

Section III. STRUCTURAL ASPECTS OF KAWAI NUI MARSH



Table III-5. Early Marsh Facies and Basal Peat Blanket intervals at Kawai Nui.

<u>Transect</u>	<u>Station</u>	<u>Marsh Facies</u>	<u>Thickness</u>	<u>Peat Mat</u>	<u>Thickness</u>
KWT-1	0+0N	N.A.			
	0+5N	N.A.			
	0+15N	N.A.			
	0+20N	N.A.			
	0+30N	N.A.			
	0+50N	120-170 cm	50 cm	120-170 cm	50 cm
	0+55N	110-175 cm	65 cm	150-175 cm	25 cm
	0+95N	170-180 cm	10 cm	N.A.	
	0+120N	150-190 cm	40 cm	150-190 cm	40 cm
	0+150N	245-265 cm	20 cm	255-265 cm	10 cm
KWT-2	0+5W	N.A.			
	0+10W	N.A.			
	0+20W	120-150 cm	30 cm	N.A.	
	0+50W	N.A.			
KWT-3	0+10E	240-280 cm	40 cm	N.A.	
KWT-4	0+0E	70-130 cm	60 cm	N.A.	
	0+15E	N.A.			
	0+30E	80-160 cm	80 cm	N.A.	
	0+60E	150-180 cm	30 cm	N.A.	
	0+90E	180-185 cm	5 cm	180-185 cm	5 cm
	0+120E	150-170 cm	20 cm	150-170 cm	20 cm

The dense, matted lower peat blanket portion of the Early Marsh Facies is often only damp, almost dry when examined at the surface. The underlying Lagoonal Facies sediments and the lower portion of the upper Early Marsh Facies and the overlying Freshwater Marsh Facies sediments are clay-rich, strongly compacted, and appear to act as effective aquitards limiting the influx of groundwater from below and ponded surface water from above.

MODERN FRESHWATER MARSH FACIES (FMF) — The Early Marsh Facies (PF) is transitional upward into the sediments of the “modern” freshwater marsh environment. Differentiation of the two sequences is somewhat arbitrary, based largely on the absence of greater than about 30-40% peaty plant debris. The Freshwater Marsh Facies is characterized by a probable zonal arrangement of subfacies relative to the present marsh shoreline and water depth, with associated variations in Eh, input of terrestrial sediment, and accumulation of organic material.

Proximal to the edge of Kawai Nui Marsh the basin sediments are part of a sequence of transported soils that are subject to a fluctuating water table redox

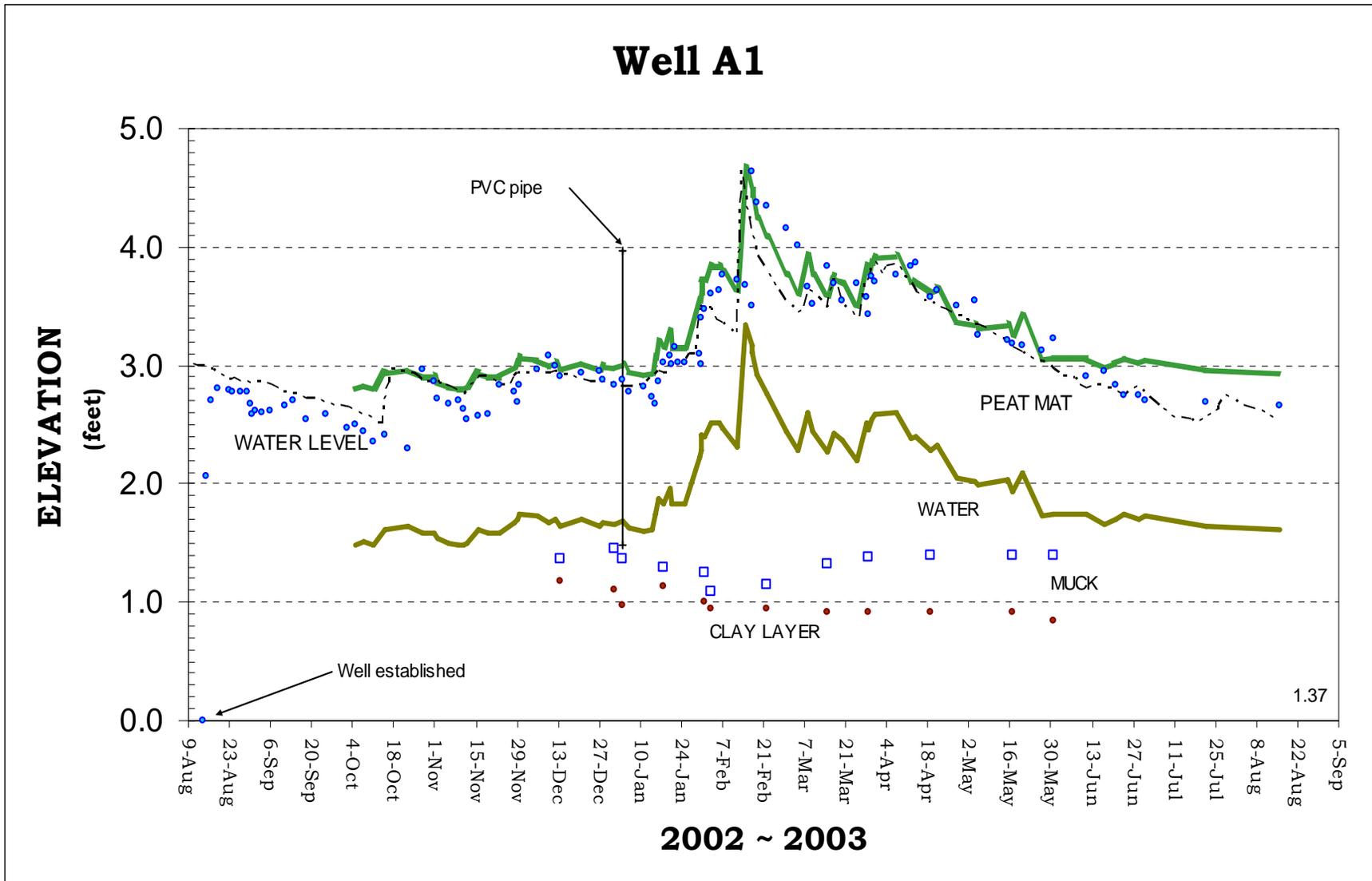


Figure III-13. Graphical representation of data obtained from monitoring Well A-1

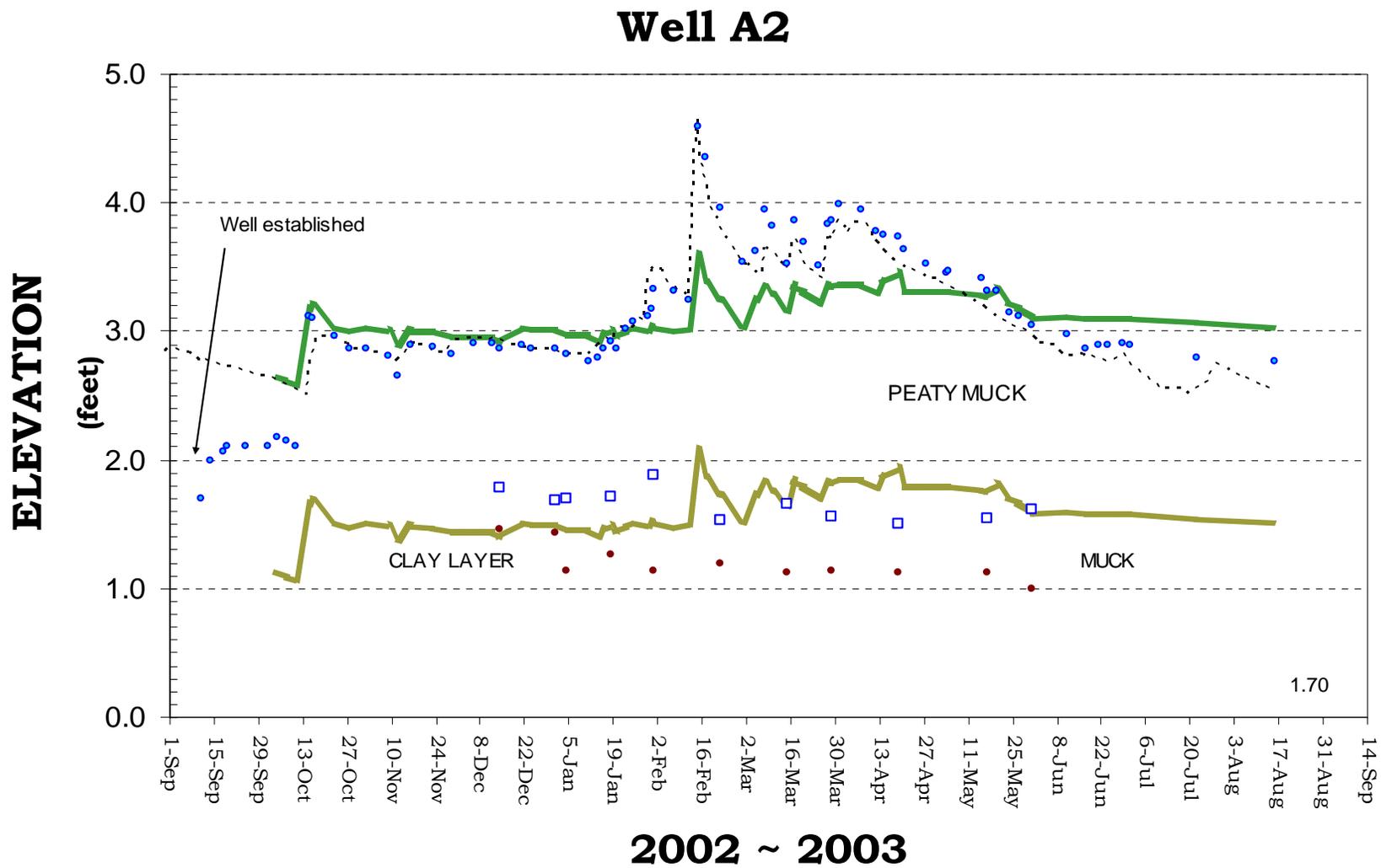


Figure III-14. Graphical representation of data obtained from monitoring Well A-2

WELL A3A

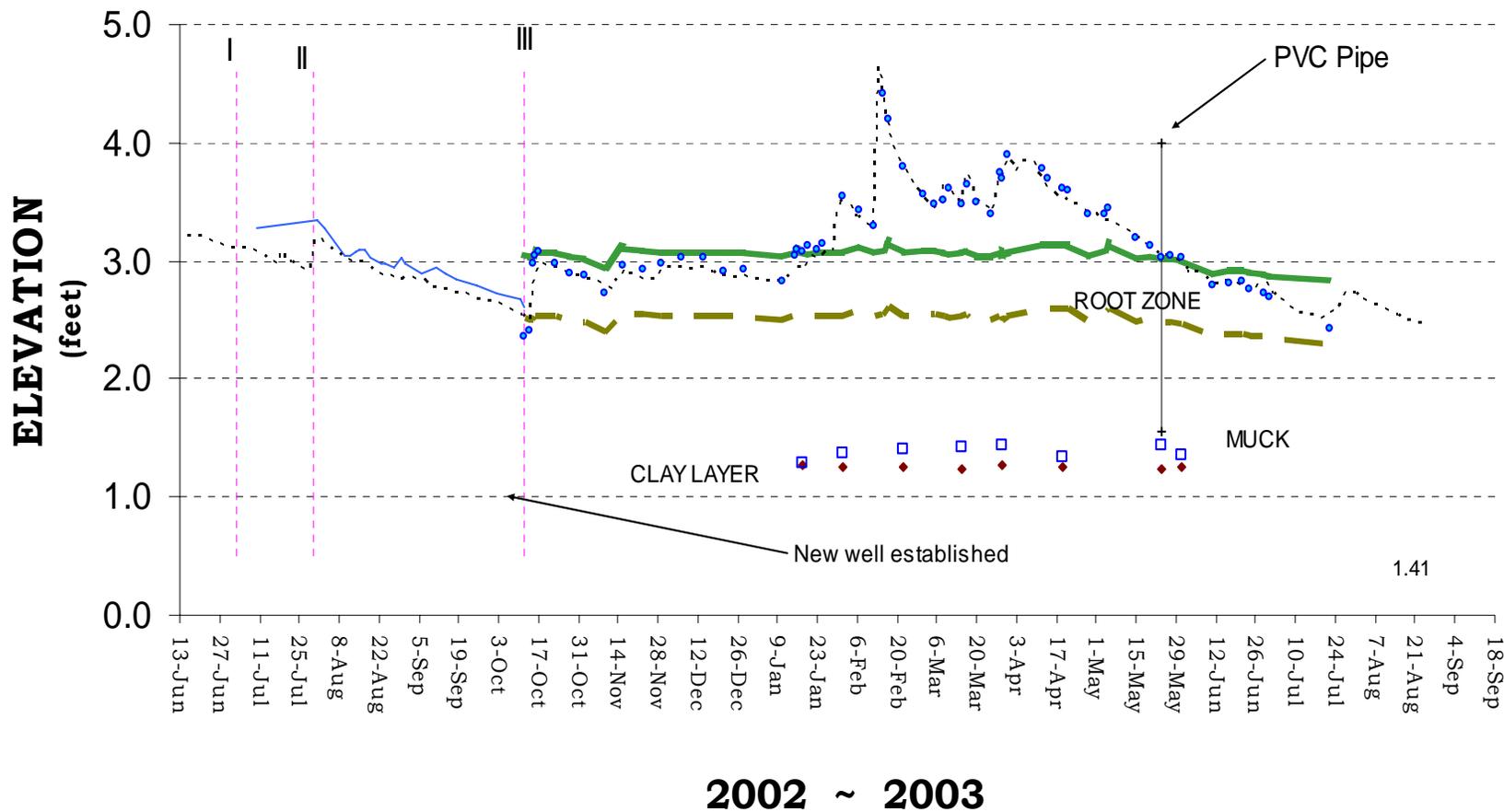


Figure III-15. Graphical representation of data obtained from monitoring Well A-3A

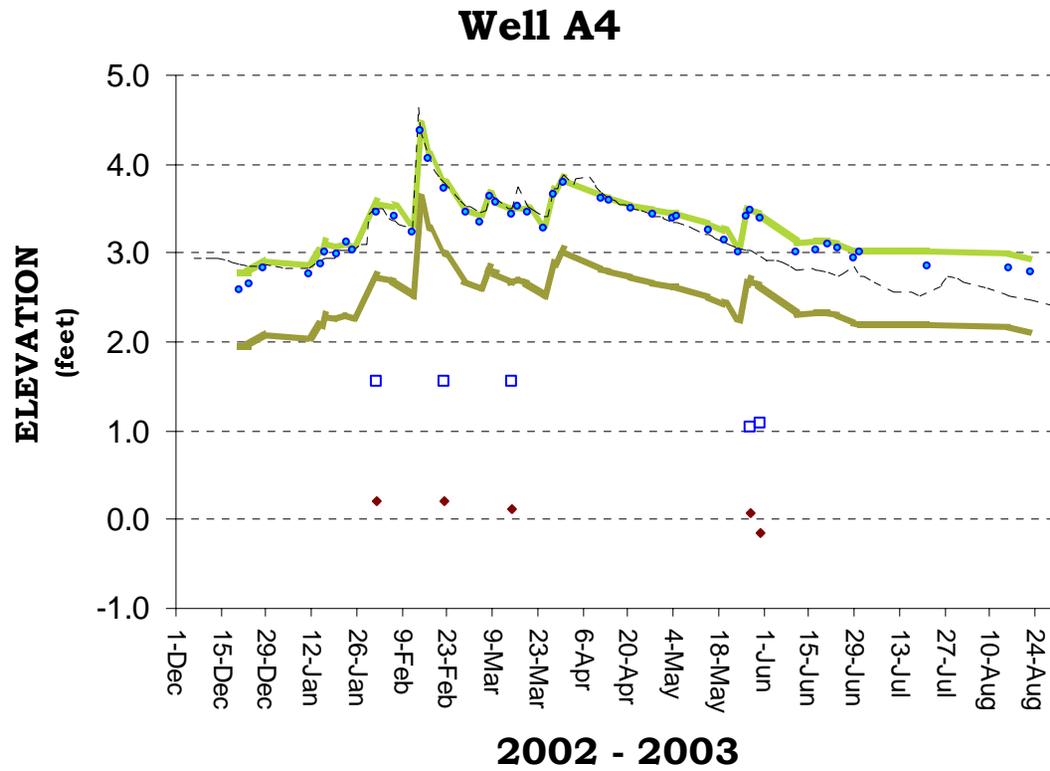


Figure III-16. Graphical representation of data obtained from monitoring Well A-4

Well A5

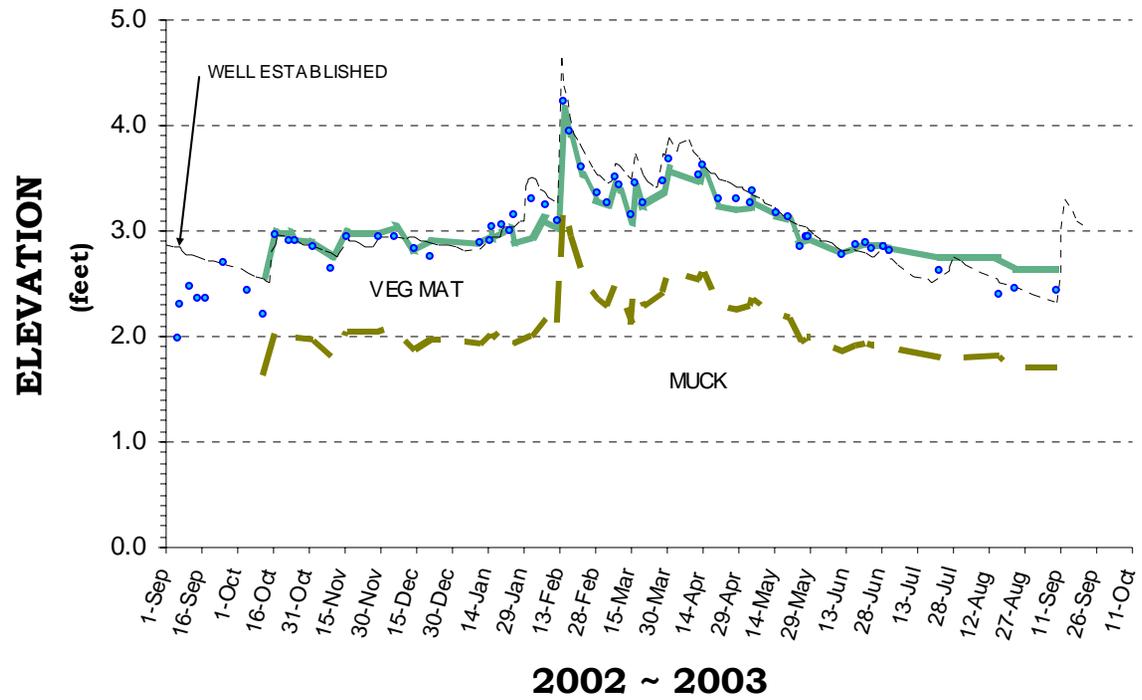


Figure III-17. Graphical representation of data obtained from monitoring Well A-5

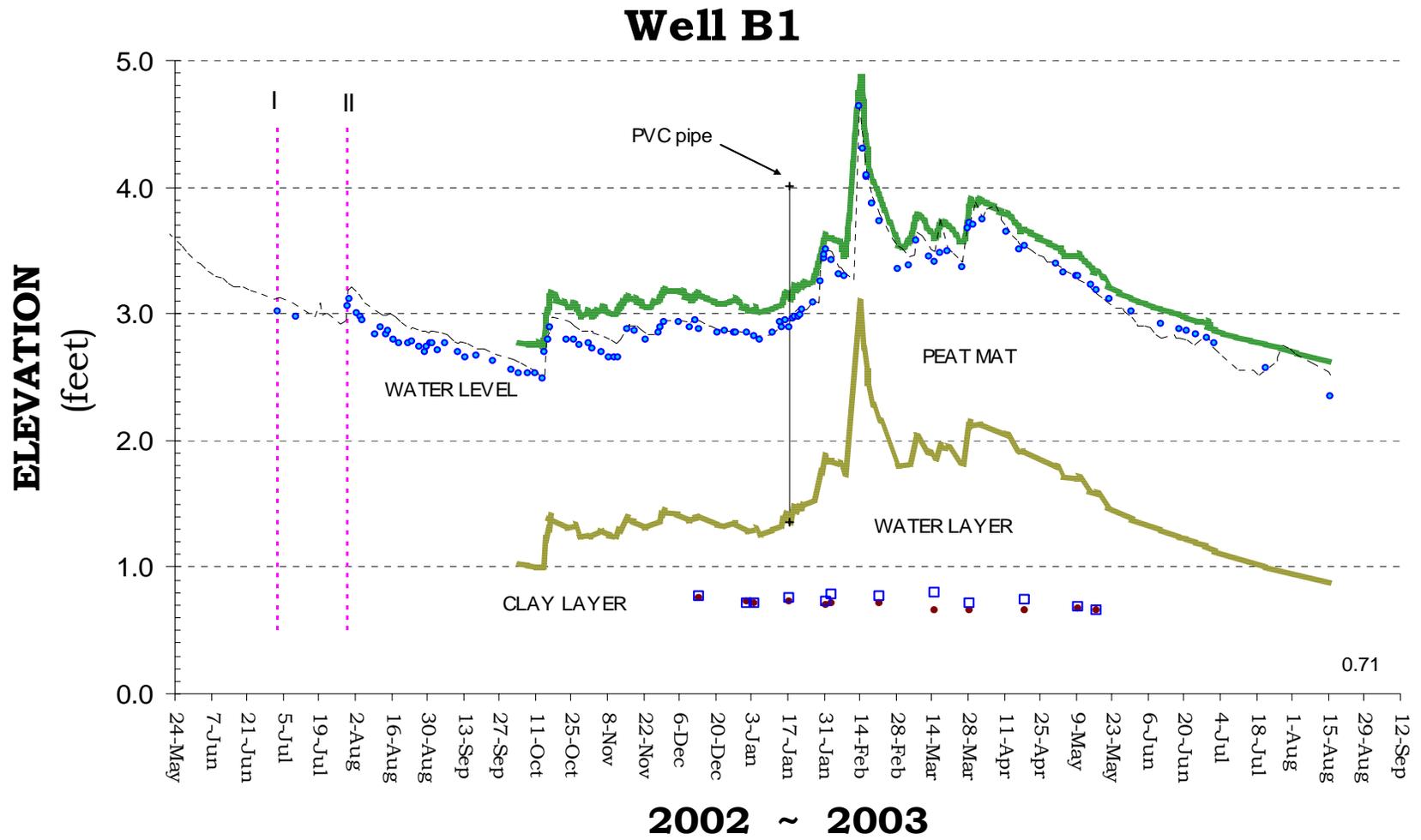


Figure III-18. Graphical representation of data obtained from monitoring Well B-1.

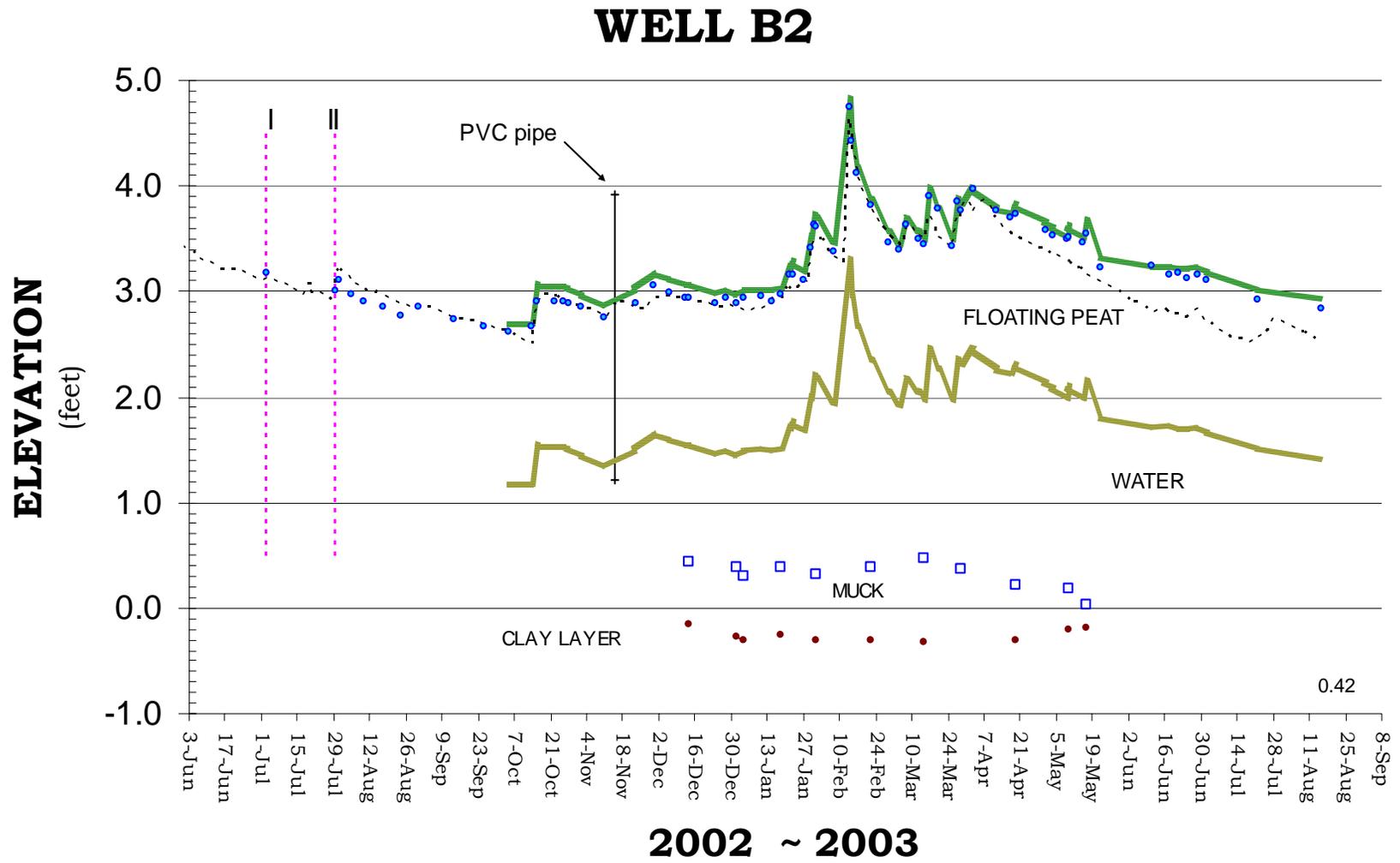


Figure III-19. Graphical representation of data obtained from monitoring Well B-2.

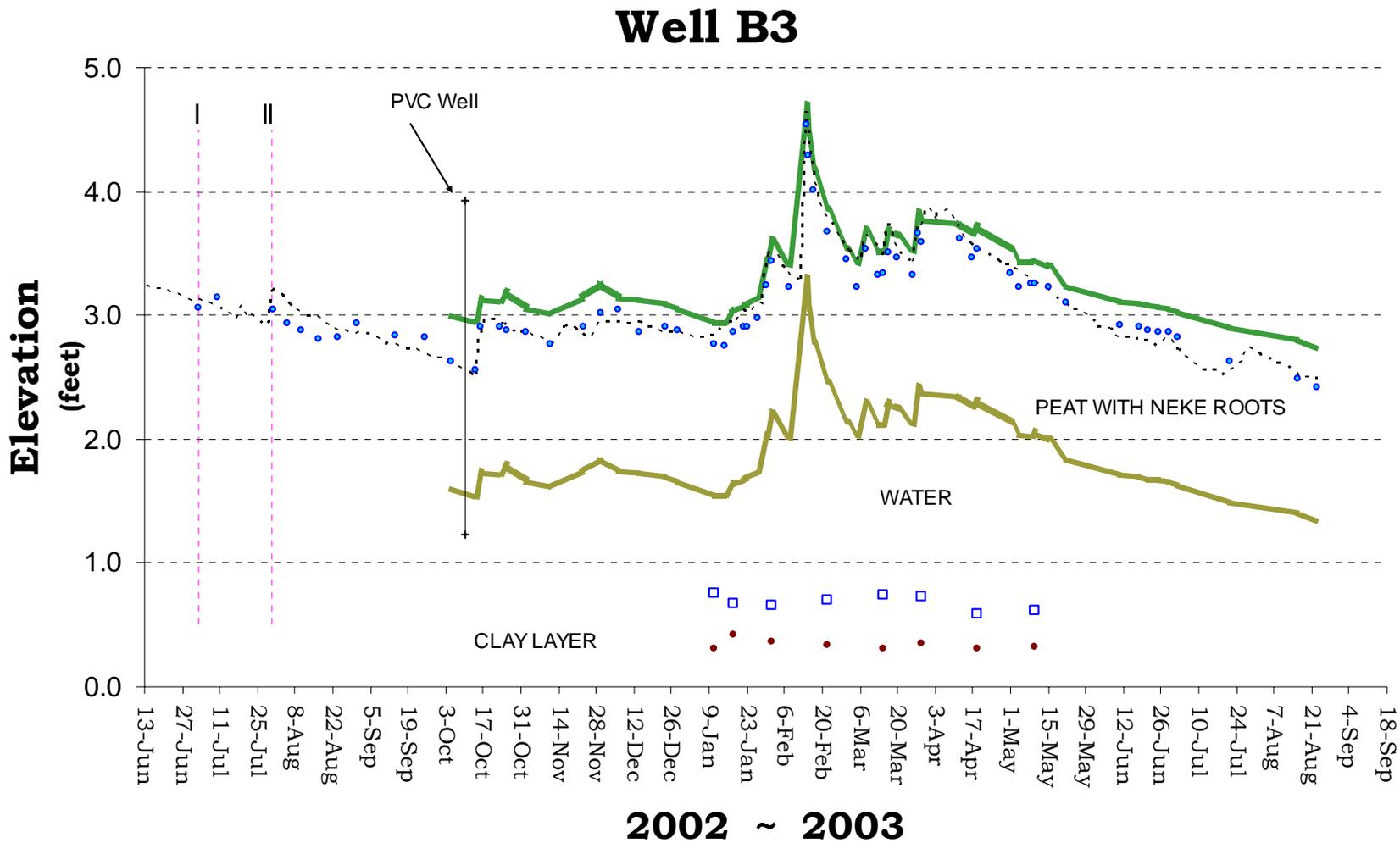


Figure III-20. Graphical representation of data obtained from monitoring Well B-3.

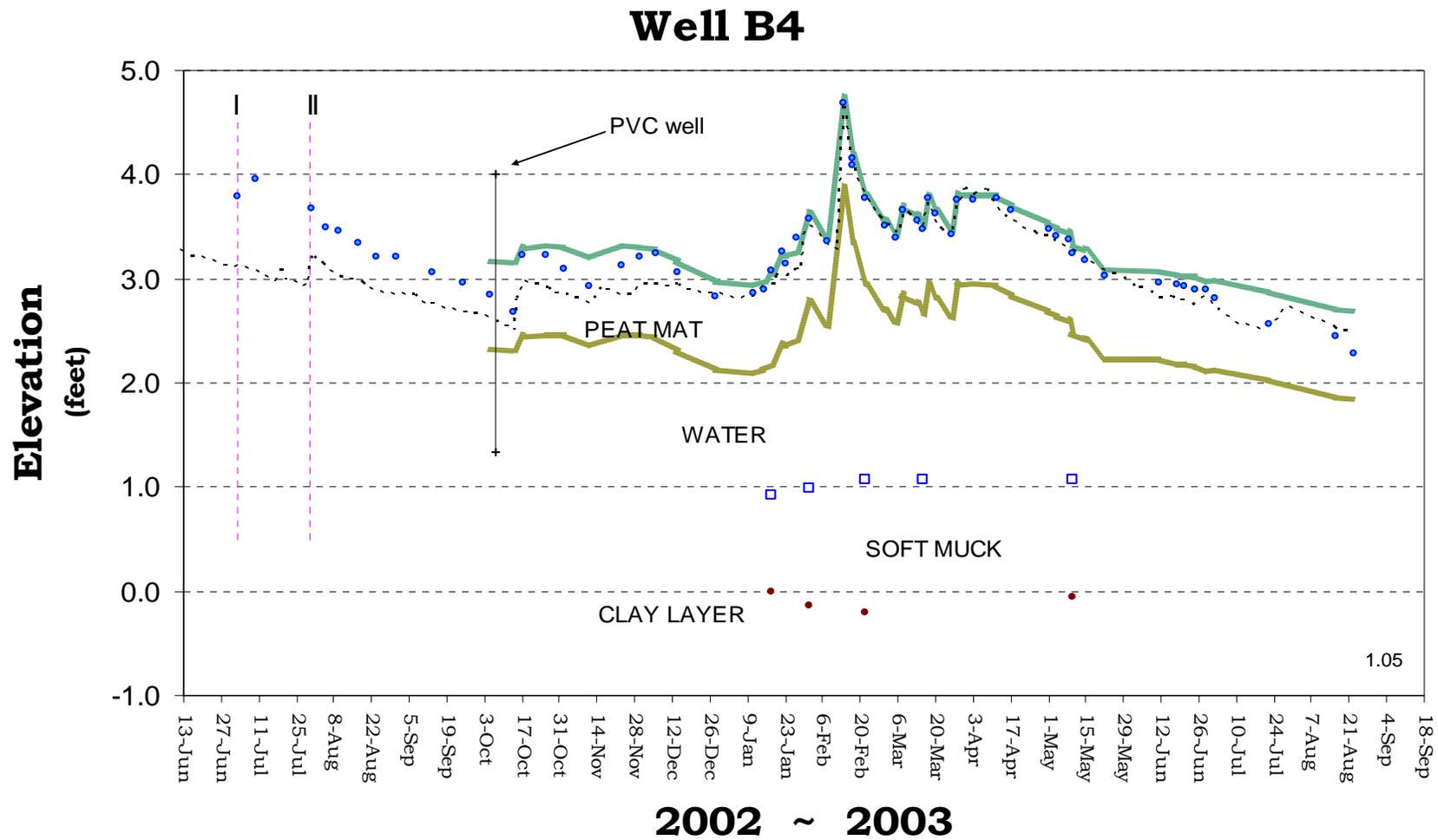


Figure III-21. Graphical representation of data obtained from monitoring Well B-4.

Well B-5

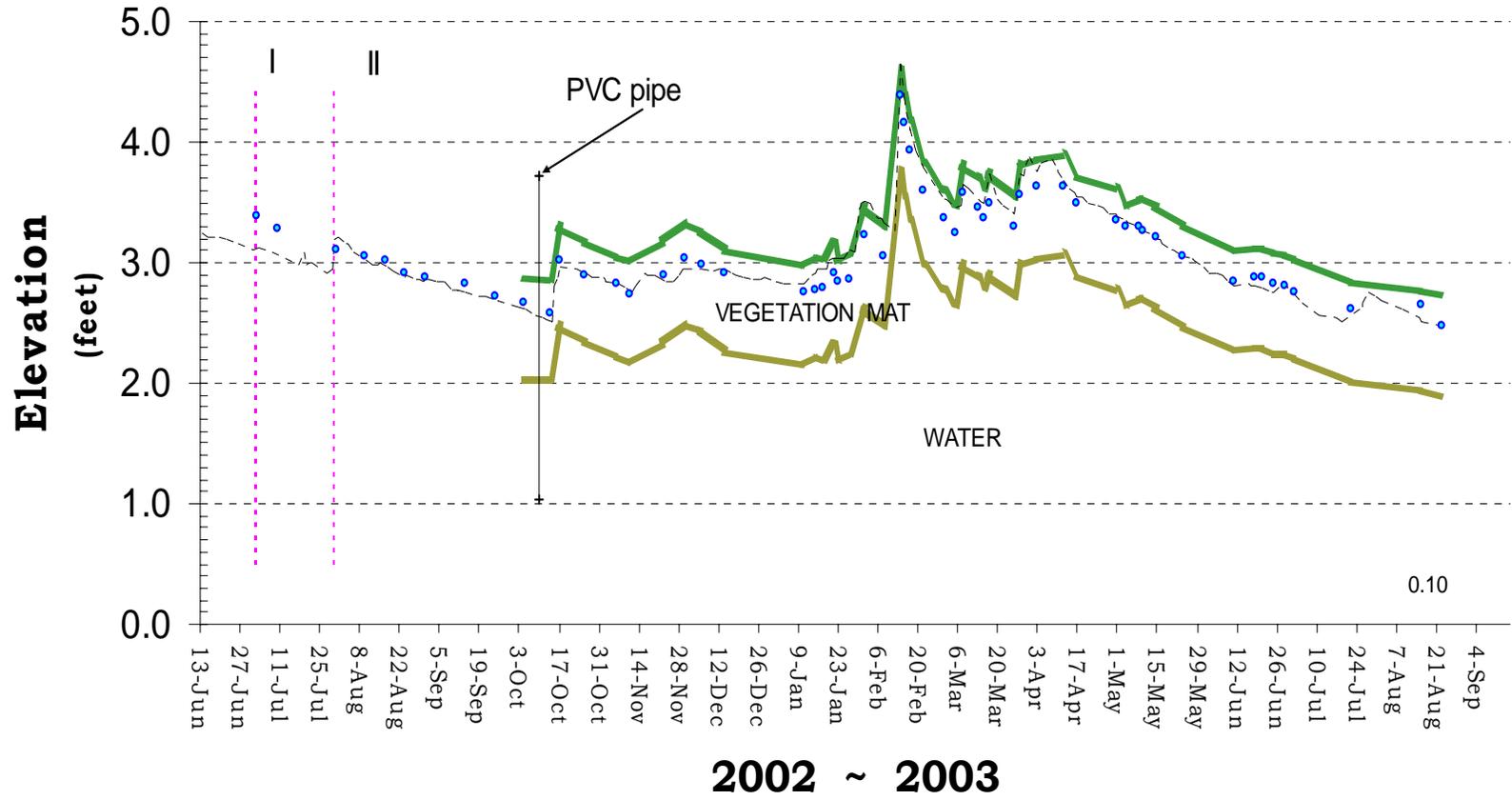


Figure III-22. Graphical representation of data obtained from monitoring Well B-5.

Well B6

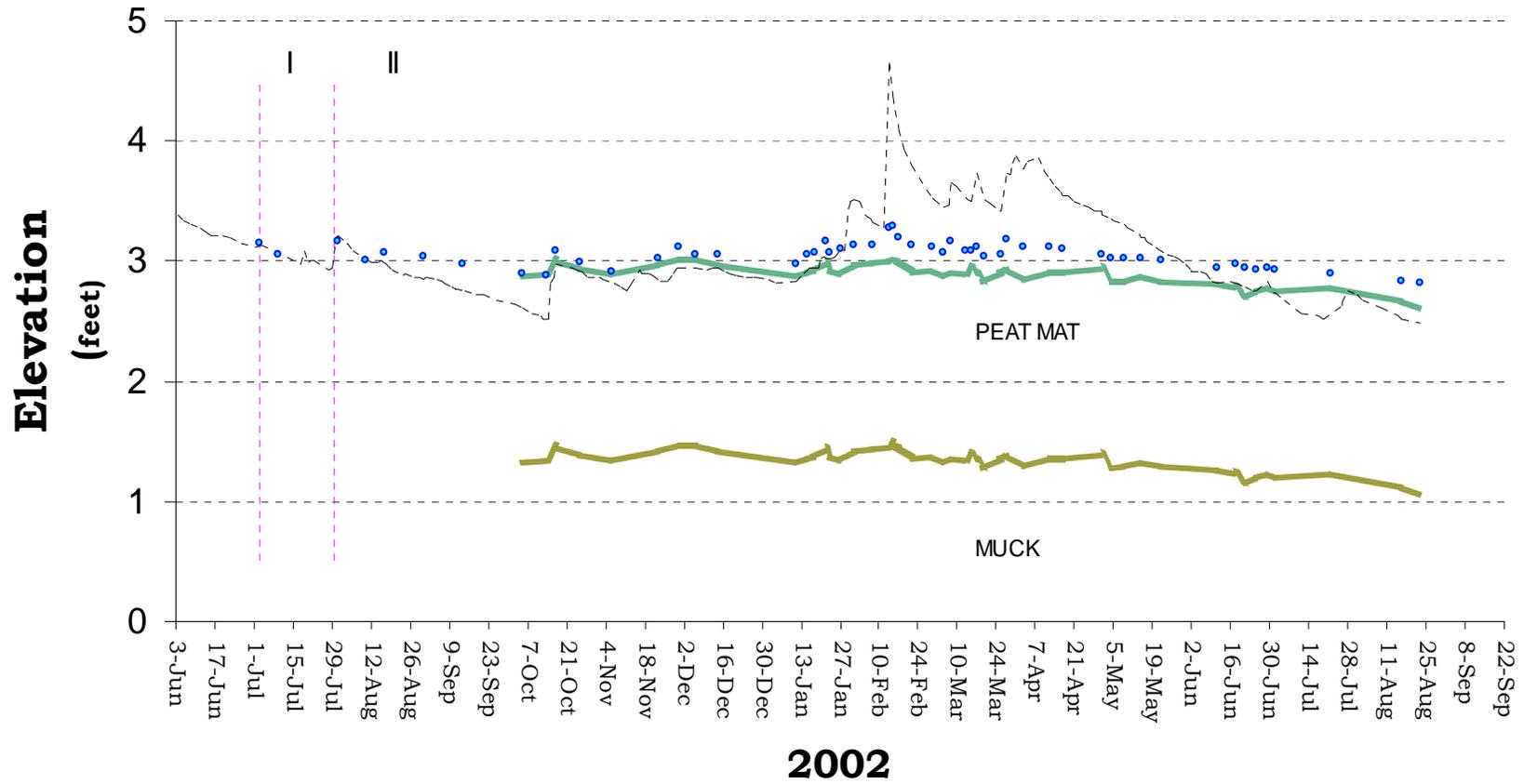


Figure III-23. Graphical representation of data obtained from monitoring Well B-6.

Well B7

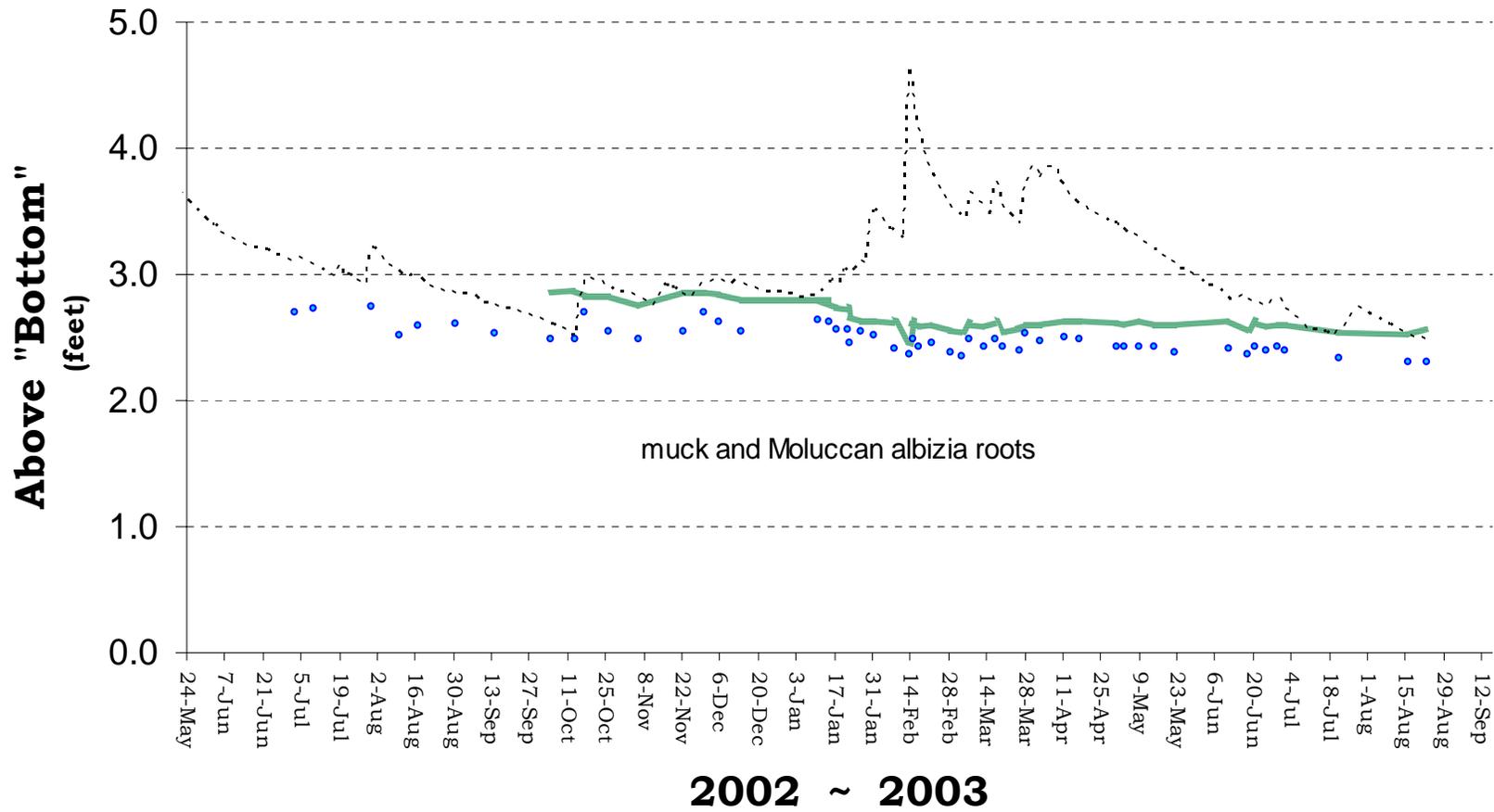


Figure III-24. Graphical representation of data obtained from monitoring Well B-7.

