

LOG AND CORE RECORD

Microscopic descriptions by H. W. DeJong, H. B. Bynum, and J. R. Ward.

Feet	Description
0-143	Not logged. 12" casing set at 130' w/122 sax.
143-150	Lt. gry. v.f.g. ss. and silt, soft, por. mica, unconsolidated.
150-160	Poorly sorted congl. ss. angly. frags. of acid and basic ign. rocks.
160-210	Lt. gry. v. soft, silt, silty sh., v. porous.
210-220	Very small gas show at 210' and 214' in mud and cuttings.
220-260	Very small gas show 230-232' as above. Fragments of granitic to basic rocks, angular, med. gr. to pebble size, unconsol.
260-290	Lt. gry. soft silty sh. or shaly silt. v. small gas show 266-270' in mud.
290-360	Soft porous, lt. gry. shly. silt or silty sh. Very small gas show 290-300' in mud.
360-470	Soft lt. gry. some sl. porous sh. w/some sl. calc. Bentonitic. Small gas show in mud 378-380'.
470-474	As above, small gas show in mud at 470-474' interval.
474-524	As above. Gas shows: (480-516') 12 units, (516-520') 41 units.
524-560	As above, with fine to med. gr. congl. qtz. sand w/frags. ign. rock. Grains are angl. and unconsol.
560-740	Soft gry. porous bentonitic sh. Gas readings on analyzer throughout interval varied from 0-50 units.
740-762	As above with tr. of carb.(?) material.
762-782	Gry., sticky, soft bent. sh.
782-795	Soft light gr. porous bent. sh. (ashy appear.). Sticky as above.
795-800	Mixture of porous and gummy sh. as above.
800-810	As above, very silty, gritty.
810-835	Soft to firm sh.
835-850	Gry. sticky sh.
850-920	Soft to firm sh.
920-938	Gry. v. fn. gr. ss., some v. small pellets gry. to grn. gr. and red. Very soft, friable. Ed. grns. are clear quartz. Some med. gr. subangl. to subround. Shaly at base. Gas shows variable in intensity.
938-1000	Lt. gr. soft bent. sh., porous.
1000-1050	As above but firmer.
1050-1080	As above w/calc. stics. Tr. brn. sh. 1065-1070.
1080-1110	Gry. md. calc. sh.
1110-1162	As above w/ some gray calc. bent. sh.
1162-1215	Lt. gry. grn. "salt and pepper" silty and shaly, fn. gr. friable ss., appar. arkose, when wet, w/some gry. grn. sh. interbed. Some dense gry. ls. 1166-70. Some gry. brn. sh. No porosity. Gas readings low.
1215-1220	As above w/interbed. gry brnt. sl. calc. sh.
1220-1230	Shaly silty. fn. gr. calc. "salt and pepper" ss., lt. gry soft friable. <u>Good gas show.</u> Some gas bubbles in mud returns.
1230-1244	Stringer gr. dense ls. Lt. gr. silty calc. hard sh.
1244-1252	Ss. lt. gry. "salt and pepper" shaly, fn. gr. porous calc., soft, friable. <u>Good gas show.</u> Some gas bubbles on mud returns.
1252-1324	Lt. gry. bent. silty, calc., firm sh. Tr. ls. 1310-1315.
1324-1420	Med. gry., waxy sh. Some lt. gry. tan hd. sh. 1345-50'. Carb. specks on sh. 1405-10' in the waxy sh.
1420-1470	Lt. gry. to med. gry. very silty calc. sh., waxy. Tr. tan dense ls. 1440-42'.
1470-1530	Some imbedded sd. gr. Tr. blk carb. mater(?). Tr. lt. gry. dense arg. ls. 1466-68' and tan ls. 1442-74'. Tr. gry.-grn. shaly fn. gr. ss 1470-72'.
1530-1565	Lt. gry. sh. bent(?). Ashy text. Some slightly waxy.
1565-1590	Gry. waxy sh. Tr. gry. fn. gr. shaly v. silty calc. ss. 1585-90'.
1590-1640	Lt. gr.-med. gr. sh. Ashy text, bent(?). Some slightly waxy. Tr. of lt. gr. dense ls. 1605-1610'.
1640-1682	As above, some slightly waxy sh., tr. blk. carb. material(?) in lt. gry. sh. Tr. shly fn. gr. lt. gry. very silty, calc. ss. 1645-50' and 1655-1665'.
1682-1694	Samples run 10% fn.-med. gr., subangl.-subround unconsolated ss w/some med. gr. gry and grn. sh. Some large grs. and pebbles of gry.-blk. qtz. and basalt; prob. interbed w/silty gry to gry.-grn. sh. Hd. silts 1684-86'.
1694-1760	Gr. bent., waxy sh. interbed. w/pebb. of gry. qtz. and basalt. Tr. lt. gry. and brn. dense ls.
1760-1785	Stringer of lt. gry. sdy. ls w/carb. specks(?).
1785-1860	Lt. gry. bent. sh. w/scattered grns. of fn.-crse. grn. sand. Some pebb. Probably thin beds of bent. sh. w/interbeds of sd., fn.-crse. grn., clear, subangl.-subround. qtz. and basalt. Samples 1840-50' have more sd. and pebb.
1860-1874	Pebbl. and gravel in sh.
1874-1908	Sandy sh.
1908-1914	Two samples were gry. waxy firm sh.
1914-1922	Unconsolated sd., fn. grn. subangl.-angular clear qtz., w/dk. gry. to blk.-grn. hd. sh. Prob. grn. of volc. gl. or fn. gr. basalt. <u>Gas show in mud returns - 20 units.</u>
1922-1928	As above; some round dk. gry. qtz. pebbles. Only slight gas show.
1928-1930	Gry. waxy sh. w/some lt. gry. shaly, very soft v. fn. gr. to fn. gr. ss.
1930-1960	As above but w/some pebbles. <u>DST (1908-32) packer failed.</u>
1960-1970	Ss. stringers fn. fr. to v. fn. gr., angl. to subangl. qtz. and basalt grns. <u>Gas - 34 units.</u>
1970-1980	Lt. gry. sh., calc. cement, ss. stringers, fn. to v. fn. gr. Some pinhole porosity.
1980-1990	Lt. gry. sh. and ss. stringers, mica in ss. <u>Gas - 42 units.</u>
1990-2070	Gry. ss. poorly con. Rhyolite and basalt frags, pinhole porosity. <u>Gas show 0-42 units.</u>
2070-2080	Lt. gry. sdy. bent. sh. w/some mica, calc.
2080-2100	Volcanic glass.
2100-2110	As above w/crs. grns. of angular to subangular clear and smoky qtz.
2110-2178	Loose fn. to med. grn. sd., angl. to subangl. "salt and pepper". Some clear grn. of basalt and chert. <u>DST (2132-781) Test open 1 hr., good flow, initial flow pressure 150 psi, final flow pressure 200 psi. Recovered 200' of gas cut H₂O.</u>
2178-2230	Lt. gry. sl. sdy., bent., friable sh., sl. calc.; stringers of dense tan ls. <u>Gas show 0-70 units.</u>
2230-2265	Fn. to med. grn., angl. to subangl. salt and pepper ss., congl. stringers; calc. cem. <u>Gas show 8-34 units.</u>
2265-2275	Gry. to tan waxy slightly sdy., fria. sh.
2275-2305	As above; w/stringers sdy. ls.
2305-2310	Lt. gry. fn. to med. grn. subangl. to subround. clear-smoky qtz. ss., unconsol.
2310-2345	Lt. gry. waxy bent. sh.
2345-2370	Tan to brn. sh., v. fn. vols. and qtz. inelus.
2370-2415	Lt. gry. sh., thin stringers of calc., "salt and pepper" sd. <u>Gas show 48-0 units.</u> Becomes congl. near bottom. Comp. qtz. and basalt pebb.
2415-2500	Lt. gry. friab. sdy. sh. w/qtz. pebbles.
2500-2610	Lt. gry. dncs., fria., sl. sdy. sh., becoming waxy and bent.
2610-2615	Loose "salt and pepper" sd. becoming cemented. <u>Gas show 12-36 units.</u>
2615-2640	Lt. gry. sdy. sh.
2640-2675	Loose "salt and pepper" ss. grading to well consol. congl., subang. grains and pebbles. <u>Gas show 14-54 units.</u>
2675-2685	Lt. gry. fria. sh.
2685-2710	Lt. gry. sh. fria. and sdy.; some sd. stringers.
2710-2720	"Salt and pepper" congl., calc., well cem. <u>Gas 20-28 units.</u>
2720-2740	Gry., slightly sdy. sh.
2740-2760	As above w/sd. stringers.
2760-2800	Gry. waxy sh.
2800-2830	Loose "salt and pepper" ss., fn. to crse. grn., subangl., becoming well cemented and conglomer. at bottom.
2830-2880	Lt. gry. to tan sl. sdy. fria. and waxy sh.
2880-2900	As above w/well cem. subangl. ss. stringers.
2900-2960	Gry. sdy. fria. sh.
2960-3050	Sh. as above; more sdy., some free qtz. grns.
3050-3070	Soft, fn. to med., calc., angl. to subangl. "salt and pepper" congl.
3070-3090	Gry. sdy. fria. sh.
3090-3100	"Salt and pepper" congl. as before. <u>Gas show 0-30 units.</u>
3100-3110	Congl. as above, becoming sdy., loose, angl. to subangl. qtz. and blk. chert frags.
3110-3115	Soft gry., sl. sdy., fria. sh.
3115-3125	Congl. as before.
3125-3133	Gry. to tan sh., fria., sl. calc.
3133-3140	Ss. and congl. as above. <u>Gas 0-20 units.</u>
3140-3165	Fria. sh. and loose "salt and pepper" sds.
3165-3210	Gry. to tan slightly sdy., fria. sh., becoming gummy (3185-3205')
3210-3340	Lt. gry. to tan sl. sdy., sl. calc., shale. <u>Gas show 4-18 units.</u>
3340-3480	Gry. sl. sdy. fria., sl. calc. sh., contains mica. Mica content increases w/depth.
3480-3510	Tan sh., dense sl. sdy., as above, pyrite in sh.
3510-3580	Lt. gry. sdy. soft sh. as before.
3580-3610	Gry. "salt and pepper" congl., unconsol., calc.
3610-3710	Lt. gry. sdy. sh. as before.
3710-3740	Lt. gry. fn. to v. fn. gr., angl. to subangl. sd. Small pyrites.
3740-3790	Dk. gry. fn. to v. fn. gr., subangl. ss., free crs. grns. of qtz. and pyrite cryst.
3790-3795	Dk. crstln. basalt.
3795-3840	Lt. Gry. sdy. sl. bent. sh.
3840-3900	Fractured, micro-cryst. to med. cryst. olivine basalt. <u>Gas show 0-36 units.</u>
3900-3920	Lt. tan to bn. sl. sdy. fria. sh.
3920-3950	Broken olivine basalt.
3950-4090	Gry. to tan sl. sdy., sl. calc., fria. sh.
4090-4125	As above, w/pyrite inelus., prob. vols. orig. Stringers of v. fn. gr. angl. to subangl. silty ss. w/pyrite crystals.
4125-4150	Lt. gry. to white vols. ash or tuff, soft, fria., fibrous text.
4150-4160	Lt. gry. to tan, fria., sl. sdy., calc. sh.
4160-4185	Broken basalt, more feldspars, some pyrite. Weathered at 4160'.
4185-4212	Lt. gry. sl. silty sh., fria., locally sdy. <u>Gas 2-41 units at (4204-4212)'</u>
4212-4215	Basalt, dk. gry., fn. crstln., minute pyrite crystals.
4215-4268	Sh. gry. to med. gry., sl. silty, fria.
4268-4270	As above. <u>Gas show 0-60 units.</u>
4270-4272	As above. <u>Gas show 80 units.</u>
4272-4314	Sh. as above.
4314-4340	Basalt, dk. gry. to grn. gry., locally tr. arsenopyrite and abund. diss. pyrite crystals. Thin veinlets of calcite in the basalt.
4340-4378	Sh. as before w/tr. of v. fn. gr. "salt and pepper", sl. calc. ss. w/tr. of white ash.
4378-4398	Ss., gry. to lt. gry., v. fn. gr., firm to hd., calc. Some free qtz grns.
4398-4460	Sh. lt. gry., waxy, becoming med. gry. color and silty w/tr. of chert.
4460-4490	As above w/tr. lt. gry. v. fn. gr. to silty ss.
4490-4510	Black basalt w/layers of pyritic basalt.
4510-4525	Brn. to lt. brn. sl. calc. sh.
4525-4570	Congl. ss.; angular to subround; coarse qtz. and basalt frags. Matrix lt. gry. v. fn. gr. to silty ss. Tight poorly sorted. Grades to fg. ss. downward.
4570-4585	Grn. gry. ashy sh., some qtz pebb. w/stringer of v. fn. gr. ss.
4585-4610	Med. gry. platy, had., sh.
4610-4635	Brn. to gry. brn. sh.; tr. v. fn. gr. ss.
4635-4645	Fn. gr. gry. ss. grading to congl. poorly sorted.
4645-4710	Gry.-brn. sh. w/occas. fn. gr. ss. stringers.
4710-4720	Grn.-gry. ashy sh.
4720-4730	White ash.
4730-4742	Med. gry. to gry. sh.
4742-4760	Grn.-blk., finely cryst. basalt.
4760-4780	Dense gry. to med. gry. basalt.
4780-4800	Basalt, brownish alteration.
4800-4815	Brn.-red-grn., silts, silty and shaly ss.
4815-4910	Basalt w/brn.-gry. sh. and white ash interbeds.
4910-4925	Basalt, grn.-gry. finely crystalline.
4925-5020	Basalt, med. gry. to blk. dense, had., grading to dk. grn. gry.
5020-5044	Basalt w/interbeds of white ash.
5044-5100	Basalt w/qtz. veining. <u>Gas show (5044-5044) 40-110 units.</u>
5100-5141 <u>TD</u>	Basalt dk. grn. gry. fn. to crse. crystalline w/some hd., dense, blk. basalt.