

Book F

Interpretation Cross Sections

By
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The cross sections in this book appear to be interpretation sketches. They may have been prepared by Sidney Prah1 who was an early user of the Wold-Crosby 1970 reflection seismic data. Prah1 is referenced by [Wold](#) (1982), and Prah1's early interpretation efforts are mentioned in the [Line P Notes](#) page in Book G of this collection. Prah1 was a member of the field team during the 1970 survey and was a co-author of the Silverman et al. (1971) bathymetry and [line locations map](#) (Book B).

Most of the sketches in this book show only the water bottom profile. The sketches for Lines F and P, however, show more details.

Lines O and P have scans of computer-drawn cross sections in addition to the manual sketches. The computer-drawn plots show two interpreted horizons, i.e., the water bottom and what is probably the top of the Precambrian bedrock under the glacio-lacustrine sediments. The vertical axis appears to be depth below the surface in feet. The two rows of numbers at the base of the computer-drawn cross sections appear to be depths below the surface to the two horizons, i.e., they do not seem to be the same as hand posted values on the field-recorded seismic section.

One might attempt to repeat the calculations, presumably of Prah1, in order to determine what velocities were used in those days for the lake water and the near lake bottom sediments. Wold (1982) gives the velocities that he used in converting travel times to depths.

References Cited

- Lankston, R. W., and Hofmann, M. H., 2017, Sediment collapse indicators in the 1970 Flathead Lake seismic dataset, in 1970 Flathead Lake Seismic Survey, <http://scholarworks.umt.edu/flathead/16/> .
- Silverman, A. J., Pevear, D. R., and Prah1, S. R., 1971, Bathymetry of Flathead Lake, Montana: unpublished. (URL: <http://scholarworks.umt.edu/cgi/viewcontent.cgi?filename=2&article=1015&context=flathead&type=additional>)
- Wold, R. J., 1982, Reflection seismic study of Flathead Lake, Montana, USGS Miscellaneous Field Studies Map MF-1433: US Geological Survey. (URL: <https://pubs.usgs.gov/mf/1433/plate-1.pdf>)

Citing this Narrative

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Therefore, I am suggesting a citation for this narrative. My suggested citation is in a little different form than the ScholarWorks form, but that is not critical. Every medium has its preferred format. The important components of a digital citation are the author(s), the title of the work, the year of creation, the name of the collection in which the work appears, and the URL of the work. The following meets those specifications.

Lankston, R. W., 2023, “F. Interpretation cross sections – narrative by Robert W. Lankston” in *1970 Flathead Lake Seismic Survey*. URL:
<https://scholarworks.umt.edu/cgi/viewcontent.cgi?filename=22&article=1004&context=flathead&type=additional>

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I would suggest the same citation format and the same technique for capturing the URL of the supplemental files that form the heart of the content of this book. For the Line A cross section, specifically, the citation could look like:

Prahl, S. R., 1970, “F. Interpretation cross sections – Line A hand-drawn cross section ” in *1970 Flathead Lake Seismic Survey*. URL:
<https://scholarworks.umt.edu/cgi/viewcontent.cgi?filename=1&article=1004&context=flathead&type=additional>

In this case, the author is who generated the cross sections, and the date is when the data were plotted. The author of the files, other than my narrative, is listed after the book title on the ScholarWorks page, and the year of creation is listed in the Date field below the list of available files. Those author and date fields are ones that I set when I enter the metadata for the book.

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