AUTOMATIC PRESSURE STOCKWATER PIPELINE HYDRAULIC COMPUTATION WORKSHEET

Land user _____

Job description _____

Farm No._____ Tract No. _____ Field No. _____ County_____

Designer _____ Date_____ Checked by _____ Date _____

Water surface elevation during pumping (WS) _____

Critical point along profile (CP): Station _____ Elevation _____

Clearance Head (CH) at critical point: _____ ft x .433 = _____ psi

Cut in/Cut out pressure range (PR): _____ psi x 2.31 + _____ ft

Losses in plumbing at pump (PL): _____ ft

Minimum ON elevation = CP elevation + CH ft = _____ + _____ = 0.00

ON elevation based on HGL = HGL pump + PL - (PR ft/2) = _____ + _____ - (_____/2)- _____

ON elevation used (greatest elevation of above alternatives): _____

OFF elevation used = ON elevation + PR ft = _____ + ____ = 0.00

Total Dynamic Head (TDH) = OFF elev. - (PR ft/2) - WS = 0.00 - (____ /2) - ____ = ____ ft

Pump HP = _____HP (Select from pump curves)

(1) Station	(2) Reach Length (ft)	(3) Pipe Elevation	(4) Design Flow Rate (gpm)	(5) Nominal Pipe Diameter (in)	(6) Pipe Type	(7) Pipe Pressure Rating (psi)	(8) Friction Factor H_f/100ft (ft/100)	(9) Reach Total H_f (ft) (2) x (8)	(10) HGL Elev (from start HGL)	(11) Max Pressure on Pipe (psi) WS-(3)	Comments (slope %)
											at pump