Amerada Petroleum Corporation - L. W. Luddington was spudded August 31, 1955, drilled to a total depth of 4318, found dry and plugged Sept. 12, 1955.

Logging Record:
Gamma ray-neutron, microlaterolog, electric, laterolog. Run September 12, 1955 by Schlumberger.

Testing Record:
DST #1 3640-3652' 2 hrs. test. Very weak blow for 1 hour and then a very weak intermittent blow for 45 min. and died. Rec. 191' of muddy salt water, IHP 2010, IFP 75, 1/2 hour. BHP 1810, FHP 1950.

DST #2 - 3912-3924'. 2 hr. test. Air immediately, very weak blow for 2 hours. Rec, 558' of muddy salt water, no free gas or oil. IHP 2175, IFP 0, FFP 275, 30 min. BHP 1700, FHP 2150.

Casing Record:
5 jts. 9 5/8" surf. csg. set at 216' with 125 sacks cement.

Plugging Record:
3954 to 3897 with 20 sacks cement.
3674 to 3617 with 20 sacks cement.
3444 to 3387 with 20 sacks cement.
2396 to 2339 with 20 sacks cement.
242 to 184 with 20 sacks cement.
top of surface casing with 10 sacks cement.

Formation tops were determined from samples and mechanical logs corrected to log tops. Doubtful or obscure formation tops were not picked. Color names and identifying numbers are from the 1948 color chart distributed by the National Research Council, Washington, D. C.

FORMATION TOPS

Cretaceous System
Pierre formation 290
Niobrara formation 1547 (electric log)
Greenhorn formation 1870
Dakota Group sands 2356
Jurassic System 2503
   Piper formation 3184
Triassic System
   Spearfish formation 3408
Mississippian System
   Charles formation 3637
   Mission Canyon fm. (MC3) 3890
   Mission Canyon fm. (MC2) 4003
   Mission Canyon fm. (MC1) 4040
   Lodgepole formation 4198

0-216  Missing.
216-290  Shale, predominately light gray, some grayish orange pink, lumpy, spongy, micaceous, fine sand grains, slightly calcareous.
290-380  Shale, medium gray, lumpy, white micaceous bentonite and very light gray limestone inclusions.
380-410  Shale, medium light gray, lumpy and irregular fragments to fairly compact.
410-470  Shale, medium light gray to medium gray, fairly compact.
470-500  Shale, medium light gray, fairly compact. A few fragments of bentonite.
500-590  Shale, medium light gray to medium gray, compact, micro-micaceous.
590-710  Shale, predominately medium light gray, compact; limestone fragments, very light gray, rounded, sublithographic, argillaceous, grainy.
710-800  Shale, medium light gray to medium gray, mostly compact to lumpy, irregular. A few shell fragments.
800-830  Shale, medium light gray, compact, occasional limestone fragments, very light gray; sublithographic, argillaceous, a few sand grains.
830-950  Shale, medium light gray, compact to lumpy; occasional limestone fragments as above.
950-1040  Shale as above, also occasional fragments of yellowish gray, rounded, compact, calcareous shale.
1040-1310  Shale, medium light gray, compact to lumpy, bentonitic.
1310-1340  Shale, medium light gray, lumpy to compact, bentonitic, interbedded medium dark gray limestone; limestone fragments, pinkish gray, crystalline.
1340-1400  Shale, medium dark gray, platy to fissile.
1400-1520  Shale, medium light gray, lumpy; white bentonite; cavings.
1520-1700  Shale, medium light gray, lumpy, bentonitic to medium gray, compact. Interbedded limestone, inoceramus fragments.
1700-1790  Shale, medium light gray to medium dark gray, compact, platy, fossiliferous.
1790-1850  Shale, medium dark gray, platy to fissile.
1850-1880  Shale, medium light gray, platy, calcite crystals; shale as above.
1880-1940  Shale, medium dark gray, compact, soft white calcareous specks. Caving.
1940-1970  Shale, medium gray to medium dark gray, compact, platy, soft white calcareous specks; fossiliferous. Limestone, medium light gray, crystalline, very argillaceous.
1970-2000  Shale, medium dark gray, fissile, shale as above, limestone as above.
2000-2030  Shale, light gray, lumpy, bentonitic to medium gray to medium dark gray, platy to fissile. Limestone, light gray, crystalline to fragmental. Limestone as above.
2030–2090 Shale as above.
2090–2120 Shale, medium gray to medium dark gray, compact, platy to fissile.
2120–2150 Shale, medium dark gray, fissile.
2150–2300 Shale, medium light gray to medium gray, lumpy, irregular, fragments, bentonitic to fairly compact, platy, as above.
2300–2350 Shale, medium gray, lumpy, irregular fragments, medium dark gray shale inclusions, white bentonite. Shale, medium dark gray, fissile.
2350–2372 Shale, medium gray, lumpy to platy to medium dark gray, platy. Occasional medium gray, silty, very calcareous shale.
2372 Circulation 1/2 hour. Shale as above. Scattered silica granules, vitreous, subround. Occasional sandatorie fragments, fine to medium grained, calcareous, subangular. Bentonite.
2372–2400 As above.
2400–2440 Shale, sand as above. Shale, medium light gray, bentonitic, unconsolidated, unsorted sand grain inclusions.
2440–2500 Sandstone granules, frosted to vitreous, subangular to subround. Shale as above.
2500–2580 Shale, medium to medium dark gray, lumpy, bentonitic to platy. Samples contain much sand, cavings.
2580–2600 Shale, sand granules as above. Occasional fine grained, light gray, calcareous sandstone fragments.
2600–2640 Anhydrite, white to pinkish gray, finely crystalline; sand as above. Shale, medium light gray to medium dark gray, platy.
2640–2660 Anhydrite as above. Quartz sand granules to pebbles, colorless, subround to subangular, vitreous to frosted, unconsolidated. Sandstone, light gray, fine grained, calcareous.
2660–2680 Unconsolidated sand grains; shale, light greenish gray to light gray.
2680–2710 Shale, light greenish gray (5GY8/1), subwaxy to light gray, platy. Much caving.
2710–2770 Shale, light gray, massive to platy. Cavings.
2770–2850 Shale, predominately medium light gray, massive to platy, compact.
2850–2920 Shale, medium light gray, lumpy with sand grain inclusions to platy, shell fragments.
2920–2950 Shale, medium light gray to medium gray, platy; occasional medium light gray crystalline limestone fragments.
2950–3000 Shale, medium light gray lumpy to platy to medium gray, platy. Scattered fragments of dark yellowish orange, silty shale.
3000–3130 Shale, light gray to medium dark gray, platy, some variegated. Scattered fragments of medium light gray, fine grained sandstone. Occasional limestone fragments.
3130–3150 Dolomite limestone, white, subcrystalline, sublithographic, shale as above.
3150–3190 Dolomitic limestone, white to pinkish gray, grainy to crystalline, sublithographic to lithographic. Anhydrite, pinkish gray, crystalline.
3240–3350 Limestone, white to very light gray, subcrystalline to grainy, sublithographic, occasional recrystallization, anhydrite fragments. Much caving.
3350–3380 Anhydrite, white, finely crystalline to medium light gray, crystalline.
Anhydrite as above; limestone, very light gray, subcrystalline, sublithographic.

Anhydrite as above; shale, pale reddish brown, silty, anhydritic, slightly calcareous.

Shale, pale reddish brown, fairly compact, parts silty, a few pale reddish brown sandstone fragments, friable.

Sandstone, pale reddish brown, fine to medium grained, subrounded to subangular grains, friable; shale as above.

Sandstone, grayish orange, fine to medium grained, subrounded to subangular, fair sorting, friable.

Sandstone, as above; shale, pale reddish brown, compact. Fossiliferous.

Circulation 1/4 hour. Shale, dark reddish brown, compact, some fragments variegated. Sandstone as above.

Circulation 1/4 hour. Sandstone and shale as above.

As above; cavings. Occasional limestone fragments, very light gray, microsucrosic, sublithographic.

Circulation 1/2 hour. Limestone, very light gray, microsucrosic to crystalline, sublithographic matrix, slightly argillaceous.

Limestone as above, light brownish gray, subcrystalline to crystalline, dense.

Limestone, light brownish gray, subcrystalline to crystalline; limestone, very light gray, subcrystalline-sublithographic matrix, fragmental.

Limestone, very light gray to light brownish gray, fragmental to crystalline; anhydrite, light gray, subcrystalline. Dolomite, pale red to light gray, very fine grainy texture.

Dolomite as above; anhydrite, light gray, subcrystalline.

Anhydrite, light gray, subcrystalline, dense.

Limestone, very light gray, subcrystalline, sublithographic, colorless to light brownish gray calcite crystals, secondary anhydrite replacement.

Circulation 1/2 hour. Limestone as above. Anhydrite, very light gray, fine grainy texture.

Limestone, very light gray, subcrystalline, sublithographic.

Missing.

Anhydrite, light bluish gray, subcrystalline, dense.

Anhydrite as above; limestone very light gray, very fine grainy texture, calcite inclusions.

Anhydrite, light bluish gray to light gray, subcrystalline, dense. Limestone, very light gray, subcrystalline, sublithographic, secondary calcite recrystallization.

Anhydrite, light gray as above. Shell fragments.

Circulation 1/2 hour. Anhydrite, light brownish gray, subcrystalline dolomitic. The anhydrite has an irregular structure and it appears that something, most likely a salt, has been dissolved out of it.

Anhydrite, light brownish gray, subcrystalline, dolomitic, subangular fragments.

Anhydrite, light gray, subcrystalline, dense.

Limestone, yellowish gray, subcrystalline, sublithographic, secondary calcite recrystallization.

Anhydrite, light gray, subcrystalline, dense.
3910-3924  Calcitic dolomite, light olive gray, microsucrosic, anhydritic, some fragments vuggy.
3924-3930  Circulation 1/2 hour. As above.
3930-3960  Limestone, yellowish gray, sublithographic, grainy, secondary calcite recrystallization, some fragments fragmental, argillaceous.
3960-4000  Limestone, pinkish gray to light brownish gray, fragmental.
4000-4030  Limestone, white, subcrystalline, sublithographic, secondary calcite replacement.
4030-4040  Limestone, very light gray, subcrystalline, fossiliferous, oolitic.
4040-4050  Limestone as above, limestone, white, subcrystalline, sublithographic.
4050-4070  Limestone, very light gray, oolitic, fine grainy matrix, sublithographic.
4070-4100  Limestone, light gray, grainy, sublithographic.
4100-4110  Limestone, very light gray, subcrystalline to fine grainy, secondary calcite recrystallization, some fragmental limestone.
4110-4120  Limestone, very light gray to medium gray, fragmental, oolitic, very fossiliferous.
4120-4160  Limestone, very light gray, subcrystalline, sublithographic, to very light gray, fragmental.
4160-4300  Limestone, very light gray to medium gray, crystalline to fragmental, fossiliferous.
4300-4318  Limestone, medium light gray, oolitic; limestone as above.
4318       Limestone, light gray, grainy to crystalline, sublithographic.