ANDERSON, WARREN & ASSOCIATES, INC.
CONSULTING MICROPALEONTOLOGY
11526 Sorrento Valley Road Suite G
San Diego, California 92121
(714) 755-1524
Cable: Micropaleo San Diego

#3

May 7, 1980

TO: Husky/U. S. Geological Survey

RE: Husky/USGS
W. Dease #1
Sec. 21, 21N/14W
North Slope, Alaska

PALYNOLOGY REPORT

Introduction

One hundred and ninety (190) samples from the subject well were processed and analyzed for palynological age determinations. This total consisted of 43 ditch, 24 sidewall core and 143 core samples taken between 110 feet and the total depth of 4151.5 feet.

Included with this report are two (2) figures which display the distribution of recognized palynomorph taxa. Figure 1 lists the occurrences in the sidewall cores and ditch samples. Figure 2 lists the occurrences in the conventional core samples.

Summary of Results

100-2945'C

Cicatricosisporites australiensis (R, sporadic), C. hallei (R), Gleicheniidites senonicus (R, sporadic),

RE: Husky/USGS - W. Dease #1, North Slope

110-2945'C (con't.)

Aequitriradites spinulosus (R); numerous occurrences of reworked Triassic spores.

Cyclonephelium distinctum (R), Oligosphaeridium complex (R), Odontochitina operculata (R), Palaeoperidinium cretaceum (R-F); scattered rare occurrences of Gardodinium trabeculosum, Pseudoceratium retusum, Aptea polymorpha; numerous occurrences of reworked Triassic, Jurassic, and Neocomian dinocysts.

AGE: Early Cretaceous
Aptian-Early Albian (P-M18)

ENVIRONMENT: Marine to Marginal Marine

2945-3356'SWC

Gleicheniidites senonicus (R-F), Lycopodiumsporites spp. (R).

Gardodinium trabeculosum (R-C), Batioladinium jaegeri (R-F), Oligosphaeridium complex (F-A), Odontochitina operculata (F-A), Palaeoperidinium cretaceum (F-A).

AGE: Early Cretaceous; possible Neocomian (P-M18a)

ENVIRONMENT: Marine

3356'SWC

Oligosphaeridium complex (thick-wall)(A), Gardodinium trabeculosum (F), Odontochitina operculata (F), O. sp.-1 (F),

RE: Husky/USGS - W. Dease #1, North Slope

3356'SWC (con't.)

Batioladinium pelliferum (R), Hystrichosphaeridium cooksonae (R).

AGE: Early Cretaceous; Neocomian (P-M19)

ENVIRONMENT: Marine

3356-3800'±C

Osmundacidites spp. (R-F), Classopollis classoides (R-C). Heliosporites altmarkensis (R), Lycopodiumsporites semimurus (R), Vitreisporites pallidus (F-A); numerous reworked Paleozoic spores.

Tasmanaceae (R-C), Micrhystridium spp. (R-A), Canningia sp. (R), Suessia swabiana (single, reworked), Sverdrupiella usitata (single, reworked).

AGE: Late Triassic?-Early Jurassic (probable P-M24)

ENVIRONMENT: Marginal Marine

This interval produced many reworked Paleozoic spores and some probably reworked Triassic spores. The two (2) specimens of Late Triassic dinocysts observed are also considered to be reworked. Using the most probably indigenous flora of this interval, the age of these strata is interpreted to be probably Early Jurassic.

The base of this interval is tentatively placed at approximately 3800 feet, where there is a marked decrease in

RE: Husky/USGS - W. Dease #1, North Slope

3356-3800'±C (con't.)

reworked spores and a change in the organics to a more sapropelic character. This sapropelic character, however, fluctuates with coaly intervals within the Late Triassic section below.

3800-3850'C

Vitreisporites pallidus (F-C), Heliosporites altmarkensis (R, sporadic), Classopollis classoides (R, sporadic).

Micrhystridium spp. (R-C), Cleistosphaeridium mojsisovicsii (R), Hystrichosphaeridium langi (R), Suessia swabiana (R-F), sporadic).

AGE: Late Triassic; Rhaetian (P-M25)
ENVIRONMENT: Marine

3850-4003.5'C

Vitreisporites pallidus (R-F, sporadic), Classopollis classoides (R-F), Taurocusporites sp. (R, sporadic); rare, reworked Paleozoic spores.

Sverdrupiella sp. (R-C), S. usitata (R, sporadic), Suessia swabiana (R-C), S. sp. (F-C, sporadic), aff. Suessia sp. (R-C, sporadic), Noricysta fimbriata (R-A, sporadic).

AGE: Late Triassic; Norian (P-M26)
ENVIRONMENT: Marine

RE: Husky/USGS - W. Dease #1, North Slope

4003.5-4151.5'C T.D.

Indeterminate spore fragments (F) in SWC 4061'. Essentially barren of palynomorphs through interval.

AGE: Indeterminate

ENVIRONMENT: Nonmarine?

Organic fragments observed in the bottom core samples are black in color but show woody structure which indicates that the well is not in a pure argillite lithology at total depth.

ANDERSON, WARREN & ASSOCIATES, INC.

Hideyo Haga