

POTENTIOMETRIC SURFACE

McWreath and Smoot (1989) report that water levels in the "B" sand at Fort Polk declined an average of 2 feet per year during 1941-1986 due to long-term increases in pumpage from that sand. Pumpage for public supply from the Williamson Creek aquifer was relatively stable from 1991 to 1996 (fig. 7). A composite hydrograph of well V-448 and its replacement well V-670, completed in the "B" sand at Fort Polk, is shown in figure 8. Water-level measurements at this location have been relatively stable (about 250 feet below land surface) at Fort Polk since about 1992.

[Data are from the U.S. Geological Survey Ground-Water Site Inventory data base.
gal/min, gallon per minute; gal/min/ft, gallon per minute per foot]

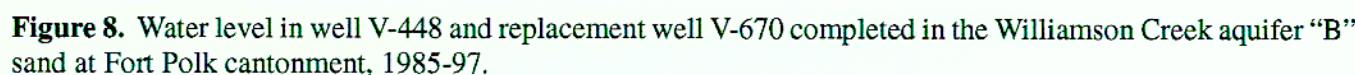
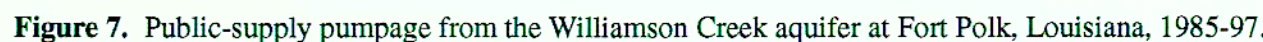
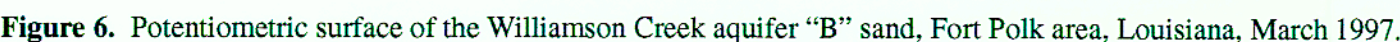
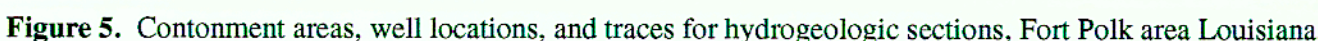
U.S. Geological Survey well number	Owner's well name	Pumping test date	Duration of test (hours)	Initial water level (feet below land surface)	Final water level (feet below land surface)	Drawdown (feet)	Pumping rate (gal/ min)	Specific capacity (pumping rate/drawdown = gal/min/ft)
V-467	Unnamed				No data available			
V-494	North vehicle-wash	5-27-81	36	231	268.5	37.5	250	6.67
V-509	Well 1	7-11-86	4	219.83	355.58	135.75	580	4.27
V-518	11A	1-22-86	24	244.35	332.90	88.55	736	8.31
V-521	Unnamed				No data available			
V-658	16AD	6-1-93	23.3	200	309.74	109.74	654	5.96
V-659	8C	3-2-94	24	229.68	334.80	105.12	752	7.15
V-663	6BPS	9-19-91	23.3	222.35	277.67	55.32	508	9.18
V-669	7B	1-22-92	24	217.3	293.7	76.4	753	9.86
V-670	5B	5-20-92	24	252	342.70	90.7	512	5.64

Table 2. Water-level data used to construct the potentiometric-surface map of the Williamson Creek aquifer "B" sand, Fort Polk area, Louisiana, March 1997

U.S. Geological Survey well number	Owner's well name	Date measured	Well depth (feet)	Altitude of land surface (feet above sea level)	Water level (feet below land surface)	Altitude of water level (feet above sea level)
V-467	Unnamed	3-13	560	320	212.96	107.04
V-494	North vehicle-wash	3-10	675	340.1	246.06	94.04
V-509	Well 1	3-13	925	305	214.04	90.96
V-518	11A	3-14	885	335	239.61	95.39
V-521	Unnamed	3-19	350	270	113.10	156.90
V-658	16AD	3-14	635	309	203.64	105.36
V-659	8C	3-10	912	310	209.32	100.68
V-663	6BPS	3-14	573	330	222.59	107.41
V-669	7B	3-13	904	315	210.00	105.00
V-670	5B	3-14	900	340	250.35	89.65

EXPLANATION

- +100 — POTENTIOMETRIC CONTOUR—Shows altitude at which water level would have stood in a tightly cased well. Dashed where approximately located. Contour interval is 10 feet. Datum is sea level. Contours are interpretive, based upon water levels within the study area and previously published area (McWethy and Smoot, 1988, p. 9) and regional (Smoot and Searns 1992, fig. 1) potentiometric surfaces.
- GENERAL DIRECTION OF GROUND-WATER MOVEMENT
- CONTROL POINT AND WELL NUMBER
- OBSERVATION WELL FOR WHICH HYDROGRAPH IS SHOWN



SELECTED REFERENCES

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In this report, "sea level" refers to the National Geodetic Vertical Datum of 1929—a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

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