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Cable: Micropaleo San Diego

May 16, 1977

SER also: S.W. cores (1978)

TO: Tetra Tech, Inc.

RE: Husky/U.S.N.

West Fish Creek Sec. 11, 11N/1W

North Slope, Alaska

PALYNOLOGY REPORT

A total of 122 samples were processed and examined for palynological age determinations. The samples were ditch composites of 90-foot intervals except near the Jurassic/Cretaceous boundary where 30-foot samples were examined. The total interval studied was from 500 feet down to the total depth of 11,420 feet.

500-770°

Australiella spectabilis (C), A. sverdrupiana (R-C), A. granulifera (R-F), Diconodinium arcticum (R), Odontochitina operculata (F-C), Hexagonifera chlamydata (R), Palaeoperidinium basilium (R), Deflandrea ditissima (F).

AGE:

Late Cretaceous (Santonian-Campanian)

ENVIRONMENT: Marine

<u>7</u>70-1670'

Gleicheniidites senonicus (R-F), Vitreisporites pallidus (R-F).

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770-1670' (con't.)

Australiella/Deflandrea spp. (R), Palaeoperidinium basilum (R-F), Odontochitina operculata (R), Cyclonephelium distinctum (R), Cribroperidinium edwardsi (R).

AGE:

Late Cretaceous (?Turonian-

?Coniacian)

ENVIRONMENT: Nonmarine to Marginal Marine

1670-2840'

Gleicheniidites senonicus (R-F), Vitreisporites pallidus (R).

Palaeoperidinium basilium (R-C), Odontochitina operculata (R-C), Oligosphaeridium complex (R), Cyclonephelium distinctum (R), Cribroperidinium edwardsi (R-F), Broomea jaegeri (R, scattered), Pseudoceratium cf. dettmannae (R, near top of interval).

AGE:

Late Cretaceous (Cenomanian)

ENVIRONMENT: Marine to Marginal Marine below approximately 2400 feet

<u>2840-4420'</u>

Gleicheniidites senonicus (R), Classopollis classoides (R), Trilobosporites apiverrucatus (R, scattered); reworked Triassic grains (R, scattered).

Odontochitina operculata (R-F), Oligosphaeridium complex (R-F), Cyclonephelium distinctum (R), Cribroperidinium edwardsi (R), Broomea jaegeri (R), Astrocysta cretacea (F-C),

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2840-4420' (con't.)

Luxadinium propatulum (R-F), Spinidinium vestitum (R), Herendeenia pisciformis (reworked, R, scattered).

AGE:

Early Cretaceous (Albian)

ENVIRONMENT: Marine

4420-7260'

Classopollis classoides (R), Densospores (R, reworked).

Odontochitina operculata (R-F), Oligosphaeridium complex (R), Cyclonephelium distinctum (R), C. compactum/membrani-phorum (R), Broomea jaegeri (R-F), Astrocysta cretacea (R-F), Gardodinium eisenacki (R); scattered specimens of reworked Jurassic and Triassic dinocysts.

AGE:

Early Cretaceous (Aptian-Early Albian)

ENVIRONMENT: Marine

This interval is characterized by the absence of <u>Luxadinium</u> and <u>Spinidinium</u> as well as the consistent occurrence of <u>Gardodinium eisenacki</u>. As observed in other wells of the region, this interval may range as young as Early Albian and as old as Aptian in age.

7260-72901

Oligosphaeridium complex (C), Cyclonephelium distinctum (R), Astrocysta cretacea (R), Gardodinium eisenacki (A).

AGE:

Early Cretaceous (Neocomian)

ENVIRONMENT: Marine

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7290-7860'

Classopollis classoides (F), Cerebropollenites mesozoicus (R).

Sirmiodinium grossi (R), Psaligonyaulax apatela (R), Gonyaulacysta jurassica (R), G. cladophora (R), Endoscrinium galeritum (R-F).

AGE:

Late Jurassic (Kimmeridgian)

ENVIRONMENT: Marine

The presence of <u>Endoscrinium galeritum</u> below 7680 feet indicates that the lower one-third of this interval may be assigned an Early Kimmeridgian age.

7860-8940'

Classopollis classoides (R-F), striated bisaccates (R, reworked).

Pareodinia ceratophora (R), P. cf. verrucosum (R-F), Sirmiodinium grossi (R-F), Gonyaulacysta cladophora (F-C), Endoscrinium galeritum (R-F), Nannoceratopsis pellucida (F-C).

AGE:

Late Jurassic (Oxfordian)

ENVIRONMENT: Marine

8940-9210'

Striated bisaccates (R, reworked).

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8940-9210' (con't.)

Nannoceratopsis gracilis (R), N. pellucida (R-F); undescribed microplankton cysts JRD-1, JRD-2, JRD-3 (R).

AGE:

Early-Middle Jurassic (Late Pliens-

bachian-Callovian)

ENVIRONMENT: Marine

9210-9480'

Essentially barren of palynomorphs.

AGE:

Indeterminate

ENVIRONMENT:

Indeterminate

9480-10,470'

Undifferentiated striate bisaccates (R-F), Taeniaesporites sp. (R-F), Striatites richteri (R), Lueckisporites sp. (R), Klausipollenites staplinii (R), Kraeuselisporites spinosus (R), ?Lundbladispora sp. (R), verrucate spores (F).

AGE:

Permian-Triassic

ENVIRONMENT:

Nonmarine

10,470-11,420' T.D.

No indigenous palynomorphs.

AGE:

Indeterminate

ENVIRONMENT: Indeterminate

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Mideyo Haga