SOUTHERN UNION GAS COMPANY'S NAVAJO NO. 1 CORE DESCRIPTIONS

Core No. 1 Cored 8490' to 8508', recovered 15'

8490-92 2' Shale, light gray, locally medium brown, mottled, slightly calcareous with small calcareous concretions.

8492-95 3' Limestone, light to medium gray, microcrystalline locally lithographic, with minor argillaceous laminations.

8495-96½' 1½' Limestone, medium gray, microcrystalline, locally arenaceous.

8495-96½' ½' Shale, medium gray, slightly calcareous.

8497-98 1' Limestone, medium gray, microcrystalline, locally lithographic, hard, dense, vertical fractures, cemented with calcite.

8498-99 1' Shale, medium gray, calcareous, with minor conretions.

8499-8505 6' Limestone, light gray, microcrystalline to lithographic, minor laminations of shale, hard dense, many vertical fractures. Fractures filled with calcite. Few Stylolites.

8505-08 No recovery.

Core No. 2 8561-8602, recovered 41' as follows:

8561-62½ 1½' Sandstone, light green-gray, medium to coarse grained, subround to subangular, poorly sorted. Abundant quartz grained. Porosity 8 to 9%. Contains 62% Salt Water. No odor or oil stain.

8562½-69 6½' Limestone, light gray, indurated, dense, crytocrystalline to microcrystaline with paper-thin irregular laminations of shale.

8569-70 1' Shale, dark gray, calcareous, platy, fossiliferous with numerous pelecypod and gastropod, shell fragments, molds, and castes.

8570-81 11' Interbedded limestone and shale. Limestone is light gray, indurated, dense, microcrystalline. Shale is dark brown to dark gray, calcareous, platy, and locally fossiliferous beds from 2" to 4" thick.

8581-8602 21' Shale, medium brown, locally silty, slightly calcareous with light gray calcareous concretions up to 2" in diameter. 1/8" minor laminations of melanterite.

Core No. 3 8881-8900 Recovered 19' Quartzite, green-gray, very fine grained, vertical fractures, minor shale partings, secondary cementations of calcite.

Core No. 4 8900-12 Recovered 12' Quartzite green-gray, very fine grained, vertical fractures, minor shale partings.

Core No. 5 8912-26 Recovered 15' Quartzite green-gray, very fined grained, vertical fractures, fractured filled with secondary cementations of calcite.

Core No. 6 8926-56 Recovered 30'. Quartzite, green-gray, very fine grained, vertical fractures, beds from 2" to 9" in thickness, minor shale laminations.

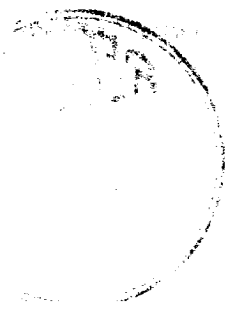
Core No. 7 8956-69 Recovered 11' Quartzite, green-gray, very fine grained grains fused, vertically fractured with secondary calcite cementations.

Core No. 8 8969-72 Recovered 2' Quartzite, green-gray, very fine grained, highly fractured.

Core No. 9 8972-85 Recovered 13' Quartzite, green-gray, fine grained vertical fractures. Calcite cementations. 1/4" laminations of green shale.

Core No. 10 8985-97 Recovered 12' Quartzite, green-gray very fine grained, vertical fractures with calcite cementations. Minor laminations of shale.

(continued to page 2)



Core No. 11 8997-9023 Recovered 26'
8997-9011 Recovered 14' Quartzite, light to medium gray, fine grained, fractured, calcite cementations. Beds dip + or - 10 degrees.
9011-9023 Quartzite light to medium gray locally light brown, fine grained, minor irregular green shale laminations up to ½" in thickness.

Core No. 12 9023-9030 Recovered 6' Quartzite, light to medium gray, locally light brown, fine grained, irregular laminations of shale up to 3/4" in thickness.

Core No. 13 9030-9048 Recovered 18' as follows:
9030-9044 Quartzite, light to medium gray, fine grained, fractured, calcite cementaions up to 1/8" in thickness filling the fractures.
9044-9045 1' Shale, medium green-gray, waxy, platy.
9045-9048 3' Quartzite, light to medium gray, fine grained 80% ferro-magnesium minerals 20% quarts and feldspar.

Core No. 14 9048-9058 Recovered 10' as follows:
9048-9058 10' Quartzite, light to medium gray, fined grained, slightly fractured, 80% ferr-magnesium minerals, 20% quarts and feldspar. One minor interbed of shale 4" in thickness @ 9054'.
~~9070-9080~~ Dolomite

Core No. 15 9212-~~22~~ Full recovery. Recovered 16' Quartzite, green-gray with shale lenses.

Core No. 16 9310-9332 Recovered 22'. Quartzite, very fine grained, grey-green very highly vertically fractured. 2" shale stringer @ 9313'.

SOUTHERN UNION GAS COMPANY'S NAVAJO NO. 1

DRILL STEM TEST RECORD

Set Plugs @ 6225-6370
3490-4100

Set Bridge Plug @ 2817

DST No. 1	2643-2673	with 4 shots 1 foot 1 hour. Slight blow air in 5 minutes, recovered 135' drilling fluid.
DST No. 2	2673-2697	1 hour slight blow air in 3 minutes recovered 125' drilling fluid.
DST No. 3	2697-2739	1 hour slight blow 12 minutes, recovered 125' slight gas cut mud.
DST No. 4	2744-2768	1 hour strong blow gas to surface in 5 minutes, fresh water to surface 55 minutes.