Era	System	Series	Stratigraphic unit Modified from Baker, 1979	Lithology	Hydrogeologic unit commonly used in Texas Modified from Baker, 1979	Hydrogeologic nomenclature used in this report Modified from Weiss, 1992	
Cenozoic	Quaternary	Holocene	Alluvium	Sand, silt, and clay	Chicot aquifer	Permeable zone A	Coastal lowlands aquifer system
		Pleistocene	Beaumont Formation Montgomery Formation Bentley Formation Willis Sand	Sand, silt, and clay		Permeable zone B	
	Tertiary	Pliocene	Goliad Sand	Sand, silt, and clay	Evangeline aquifer	Permeable zone C	
		Miocene	Fleming Formation	Clay, silt and sand	Burkeville confining unit	Zone D confining unit [1]	
			Oakville Sandstone Catahoula Sandstone or Tuff [2]	Sand, silt, and clay	Jasper aquifer Catahoula confining unit (restricted)	Permeable zone D	
			Anahuac Formation [1]	Clay, silt and sand		Zone E confining unit [1]	
		Oligocene	Frio Formation [1]	Sand, silt, and clay		Permeable zone E	
			Frio Clay [3] Vicksburg Formation [1]	Clay and silt	Vicksburg-Jackson confining unit	Vicksburg-Jackson confining unit	
		Eocene	Jackson Group: Whitsett Formation Manning Clay Wellborn Sandstone Caddell Formation				

[1] Present only in the subsurface
[2] Called Catahoula Tuff west of Lavaca County
[3] Not recognized at surface east of Live Oak County

Figure 2.3.1-16 Correlation of USGS and Texas Nomenclature (modified from Reference 2.3.1-2)

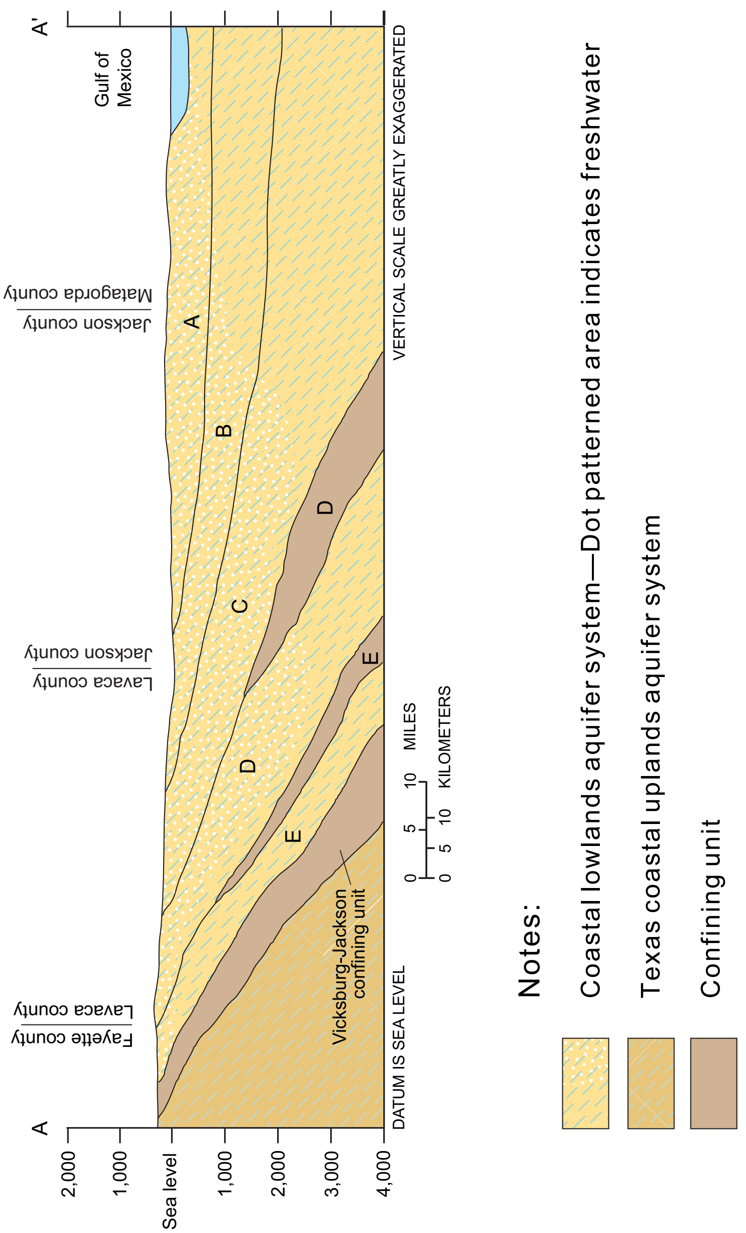


Figure 2.3.1-17 Generalized Cross Section through the Coastal Lowlands/Coastal Uplands Aquifer Systems (modified from Reference 2.3.1-21)

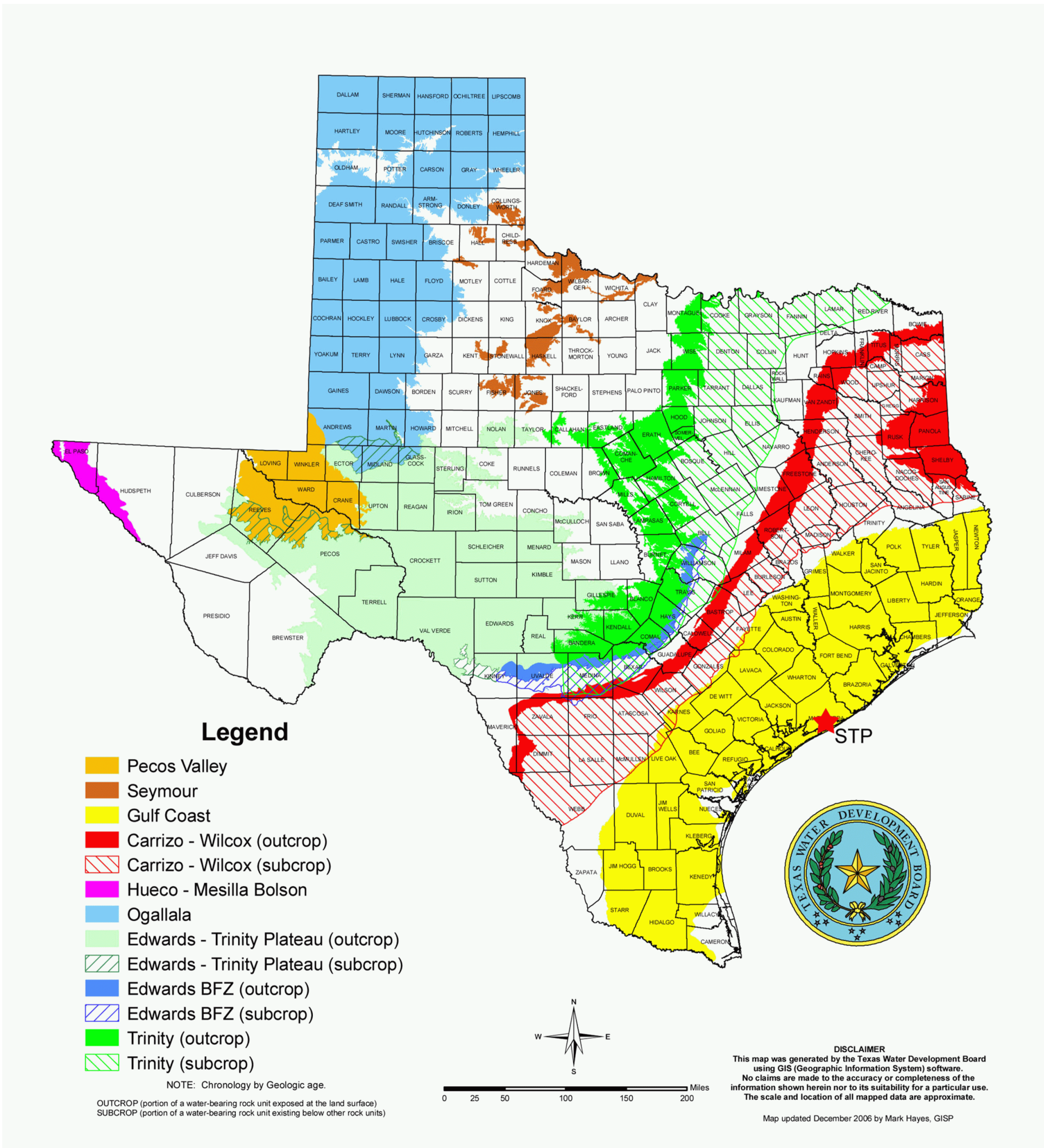


Figure 2.3.1-18 Major Aquifers of Texas (modified from Reference 2.3.1-22)

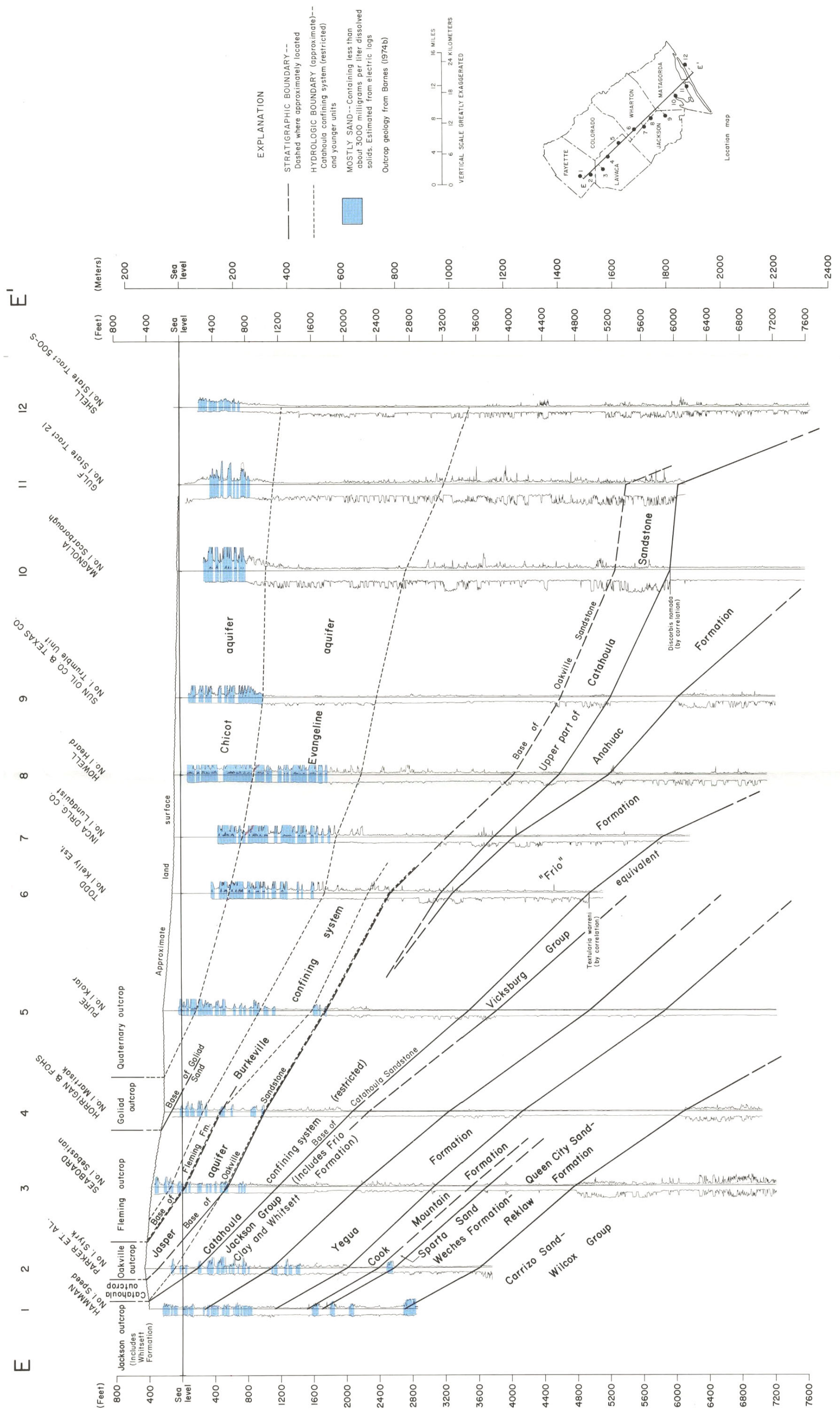


Figure 2.3.1-19 Regional Hydrogeologic Cross Section through the Gulf Coast Aquifer System (Reference 2.3.1-23)

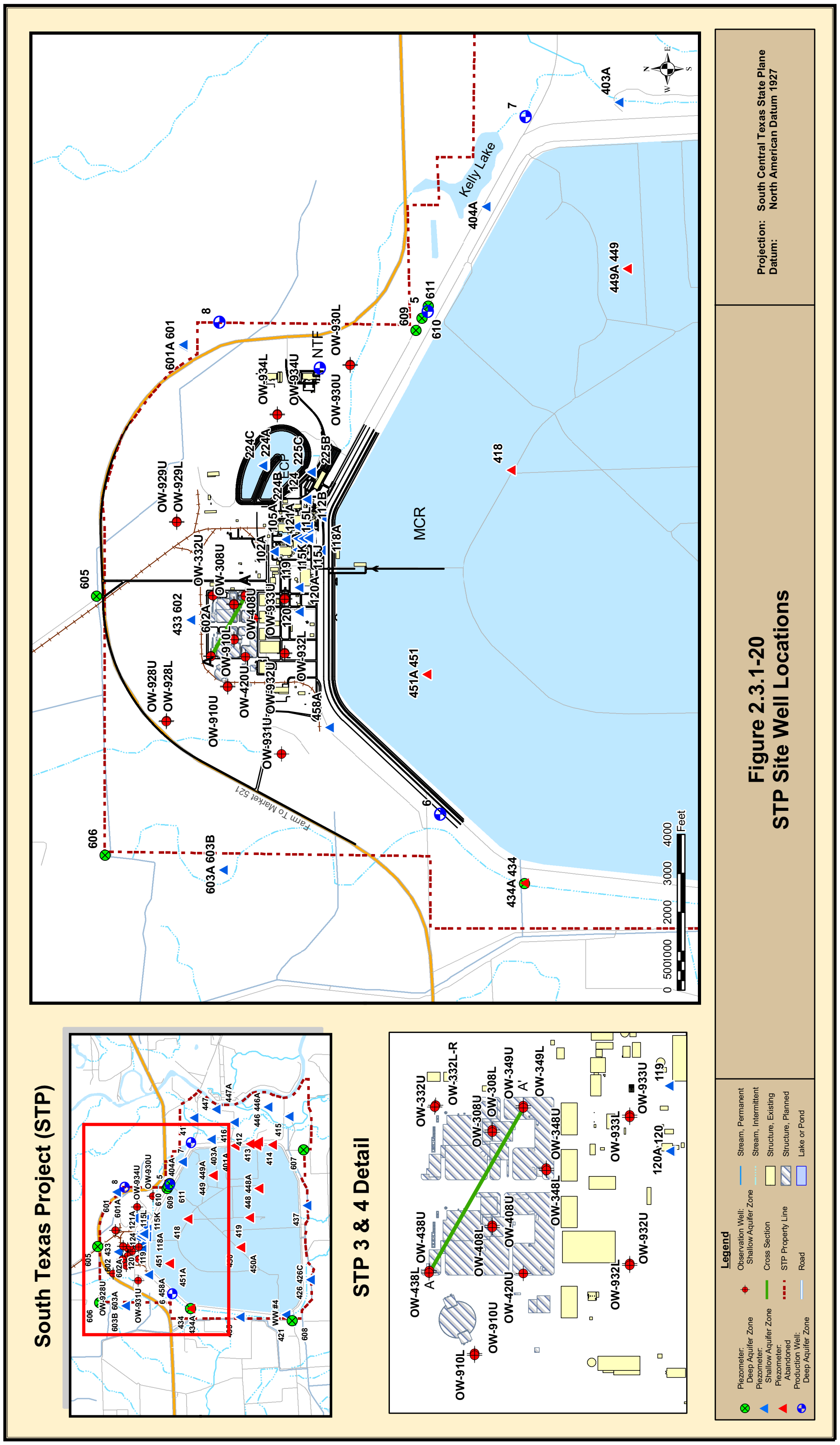


Figure 2.3.1-20 STP Site Well Locations

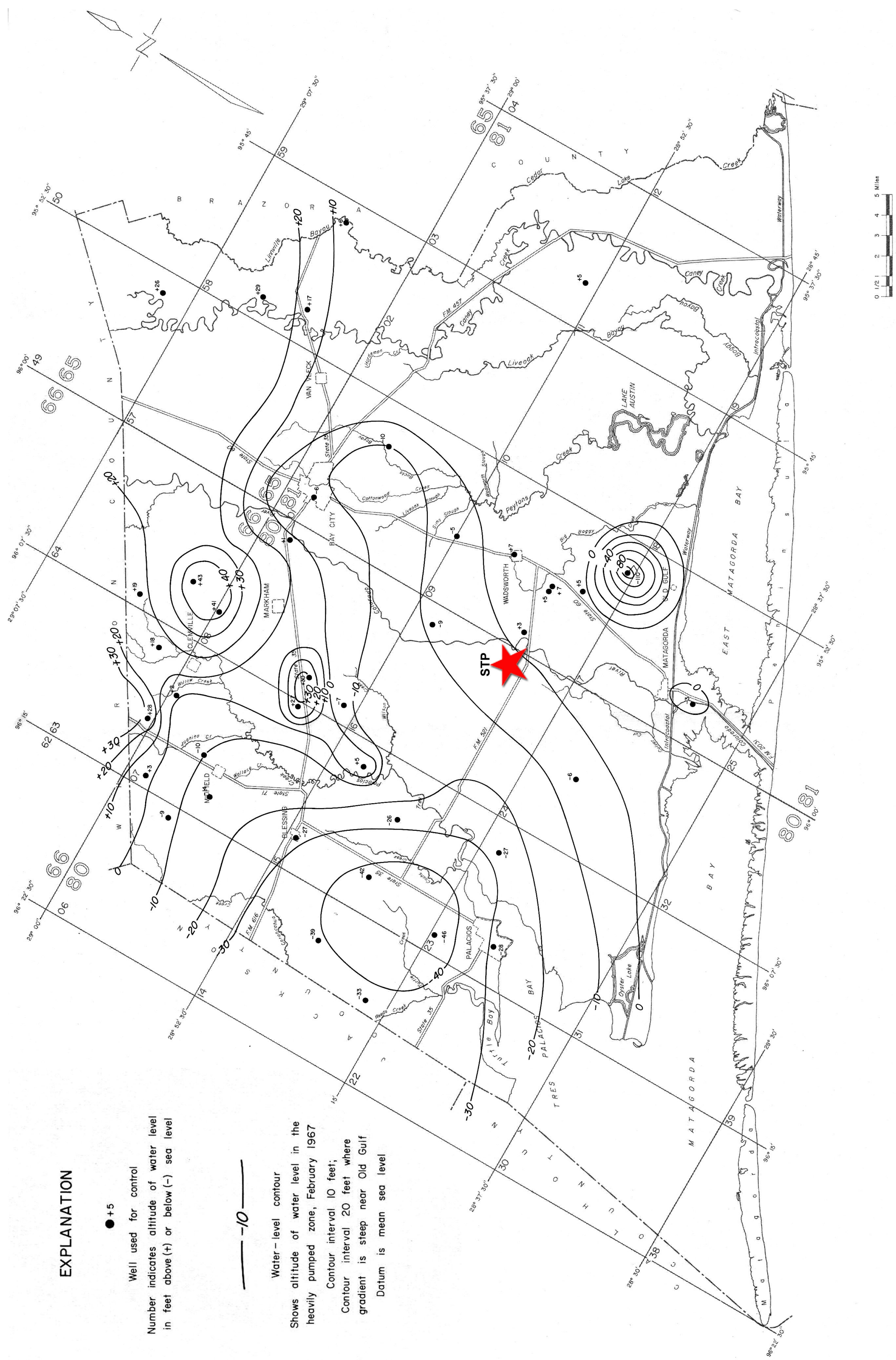


Figure 2.3.1-21 Potentiometric Surface in the Deep Aquifer in Matagorda County in 1967 (modified from Reference 2.3.1-24)

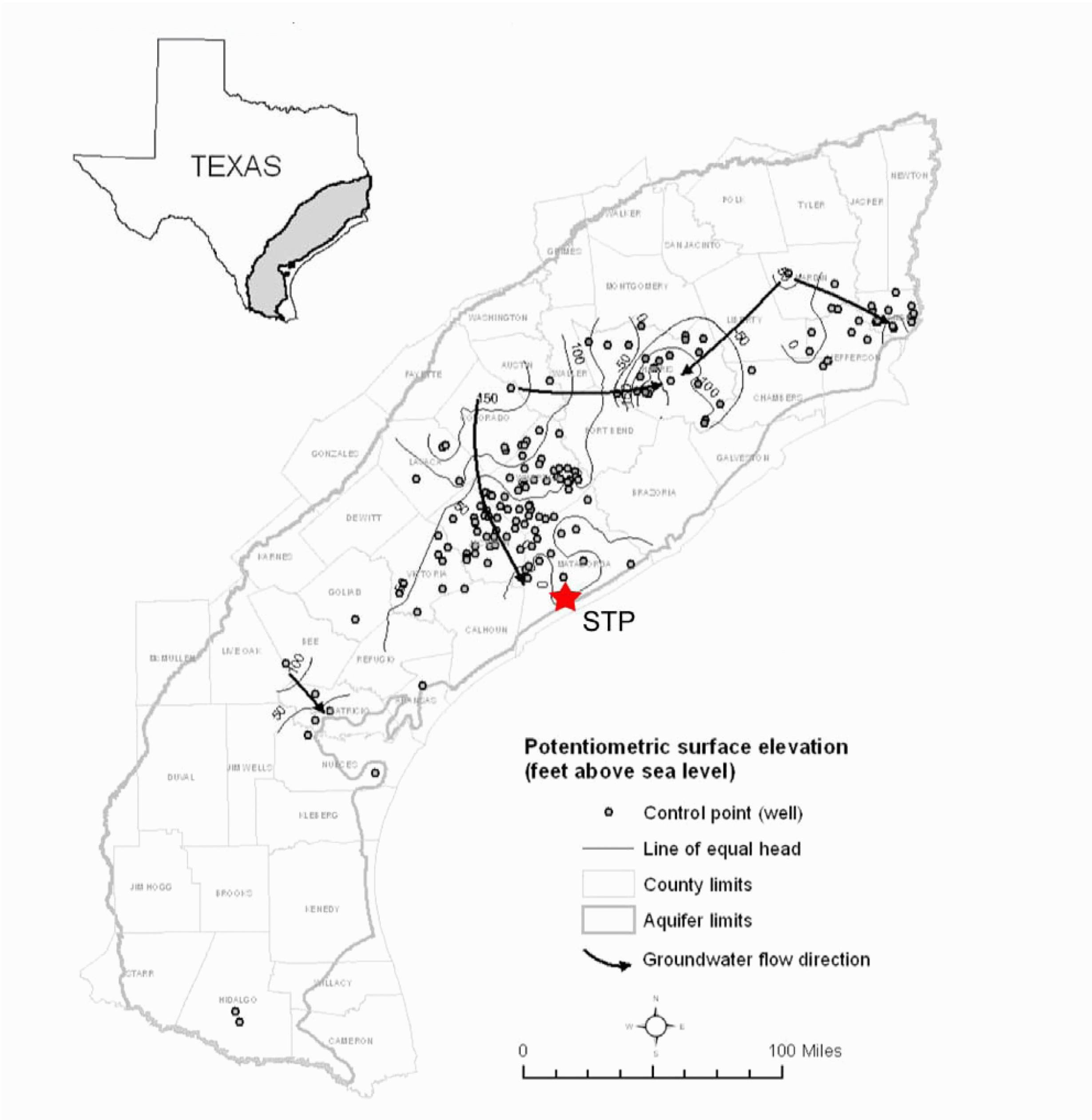


Figure 2.3.1-22 Regional Potentiometric Surface Map including Water Level Measurements from 2001 to 2005 (modified from Reference 2.3.1-26)

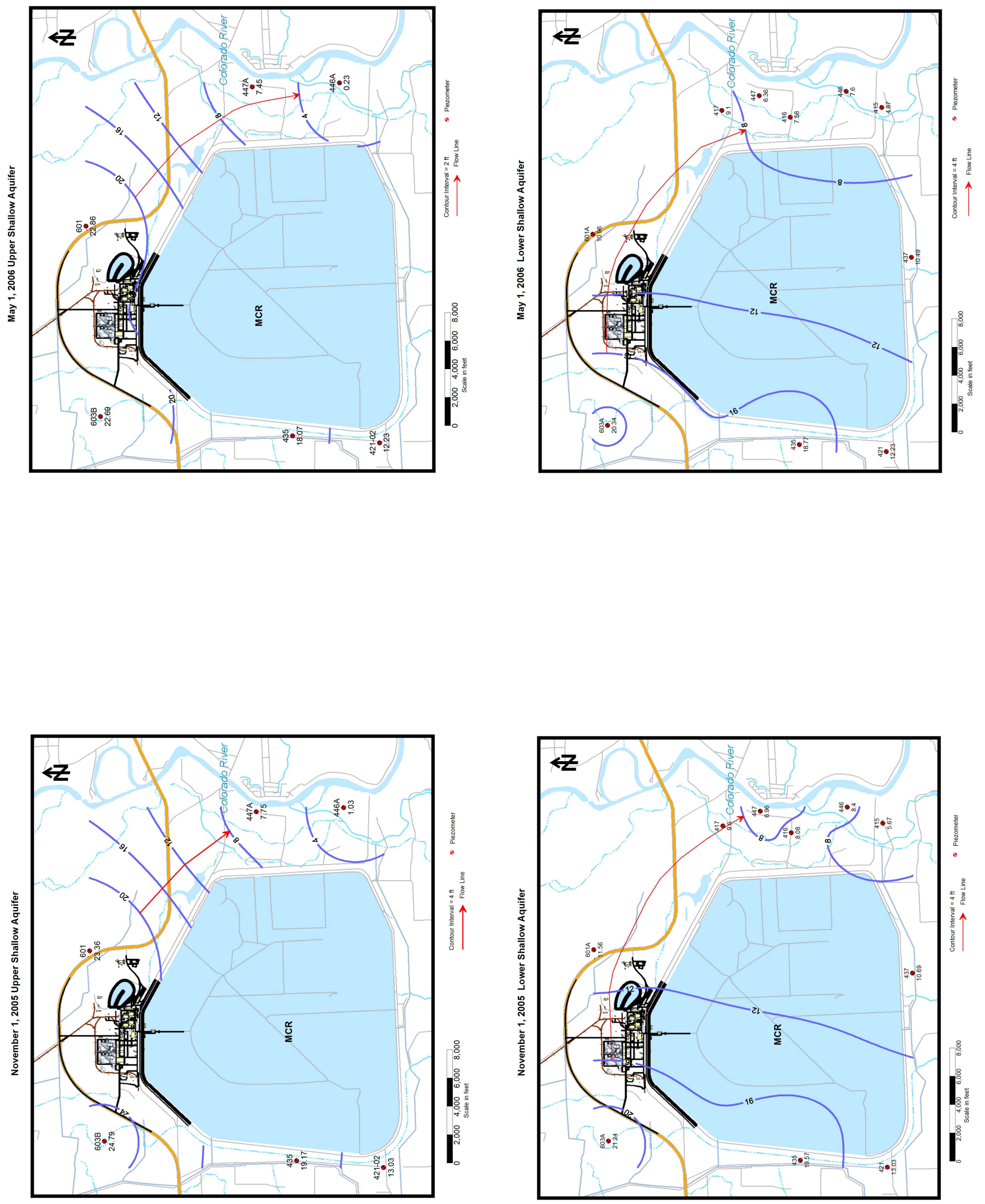
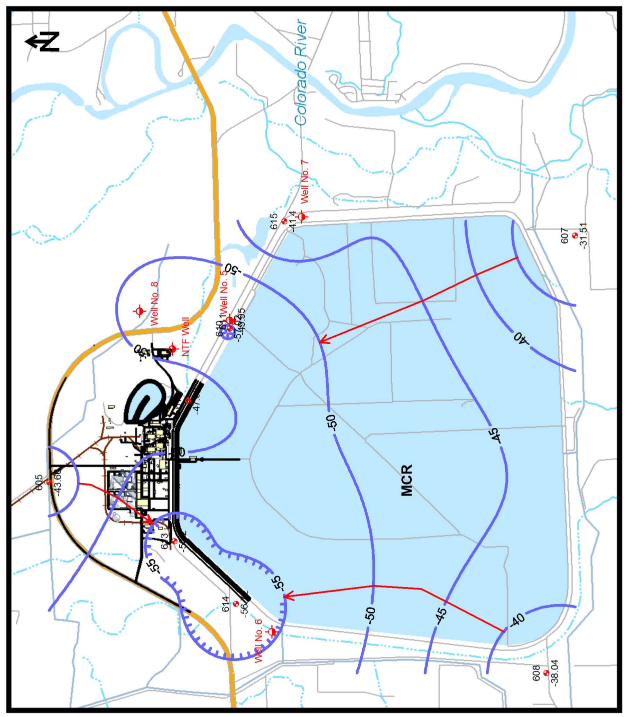


Figure 2.3.1-23 Shallow Aquifer Potentiometric Surface Maps



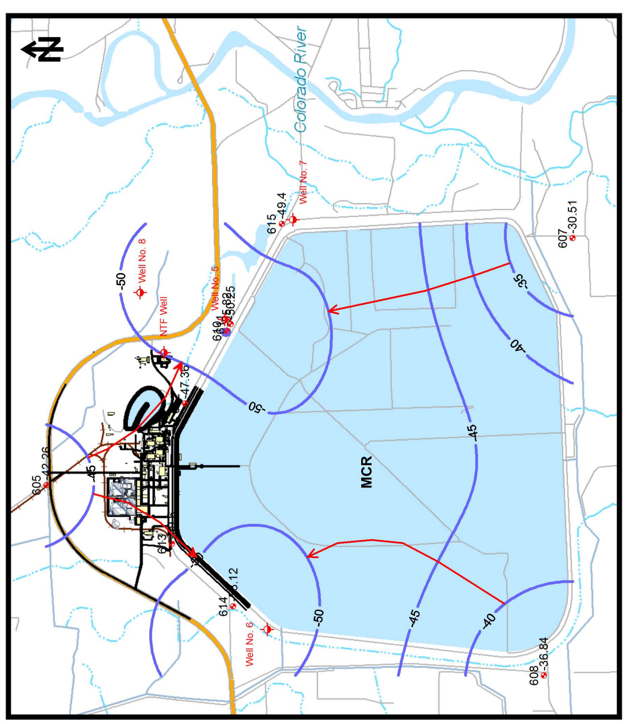


Figure 2.3.1-24 Deep Aquifer Potentiometric Surface Maps

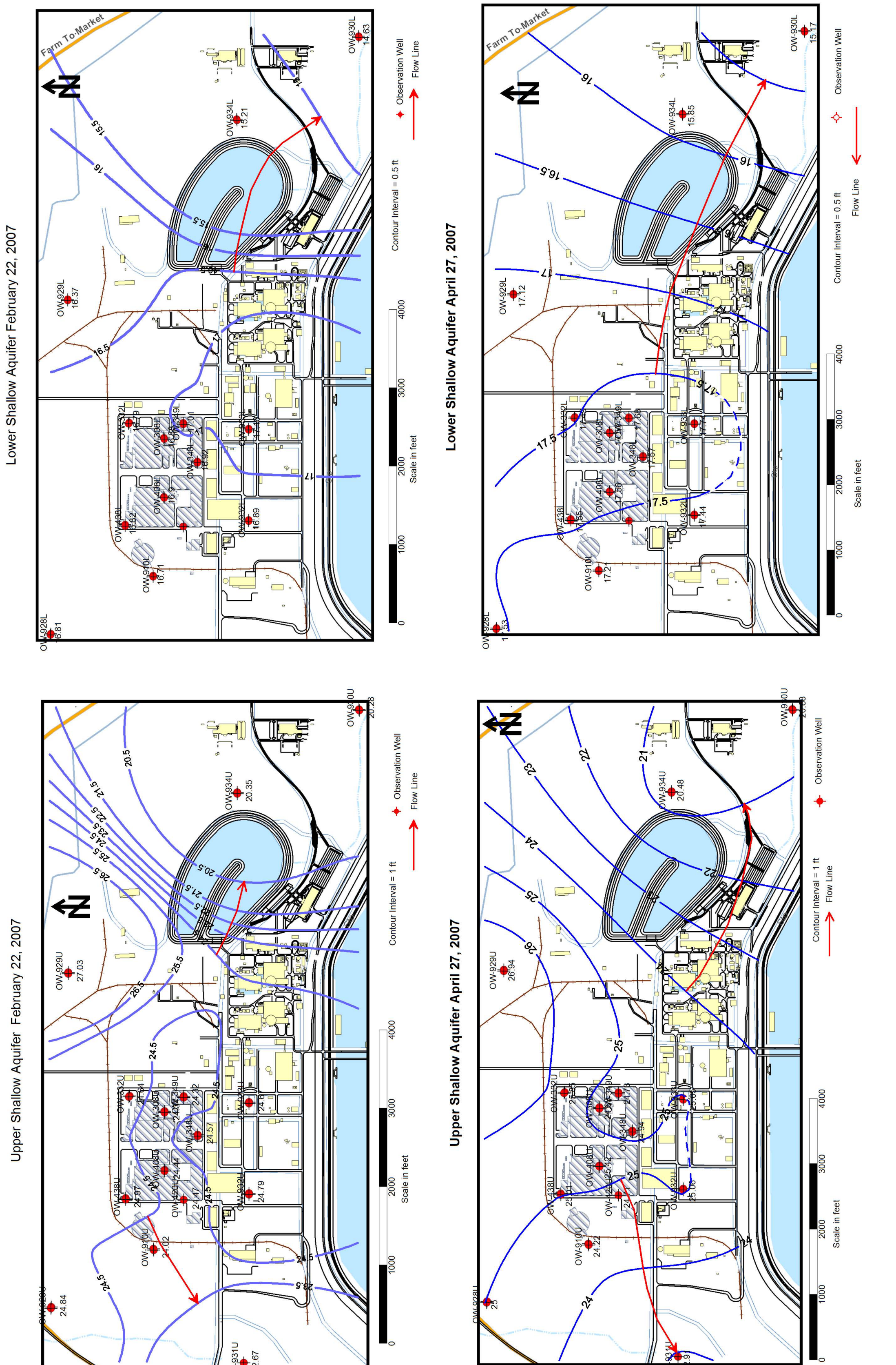


Figure 2.3.1-25 Quarterly Potentiometric Surface Maps in the STP 3 & 4 Areas

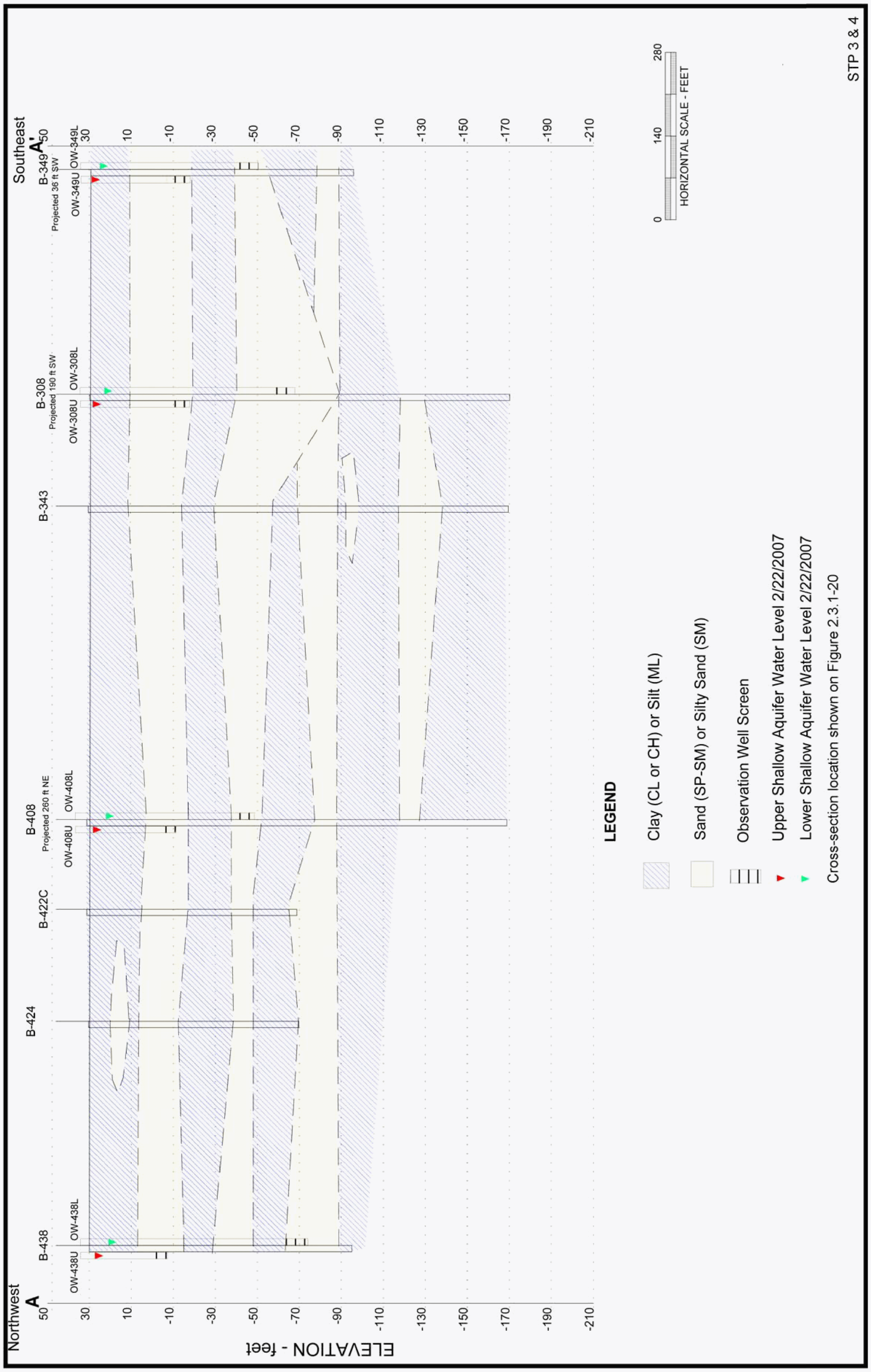


Figure 2.3.1-26 Hydrogeologic Cross-Section A-A'

Figure 2.3.1-27 Regional Hydrographs for Deep Aquifer (Reference 2.3.1-27)

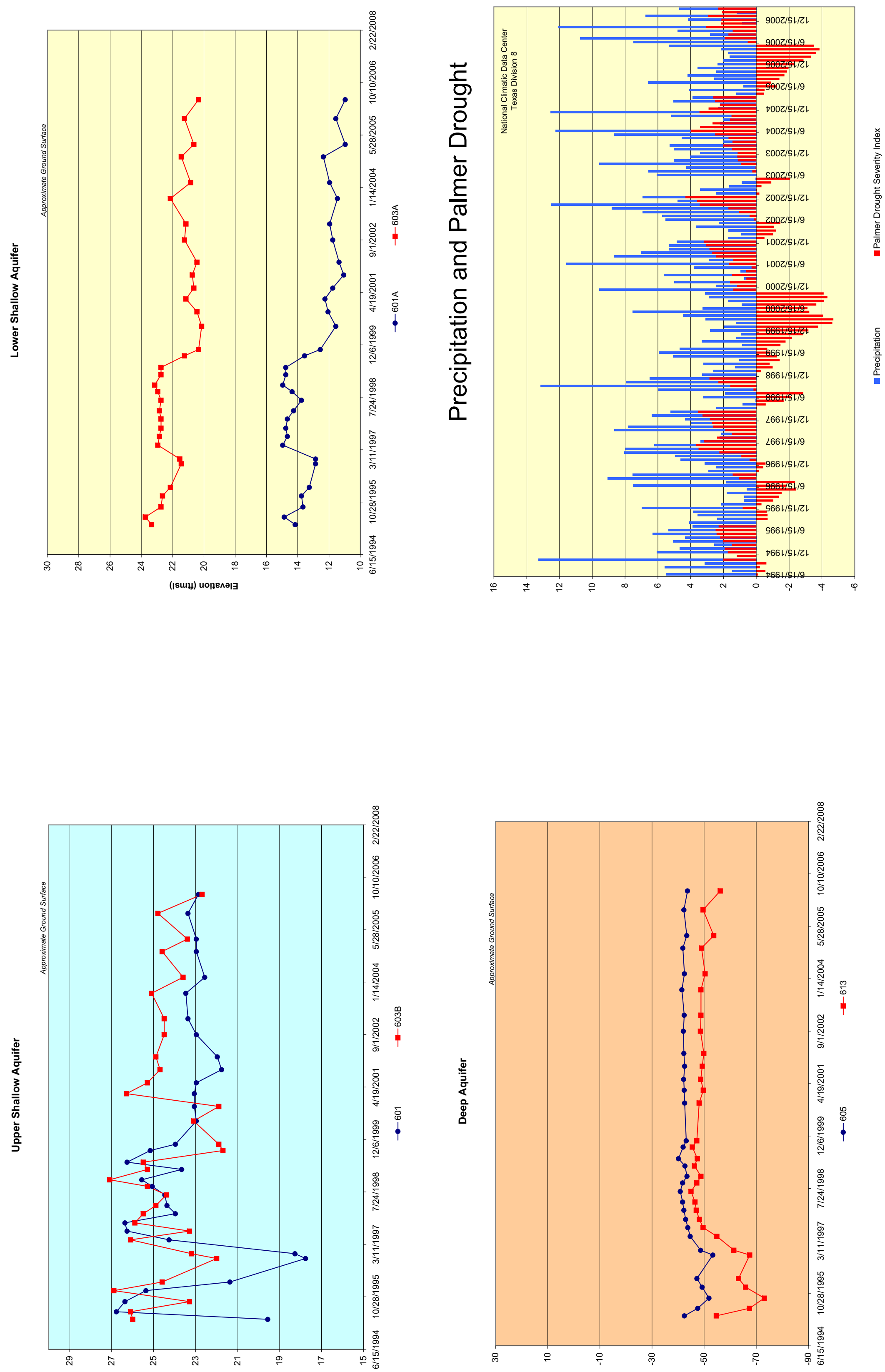


Figure 2.3.1-28 Hydrographs of Selected Wells at the STP Site

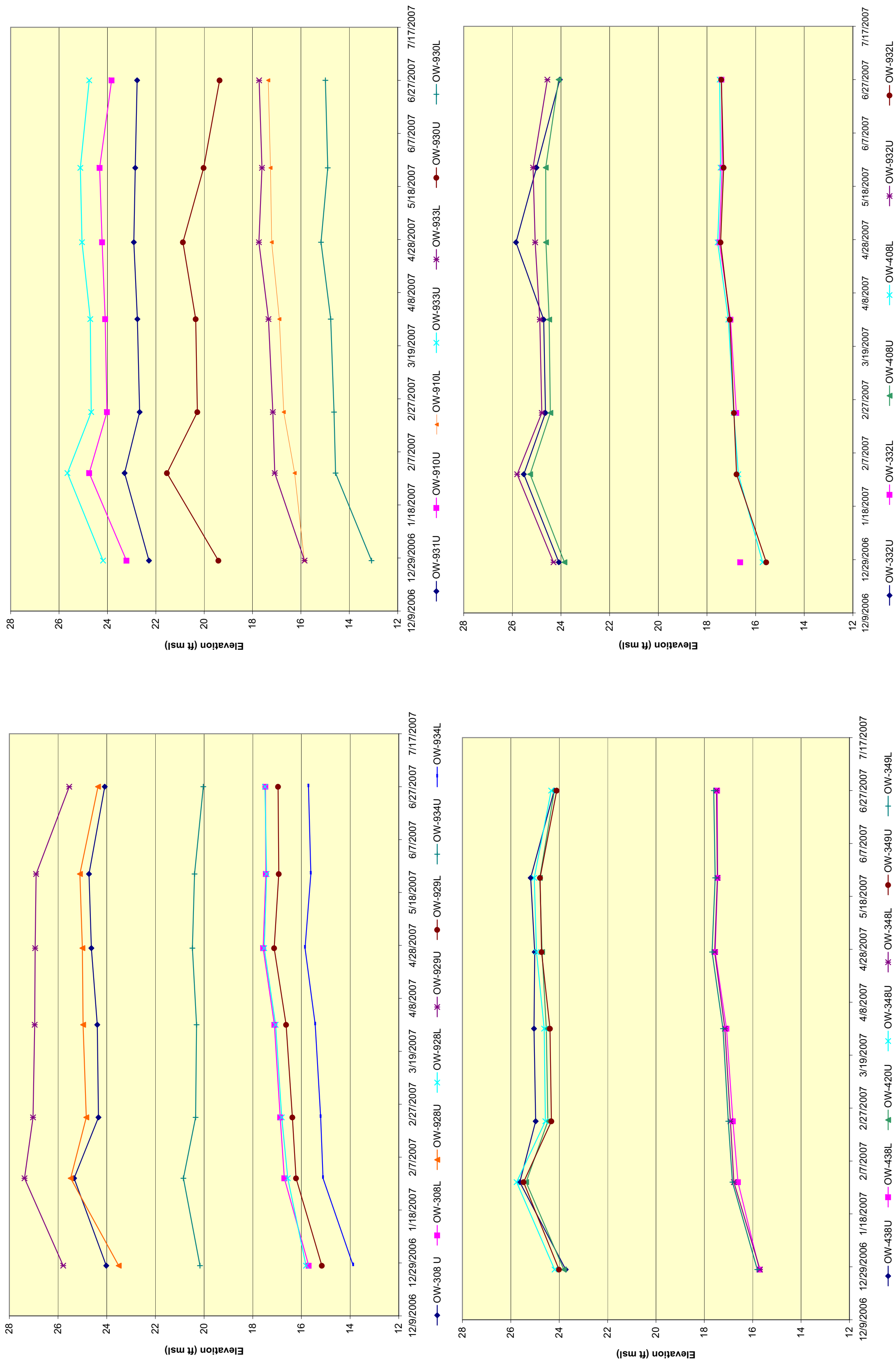


Figure 2.3.1-29 Hydrographs of Wells in the STP 3 & 4 Area

Parameter	Regional Transmissivity (gpd/ft)	STP Deep Aquifer Transmissivity (gpd/ft)	STP Shallow Aquifer Transmissivity (gpd/ft)	Regional Storage Coefficient (unitless)	STP Deep Aquifer Storage Coefficient (unitless)	STP Shallow Aquifer Storage Coefficient (unitless)
Sample Size (N)	40	3	5	6	2	4
Standard Deviation	71,936	14,526	11,620	0.0006	0.0004	0.0006
Mean	84,500	33,245	14,320	0.0008	0.0005	0.0009
Geometric Mean	63,725	31,379	9,295	0.0005	0.0004	0.0008
Median	63,800	25,533	13,000	0.0010	0.0005	0.0007

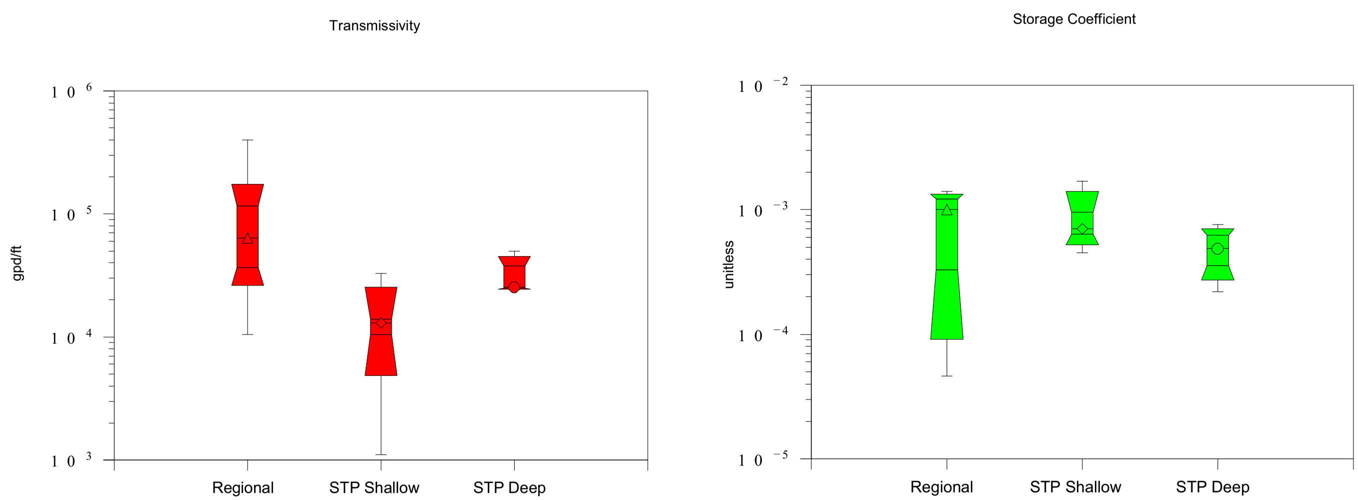


Figure 2.3.1-30 Summary of Aquifer Transmissivity and Storage Coefficient Data from Aquifer Pumping Tests