SERIES  GROUP  GROUP  MICROFAUNAL ZONE  HEAVY-MINERAL ZONE  OR FEET)  OR FEET  OR FEET)  OR FEET  OR FEET	O E RESISTIVITY O O W (OHMS m²/m)	SELECTED  LITHOLOGIC  DESCRIPTION	FORMATION TEST	DEVIATION  NUMBER  NUM	E RATE TER WINDLE PER MINUTE OF OF NG PENETRATION TER (ASSESSMENT)	(SIZE D'SIZE (SIZE	EXPLANATION  October 10 to 10
US H H → → → → → → → → → → → → → → → → →	0 10 20 30 40 15N 1 2 2 30 40 15N 2 3 30 40 15N 3 30 30 30 30 30 30 30 30 30 30 30 30 3	Cuttings above 160 ft not received in laboratory. Contamination in lower samples suggests presence of tan and black chert sand near the surface		(IN INC.)  (IN INC.)  (IN INC.)  (IN INC.)	AVERAGE MINUTES PER F		Silty sandstone  Calcareous sandstone  Siltstone
-? -? RUN 1 Sea level	SHORT NORMA AM =16 INCHE			0°30′	150 5	200	Sandy siltstone
BARROW TRAIL MEMBER	AM = 16 INC.	Clay shale, medium-gray; trace to 40 percent siltstone  Sandstone and siltstone, very light- to light-gray, medium-hard, very "dirty"; grains angular to subangular, 75 percent white and clear quartz, 15 percent dark chert, coal, and rock fragments, 3 percent opaque white volcante glass shards and 5 percent mica: argillaceous and bentonitic matrix; liakes and partings of back coal common. Also 20 percent mediumgray per silter with fair cleavage interbedded with the sandstone and sale of counted with fair cleavage interbedded with the sandstone and sale of percent back chert granules and pebbles up to an inch in diameter, quartz granules, and rare fragments of Incerumus and other mollusks; all in a bentonitic clay matrix. Radiolaria		3°-8° 1 18-0	150 5	61/8 K-25	Sandy claystone or clay shale  Silty claystone or clay shale  Calcareous claystone or clay shale  Calcareous claystone or clay shale  Calcareous claystone or clay shale
400 — 400 —	LONG NORMAL AM = 63 INCHES	Sandstone, very light- to light-gray; grains subangular, 75-85 percent white and clear quartz; remainder dark chert, mica, rock fragments, coal particles; white argillaceous very slightly bentonitic matrix; thick-shelled Inoceramus chunks		панинанин панин па	150 5	NO.3 500	Coal or carbonaceous material  Limestone  Bentonite
600 — ——————————————————————————————————		Tuff, light-gray, with slight greenish cast; rather hard; contains particles of carbonaceous material and biotite. Also a little very light-gray tuff containing sand grains  Inoceramus prisms		1*00'	150 5		Tuff  Cored interval  No samples recovered
700 — 700 —		Clay shale, medium-light- to medium-gray, with scattered silty and sandy beds  Clay shale and siltstone, light-gray (some medium- and medium-dark-gray), medium-hard; poor to fair cleavage. Siltstone contains finely disseminated carbonaceous material, mica, and pyrite, and has a bentonitic matrix; rare "worm burrows" as found in core 1 above.		4°-10° 2 17-0	150 4	700 	Oil show  Gas show  vi  Very fine grained  fine grained  m  Medium grained  c  Coarse grained  vc  Very coarse grained
S ROGERS CREEK M		Tuff, white to very light-gray, hard; contains biotite plates, also some clay shale		1°10′	150 3	OSC.3	AM Electrode spacing  BIT SYMBOLS  DRILL BITS  CBR Crum Brainard reamer  OSC.3  Hughes OSC.3
1000 —		Clay shale, medium-light- to medium-gray; rarely light-gray; traces of very light-gray, white, and pinkish-white tuff, also traces of bentonite  Tuff, white, hard, has a few biotite plates, as much as 60 percent soft white bentonite; trace of medium-gray clay shale				NO.5 - 1100	OSQ-2 Hughes OSQ-2  R-2 Reed type 2  SHO Security hole opener  S-2 Smith type 2  CORE BITS  A-ID
(a) 1200—		Sandstone, light- to medium-light-gray, hard to moderately soft; has good cleavage parallel to bedding; 80-90 percent white and clear quartz; remainder is dark-gray and black chert, rock fragments, rare coaly particles fairly common biotite, and ironstone nodules; also interbeds of siltstone and clay shale; rare worm burrows. Medium-gray hard limestone with irregular fracture; has white calcite veinlets. Medium-to medium-dark-gray silty clay shale in lower part of core, with scattered carbonaceous plant fragments, poor to fair cleavage. Pelecypod fragments and Inoceramus prisms at 1161 ft	Test 1, 1145 - 1201 ft. Open 30 min. Recove 200 ft uncut mud	red  5°.9° 4'.8° 8º 12° 4°-10° 5°-10° 5°-10° 5°-10° 5°-10° 5°-10° 5°-10° 5°-10° 5°-10° 10 10-0 3°-5° 3°-5° 12 18-0  6°-7° 13 5-0	50 2	75/8 A-1D C 3 A-1R A-1R A-1 NO.6  61/8 K-25 2 RERUN	A-1, wire line, soft formation  A-IR  A-1, wire line, hard formation  K-24  Reed K-24, hard formation  K-25  Reed K-25, soft formation  PC-1  Reed wire line, PC-1, hard formation  RWLD  Reed wire line, soft formation
z		Clay shale, medium-gray, and light-gray sandstone. Dull black soft brittle coal  Sandstone, light- to medium-light-gray; fine grains mostly white and clear quartz; coarser streaks are salt-and-pepper sand with up to 50 percent dark minerals; rare rounded black chert and quartz pebbles; streaks of medium-light-to medium-dark-gray clay shale; streaks and partings of coal; some resinous material. Bentomic light-gray clay shale near base of core; some crystalline aragonite in bedding planes	Test 2, 1308 - 1351 ft. Open 33 min. Recered 175 ft gas-cut water (drilling fluid)  Test 3, 1355 - 1402 ft. Open 61 min. Recered 491 ft gas-cut water (drilling fluid)	7° 16 20-0	50 2	75/8 A-1D	Location: Lat 69°25′10″ N. Long 151°27′26″ W. Elevation: Kelly bushing 163 feet Ground 151 feet Spudded: September 10, 1951 Completed: December 14, 1951 Total depth: 4620 feet Status: Junked and abandoned
		Bentonite, light-gray, also light-bluish and greenish-gray, rather soft, argillaceous. Light-gray medium-hard to soft slightly friable sandstone; subangular grains, 75 percent white and clear quarts; remainder is dark chert, rock fragments, coal particles, scattered white particles, some biotite. Medium-dark-gray to grayish-black clay shale, fissile and coaly toward base. Greenish-gray flady bentonite. Grayish-black to black coal, also bentonitic clay shale and siltstone  Clay shale, siltstone, and micaceous sandstone as above. Medium-gray hard limestone, with vertical fracture and scattered laminae of yellowish-gray clay ironstone up to 2 inches thick	Test 4, 1431 - 1502 ft. Open 58 min. Recered 500 ft gas-cut water (drilling flu Closed 18 min, bottom-hole pressure 300  Test 5, 1504 - 1554 ft. Open 27 min. No g Recovered 115 ft uncut mud. Bottom-h pressure 500 psi; bottom-hole temperatu 75 F	21 13-0 22 11-0 22 11-0 23 20-0 7° 24 17-0 3-7° 25 9-0 26 10-0 27 5-0 2°10′ 28 1-6	150 2 50 2 150 1	8	Drilling and engineering data compi from records of Arctic Contractors Colors were determined by comparison dry samples with the National Resear Council Rock Color Chart, 1948 Electric log by Schlumberger Well Surv ing Corporation All depths are measured from the top the kelly bushing
		]-[ Siltstone, light-gray, slightly sandy, argillaceous; biotite common	Test 6, 1674 - 1737 ft. Open 31 min. No g Recovered 113 ft mud. Bottom-hole te persture 76°P	9° 7°-10° 30 29 8-0 2-0 30 30 30 30 30 30 30 30 30 30 30 30 30	150 2	5 NO.8 PRERUN - 1600	
W	The state of the s	Interbedded clay shale, medium-to medium-dark-gray, and medium-light-gray siltstone, sandy streaks, some coal. Light-gray hard massive salt-and-pepper sandstone; grains angular to subangular, 65 percent white and clear quartz, 20 percent dark-gray and black chert, some opaque white particles, splow quartz (?), rare brown ironstone particles, some mica, one rounded chert pebble  Much coal in ditch through interval of no recovery	Test 7, 1792 - 1841 ft. Open 42 min. Gas surface in 8 sec. Bottom-hole flowing pr sure through 1-in. orfice, 925 psi. Pl. estimated at 8,000,000 cu ft per day. fluid recovered. Bottom-hole tempertu 80°F	38 39 5-0 0-0 40 16-0 41 8-0 5° 42 3-6  to ee- ow No ure 9° 44 7-0 10° 45 6-0 46 6-6	150 2	16	
	SCHOOL CAVE  SCHOO	Sandstone, light-gray; mostly soft and nearly unconsolidated; "clean", "salt and pepper"; grains subangular to subrounded, up to 55 percent dark-gray, brown, and black chert granules and pebbles; also ironstone and clay shale pebbles; carbonaceous plant fragments and black coaly laminae, resinous material, some bentonitic clay shale  Claystone, medium-dark-gray, hard, dense, hackly to subconchoidal fracture; slickensides at 1916 ft. Excellent small black leaf impressions throughout argillaceous interval, Trapa microphyla Lesquereux. Light-gray medium-hard massive sandstone, with irregular fracture; 50-75 percent white and clear quartz, also dark chert, rock fragments, and coaly particles; ironstone nodules rare; calcareous cement. Coal, shiny to dull black, with blocky fracture. Six inches of greenish-gray paper shale containing large white mice plates at 1973 ft	Test 8, 1844 - 1885 ft. Open 42 min. Gas surface in 30 sec. Bottom-hole flowin pressure through 1-in. orifice, 900 psi. loovered 1.5 gal slightly gas and oil cut mt Bottom-hole temperature 80°F.  Test 9, 1876 - 1885 ft. Open 69 min. Gas surface in 1.5 min. Slight gas flow; botto hole flowing pressure through 2-in. orificero psi. Recovered 7 gal slightly gas-q. and water-cut mud. Closed 17 min. Botto hole pressure 825 psi  Test 10, 1928 - 1984 ft. Open 110 min. No. flow. Recovered 40°f t gas-qil, and wat cut mud. Bottom-hole flowing pressure psi; bottom-hole temperature 75°F	1 to 9° 47 4-0 Re-	50 2 150 3 50 2 150 2 150 2	61/8 18 61/8 K-25 19 K-25-20 	
2000 — 20		Clay shale and claystone, medium-gray, alternates with thin laminae of medium-light-gray siltstone; rare carbanaceous partings; ironstone lenses and nodules present; a few small white pelecypods and gastropods at 2095 ft. Light to medium-gray hard to very hard sandatone, with irregular fracture; 80 percent white and clear quarts; remainder is dark chert, rock fragments, and mics, silty martis; calserous cement (carbonate content 49.6 percent by weight at 2110 ft), cattle vein at 2113 ft, one pelecypod	Test 11, 2096 - 2146 ft. Packer failed to ho Test 12, 2103 - 2146 ft. Packer failed to ho	15471   59   20-0   1	150 3 50 2 150 3	K.24 23 - 2000 -	
2200 — RUN 3		Interbedded clay shale and siltatone, medium-and medium-light-gray, medium-hard, poor to excellent cleavage; carbonaceous-micaceous partings. Medium-light- to medium-gray hard argillaceous limestone, irregular fracture.  They white mollusk fragment at top of core 66		6° 5° 62 61 16-0 1-0 6° 5° 64 9-0 65 10-0 6° 6° 66 8-0 67 2-0	50 2	7% NO.11 - 2200	
2300 —		Clay shale, medium-light- to medium-dark-gray, but primarily medium-gray.  Light-gray calcite between 2315 and 2225 ft  Siltstone; trace		2°30′	150 2	NO.12 - 2400	
2500 —		Clay shale, medium-light- to medium-gray  Clay shale, light-gray, bentonitic; trace of medium-light-gray limestone and aragonite; trace of very calcareous siltatone  Siltstone light-gray, slightly calcareous  Coal, dull black; 10 percent		2*00′	150 2	NO.13 -	
2600 —		Clay shale, medium-light- to medium-gray; some medium dark gray  Inoceramos shell fragments, also fish fragments  Situstone, medium light gray, argillaceous  Bentonite, light-gray, with biotite plates trace		2°00′	150 2	NO.14 - 2700	
ш		Clay shale, medium-light- to medium-gray, silty; chunks of Inoceramus prisms 2700-2710 ft, trace coal  Clay shale, medium-dark-gray, and fish fragments; trace  Limestone, medium-dark-gray and brownish-gray, trace: small calcite vein; trace white bentonite and bentonitic shale; trace of aragonite and coal. Inoceramus fragments  Clay shale, very calcareous siltstone, and limestone. Trace of bentonite and coal			150 2	- - - - - - 2800	
2900 —	W-m	Clay shale, medium- to medium-dark-gray; trace very light-gray and green- ish-gray clay shale; Inoceramus chunks  Sandstone, light- to medium-light-gray, soft; 85 percent white and clear quartz; remainder is dark-colored chert, rock fragments, some biotite  Clay shale, medium-light- to medium-dark-gray, mostly medium-gray; trace of siltstone; Inoceramus prisms 2970-2975 ft		2*40'	150 2	NO.15 - 2900	
3100 —		Clay shale, medium-dark-gray: trace to 15 percent very light-gray to white bentonitie or bentonitie shale containing brown biotite plates; trace of white aragonite, however ones prisms, fish fragments, and Radiolaria  Clay shale, medium-dark-gray, moderatly hard, with fair cleavage; biotite common; some light-gray bentonitie shale, veins of aragonite. Light-gray hard silty massive sandstone; irregular fracture; 75-80 percent white and clear quartz; remainder is rock fragments, dark chert, biotite, and carbonacous particles; dips up to 15° probably represent crossbedding. Medium-gray medium-hard silty and argillaceous limestone		1°40′ 68 10-0 69 10-0 70 5-0	/6 ÷	7% RWLD NO.17 29	
3200 —		Sandstone, light-gray; grains subangular to subrounded, 85 percent white and clear quartz; remainder mostly dark chert, rock fragments, and biotite, also medium-light-gray siltstone and medium-gray clay shale  Trace white aragonite, white bentonite, and light-greenish-gray bentonitic shale, Inoceromus prisms, and fish fragments		2°10′	150 2	NO.18 3200	
3300		Clay shale, medium-light- to medium-gray, moderately hard, with fair cleavage; some claystone with irregular fracture. Medium-light-gray argillatione, with micaceous partings, possible worn or mollusk borings of the control of the		1°50′  71 3-0 72 10-0 73 8-0 74 10-0 75 76 12-0 77 20-0  1°00′	50 2 50 2 50 2	PC-1 NO 20 -	
3500		Interbedded clay shale and a small amount of siltstone, medium-dark- to dark gray, medium-soft, micaceous; good cleavage; Inoceramus prisms in microfossil cut. Light-gray, salt-and-pepper medium-hard sandstone, nearly poker chip cleavage; grains subangular, 65 percent white and clear quartz, nearly 35 percent black chert, rock fragments and coaly particles; some chalky white particles; other minerals rare; very rare clay chips in the sandstone	Test 13, 3496 - 3540 ft. Open 60 min. No g Recovered 195 ft mud; bottom-hole pr sure, zero psi. Bottom-hole temperatu 83° f	3°-7° 3°-7° 3°-10° 7°-8°-7° 8°-8°-8°-8°-8°-8°-8°-8°-8°-8°-8°-8°-8°-8	50 2 50 2 150 2	7.5/g NO.21	
3600 — RUN 4    L   V		Clay shale, medium- to medium-dark-gray, micaceous, silty; good cleavage, clay ironstone. Light-gray hard massive sandstone; 80 percent white and clear quartz; remainder is dark-colored rock fragments, chert, pyrite, garnet, some mica and soft white particles; argillaceous cement; brownish-coated pelecypod casts at 3643 ft  Clay shale, medium-dark-gray, medium-hard, finely micaceous; fair to good cleavage; some medium- to medium-light-gray silty laminae and lenses; small pelecypod at 3697 ft; rare carbonaceous plant impressions; some coaly lenses at 3733 ft; colities at 3736 ft; soiluse at 3736 ft; olities at 3736 ft; soiluse at 3736 ft;		4°-7°  85 19-6  3°-4°  2°-20°  87 7-0  88 9-0  90 8-0  91 2-0  92 1-0  5°  93 2-0  94 18-0	50 2	36 NO.25 - 3700 - 3700 K.25 Y	
Homblende Homble	1-m (-m)	Sandstone, light-gray, hard, massive; grains subangular to rarely subrounded, 80-90 percent white and clear quartz, also dark colored chert, rock fragments, and carbonaceous particles, chalky-white particles and other rare minerals, clay ironstone laminae rare; trace of coal  Interbedded sandstone and siltstone 90 percent, and clay shale 10 percent. Sandstone and siltstone is light gray, contains yellowish-gray ironstone particles. Clay shale is medium dark gray, medium hard, micaceous; fair cleavage. Medium-gray hard silty limestone contains thin veln of white	Test 14, 3781 - 3809 ft. Open 119 min. No g to surface. Closed 15 min. Recovered 1.8 ft water, salinity 7,755 ppm. Bottom-h pressure, 1,400 psi. Shut-in flowing presure 300 psi  Test 15, 3872 - 3892 ft. Open 152 min. No g	3°-10° 4°00′ 101 20-0 3° 102 19-0 103 0-0	50 2	40 OSQ-2	
D		calcite  Siltstone, sandstone, and clay shale with gradations of each; some cross-bedding with dips up to 15° in sandstone  Siltstone, medium-light-gray, hard; fair cleavage; contains numerous partings; laminae of medium-dark-gray clay shale; small amount of crossbedding; some carbonaceous-micaceous partings	Test 15, 3872 - 3892 ft. Open 152 min. Nog to surface. Recovered 10 ft water-cut mi salinity 1,031 ppm. Flowing pressure, ze psi. Closed 1 min. Shut-in pressure ze psi.  Test 16, 4034 - 4060 ft. Packer failed to ho Test 17, 4038 - 4060 ft. Packer failed to ho	2°   106   20-0   107-108   16-0   109   5-0   110   7-0   1d	50 2 150 2 50 2 50 2	50 - 3900 51 - 3900 NO.28 4000	
a z		Rare unidentified pelecypods  Sandstone, light-gray, silty, hard; grains subangular to subrounded; 90 percent white and clear quarts; remainder is rock fragments, dark chert, and recent white and clear quarts; remainder is rock fragments, dark chert, and recent white and clear perceases of the second control of the second control of the second clear age and numerous earbonaceous-micaceous partings. Divrapa sp. 4660 ft  Bentonite, light-bluish-gray; contains numerous plates of biotite and also scattered subangular grains of quartz. Clay shale and siltstone, Inocernmus prisms	Test 18, 4033 - 4060 ft. Packer failed to ho Test 19, 4039 - 4060 ft. Open 180 min. Y gas to surface Recovered 12 ft mi Bottom-hole pressure, zero psi. Botto: hole temperature 82°F	ld 3°-15° 111 16-0	150 2	K.25 - 56	
A		Sandstone, light- to medium-light-gray, hard; grains subangular to sub-rounded; 25 percent white and clear quartz; remainder is mostly dark-gray chert, rock particles, and mice; are carbonaceous or coaly partings, also medium dark gray clay shale or claystone; moderately hard, fair to no cleavage, minor amount of slickensides  Siltatone, medium-light-gray; some sandstone and clay shale; some "swirly"	Test 20, 4233-4261 ft. Packer failed to ho Test 21, 4233-4261 ft. Packer failed to ho Test 22, 4232-4261 ft. Open 165 min. Rec ered 60 ft oil-cut mud. Bottom-hole pressu zero psi. Bottom-hole temperature 84°	ld	150 2	59 NO.33 - 60 - 4300 NO.29 - 050.2	
D U K G G Verneulinn		Siltstone, medium-light-gray; some sandstone and clay shale; some "swirly" bedding  Sandstone, medium-light-gray, hard, "tight," massive, silty; grains subangular to subrounded; 85 percent white and clear quartz; remainder is rock fragments, dark-gray chert, scattered carbonaceous or coaly particles  Clay shale, medium-dark-gray, moderately hard, finely micaceous; as much as 5 percent is very thin beds and partings of medium-light-gray siltstone; slickensided surfaces in lower 10 feet of recovery		5°   118 18-0     119 11-0     120 15-0       121 18-0	60 2	NO.29 OSG.2 RERUN	
LOWER CRETACE 1 0 P A G O R		Siltstone, medium-light- to medium-gray, argillaceous, slightly sandy  Clay shale, medium-gray, medium-hard, finely micaceous; good to excellent cleavage; numerous medium-light-gray silty partings  Bentonite, white to very light-gray, and bentonitic clay shale; trace		13° 124 20-0	150 3	K-25 NO.35 — 4500	
Total—depth—4620		Clay shale with silty partings; excellent cleavage parallel to bedding	ST WELL 2, ALAS	12º14º 125 17-0 46%	INTERIOR GEGLOGICAL SURVEY WASHINGTON, D. C.	Logged by Florence M. Robinson	

Location: Lat 69°25′10″ N.
Long 151°27′26″ W.
Elevation: Kelly bushing 163 feet
Ground 151 feet
Spudded: September 10, 1951
Completed: December 14, 1951
Total depth: 4620 feet
Status: Junked and abandoned

Drilling and engineering data compiled from records of Arctic Contractors

Colors were determined by comparison of dry samples with the National Research Council Rock Color Chart, 1948

Electric log by Schlumberger Well Surveying Corporation

All depths are measured from the top of the kelly bushing