

Division of Geological & Geophysical Surveys

PUBLIC-DATA FILE 93-30b

**MICROPALEONTOLOGY OF 38 OUTCROP SAMPLES FROM THE CHANDLER
LAKE, DEMARCATION POINTS, MT. MICHELSON, PHILIP SMITH MOUNTAINS,
AND SAGAVANIRKTOK QUADRANGLES, NORTHEAST ALASKA**

by

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May 1993

THIS REPORTS HAS NOT BEEN REVIEWED FOR
TECHNICAL CONTENT (EXCEPT AS NOTED IN TEXT) OR FOR
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STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
Division of Geological & Geophysical Surveys
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03) 92MU 29-3 Formation: Torok Fm? General Location: Section Creek

PALYNOLOGY

Age. Indeterminate
Environment. No evidence of marine.
Palynomorphs. Indeterminate spore fragments (F)
Kerogen. Mainly woody-fusinitic. T.A.I. = 2.8 - 3.0

FORAMINIFERA

Age. Indeterminate
Environment. Indeterminate
Fauna. Barren of Foraminifera.
Washed lith. Dark brownish gray shale

04) 92MU 30A Formation: Okpikruak Fm.? General Location: Atlgun Gorge

PALYNOLOGY

Age. Early Cretaceous
Hauterivian - Barremian
Zone. P-M19
Environment. Marine
Palynomorphs. Undifferentiated bisaccates (A)
Lycopodiumsporites sp. (V)
Trilobosporites apiverrucatus (V)
Gonyaulacysta sp. (V)
Muderongia cf. *M. simplex* (F)
Oligosphaeridium complex (thick-wall) (R)
Kerogen. Mainly woody-fusinitic. T.A.I. = 3.0

FORAMINIFERA

Age. Indeterminate
Environment. Indeterminate
Fauna. Barren of Foraminifera.
Washed lith. Dark brownish gray shale

05) 92MU 30B Formation: Okpikruak Fm.? General Location: Atlgun Gorge

PALYNOLOGY

Age. Early Cretaceous
Hauterivian - Barremian
Zone. P-M19
Environment. Marine
Palynomorphs. Undifferentiated bisaccates (A)
Classopollis classoides (V)
Gleichenioidites senonicus (V)
Lycopodiumsporites sp. (V)
Muderongia cf. *M. simplex* (R)
Sentusdinium rioutii (V)
Kerogen. Mostly woody-fusinitic. T.A.I. = 3.0

FORAMINIFERA

Age. Indeterminate
Environment. Indeterminate
Fauna. Barren of Foraminifera.
Washed lith. Dark brownish gray shale

06) 92MU 31 Formation: Echooka Fm General Location: Section Creek

PALYNOLOGY

Age. Indeterminate
Environment. Indeterminate
Palynomorphs. Barren of palynomorphs.
Kerogen. Mostly woody-fusinitic. T.A.I. = 3.0?

FORAMINIFERA

Age. Indeterminate
Environment. Indeterminate
Fauna. Barren of Foraminifera.
Paper shale (F)
Washed lith. Dark gray to black slightly paper shale

07) 92MU 46-3 Formation: Phosphatic Shale General Location: Sagavanirktok River Bluff

PALYNOLOGY

Age. Probable Early Cretaceous
Undifferentiated
Environment. Marine
Palynomorphs. Poor preservation.
Indeterminate spore fragments (F)
Microdinium opacum (R)
Kerogen. Mostly woody-fusinitic. T.A.I. = 3.0

FORAMINIFERA

Age. Probable Early Cretaceous
Neocomian (Undiff.)
Zone. F-12 to F-14
Environment. Indeterminate
Fauna. Barren of Foraminifera.
Paper shale (F)
Rounded frosted quartz floaters (R)
Washed lith. Dark brownish gray slightly paper shale
Discussion. Based on lithology only.

08) 92MU 46-4 Formation: Phosphatic Shale General Location: Sagavanirktok River Bluff

PALYNOLOGY

Age. Probable Early Cretaceous
Undifferentiated
Environment. Marine
Palynomorphs. Undifferentiated bisaccates (R)
Densosporites sp. (V) reworked
Hymenozonotriletes lepidophytus (R) reworked
Microdinium opacum (R)
Kerogen. Mostly woody-fusinitic. T.A.I. = 3.0

FORAMINIFERA

Age. Probable Early Cretaceous
Neocomian (Undiff.)
Zone. F-12 to F-14
Environment. Middle Neritic to Bathyal
Fauna. *Lenticulina muensteri* (R)
Paper shale (A)
Rounded frosted quartz floaters (R)
Washed lith. Dark brownish gray paper shale

09) 92MU 48 Formation: Kingak Shale General Location: Lupine River

PALYNOLOGY

Age. Indeterminate
Environment. Indeterminate
Palynomorphs. Barren of palynomorphs.
Very sparse organics.
Kerogen. Mostly woody-fusinitic. T.A.I. = 3.0?

FORAMINIFERA

Age. Indeterminate
Environment. Indeterminate
Fauna. Barren of Foraminifera.
Washed lith. Black shale

10) 92MU 51 Formation: Kingak Shale General Location: Lupine River

PALYNOLOGY

Age. Indeterminate
Environment. Nonmarine?
Palynomorphs. Undifferentiated bisaccates (C)
Hymenozonotriletes lepidophytus (R) reworked
Kerogen. Mostly woody-fusinitic. T.A.I. = 3.5

FORAMINIFERA

Age. Indeterminate
Environment. Indeterminate
Fauna. Barren of Foraminifera.
Washed lith. Paper shale (R)
Dark brownish gray shale

11) 92MU 55 Formation: Kingak Shale General Location: Lupine River

PALYNOLOGY

Age. Early Cretaceous
Neocomian (Undiff.)
Environment. Marine
Palynomorphs. *Densosporites* sp. (V) reworked
Gleicheniidites senonicus (V)
Hymenozonotriletes lepidophytus (R) reworked
?Nelchinopsis kostromiensis (V)
Oligosphaeridium complex (thick-wall) (R)
Kerogen. Mostly woody-fusinitic. T.A.I. = 3.5

FORAMINIFERA

Age. Possible Late Jurassic
Oxfordian? to Kimmeridgian?
Zone. F-16?
Environment. Outer Neritic to Middle Bathyal
Fauna. *Haplophragmoides canui* (X)
Reinholdella hofkeri (X)
Washed lith. Paper shale (F)
Dark brownish gray slightly paper shale
Discussion. Two (2) poorly preserved specimens only, could be reworked?

12) 92MU 59 Formation: Upper Nanushuk Grp. General Location: Nanushuk River

PALYNOLOGY

Age. Early Cretaceous
Aptian - Albian
Zone. P-M18 to P-M17
Environment. Marine
Palynomorphs. Undifferentiated bisaccates (C)
Taxodiaceae (A)
Cribroperidinium edwardsi (V)
Cyclonephellium compactum (R)
Cyclonephellium distinctum (R)
Hystrichodinium pulchrum (F)
Hystrichosphaeridium stellatum (V)
Microdinium opacum (V)
Odontochitina operculata (F)
Oligosphaeridium complex (F)
Spiniferites spp. (R)
Kerogen. Mainly woody-fusinitic. T.A.I. = 2.5

FORAMINIFERA

Age. Early Cretaceous
Aptian to Albian
Zone. F-11?
Environment. Outer Neritic to Bathyal
Fauna. *Gaudryina cf. tailleuri* (F)
Haplophragmoides spissum (F)
Haplophragmoides collyra (F)
Trochammina mcmurrayensis (C)
Trochamminoides sp. (small, thin) (C)
Washed lith. Orange-brown iron-stained siltstone or silty shale

13) 92MU 61 Formation: Upper Kingak Shale General Location: Echooka River

PALYNOLOGY

Age. Possible Early Cretaceous
Undifferentiated
Environment. Marine?
Palynomorphs. Poor preservation.
Undifferentiated bisaccates (R)
Classopollis classoides (R)
Gleichenioidites senonicus (R)
Lycopodiumsporites sp. (V)
Osmundacidites sp. (V)
?Microdinium opacum (V)
Kerogen. Mostly woody-fusinitic. T.A.I. = 3.0 - 3.5

FORAMINIFERA

Age. Probable Early Cretaceous
Neocomian
Zone. F-12 to F-14
Environment. Middle Neritic to Bathyal
Fauna. Arenaceous spp. (large, coarse) (R)
Rounded frosted quartz floaters (C)
Washed lith. Dark brownish gray to black slightly sandy shale

14) 92MU 64 Formation: Arctic Creek Unit General Location: Arctic Creek

PALYNOLOGY

Age. Possible Early Cretaceous
Undifferentiated
Environment. Marine?
Palynomorphs. Indeterminate spore fragments (R)
Undifferentiated bisaccates (R)
Gleichenioidites senonicus (R)
Kerogen. Mostly woody-fusinitic. T.A.I. = 3.5

FORAMINIFERA

Age. Indeterminate
Environment. Indeterminate
Fauna. Barren of Foraminifera.
Washed lith. Dark gray iron-stained slightly silty shale

15) 92MU 66 Formation: Pebble Shale Unit General Location: Katakaturuk River

PALYNOLOGY

Age. Possible Early Cretaceous
Undifferentiated
Environment. Marine
Palynomorphs. *Oligosphaeridium complex* (thick-wall) (V)
Kerogen. Mostly amorphous. T.A.I. = 3.0

FORAMINIFERA

Age. Probable Early Cretaceous
Neocomian (Undiff.)
Zone. F-12 to F-14
Environment. Indeterminate
Fauna. Barren of Foraminifera.
Rounded frosted quartz floaters (F)
Washed lith. Dark brownish gray to black slightly silty shale
Discussion. Based on lithology only.

16) 92MU 68 Formation: Kingak Shale General Location: Niguanak River

PALYNOLOGY

Age. Early - Middle Jurassic
Undifferentiated
Zone. P-M23
Environment. Marine
Palynomorphs. Undifferentiated bisaccates (F)
Classopollis classoides (R)
Densosporites spp. (C) reworked
Hymenozonotriletes lepidophytus (V) reworked
Lycopodiumsporites spp. (R)
Micrhystridium spp. (A)
Nannoceratopsis gracilis (A)
Tasmanaceae (F)
Kerogen. Mostly herbaceous. T.A.I. = 2.5

FORAMINIFERA

Age. Indeterminate
Environment. Indeterminate
Fauna. Barren of Foraminifera.
Washed lith. Orange-brown iron-stained very fine grained sandstone or siltstone

17) 90AMU 6-2 Formation: Kemik Sandstone General Location: Ignek Creek

PALYNOLOGY

<u>Age.</u>	Indeterminate
<u>Environment.</u>	No evidence of marine.
<u>Palynomorphs.</u>	<i>Densosporites</i> spp. (R) reworked
<u>Kerogen.</u>	Sparse organics.
	Mostly woody-fusinitic. T.A.I. = ?

FORAMINIFERA

<u>Age.</u>	Indeterminate
<u>Environment.</u>	Indeterminate
<u>Fauna.</u>	Barren of Foraminifera.
	Paper shale (F)
<u>Washed lith.</u>	Dark gray slightly paper shale

18) 90AMU 6-2 Formation: Kemik Sandstone General Location: Ignek Creek

PALYNOLOGY

<u>Age.</u>	Indeterminate
<u>Environment.</u>	No evidence of marine.
<u>Palynomorphs.</u>	<i>Densosporites</i> sp. (V) reworked
<u>Kerogen.</u>	Mostly woody-fusinitic. T.A.I. = 2.7?

FORAMINIFERA

<u>Age.</u>	Indeterminate
<u>Environment.</u>	Indeterminate
<u>Fauna.</u>	Barren of Foraminifera.
	Paper shale (C)
<u>Washed lith.</u>	Dark gray to black paper shale

19) 91MU 42-3 Formation: Upper Kingak Shale General Location: Upper Shavlovik River

PALYNOLOGY

<u>Age.</u>	Indeterminate
<u>Environment.</u>	Indeterminate
<u>Palynomorphs.</u>	Barren of palynomorphs.
<u>Kerogen.</u>	Mostly woody-fusinitic. T.A.I. = 3.0

FORAMINIFERA

<u>Age.</u>	Probable Early Cretaceous
	Berriasian to Valanginian
<u>Zone.</u>	F-13 to F-14
<u>Environment.</u>	Outer Neritic to Middle Bathyal
<u>Fauna.</u>	<i>Ammobaculites fragmentarius</i> (X)
	Arenaceous spp. (large, coarse) (F)
	<i>Haplophragmoides duoffatis</i> (R)
	<i>Haplophragmoides goodenoughensis</i> (R)
	Rounded frosted quartz floaters (F)
<u>Washed lith.</u>	Dark brownish gray to black slightly sandy shale

20) 92RR 60A Formation: Kingak Shale General Location: Savlukviayak

PALYNOLOGY

<u>Age.</u>	Indeterminate
<u>Environment.</u>	Indeterminate
<u>Palynomorphs.</u>	Few indeterminate, corroded palynomorphs (spores?).
<u>Kerogen.</u>	Mostly woody-fusinitic. T.A.I. = 3.8

FORAMINIFERA

<u>Age.</u>	Indeterminate
<u>Environment.</u>	Indeterminate
<u>Fauna.</u>	Barren of Foraminifera.
<u>Washed lith.</u>	Black splintery shale

21) 92TJR 01A Formation: Torok Fm.

General Location: Slope Mountain

PALYNOLOGY

Age.

Probable Early Cretaceous

Possible Aptian - Albian

Zone.

Possible P-M18 to P-M17

Environment.

Marine

Palynomorphs.

Undifferentiated bisaccates (C)

Cicatricosisporites sp. (V)

Classopollis classoides (V)

Densosporites spp. (R) reworked

Gleistosphaeridium sp. (V)

Cribroperidinium edwardsi (V)

Cyclonephellium distinctum (R)

?*Pseudoceratium retusum* (V)

Sverdrupiella usitata (V) reworked

Mostly woody-fusinltic. T.A.I. = 2.8 - 3.0

Kerogen.

FORAMINIFERA

Age.

Early Cretaceous

Aptian to Albian

Zone.

F-10 to F-11

Environment.

Middle Neritic to Bathyal

Fauna.

Ammobaculites fragmentarius (F)

Haplophragmoides excavata (F)

Haplophragmoides topagorukensis (R)

Haplophragmoides kirki (F)

Lenticulina macrodisca (X)

Verneuilinoides borealis (F)

Fecal pellets (R)

Washed lith.

Dark brownish gray silty shale

22) 92TJR 01E Formation: Torok Fm.

General Location: Slope Mountain

PALYNOLOGY

Age.

Early Cretaceous

Aptian - Albian

Zone.

P-M18 to P-M17

Environment.

Marine

Palynomorphs.

Undifferentiated bisaccates (F)

Cribroperidinium edwardsi (V)

Cyclonephellium distinctum (R)

Oligosphaeridium complex (R)

Oligosphaeridium complex (thick-wall) (V)

Pseudoceratium retusum (V)

Mostly woody-fusinltic. T.A.I. = 2.7

Kerogen.

Remarks.

The presence of *Pseudoceratium retusum* suggests an age no younger than middle Albian.

FORAMINIFERA

Age.

Early Cretaceous

Aptian to Albian

Zone.

F-11?

Environment.

Outer Neritic to Bathyal

Fauna.

Ammobaculites fragmentarius (F)

Gaudryina cf. tailleuri (F)

Haplophragmoides collyra (F)

Haplophragmoides spissum (F)

Coal (F)

Washed lith.

Dark gray siltstone or silty shale

23) 92TJR 01F Formation: Torok Fm.

General Location: Slope Mountain

PALYNOLOGY

Age,
Environment,
Palynomorphs.

Indeterminate
No evidence of marine.
Undifferentiated bisaccates (R)
Deltoidospora sp. (V)
Densosporites sp. (V) reworked
Mostly woody-fusinitic. T.A.I. = 2.7

Kerogen.

FORAMINIFERA

Age,
Environment,
Fauna,
Washed lith.

Indeterminate
Indeterminate
Barren of Foraminifera.
Orange-brown heavily iron-stained slightly silty shale

24) 92TJR 01G Formation: Tuktu Fm.

General Location: Slope Mountain

PALYNOLOGY

Age,
Environment,
Palynomorphs.

Early Cretaceous
Undifferentiated
Marine
Undifferentiated bisaccates (C)
Gleichenioidites senonicus (V)
Trilobosporites perverulentus (V)
Cribroperidinium edwardsi (R)
Mostly woody-fusinitic. T.A.I. = 2.5

Kerogen.

FORAMINIFERA

Age,
Environment,
Fauna,
Washed lith.

Indeterminate
Indeterminate
Barren of Foraminifera.
Paper shale (F)
Dark brownish gray slightly paper shale

25) 92TJR 01H Formation: Tuktu Fm.

General Location: Slope Mountain

PALYNOLOGY

Age,
Environment,
Palynomorphs.
Kerogen.

Indeterminate
No evidence of marine.
Undifferentiated bisaccates (F)
Mostly woody-fusinitic. T.A.I. = 2.3

FORAMINIFERA

Age,
Environment,
Fauna,
Washed lith.

Indeterminate
Indeterminate
Barren of Foraminifera.
Paper shale (F)
Dark brownish gray iron-stained slightly paper shale

26) 92TJR 01J Formation: Tuktu Fm.

General Location: Slope Mountain

PALYNOLOGY

Age.

Early Cretaceous

Aptian - Albian

Zone.

P-M18 to P-M17

Environment.

Marine

Palynomorphs.

Undifferentiated bisaccates (A)

Gleichenioidites senonicus (R)

Vitreisporites pallidus (V)

Pseudoceratium retusum (V)

Sverdrupiella usitata (V) reworked

Mostly woody-fusinitic. T.A.I. = 2.3 - 2.5

Kerogen.

The presence of *Pseudoceratium retusum* suggests an age no younger than middle Albian.

Remarks.

FORAMINIFERA

Age.

Indeterminate

Environment.

Indeterminate

Fauna.

Barren of Foraminifera.

Washed lith.

Dark brownish gray silty micaceous shale

27) 92TJR 01N Formation: Tuktu Fm.

General Location: Slope Mountain

PALYNOLOGY

Age.

Indeterminate

Environment.

No evidence of marine.

Palynomorphs.

Undifferentiated bisaccates (F)

Kerogen.

Mostly woody-fusinitic. T.A.I. = 2.3 - 2.5

FORAMINIFERA

Age.

Indeterminate

Environment.

Indeterminate

Fauna.

Barren of Foraminifera.

Washed lith.

Dark brownish gray iron-stained micaceous shale

28) 92TJR 01O Formation: Tuktu Fm.

General Location: Slope Mountain

PALYNOLOGY

Age.

Early Cretaceous

Middle - Late Albian

Zone.

P-M17

Environment.

Marine

Palynomorphs.

Undifferentiated bisaccates (C)

Cribroperidinium edwardsi (V)

Hystriosphæridium stellatum (V)

Oligosphaeridium complex (V)

Pseudoceratium cf. *P. palliferum* (V)

Spinidinium vestitum (V)

Mostly woody-fusinitic. T.A.I. = 2.3 - 2.5

Kerogen.

FORAMINIFERA

Age.

Indeterminate

Environment.

Indeterminate

Fauna.

Barren of Foraminifera.

Washed lith.

Paper shale (C)

Dark brownish gray paper shale

29) 92TJR 01Z Formation: Chandler Fm. General Location: Slope Mountain

PALYNOLOGY

<u>Age.</u>	Indeterminate
<u>Environment.</u>	No evidence of marine.
<u>Palynomorphs.</u>	Undifferentiated bisaccates (A) <i>Cicatricosisporites</i> spp. (F) <i>Deltoidospora</i> spp. (R) <i>Densosporites</i> sp. (V) reworked <i>Gleicheniidites senonicus</i> (V) <i>Laevigatosporites</i> spp. (F) <i>Osmundacidites</i> spp. (R)
<u>Kerogen.</u>	Mostly woody-fusinitic. T.A.I. = 2.3 - 2.5

FORAMINIFERA

Not analyzed for Foraminifera.

30) 92RR 47B Formation: Fortress Mtn. Fm. General Location: Section Creek

PALYNOLOGY

<u>Age.</u>	Indeterminate
<u>Environment.</u>	No evidence of marine.
<u>Palynomorphs.</u>	Indeterminate spores (R). Poor preservation.
<u>Kerogen.</u>	Mostly woody-fusinitic. T.A.I. = 3.0

FORAMINIFERA

<u>Age.</u>	Indeterminate
<u>Environment.</u>	Indeterminate
<u>Fauna.</u>	Barren of Foraminifera.
<u>Washed lith.</u>	Dark brownish gray silty shale

31) 92RR 47D Formation: Fortress Mtn Fm. General Location: Section Creek

PALYNOLOGY

<u>Age.</u>	Indeterminate
<u>Environment.</u>	Indeterminate
<u>Palynomorphs.</u>	Barren of palynomorphs.
<u>Kerogen.</u>	Mostly woody-fusinitic. T.A.I. = 3.0?

FORAMINIFERA

<u>Age.</u>	Indeterminate
<u>Environment.</u>	Indeterminate
<u>Fauna.</u>	Barren of Foraminifera.
<u>Washed lith.</u>	Dark gray slightly silty shale

32) 92RR 49C Formation: Below Coquiloid Ls. General Location: W. Elusive Lake

PALYNOLOGY

<u>Age.</u>	Indeterminate
<u>Environment.</u>	Indeterminate
<u>Palynomorphs.</u>	Barren of palynomorphs.
<u>Kerogen.</u>	Mostly woody-fusinitic. T.A.I. = 3.8

FORAMINIFERA

<u>Age.</u>	Indeterminate
<u>Environment.</u>	Indeterminate
<u>Fauna.</u>	Barren of Foraminifera.
<u>Washed lith.</u>	Paper shale (C) Black paper shale

33) 92RR 54A Formation: Below Phosphatic Shale General Location: Phillip Smith Mtns. D-3 Sect.18

PALYNOLOGY

Age. Indeterminate
Environment. No evidence of marine.
Palynomorphs. Sparse organic recovery.
Undifferentiated bisaccates (R)
Kerogen. Mostly woody-fusinitic. T.A.I. = 3.8

FORAMINIFERA

Age. Indeterminate
Environment. Indeterminate
Fauna. Barren of Foraminifera.
Washed lith. Dark brownish gray shale

34) 92RR 54D Formation: Kingak Shale? General Location: Phillip Smith Mtns. D-3 Sect.18

PALYNOLOGY

Age. Indeterminate
Environment. Indeterminate
Palynomorphs. Barren of palynomorphs. Very sparse organics.
Kerogen. Mostly woody-fusinitic. T.A.I. = 3.8?

FORAMINIFERA

Age. Indeterminate
Environment. Indeterminate
Fauna. Barren of Foraminifera.
Washed lith. Paper shale (F)
Dark gray slightly paper shale

35) 92RR 54E Formation: Kingak Shale General Location: Phillip Smith Mtns. D-3 Sect.18

PALYNOLOGY

Age. Early Cretaceous
Possible Berriasian - Valanginian
Zone. P-M20?
Palynomorphs. Indeterminate spores (F)
Undifferentiated bisaccates (F)
Gleichenioidites senonicus (R)
Oligosphaeridium complex (thick-wall) (R)
Gochteodinia villosa (V)
Mostly woody-fusinitic. T.A.I. = 3.8

FORAMINIFERA

Age. Probable Early Cretaceous
Neocomian (Undiff.)
Zone. F-12 to F-14
Environment. Indeterminate
Fauna. Barren of Foraminifera.
Washed lith. Paper shale (A)
Rounded frosted quartz floaters (F)
Discussion. Dark gray to black slightly sandy paper shale
Based on lithology only.

36) 92RR 57A Formation: Kingak Shale General Location: Phillip Smith Mtns. D-3 Sect.24

PALYNOLOGY

<u>Age.</u>	Indeterminate
<u>Environment.</u>	Marine
<u>Palynomorphs.</u>	Indeterminate spores (F) Undifferentiated bisaccates (R) <i>Densosporites</i> sp. (V) reworked Micro foram test-lining (V) Mostly woody-fusinitic. T.A.I. = 3.8

FORAMINIFERA

<u>Age.</u>	Indeterminate
<u>Environment.</u>	Indeterminate
<u>Fauna.</u>	Barren of Foraminifera.
<u>Washed lith.</u>	Dark gray to black shale

37) 92RR 58A Formation: Kingak Shale General Location: Phillip Smith Mtns. D-3 Sect.24

PALYNOLOGY

<u>Age.</u>	Possible Early Cretaceous Undifferentiated
<u>Environment.</u>	Marine
<u>Palynomorphs.</u>	<i>Oligosphaeridium complex</i> (thick-wall) (V) Mostly woody-fusinitic. T.A.I. = 2.5?
<u>Kerogen.</u>	

FORAMINIFERA

<u>Age.</u>	Indeterminate
<u>Environment.</u>	Indeterminate
<u>Fauna.</u>	Barren of Foraminifera.
<u>Washed lith.</u>	Dark brownish gray shale

38) 92RR 59C Formation: Tuktu Fm. General Location: Lupine River

PALYNOLOGY

<u>Age.</u>	Indeterminate
<u>Environment.</u>	Indeterminate
<u>Palynomorphs.</u>	Barren of palynomorphs. Mostly woody-fusinitic. T.A.I. = 3.0?
<u>Kerogen.</u>	

FORAMINIFERA

<u>Age.</u>	Indeterminate
<u>Environment.</u>	Indeterminate
<u>Fauna.</u>	Barren of Foraminifera.
<u>Washed lith.</u>	Dark brownish gray shale

APPENDIX A

<u>SAMPLE</u>	<u>LATITUDE(north)</u>	<u>LONGITUDE(west)</u>
92Mu30A	68.505	149.203
92Mu30A	68.505	149.203
92Mu29	68.577	148.885
92Mu29-3	68.591	148.900
92Mu29-2	68.591	148.900
92Mu31	68.582	148.708
92RR49C	68.651	148.570
92TJR01A	68.738	149.028
92TJR01E	68.738	149.028
92TJR01F	68.738	149.028
92TJR01G	68.739	149.028
92TJR01H	68.739	149.028
92TJR01J	68.739	149.028
92TJR01N	68.739	149.028
92TJR01O	68.738	149.028
92TJR01Z	68.738	149.028
92Mu46-4	68.727	148.775
92RR54A	68.838	148.387
92RR54D	68.858	148.380
92RR54E	68.858	148.380
92Mu48	68.889	148.266
92Mu51	68.915	148.294
92RR57A	68.918	148.215
92Mu55	68.932	148.224
92RR58A	68.943	148.298
92RR59C	68.950	148.319
92RR60A	68.957	148.111
92RR47B	68.637	148.838
92RR47D	68.637	148.838
92Mu46-3	68.726	148.775
92Mu59	68.709	150.650
92Mu61	69.303	147.683
91Mu42-3	69.338	147.201
92Mu66	69.683	145.236
90AMu6-2	69.602	146.101
90AMu6-2A	69.602	146.101
92Mu64	69.516	144.508
92Mu68	69.901	143.041