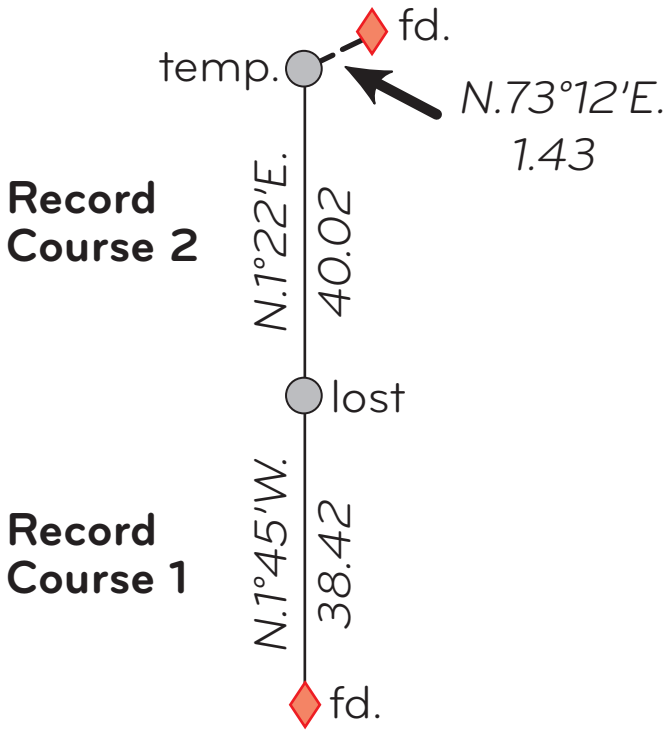

When reestablishing a position on an E-W line the formulas for the restored latitude and departure below would be interchanged.

latitude $C = \dfrac{\text{total lat retraced dist}}{\text{total lat record dist}}$ (record lat of each course)

departure $C = \dfrac{\text{total dep retraced} - \text{total dep record}}{\text{total record dist}}$ (record distance) + record dep

Line	bearing	distance	lat	dep
C1 record	N. 1° 45' W.	38.42 ch	N 38.4021	W 1.1733
C2 record	N. 1° 22' E.	40.02 ch	N 40.0086	E .9545
total record			**N 78.4107**	**W .2188**
tie	N. 73° 12' E.	1.43 ch	N .4133	E 1.3690
total retraced			**N 78.8240**	**E 1.1502**

latitude $C1 = \dfrac{78.8240}{78.4107}$ (38.4021) = 38.6045

departure $C1 = \dfrac{1.1502 - (-.2188)}{78.44}$ (38.42) + - 1.1733 = -0.5028

C1 = N. 0° 44' 46" W., 38.608 ch

latitude $C2 = \dfrac{78.8240}{78.4107}$ (40.0086) = 40.2195

departure $C2 = \dfrac{1.1502 - (-.2188)}{78.44}$ (40.02) + .9545 = 1.6530

C2 = N. 2° 21' 13" E., 40.254 ch

Figure 7-8. An irregular boundary adjustment.