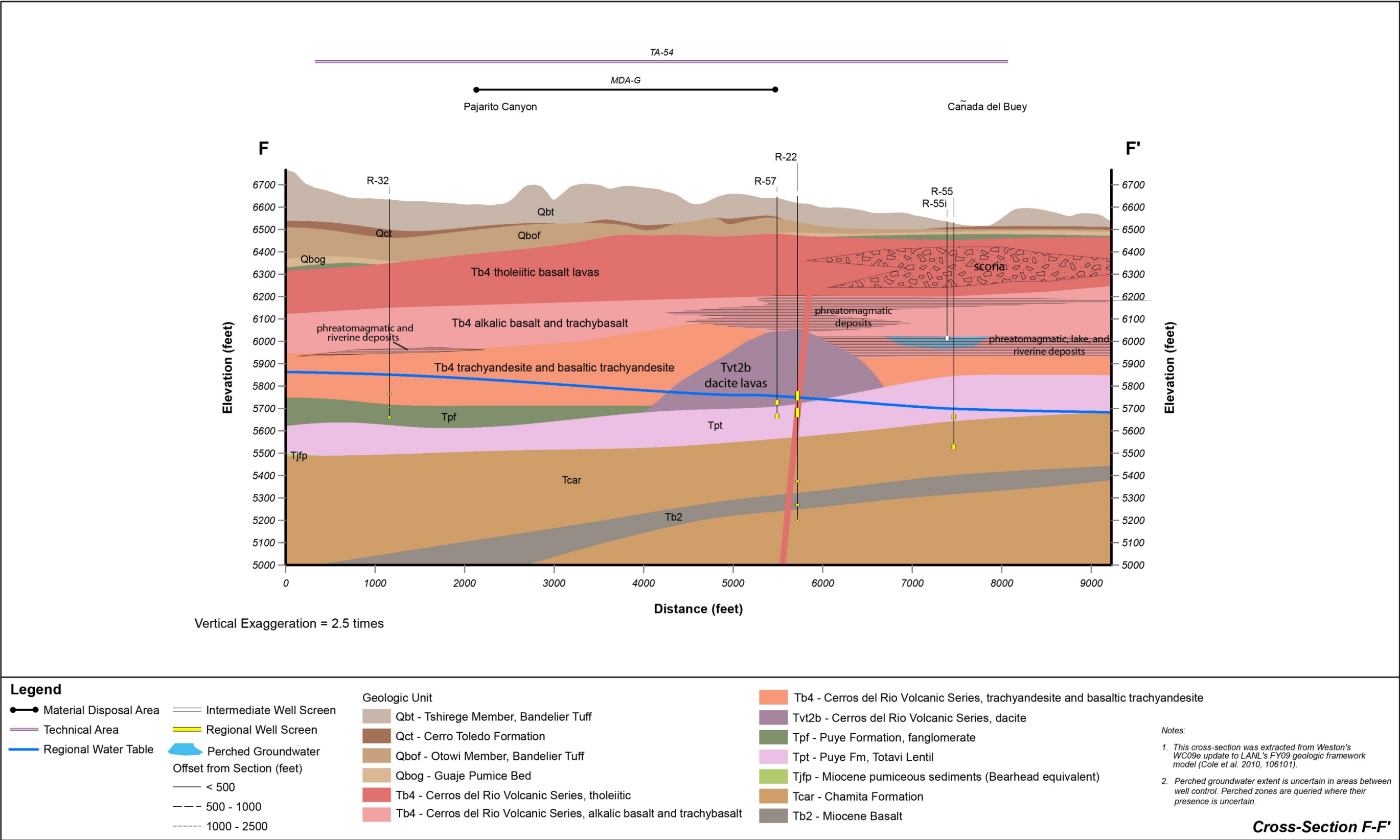
Notes:

1. This cross-section was extracted from Weston's WC09e update to LANL's FY09 geologic framework model (Cole et al. 2010, 106101).
2. Perched groundwater extent is uncertain in areas between well control. Perched zones are queried where their presence is uncertain.

Cross-Section E-E'

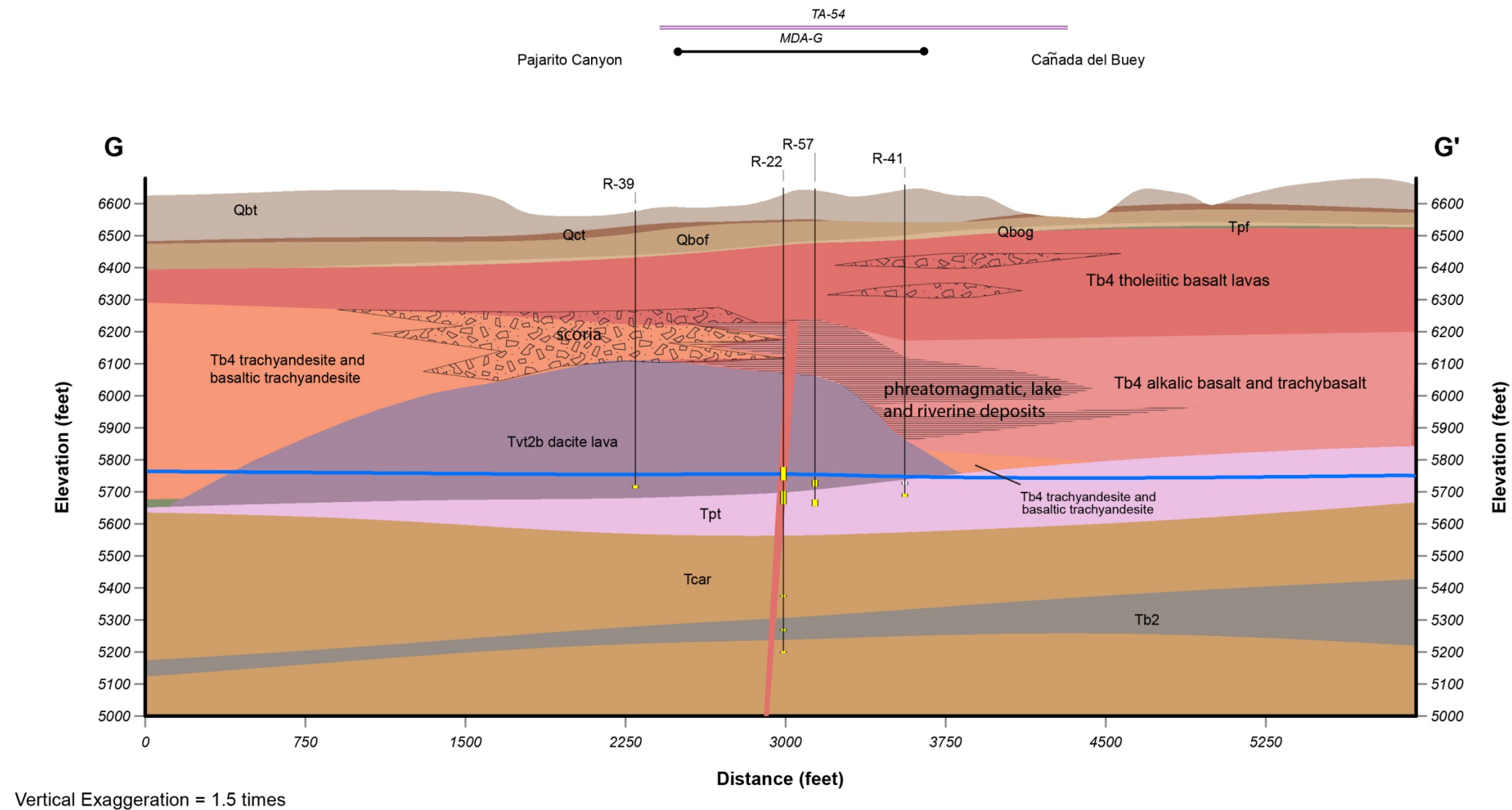
Note: See Figure E-2.1-1 for location of cross-section.

Figure E-2.1-6 South to north geologic cross-section E-E' through the area between MDAs G and L












Note: See Figure E-2.1-1 for location of cross-section.

Figure E-2.1-7 West to east geologic cross-section F-F' through MDA G



Legend

-  Material Disposal Area  Intermediate Well Screen
 Technical Area  Regional Well Screen
 Regional Water Table  Perched Groundwater
Offset from Section (feet)
 < 500
 500 - 1000
 1000 - 2500

- Geologic Unit

- Qbt - Tshirege Member, Bandelier Tuff
- Qct - Cerro Toledo Formation
- Qbof - Otowi Member, Bandelier Tuff
- Qbog - Guaje Pumice Bed
- Tb4 - Cerros del Rio Volcanic Series, tholeiitic
- Tb4 - Cerros del Rio Volcanic Series, alkalic basalt and trachybasalt

- | | | |
|-------|------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Tb4 | - Cerros del Rio Volcanic Series, trachyandesite and basaltic trachyandesite | |
| Tvt2b | - Cerros del Rio Volcanic Series, dacite | Notes: |
| Tpf | - Puye Formation, fanglomerate | 1. This cross-section is based on the WC09e model (Carr et al., 2009) |
| Tpt | - Puye Fm, Totavi Lentil | |
| Tjfp | - Miocene pumiceous sediments (Bearhead equivalent) | 2. Perched on a well consolidated basement with presence of a thin layer of sandstone |
| Tcar | - Chamita Formation | |
| Tb2 | - Miocene Basalt | |

Notes:

1. This cross-section was extracted from Weston's WC09e update to LANL's FY09 geologic framework model (Cole et al. 2010, 106101).
2. Perched groundwater extent is uncertain in areas between well control. Perched zones are queried where their presence is uncertain.

Cross-Section G-G'

Note: See Figure E-2.1-1 for location of cross-section.

Figure E-2.1-8 Southwest to northeast geologic cross-section G-G' through MDA G