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PLATE 1. STRATIGRAPHIC COLUMN AND SUMMARY CHART OF GEOLOGIC DATA, NORTON SOUND COST NO. 1 WELL, NORTON SOUND, ALASKA

Department of the Interior
United States Geological Survey
Minerals Management Service

OPEN-FILE REPORT 83-124

ERA: CENOZOIC

PERIOD: QUATERNARY; TERTIARY

EPOCH AND AGE: PLEISTOCENE; PLIOCENE (LATE, MIDDLE, EARLY); MIOCENE (LATE ?, EARLY); OLIGOCENE; Possible EOCENE or older; PRECAMBRIAN TO PALEOZOIC?

PALEOBATHYMETRY: CONTINENTAL; TRANSITIONAL; INNER TO MIDDLE NERITIC (0-300 FT); MIDDLE TO OUTER NERITIC (300-600 FT); OUTER NERITIC TO UPPER BATHYAL (600-1,200 FT)

1,320'
1,608'
2,327'
2,639'
12,545'

MEASURED DEPTH (FEET): 0, 1000, 2000, 3000, 4000, 5000, 6000, 7000, 8000, 9000, 10000, 11000, 12000, 13000, 14000, 15000

GAMMA-RAY LOG

SP LOG

LITHOLOGY

DEEP-RESISTIVITY LOG

DENSITY LOG

SONIC LOG

DESCRIPTIONS OF LITHOLOGIC UNITS

1210 TO 1900 FT DIATOMACEOUS SANDY MUDSTONE DEPOSITED IN MARINE SHELF ENVIRONMENT. CONTAINS GLAUCONITE LOCALLY AND ABUNDANT FOSSIL MATERIAL. BIOTURBATED WITH PRESERVED LAMINATION LOCALLY.

1900 TO 3730 FT MUDDY DIATOMITE AND DIATOMACEOUS MUDSTONE DEPOSITED IN MARINE SHELF ENVIRONMENT. CONTAINS GLAUCONITE LOCALLY AND ABUNDANT FOSSIL MATERIAL. BIOTURBATED WITH PRESERVED LAMINATION LOCALLY.

3730 TO 4700 FT MUDSTONE DEPOSITED IN MARINE SHELF ENVIRONMENT. CONTAINS FOSSILS. BIOTURBATED WITH PRESERVED LAMINATION LOCALLY.

4700 TO 5005 FT SHALE, SANDSTONE, AND COAL DEPOSITED IN FLUVIAL OR DELTAIC AND NEARSHORE MARINE ENVIRONMENTS. SHALE AND SANDSTONE MICACEOUS. SANDSTONE VERY FINE TO MEDIUM GRAINED, COMMONLY LAMINATED.
5005 TO 9685 FT MUDSTONE, SHALE AND SANDSTONE DEPOSITED IN MARINE ENVIRONMENT. CONTAINS FOSSILS AND GLAUCONITE LOCALLY. ALL LITHOLOGIES MICACEOUS, SANDSTONE VERY FINE GRAINED, LAMINATED LOCALLY.

9685 TO 10300 FT SANDSTONE AND MUDSTONE PROBABLY DEPOSITED IN MARINE ENVIRONMENT. SANDSTONE AND MUDSTONE MICACEOUS, SANDSTONE FINE TO MEDIUM GRAINED, COMMONLY LAMINATED. MUDSTONE BIOTURBATED.

10300 TO 10640 FT BASALT, MUDSTONE AND SANDSTONE. SEDIMENTARY ROCKS PROBABLY DEPOSITED IN MARINE ENVIRONMENT. BASALT MAY BE FLOWS OR INTRUSIONS.

10640 TO 12335 FT SANDSTONE AND MUDSTONE DEPOSITED AT LEAST IN PART BY TURBIDITY CURRENTS IN SUBAQUEOUS ENVIRONMENT. SANDSTONE IS COMMONLY MICACEOUS AND IS IN THIN, GRADED BEDS AND THICKER MASSIVE TO WEAKLY LAMINATED BEDS. FLAME STRUCTURE IS PRESENT AT THE BASES OF SOME SANDSTONE BEDS. MUDSTONE AND SILTSTONE ARE COMMONLY LAMINATED, AND MUDSTONE IS BURROWED LOCALLY.

12335 TO 12545 FT SANDSTONE, SILTSTONE, SHALE, COAL, AND CONGLOMERATE DEPOSITED IN FLUVIAL OR DELTAIC ENVIRONMENTS.

12545 TO 14683 FT CATACLASTICALLY DEFORMED SEDIMENTARY ROCKS PROBABLY CORRELATIVE WITH ROCKS OF PROBABLE PRECAMBRIAN OR PALEOZOIC AGE OF THE YORK MOUNTAINS, SEWARD PENINSULA.

POROSITY (PERCENT): 1.00, 10.00, 100.00

PERMEABILITY (MILLIDARCIES): 0.01, 0.10, 1.00, 10.00, 100.00

TOTAL ORGANIC CARBON (PERCENT): 0.10, 0.5, 1.00, 10.00, 100.00
① = CORE LAB
△ = GEOCHEM LAB

RANDOM VITRINITE REFLECTANCE (PERCENT): 0.10, 0.6, 1.00, 1.4, 10.00
① = CORE LAB
△ = GEOCHEM LAB

1 SAMPLES
2 SAMPLES
3 SAMPLES
5 SAMPLES
7 SAMPLES
8 SAMPLES