

4-31-14W

MARINER RESOURCES
330 S. Main
Wichita, Kansas 67202
April 19, 1985

Southwest Operating, Inc. / Mariner Resources
10880 Wilshire Blvd., Suite 1205
Los Angeles, California 90024

RE: Southwest Operating, Inc. / Mariner Resources
#4-1 NITTLER ✓
C E/2. SE/4, SE/4 4-31S-14W
Barber County, Kansas

Sirs:

Submitted herewith is the geological report concerning the above captioned test. Data pertinent to the operation are summarized below:

Spud: 3-20-85
Contractor: Mohawk Drilling
Surface Pipe: 8 5/8" at 858'
Drill Time: 2300' to T.D.
DST: Western Testing (3)
Mud: Maverick

Rotary Complete: 3-30-85
Elevation: Laughlin-Simmons
Production Pipe: 5 1/2" at 4614'
Samples: 2500' to T.D.
Cores: None
Log: Schlumberger (CNL-LDT, DIL)

Geological formation tops as picked from samples and corrected to the open hole survey follow. All measurements are from the Kelly Bushing elevation.

Elevations: 1690' K.B.

1680' G.L.

Indian Cave Sand	2765	(-1075)
Stotler	2931	(-1241)
Emporia	3041	(-1351)
Heebner	3626	(-1936)
Lower Douglas Sand	3777	(-2087)
Lansing	3818	(-2128)
Stark	4112	(-2422)
Maquoketa (Viola)	4368	(-2678)
Simpson Shale	4512	(-2822)
Simpson Sand	4531	(-2841)
Arbuckle	4612	(-2922)
Total Depth	4642	

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#4-1 Nittler 4-31-14W

DST #1 - 3030-3044 Emporia

30 - 30 - 30 - 30

Weak blow, dead two minutes into first flow. Flushed tool second flow - no blow.

Rec: 10' mud

SIP - 67 - 67#

IFP - -

FFP - 67 - 67#

HP - 1495 - 1473#

BHT - 102 degrees F.

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State Geological Survey
WICHITA BRANCH

DST #2 3776-3793 Lower Douglas Sand

30 - 60 - 45 - 60

Weak blow building to strong blow in 26 minutes.

Rec: 360' gas in pipe, 30' gassy, watery mud, 280' saltwater.

SIP - 1328 - 1305#

IFP - 90 - 135#

FFP - 191 - 236#

HP - 1926 - 1893#

BHT - 110 degrees F.

DST #3 4376-4402 Maquoketa (Viola)

30 - 60 - 65 - 90

Gas to surface 4 minutes into first flow period. Gauged 116,000 to 211,000 cubic feet of gas first flow and 216,000 to 242,000 cubic feet of gas second flow period. Stabilized at 242,000 cubic feet.

Rec: 60' gas cut mud, 60' gas cut watery mud, 60' gas cut saltwater, 620' of saltwater (CI 96,000).

SIP - 938 - 918#

IFP - 191 - 236#

FFP - 236 - 360#

HP - 2217 - 2183#

BHT - 124 degrees

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