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

#12.

May 7, 1980

TO: Husky/U. S. Geological Survey

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

FORAMINIFERA REPORT

The following micropaleontological report is based on the examination and checklisting of 127 washed ditch samples, 121 washed conventional core samples, 24 washed sidewall cores, and 2 thin sectioned conventional core samples covering the interval 110 to 4151.5 feet (total depth). Two checklists and a faunal distribution log are enclosed for your convenience.

Standard techniques were employed in processing the material. All samples were boiled in Quaternary-O and washed over 20 and 200 mesh screens.

Frequency symbols used in this report correspond to the following numerical values: R = rare (1-5); F = frequent (6-32); C = common (33-99); A = abundant (100-199); and FL = flood (200+).

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

100-690'

Rare to frequent occurrences of Haplophragmoides excavatus, H. topagorukensis, H. gigas, Miliammina manitobensis, M. wwunensis, Verneuilinoides borealis, Quadrimorphina ruckerae, Lenticulina macrodisca, Valvulineria loetterlei, Tritaxia manitobensis, Glomospirella gaultina, Gavelinella stictata, Psamminopelta subcircularis, Ammobaculites wenonahae, and Ditrupa cornu indicate that these strata are probably Middle to Late Albian (F-9) age. Depositional environments associated with these strata were probably inner to middle neritic.

AGE: Early Cretaceous
Middle to Late Albian (F-9)

ENVIRONMENT: Inner to Middle Neritic

690-1850'

This interval is characterized by occurrences of the following: Gaudryina nanushukensis, Lenticulina macrodisca, Verneuilinoides borealis, Bathysiphon vitta, Eurycheilostoma grandstandensis, Glomospirella gaultina, Ammobaculites fragmentarius, A. wenonahae, Gavelinella stictata, Miliammina manitobensis, M. ischnia, Haplophragmoides topagorukensis, H. excavatus, H. kirki, and Ammodiscus sp. (very small). The above fauna indicates a Late Aptian to Early Albian (F-10) age. The paleodepths represented by these moderately diverse assemblages were probably middle to outer neritic.

AGE: Early Cretaceous
Late Aptian to Early Albian (F-10)

ENVIRONMENT: Middle to Outer Neritic

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

1850-2930'

A pyritized radiolarian fauna characterizes these strata together with occurrences of Bathysiphon vitta, Gaudryina cf. tailleuri, Haplophragmoides excavatus, and Saccammina sp. (medium to coarse-grained). Pyritized radiolaria of the following genera occur: Cenosphaera spp., Spongodiscus spp., Lithocampe spp., and Dictyomitra spp. According to Ramsey (1970) this zone of pyritized radiolaria separates the Vernueilinoides borealis Zone from the Gaudryina tailleuri Zone, and is probably Aptian to early Albian in age. We feel that it is probably Aptian in age, in this area, but our data is tentative at this time. Due to the preservation of this fauna, all that can be said about the environment of deposition is that it was marine and open to oceanic currents. These strata may represent deep marine (below compensation depth) slope deposits. This is a possibility since calcareous Foraminifera are very scarce in this interval and could represent caved specimens when they do occur.

AGE: Early Cretaceous
Aptian (F-11)

ENVIRONMENT: Open Marine

2930-3360'

Occurrences of Ammobaculites reophacoides, Gaudryina tailleuri, Glomospirella S, Conorboides cf. umiatensis, Reophax tundraensis, Trochammina cf. instowensis, Glomospira corona, G. subarctica, Haplophragmoides coronis,

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

2930-3360' (con't.)

Haplophragmoides duoflatis, Bathysiphon scintillata, Thuramminoides spp., T. septagonalis, arenaceous spp. (large, coarse), Cenosphaera spp. (pyritized), Lithocampe spp. (pyritized), and common to abundant rounded frosted quartz floaters suggest a Hauterivian to Barremian (F-12 to F-13) age for these rocks. These rocks were probably deposited in outer neritic to upper bathyal paleodepths.

AGE: Early Cretaceous
Hauterivian to Barremian (F-12 to F-13)

ENVIRONMENT: Outer Neritic to Upper Bathyal

3360-3732' Core

Rare to frequent occurrences of Astacolus dubius, Lituotuba irregularis, Ammobaculites alaskensis, A. vetusta, A. barrowensis, Gaudryina dyscrita, Textularia areoplecta, Lenticulina audax, Reophax suevica, Dentalina pseudocommunis, and Ammodiscus siliceus indicate an Early Jurassic (F-18) age, while rare occurrences of Astacolus connudatus, Tolypammina glareosa, Nodosaria shublikensis, Nodosaria cf. larina, and Ammobaculites sthenarus, if not reworked, suggest a Triassic (F-19) age. These strata probably represent fluctuating outer neritic to middle bathyal paleodepths.

AGE: Triassic to Early Jurassic
F-18 to F-19

ENVIRONMENT: Probable Outer Neritic to Upper Bathyal

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

3732 Core-4012'SW

Cores 6 through 9 (inclusive) contain rare to frequent consistent occurrences of Astacolus connudatus, Nodosaria larina, N. shublikensis, N. liratella, N. radiata, Ammodiscus siliceus, A. cf. P, Marginulina prisca, Gaudryina adoxa, Frondicularia baueri, Pseudoglandulina simpsonensis, and Vaginulinopsis acrulus indicating a Triassic (F-19) age. These strata probably represent middle to outer neritic deposition.

AGE: Triassic
F-19

ENVIRONMENT: Middle to Outer Neritic

4012SW-4151.5' T.D.

Samples from this interval were either barren or contained rare specimens of forms believed sloughed from the overlying strata. The age of this basal interval is, therefore, indeterminate. Core 10 (4150-4151.5') represents a lithologic change to argillitic shale or siltstone which could be the "argillite" basement, but is not convincingly "argillite" basement.

AGE: Indeterminate

ENVIRONMENT: Indeterminate

Interpreted by:

ANDERSON, WARREN & ASSOCIATES, INC.

M. B. Mickey

Richard E. Anderson