S.P. LEE - 1982

Chukchi sea

RECORD

Log of samples

Cruise L 11-82-CS

A.A. Grantz, et al.

7530-00-222-3525
FEDERAL SUPPLY SERVICE
(GPO)

R/V S.P. LEE - 1982

L 11-82-CS

Dredge haul D-1 ~~tat~~ 70° 25.97 ok Herald
171° 33.59 shoal
Dragged over ~~lone~~ wooded ridge - shallow
~~pt~~ point ~ 12 m
Got 5 or 6 cobbles - sub ∡ to sub round.
No mud - must be sandy bottom
~~Dredge~~
Used chain bag dredge with no ~~tin~~ liner.
Drifted ~~SSW~~ WSW.
Line out = 5x depth.

Sedimentary rocks.

Dredge haul D-2 70° 24.702 70° 24.77
Herald Shoal 171° 34.103 171° 34.31

Well rounded gravel & sand with many sand dollars small clams & many shrimp. One hermit crab in a shell.

ok

Dredge haul ~~#~~ D-3 70° 28.103
Herald shoal 171° 34.717

~~Sta~~ Somewhat abruptly rising ridge
in seabed – Top. ~ 10 m subsea
base ~ 21-22 m "
Dredge c/o liner – ~~Sa~~ – Sand washed away.
Dredge caught mostly subrounded ~
rounded cobbles. Lots of variety.
Not close to bedrock source.

Dredge haul D-4 70° 32.215
171 24.243
Herald shoal

Empty dredge - no mud smear either.
- Didn't use liner - could be ~~sand~~
hard sand bottom
Dredged across very low relief
bumps.

OK

Dredge haul D-5 70° 28.30'
170° 41'

Harold Shoal

Flat bottom – Empty dredge – no ~~mud~~.
Probably sandy – gravelly ~~on~~ bottom
No mud on dredge

* w/o the gyro, it is almost ~~impossible~~ impossible to ~~return~~ return to a dredge site found by profiling. (w/o the gyro, the Nav. system can't use the Doppler-Sonar input between Sat-fixes)

Herald shoal

DREDGE HAUL D-6

BROAD bumps w/ maximum relief of 2-3 meters (water depths of approx. 29.5 → 32.5 m). Bumps are surrounded by flat bottom.

Haul with mesh net recovered ~ 300 echinoids (sand dollars) and ~ 3% gravel, with shrimps, worms, crabs, a few clams and others. Gravel was mostly 1-2 cm in diameter, moderately to well-rounded.

Saved six chips (~ 1 cm × 1.5 cm → 2 cm × 3 cm, flat) of coal and 1 of dk. gray chert, which is probably also a relict gravel clast.

Conclusion: Herald Shoal is covered by sand & smaller amounts of gravel in this vicinity. Crests may be perched gravel bars of some sort.

70° 37' 69"

169° 10' 44"

DREDGE HAUL D-7

Low plateau underlain by a reflector at 5-10 m depth (on 3.5 kHz record), which is underlain by dipping reflectors (IK?).

Dredge hauled w/ mesh bag, recovered much muddy sand, sand dollars, crabs, hermit crabs, shrimps, a few clams, 1 pectin and some worms. Sparse gravel up to ~ 2 cm diameter & 2 chips of sandy phyllite (w/ ~ 3 or 4 % muscovite flakes up to 0.5 mm, diameter.)

70°42' 97
168° 58' 48

Hunna Shoal cont

Dredge D-8-

Silt

Honda shoal west

Dredge D-9	72° 09.5'	on bottom
	161° 44.2'	
2 small sample bags collected	72 09.1	off bottom
	161° 45.7	

~~Variety~~

Silt med. gy. with rounded & sub ∠ pebbles of sedimentary rocks, mainly. Some of the ss is greish gy. & ~~for~~ wly moderately indurated, & some is sub rnd to sub ∠. Possibly the ss represents nearly bedrock.
Also carbonate, qtz, chert.

The ss may possibly be local the rest is probably ice rafted.