

Figure 2.4S.12-10 STP Site Well Locations

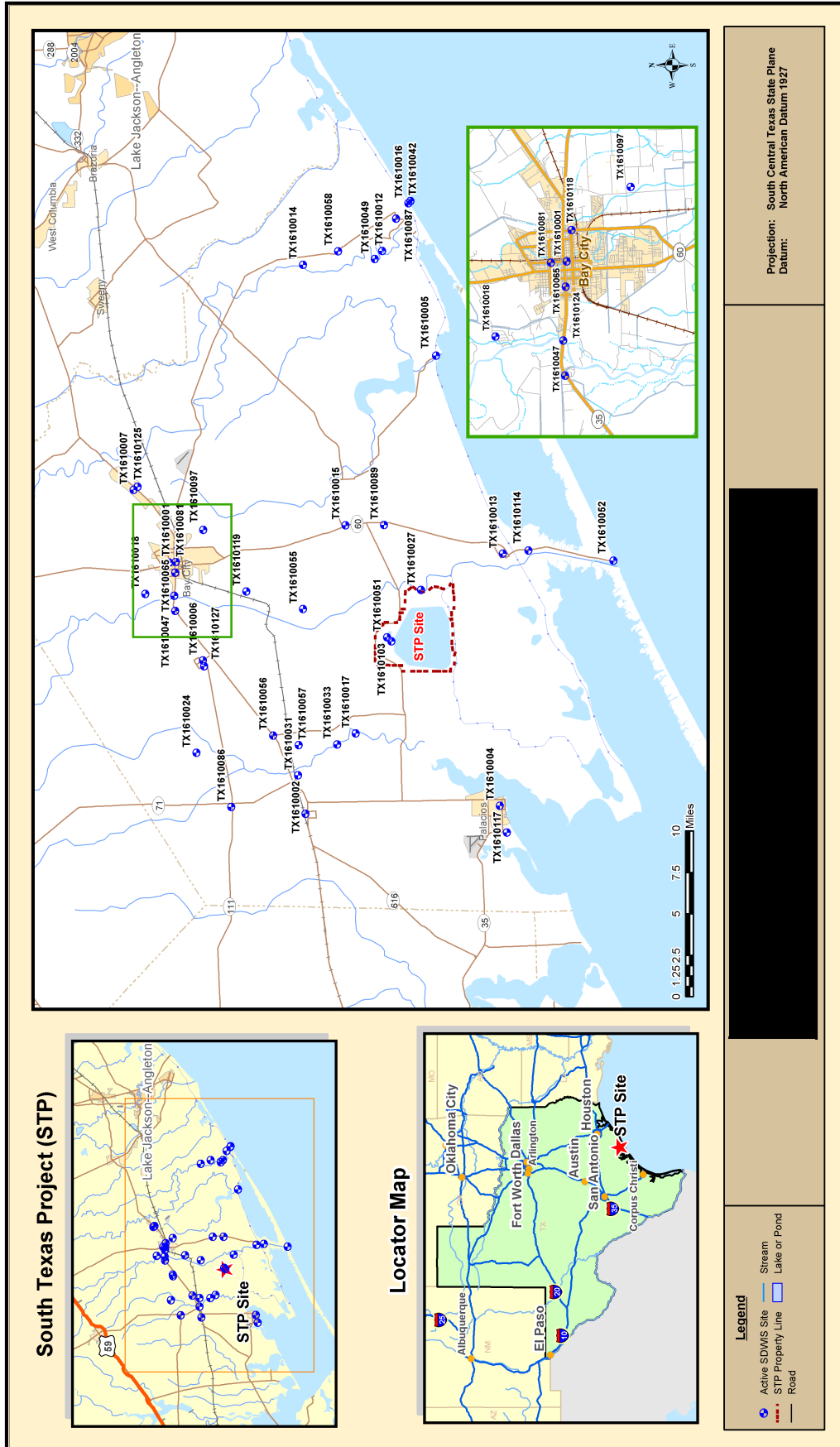
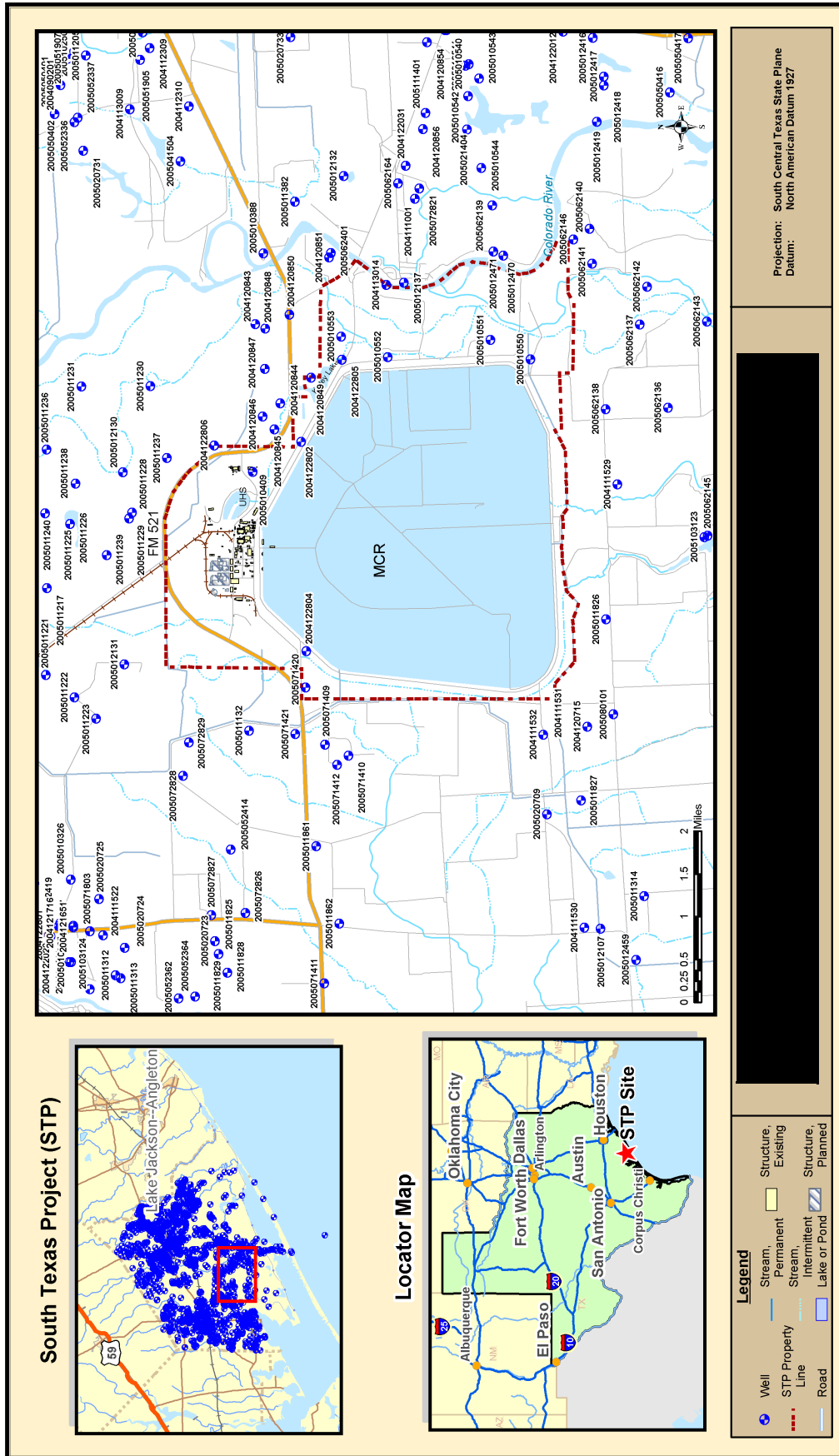


Figure 2.4S.12-11 Safe Drinking Water Information System (SDWIS) Water Supply Systems in Matagorda County



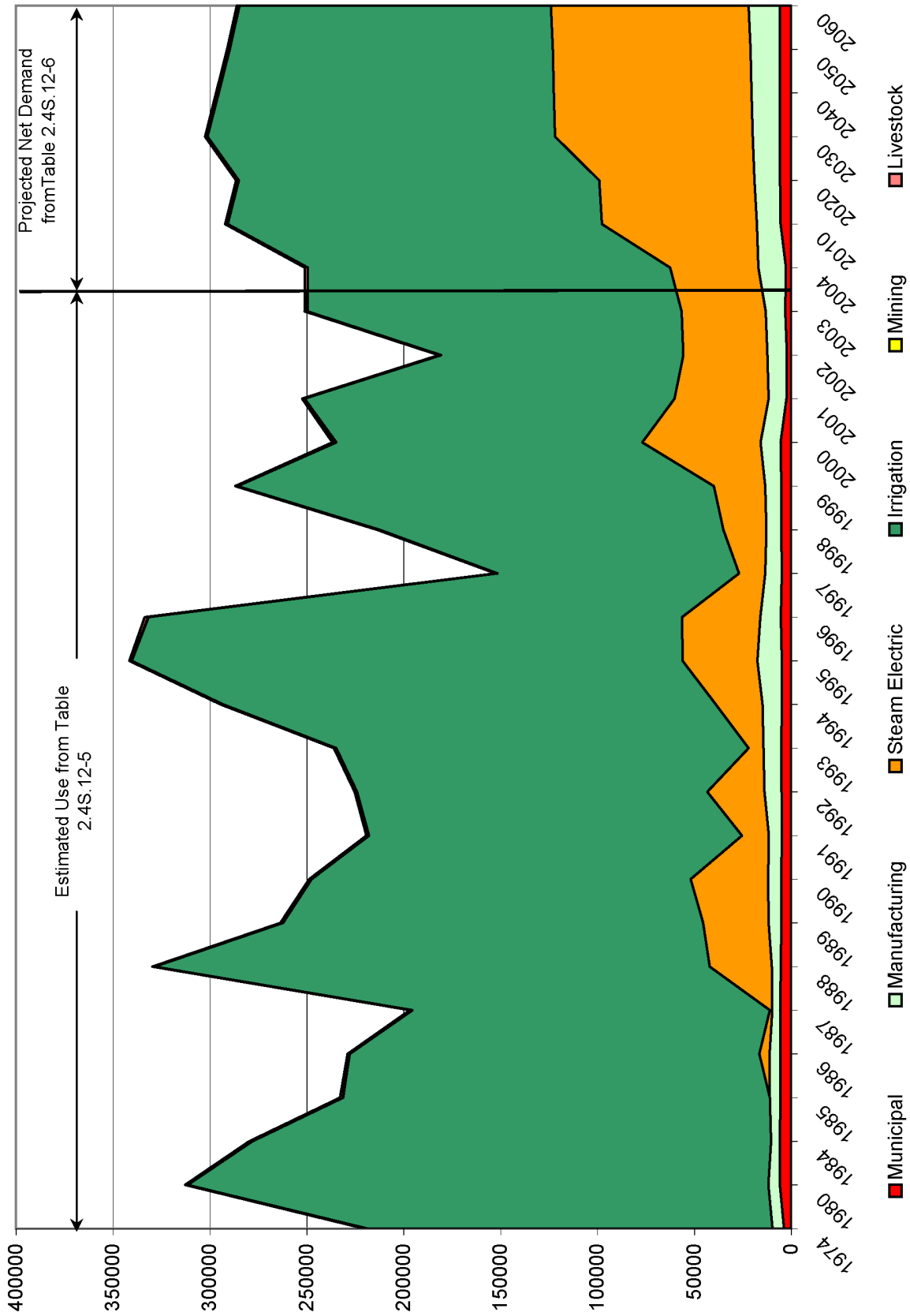
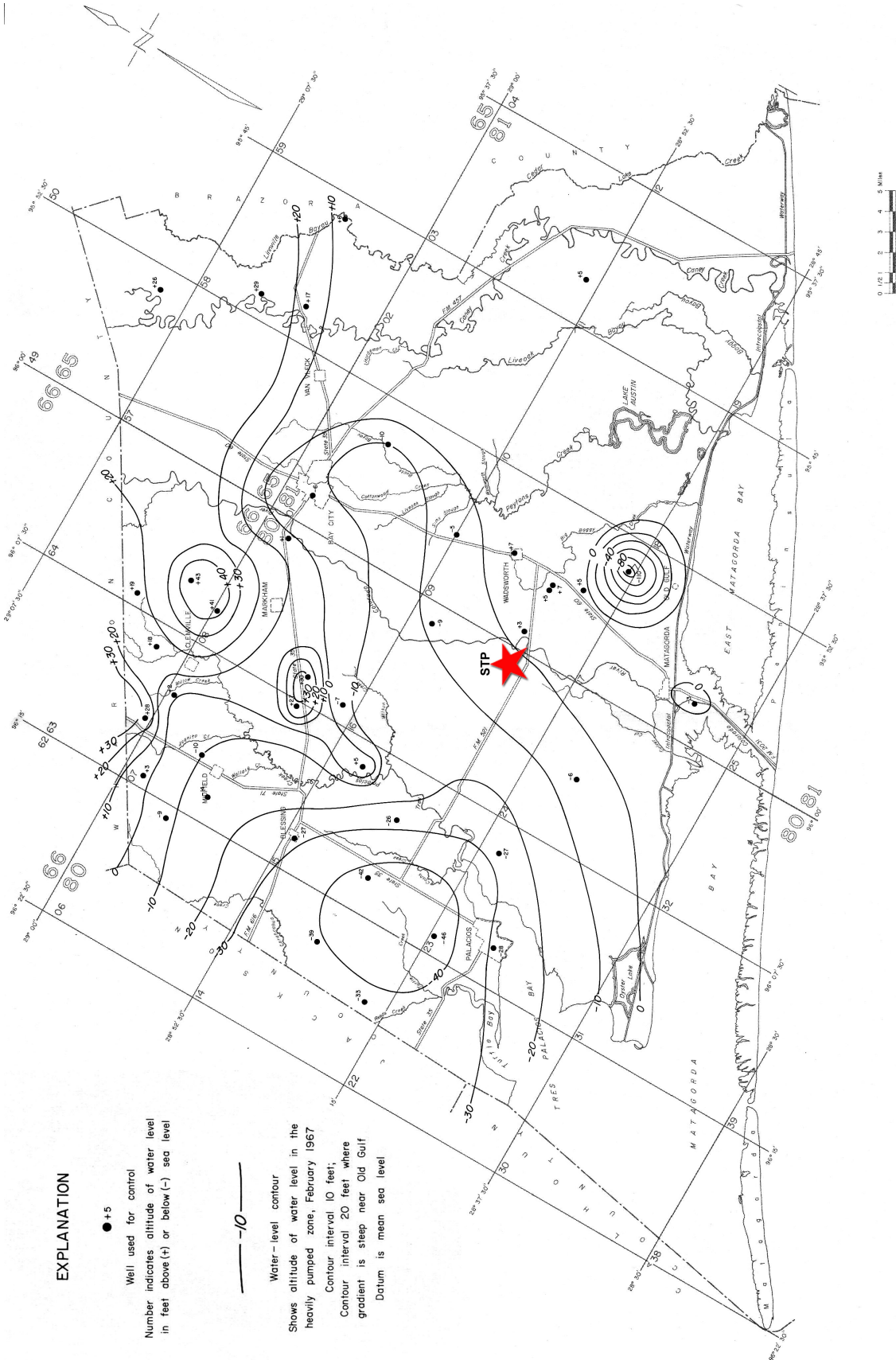


Figure 2.4S.12-14 Water Use Estimates



EXPLANATION

- +5
Well used for control
- Number indicates altitude of water level in feet above (+) or below (-) sea level
- -10 —
Water-level contour
- Shows altitude of water level in the heavily pumped zone, February 1967
- Contour interval 10 feet;
- Contour interval 20 feet where gradient is steep near Old Gulf
- Datum is mean sea level

Figure 2.4S.12-15 Potentiometric Surface in the Deep Aquifer in Matagorda County in 1967 (modified from Reference 2.4S.12-6)

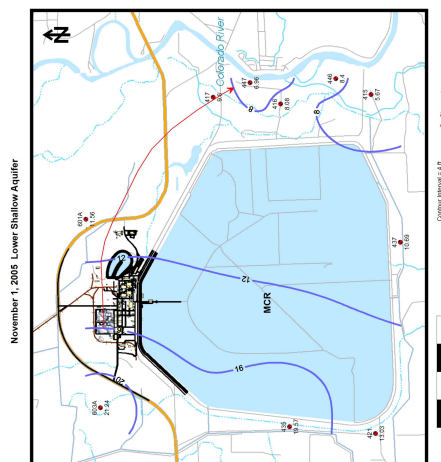
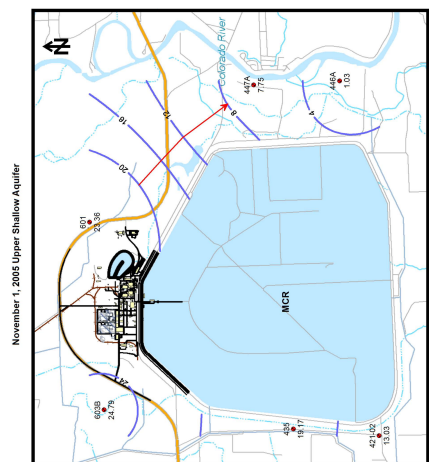
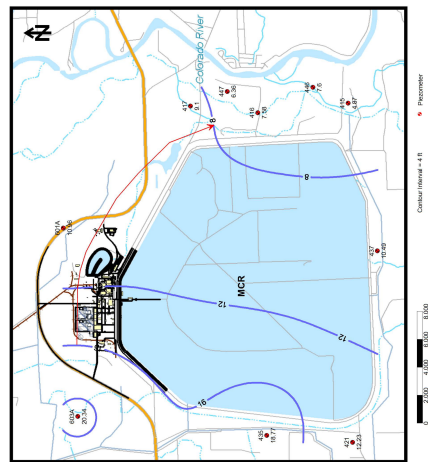
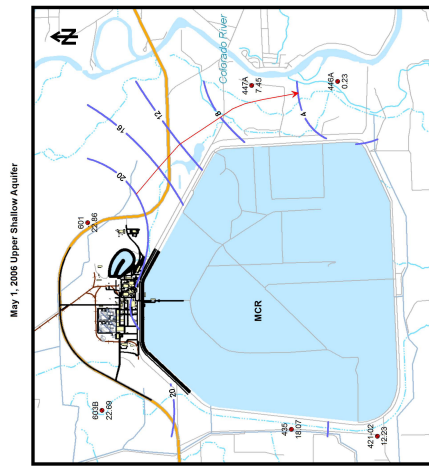


Figure 2.4S.12-17 Shallow Aquifer Potentiometric Surface Maps

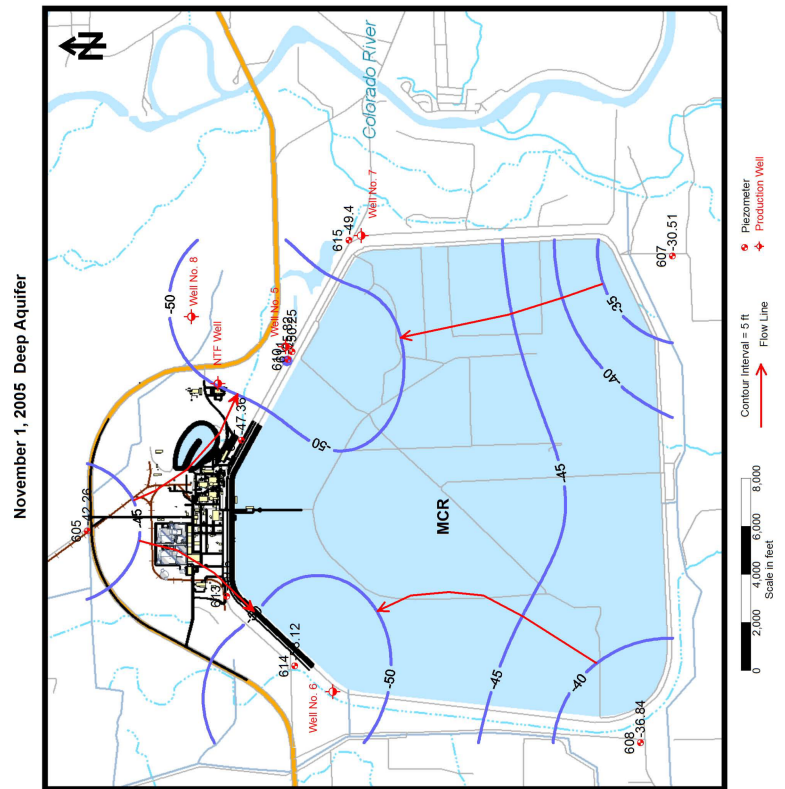
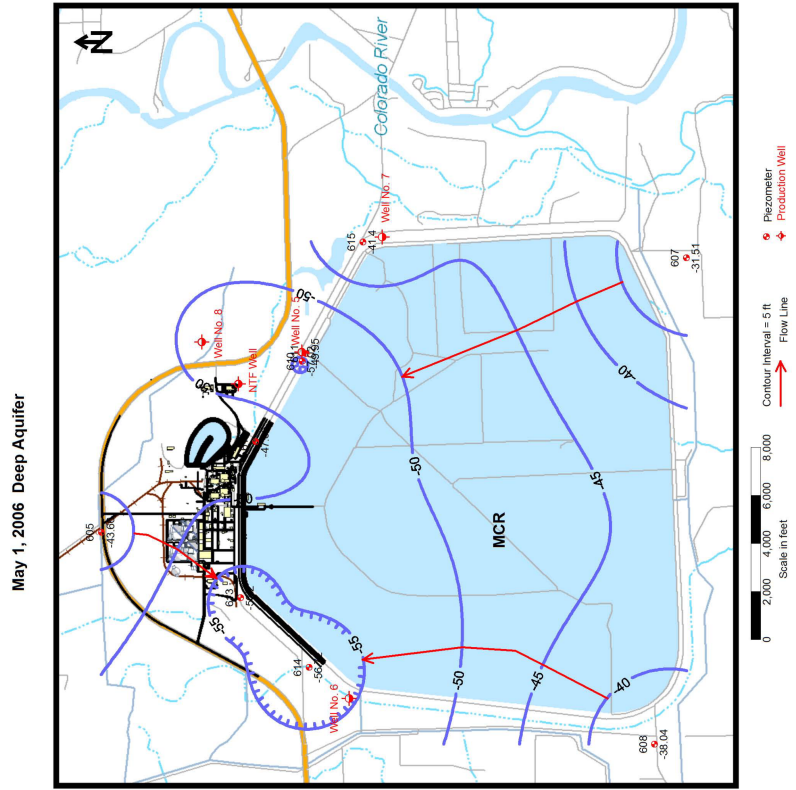


Figure 2.4S.12-18 Deep Aquifer Potentiometric Surface Maps

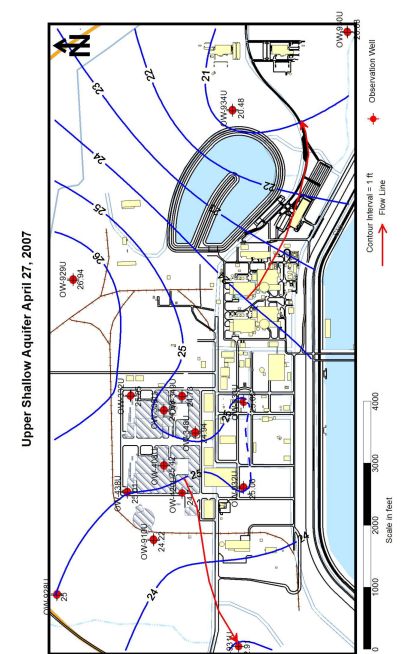
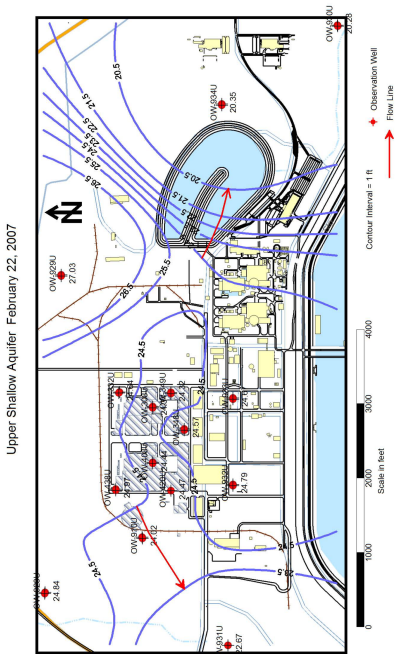
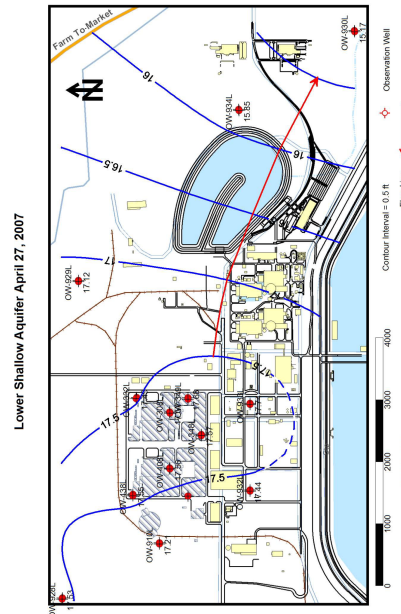
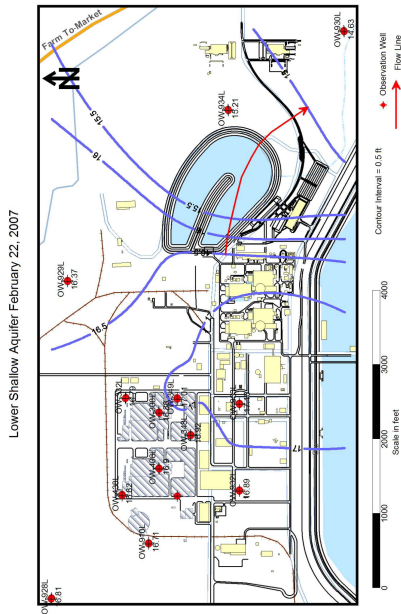


Figure 2.4S.12-19 Quarterly Potentiometric Surface Maps in the STP 3 & 4 Areas

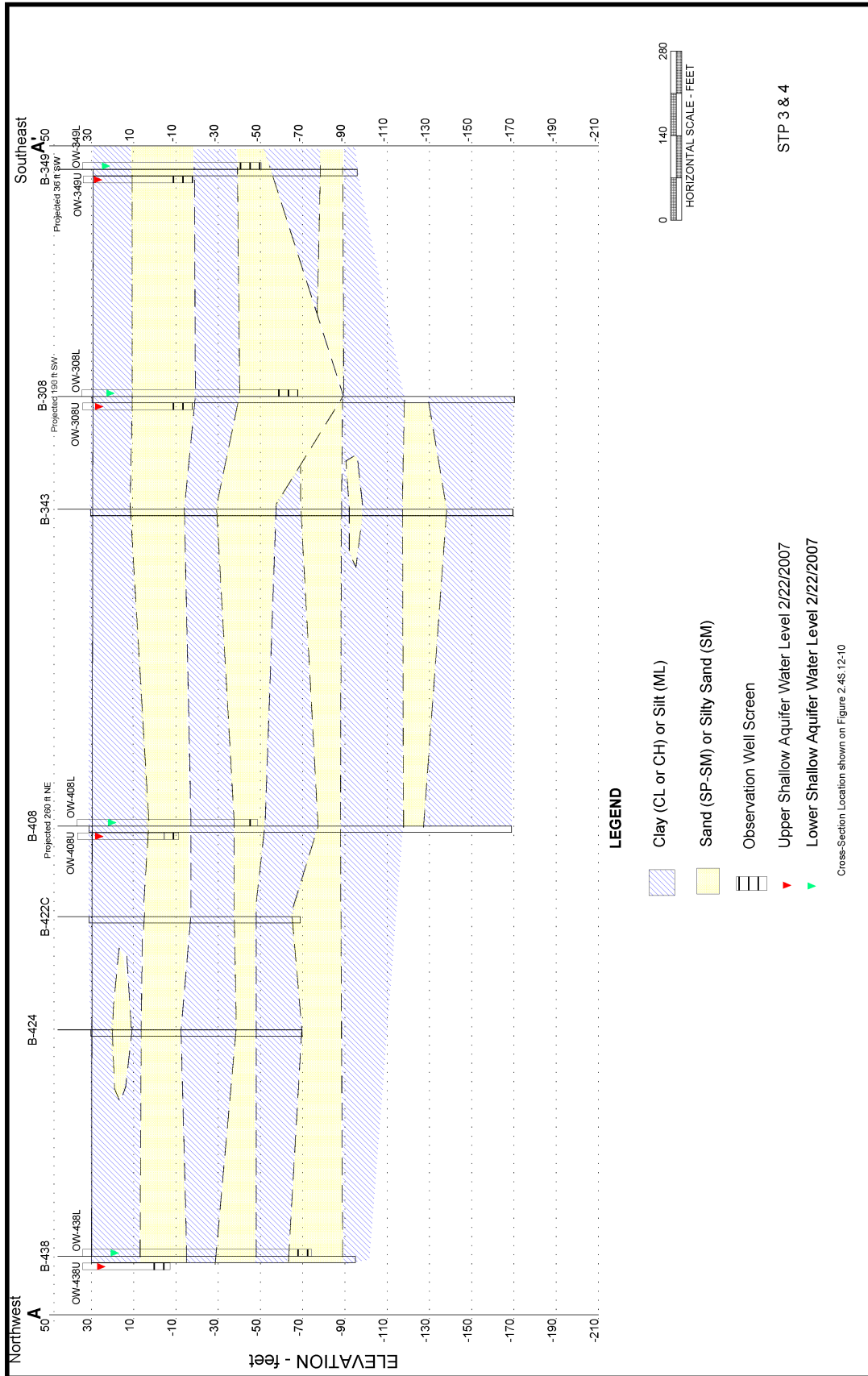


Figure 2.4S.12-20 Hydrogeologic Cross-Section A-A'

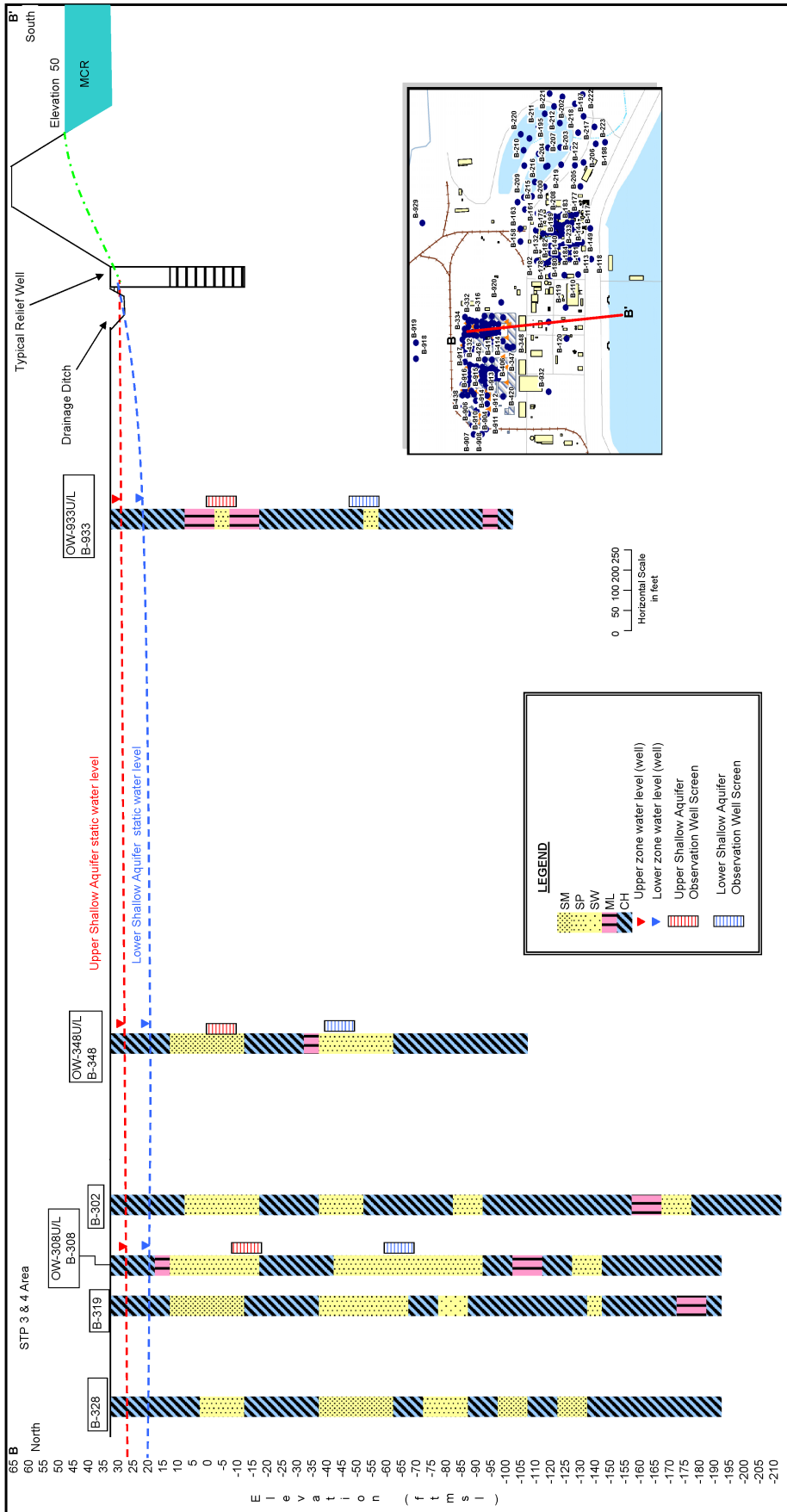


Figure 2.4S.12-21 Conceptual Hydrogeologic Cross-Section B-B'

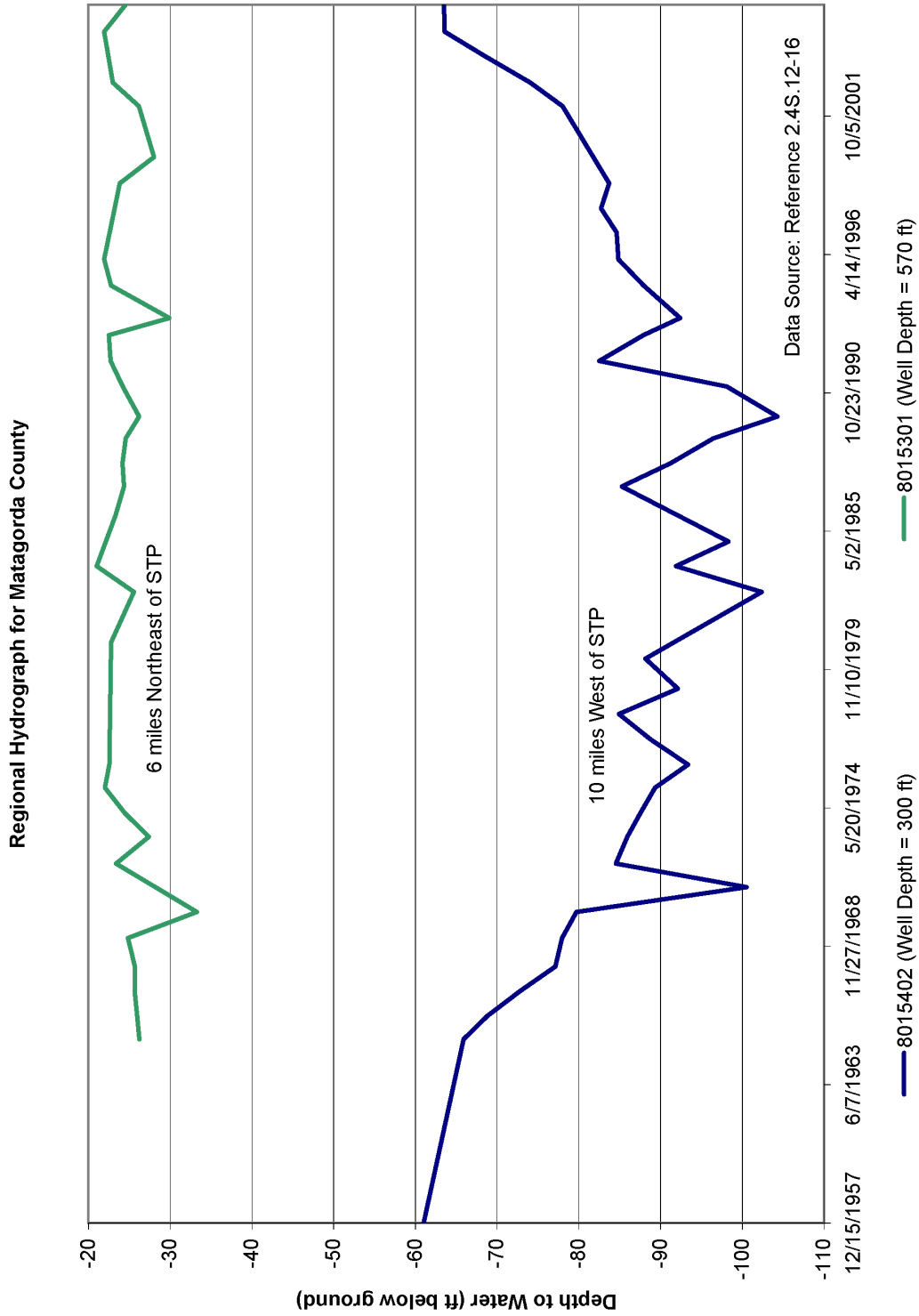


Figure 2.4S.12-22 Regional Hydrographs for Deep Aquifer

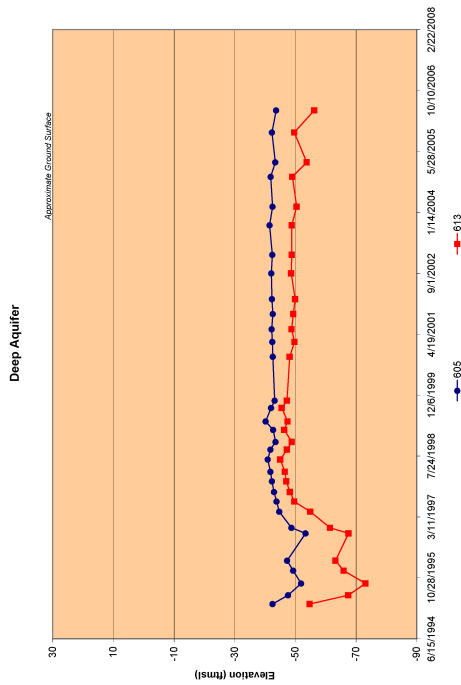
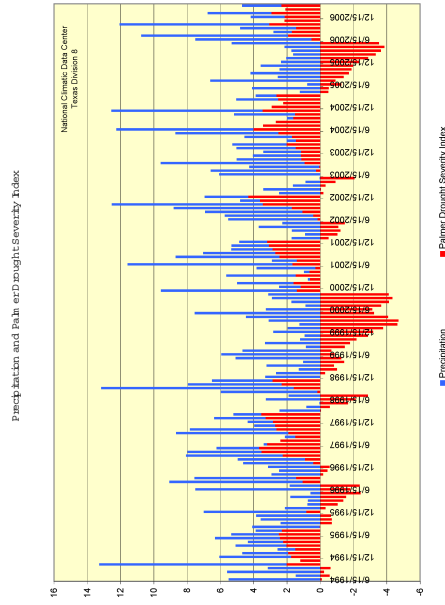
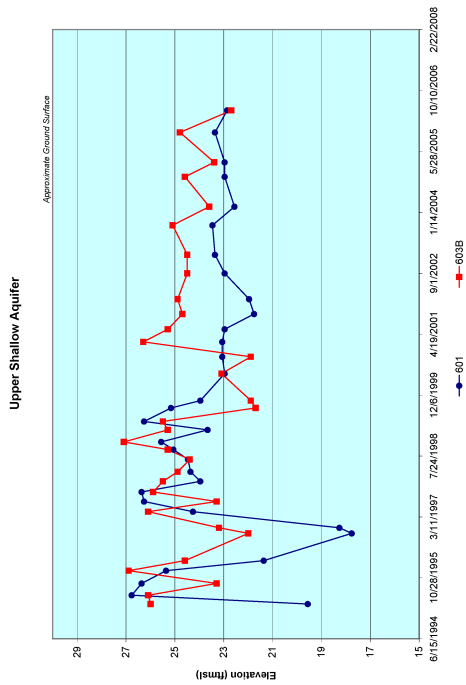
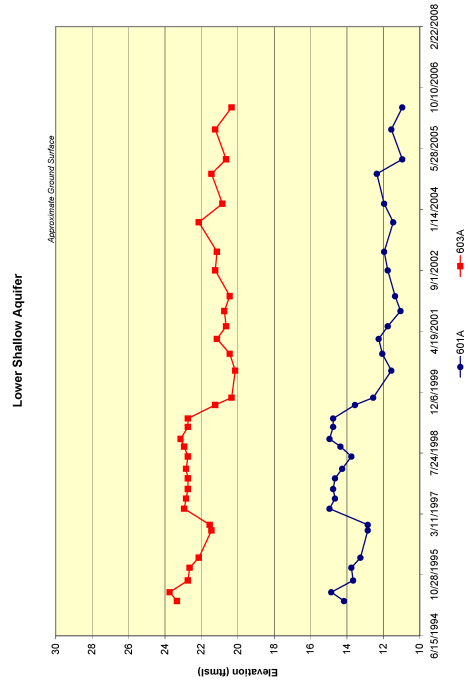


Figure 2.4S.12-23 Hydrographs of Selected Wells at the STP Site

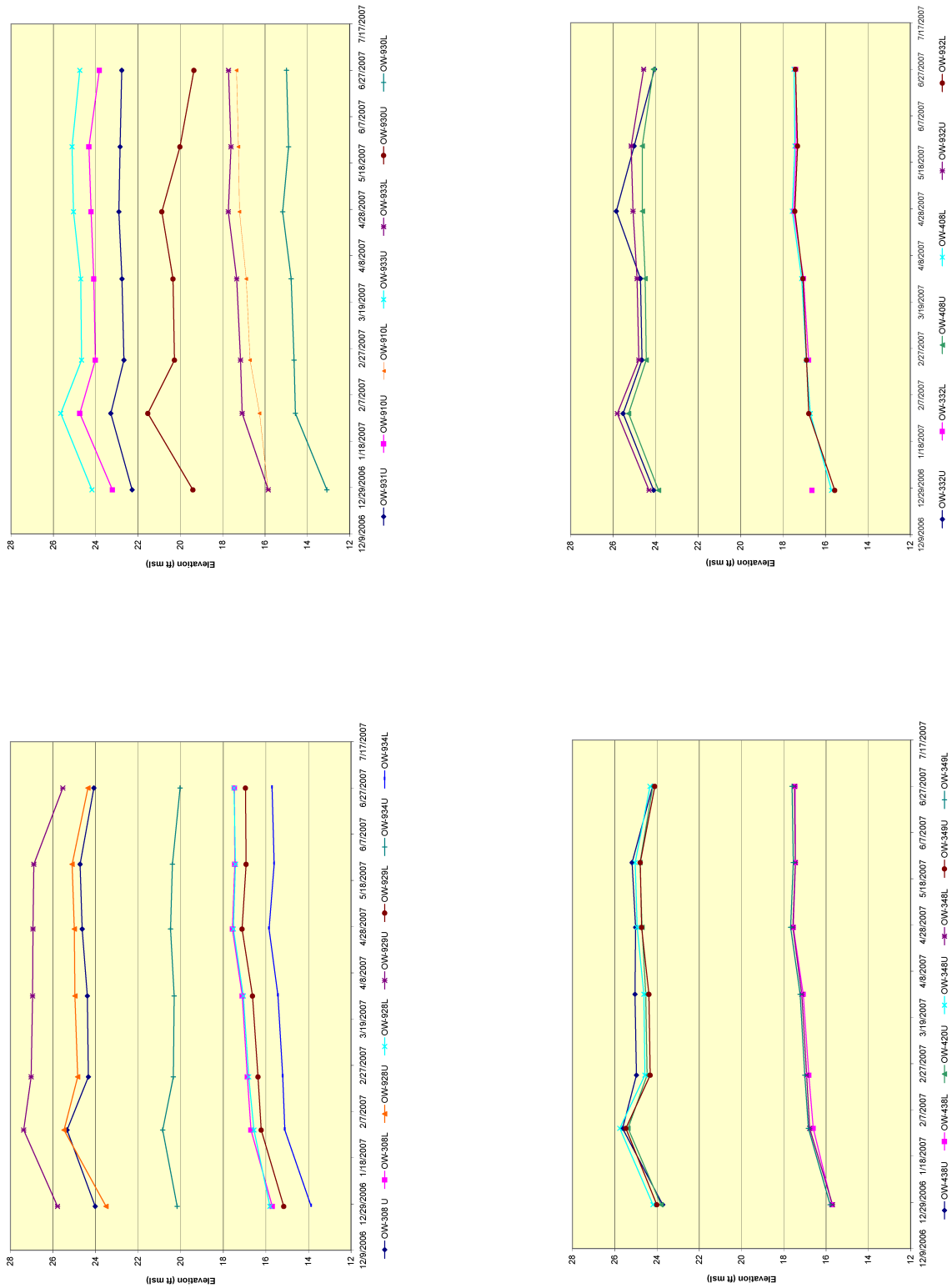


Figure 2.4S.12-24 Hydrographs of Wells in the STP 3 & 4 Area

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

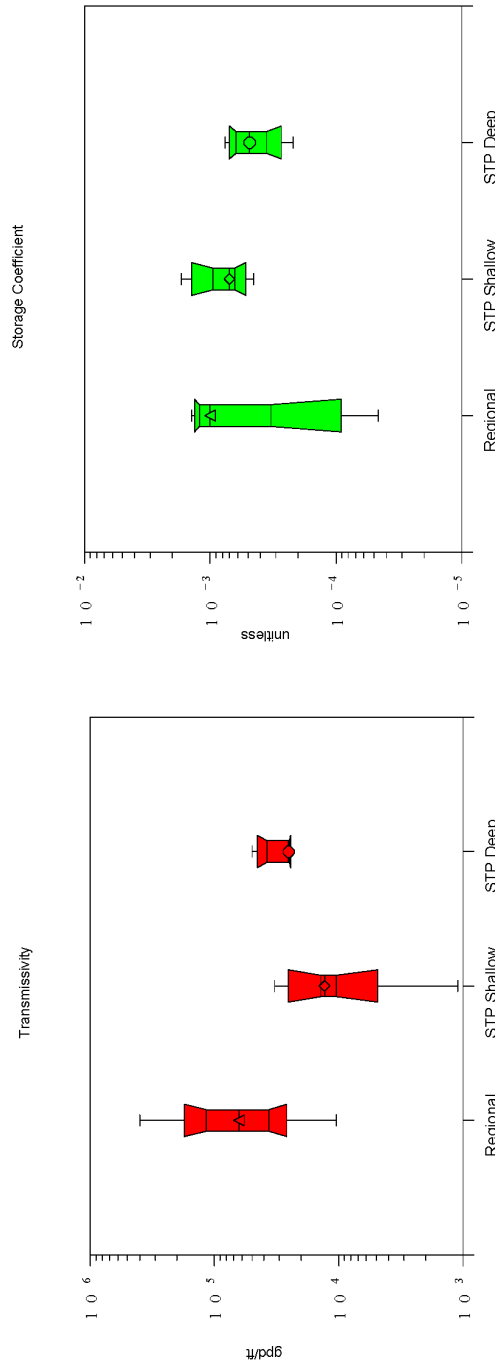


Figure 2.4S.12-25 Summary of Aquifer Transmissivity and Storage Coefficient Data from Aquifer Pumping Tests

Parameter	Regional Hydraulic Conductivity (gpd/ft ²)	STP Aquifer Pumping Test Hydraulic Conductivity (gpd/ft ²)	STP Slug Test Hydraulic Conductivity (gpd/ft ²)	STP Grain Size Hydraulic Conductivity (gpd/ft ²)
Sample Size (N)	35	5	28	12
Standard Deviation	623	230	152	40
Mean	540	429	266	125
Geometric Mean	420	337	205	120
Median	413	420	244	108

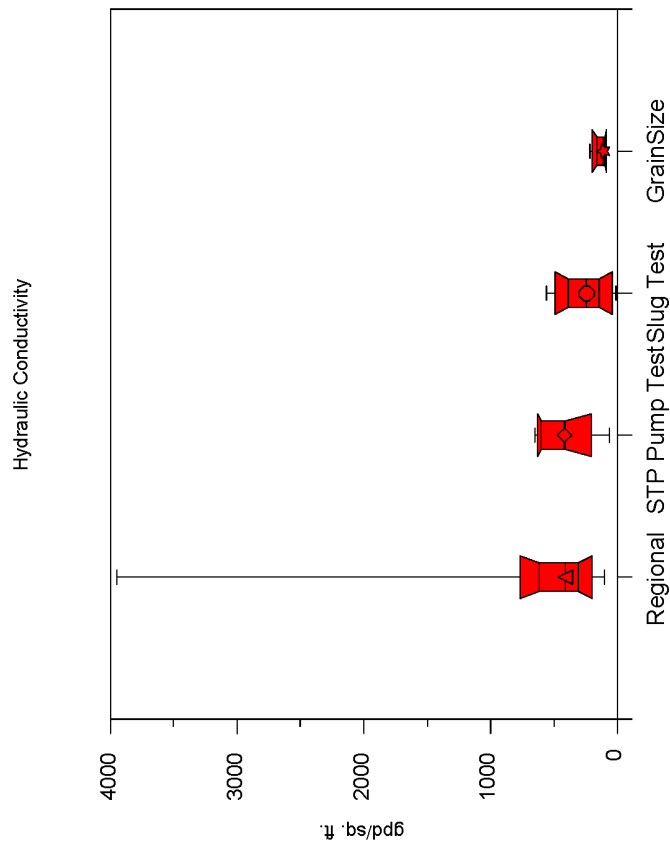


Figure 2.4S.12-27 Summary of Hydraulic Conductivity from Aquifer Pumping Tests, Slug Tests, and Grain Size

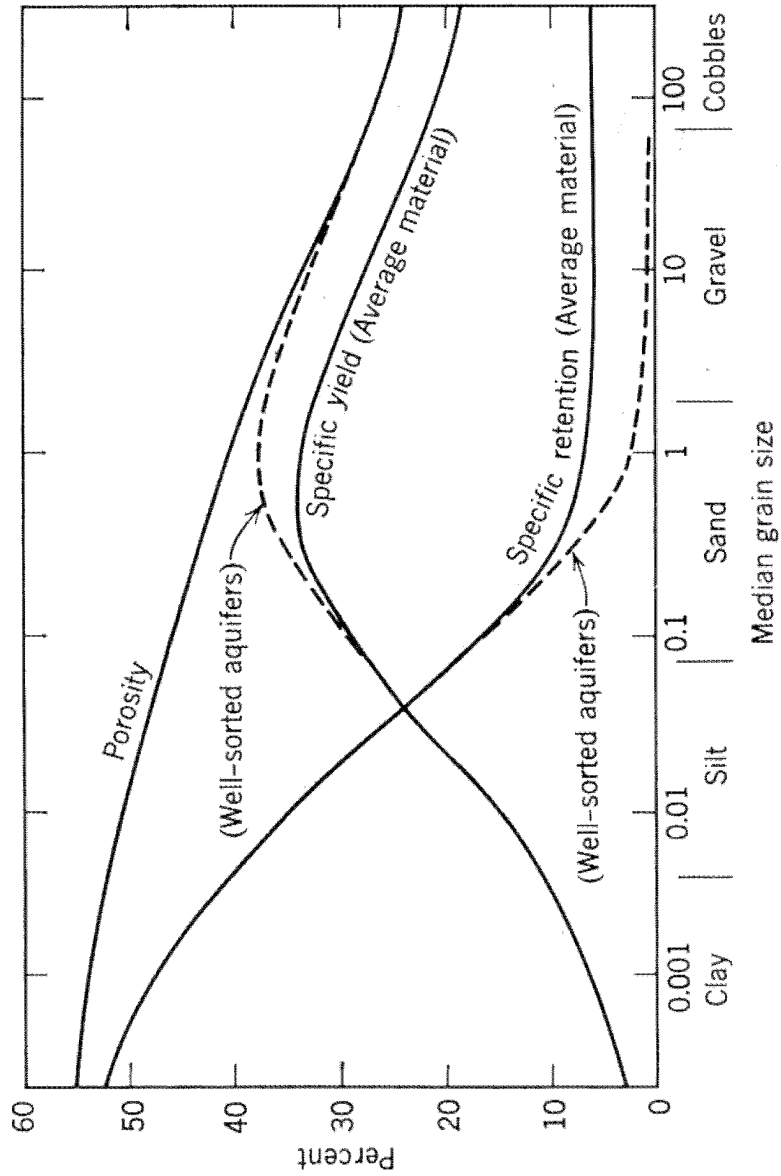


Figure 2.4S.12-28 Relationship of Porosity, Specific Yield, and Specific Retention (Reference 2.4S.12-18)




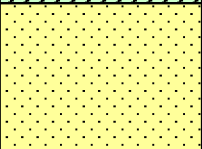
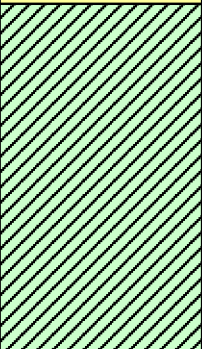
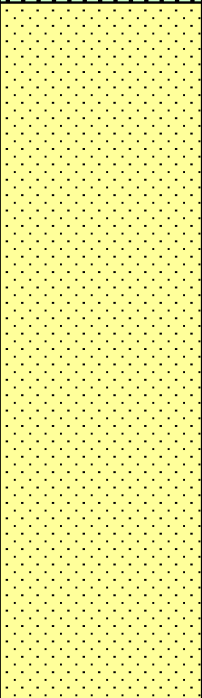
Unit	Hydrogeologic Zone	Ground Surface	Thickness	Geologic Materials
Shallow Aquifer	Upper Shallow Aquifer Confining Layer		10 - 30 ft	Clay and Silt
	Upper Shallow Aquifer		20 - 30 ft	Silty Sand and Poorly Graded Sand
	Lower Shallow Aquifer Confining Layer		15 - 25 ft	Clay and Silt
	Lower Shallow Aquifer		25 - 50 ft	Silty Sand and Poorly Graded Sand with thin Clay and Silt Layers
Deep Aquifer Confining Layer			100 - 150 ft	Silty Clay and Silt with thin Sand Layers
Deep Aquifer			>500 ft	Sand with thin Clay and Silt Layers

Figure 2.4S.12-29 Simplified Hydrostratigraphic Section

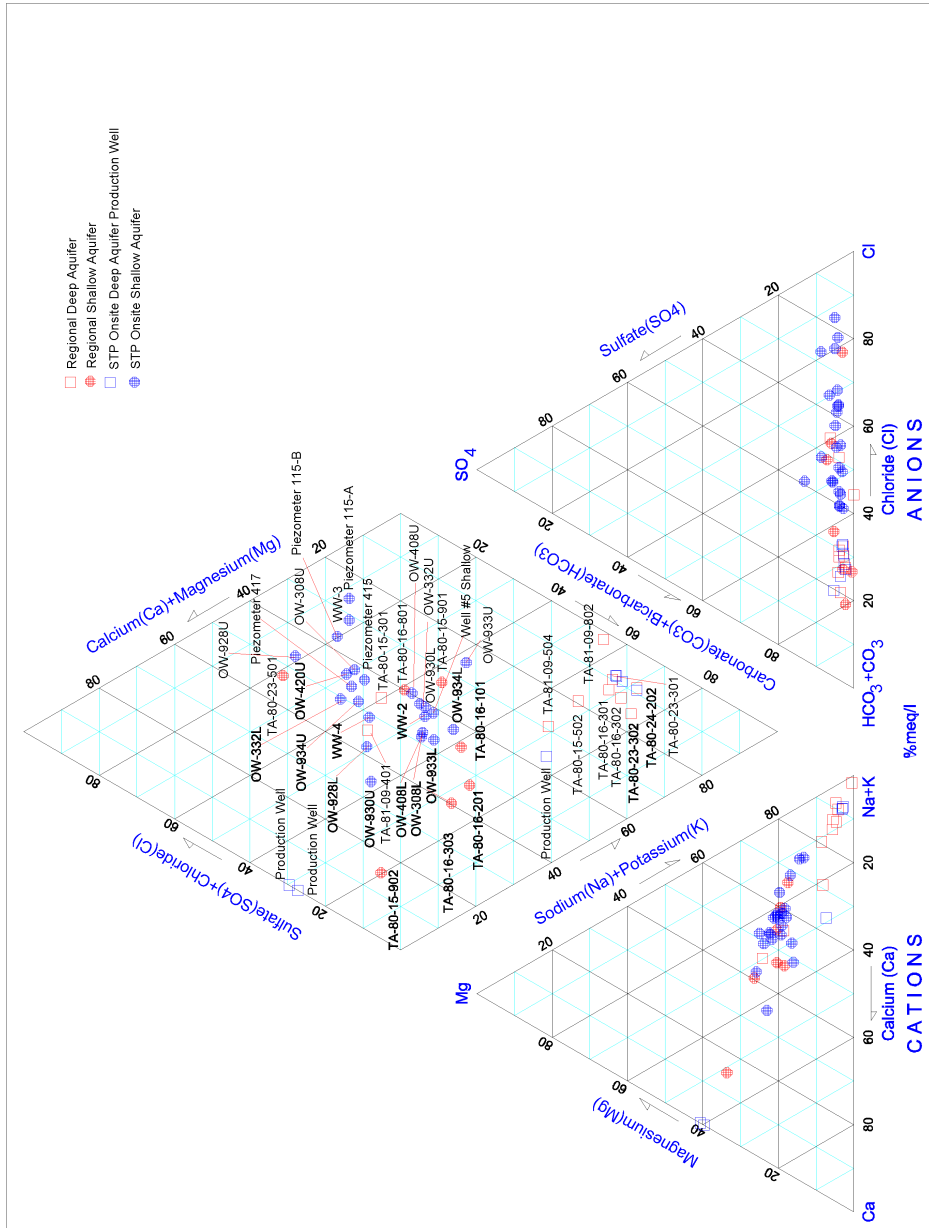


Figure 2.4S.12-30 Trilinear Diagram of Hydrogeochemical Data

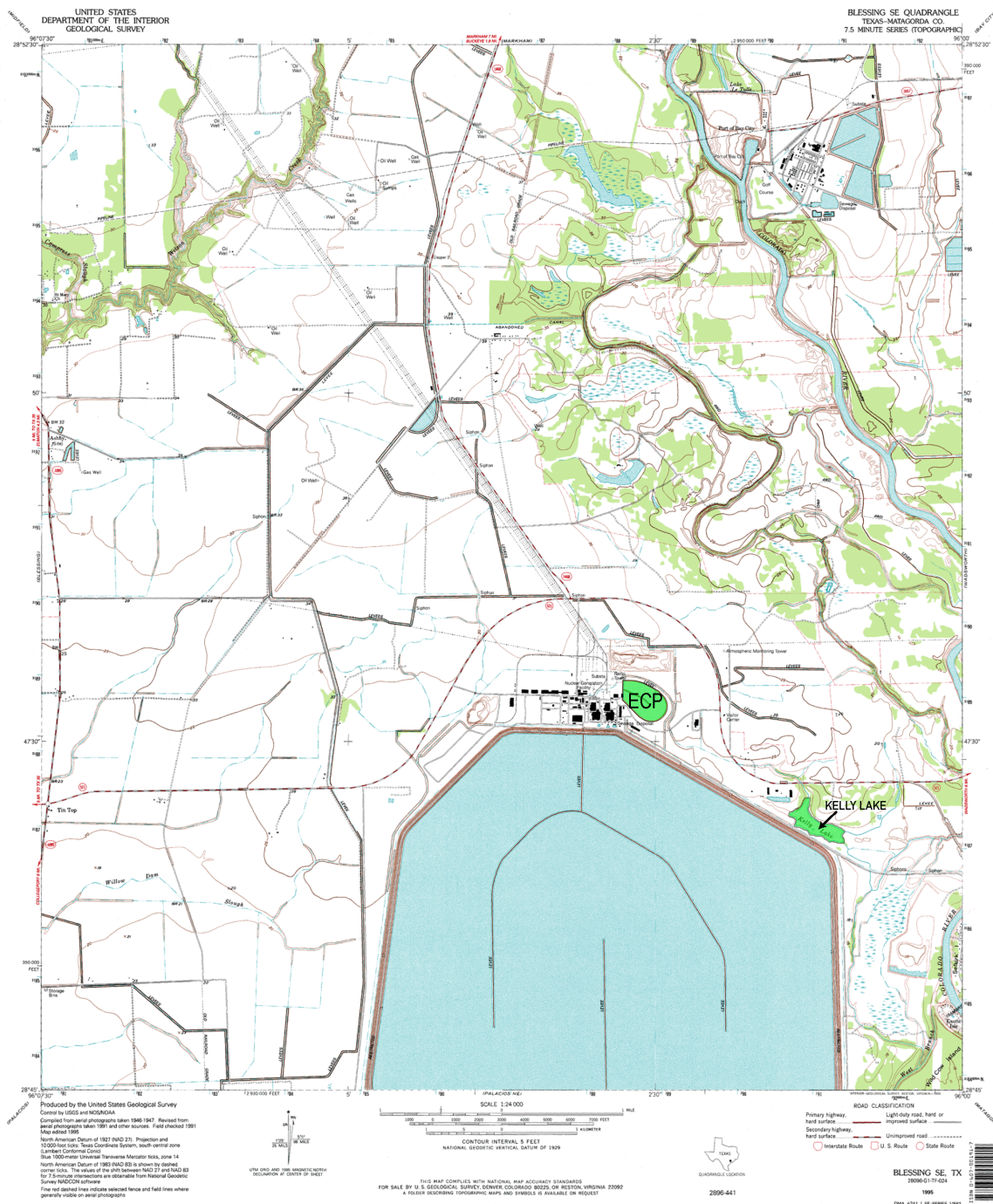


Figure 2.4S.12-31 Blessing SE 7.5 minute Topographic Map (modified from Reference 2.4S.12-21)

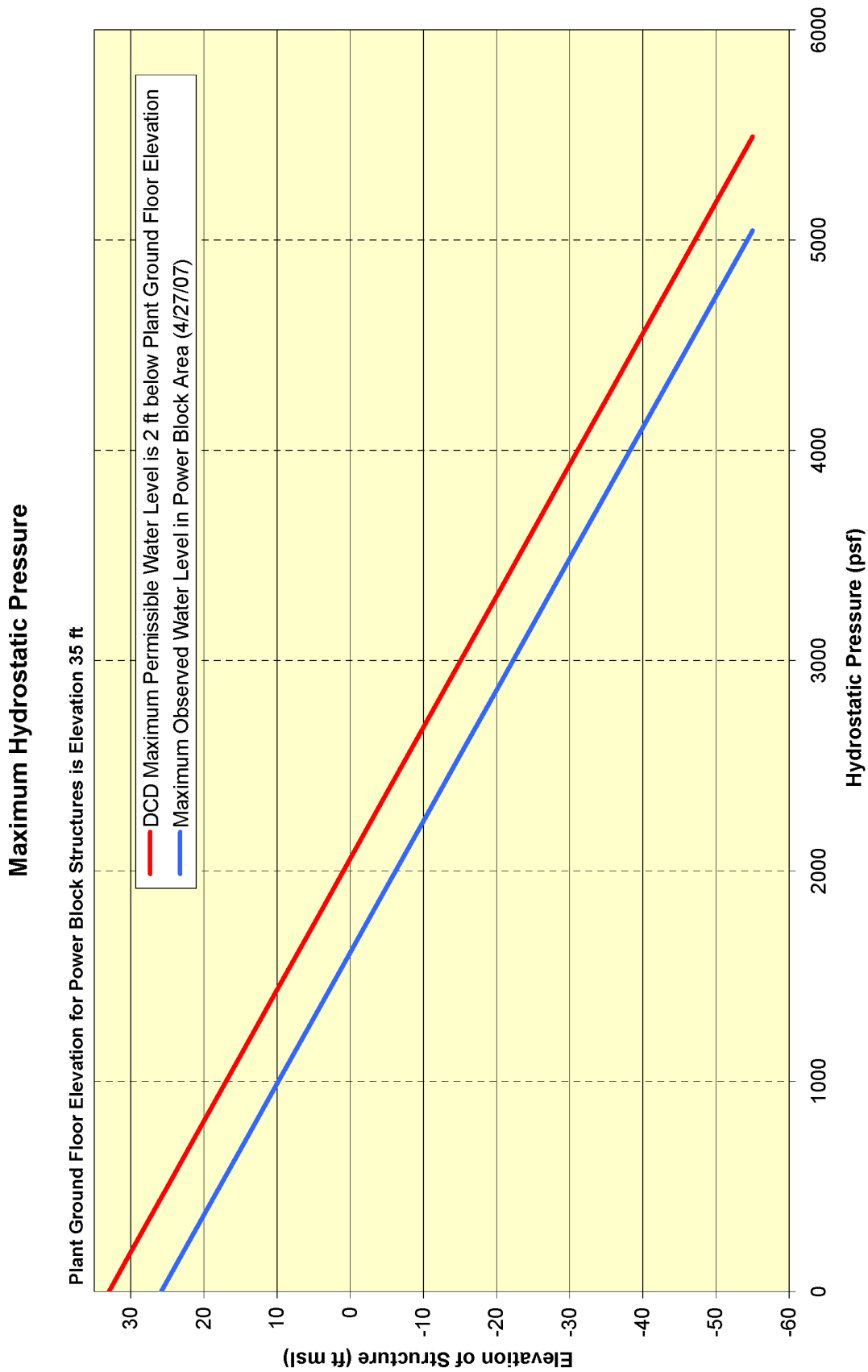


Figure 2.4S.12-32 Subsurface Hydrostatic Loading

