

INTERPRETATIONS OF SEISMIC REFLECTION DATA AND STRUCTURAL CROSS SECTIONS FOR THE KAVIK RIVER MAP AREA

BY

W.K. WALLACE¹

WITH CONTRIBUTIONS FROM MAPPING BY

M.A. WARTES², A.M. LOVELAND², R.J. GILLIS², P.L. DECKER³, P.R. DELANEY², AND R.R. REIFENSTUHL²

SURFACE SECTION UNITS

Ts	SAGAVANIRKTOK FORMATION
TKc	CANNING FORMATION
Kh	HUE SHALE
Kjs	JUNIPER SANDSTONE
Kps	PEBBLE SHALE UNIT
Kk	KEMIK SANDSTONE
Kk-Kps	KEMIK SANDSTONE-PEBBLE SHALE UNIT, UNDIFFERENTIATED
Kjk	KINGAK SHALE
TsPs	SHUBLIK, IVISHAK, ECHOOKA FORMATIONS (WHERE UNDIFFERENTIATED)
Til	IVISHAK FORMATION, LEDGE SANDSTONE MEMBER
Tik	IVISHAK FORMATION, KAVIK SHALE MEMBER
Pe	ECHOOKA FORMATION
Pm	LISBURNE GROUP, UNDIFFERENTIATED
Me	ENDICOTT GROUP, UNDIFFERENTIATED
pM	PRE-MISSISSIPPIAN BASEMENT ROCKS (PROBABLY PRE-MIDDLE DEVONIAN)

APPARENT DIP OF BEDDING. DOT INDICATES POSITION OF MEASUREMENT, PROJECTED UP OR DOWN PLUNGE INTO SECTION LINE IF MEASURED ON EITHER SIDE OF SECTION LINE. LINE POINTS DOWN FOR UPRIGHT BEDDING, UP FOR OVERTURNED BEDDING.

SEISMIC SECTION UNITS

	KEMIK SANDSTONE, PEBBLE SHALE UNIT, HUE SHALE, CANNING FORMATION, SAGAVANIRKTOK FORMATION
	KINGAK SHALE
	ENDICOTT GROUP, LISBURNE GROUP, SADLEROCHEIT GROUP, SHUBLIK FORMATION
	PRE-MISSISSIPPIAN BASEMENT ROCKS

KEY TO SEISMIC INTERPRETATION

- UNSPECIFIED REFLECTOR
- TOP CANNING FORMATION (LOWER TONGUE)
- MAASTRICHTIAN/CAMPANIAN
- LOWER CRETACEOUS UNCONFORMITY
- TOP SHUBLIK FORMATION
- PRE-MISSISSIPPIAN ROCKS, UNDIFFERENTIATED
- FAULT

UNIT ABBREVIATIONS IN WELLS EXPLAINED IN THE APPENDIX

ACKNOWLEDGMENTS

Subsurface interpretation was made possible thanks to seismic reflection data provided by BP and ARCO, and made available through the U.S. Geological Survey National Archive of Marine Seismic Surveys (NAMSS). For further information please visit: <http://walrus.wr.usgs.gov/NAMSS/>. These data are part of the North Slope (W-40-80-AK) survey.

Technical Review by: David W. Houseknecht⁴ and Thomas Homza⁵

Graphics by: Andrea M. Loveland²

Edited by: Paula K. Davis²

¹Department of Geology & Geophysics, University of Alaska Fairbanks, Fairbanks, Alaska

²Alaska Division of Geological & Geophysical Surveys, Fairbanks, Alaska

³Alaska Division of Oil & Gas, Anchorage, Alaska

⁴United States Geological Survey, Reston, Virginia

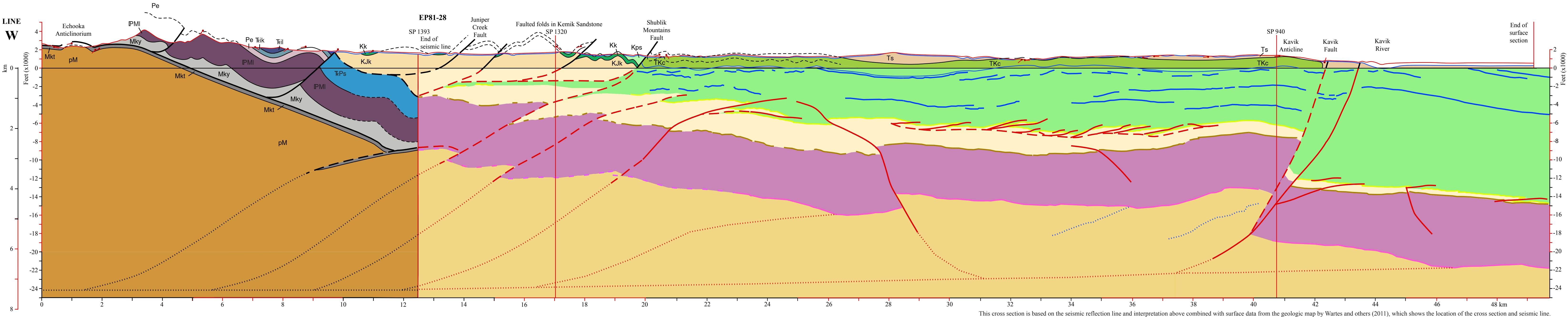
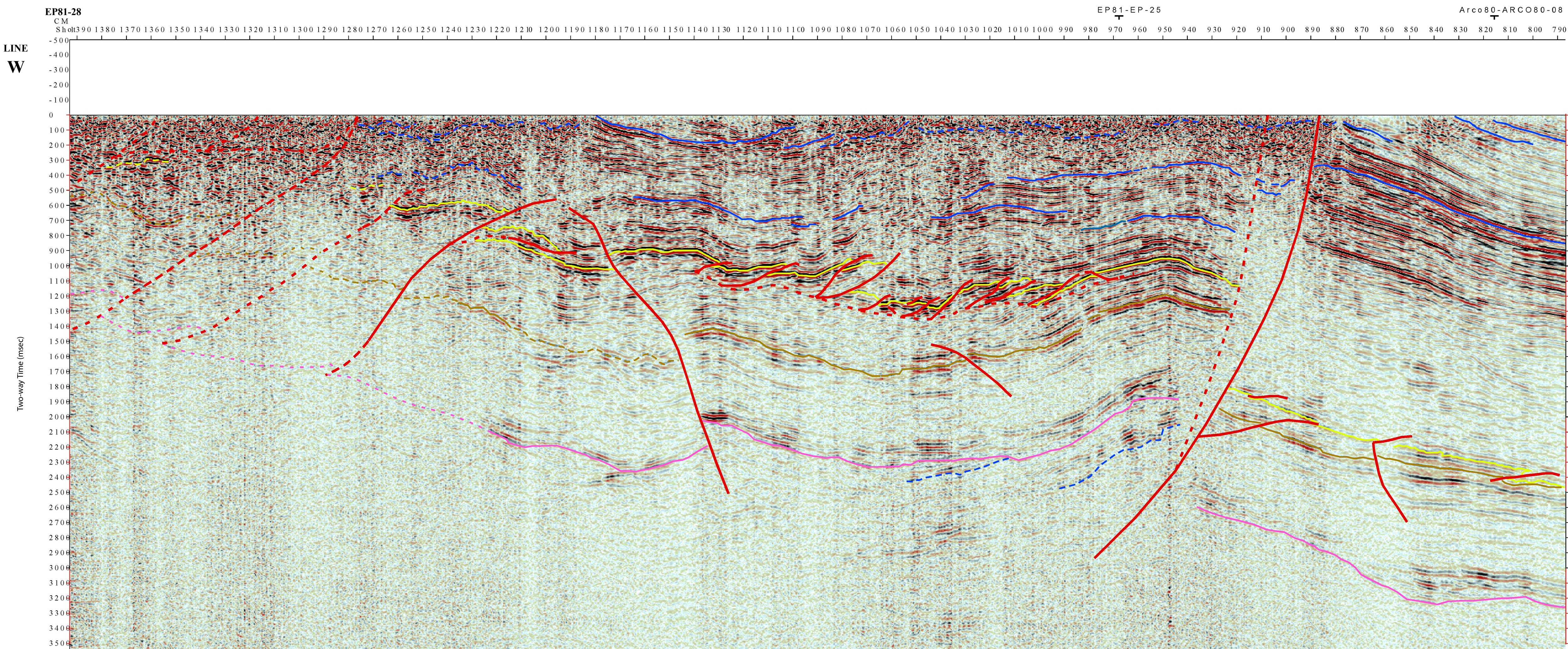
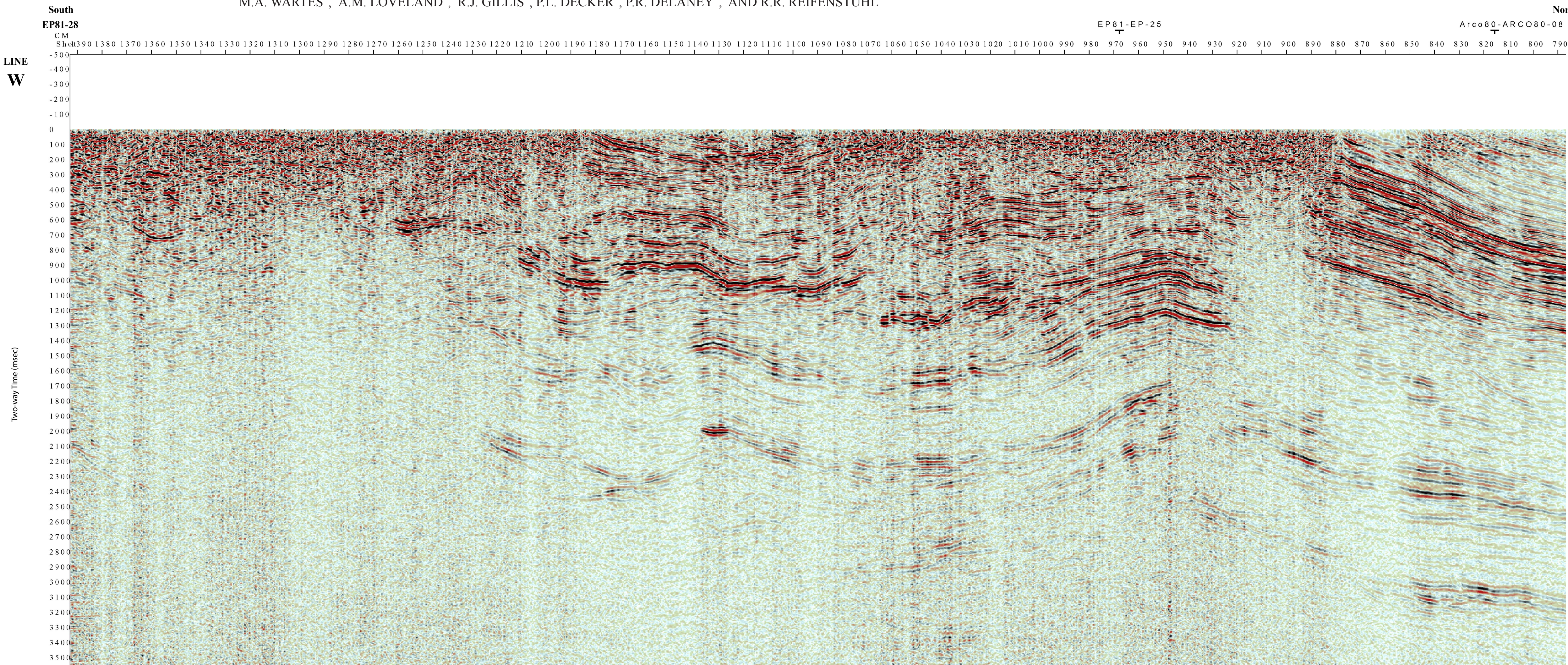
⁵Shell Exploration & Production Company, Anchorage, Alaska

The State of Alaska makes no express or implied warranties (including warranties for merchantability or fitness) with respect to the character, functions, or capabilities of the electronic products or services or their appropriateness for any user's purposes. In no event will the State of Alaska be liable for any incidental, indirect, special, consequential, or other damages suffered by the user or any other person or entity whether from use of the electronic products or services, any failure thereof or otherwise, and in no event will the State of Alaska's liability to the Requester or anyone else exceed the fee paid for the electronic product or service.

DGGS publications can be purchased or ordered from the Fairbanks office at:

Alaska Division of Geological & Geophysical Surveys
3354 College Road
Fairbanks, Alaska 99709-3707

Phone: 907-451-5000
Fax: 907-451-5000
E-mail: dggspublic@alaska.gov
Website: <http://www.dggs.alaska.gov>



This cross section is based on the seismic reflection line and interpretation above combined with surface data from the geologic map by Wartes and others (2011), which shows the location of the cross section and seismic line.