Recovery
p = poor
vp = very poor
mo = moderate
● - pollen
● - No Rec.

Amoco Production Company

Surface Log

Name: Sandy Lake Section
Area or Quad: Port Moller, D-1 State: Alaska
Location: Bear Lake Area Sec. 4,5 TWN 48S RNG 68W
Measured by: L. Smiznov, B. Connelly, E. Amstrong, J. Brown. Date: 9,11 Aug 77
Interval: Tachilni Fm.
Remarks: Measured down section on ridges of south slope 2020 Mnt. Beginning at Leg A at the elevation 1850'. Upper-covered interval

Location: 56°04' N 159°55' W

Plotted by: L. Smiznov Date: 15/8/77

Periods | Epochs | Ranger Fm. | Kenner | Corrected x-beds paleo-current | Logs | Depth | Lithology | Porosity | Samples | Remarks

Leg A — Tachilni Fm — Pliocene

2164 F — Ss, brown, f-cg, scattered pebbles, 40% quartz, fossiliferous, bioturbated.
2165 PP 35.8% — Ss, white, f-g, arcosic, thin laminated
68.1 MD — Ss, brown, f-g, poorly sorted, a lot volcanic clasts.
2148 F — Ss, fossiliferous as above, bioturbated.
Ss, as above, 20-50'
Ss, dark, vc-g, conglomeratic, poorly sorted volcanic with lenses of conglomerates with pelecypods
2149 PP 38.3% — Ss, dark-gray, m-fg, poorly sorted, mainly volcanic clasts, poorly cemented
95.0 MD
Conglomerate, boulder size, volcanic, at the base a lot of pelecypods in living position.
2150 Pf — Ss, brown, f-g, sorted, arcosic with wood fragments, porous, bedded.
Conglomerate as above
Ss as above
2151 L, 2152 C — Ss, brown, v-cg, poorly sorted, volcanic
S35W20, N70E 22, N75E 24, S80W22
Ss, as above - 125-160', x-bedded
Ss, brown, f-mg, sorted, quartz-Volc; several fossiliferous horizons; claystone lenses and conglomerate interbeds; irregular x-beds.
2153 Pf
2154 PP 30.7% — 2155 F
9785.0 MD
Pure exposed interval, ss.
2156 F — Ss as above, 300-330'.
2157 L — Interbedded: ss, light-gray, vf-g, moderately sorted, feldspathic; occasional conglomerates interlayers up to 2' thick and tuff up to 1'.

Leg B
2158 Pf mo — Ss and conglomerates as above with thin interlayers of claystones, sometimes flasier beds. At the base - conglomerate boulder size some fossils fragments, clear sedimentary contact with unit 4 - basal conglomerate for Tachilni Fm.
2159 Pf mo
2160 Pf vg
2161 Pf
2163 Pf
2162 L — Angular disconformity represented by slumping zone with ss, yellowish, c-g, arcosic; coal and flasier beds. Contorted beds.

Leg C — Miocene
Covered interval
S58E24, S5E32, S33E37, S40E31, S61E36
Ss as above with conglomerates
2168 Pf mo — Ss as above, x-beds; organic shales
Conglomerate with x-beds and ss lenses
N78E24, N33E27, N52E39
2166 Pf mo, 2167 PP, 2168 L — Ss, gray, vf-g, subrounded, sorted, arcosic, porous, x-bedded siltstones interlayers up to 3' thick.
Ss as above with coaly shales
N56W32, N35W42, N24W35
Covered interval, no further exposures.

Summary: Unit 1 is mainly medium bedded and x-bedded c-g ss, arcosic, bioturbated, fossiliferous. Local occurrence ss with marine fossils in living position, directly overlain by coarse conglomerate suggest that ss was deposited in a shallow marine environment with occasional storm outwashes (?) from nearby rivers or beach deposits (?)
Unit 2 is mainly f-g ss, arcosic with occasional thin interlayers of conglomerate and tuff.
Unit 3 is similar to unit 2 but contains thin interlayers of claystone and flasier beds, that means.....?
Coarsening up section for Tachilni Fm, maybe it means regressive sequence?
Unit 4 and 5 are arcosic ss with organic shale and coal, probably deposited in lagoonal or tidal flat environments. X-bedded ss paleocurrents indicate transport to SE and NW (along shore), x-bedded conglomerate - to NE (perpendicular to the shore)