

Run 1

Lumber 101-A

1020-23

23-26

26-29

|

|

41-44

> lost

47-50

|

|

65-68

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Run 2

1216-19

19-22

|

|

43

>

1255-

1255-

64

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Run 3

1263-66

| 72

>

1275-78

| 87

>

1290-  
1301



Tulsa, Oklahoma  
February 13, 1978

5s 42w 3 cNe

Amoco Production Company

See report in  
Neitzel well file

File: Technical Service 5107SJ

Dan Hartmann  
Denver Division

Subject: Petrologic Analysis of Niobrara Chalk, Neitzel 1-28,  
Walz Bl-33, and Carter 1-22, Cheyenne County, Kansas.

X-ray analysis and SEM photographs of these samples have been completed and the results are enclosed with this memo. Thin sections are being prepared and will be sent when ready.

The x-ray data (Table 1) show that most of the samples are fairly pure chalks, consisting mainly of calcite. The most common impurities are quartz, clay (illite, kaolinite) and pyrite. Sample 1 from the Carter well is a black shale and consequently high in clay.

Figures 1-5 are representative of the samples chosen for SEM photography. For the most part, the samples are clean, coccolith-rich chalks with little evidence of solution or tight cementation. More impure samples (Figures 3 and 5) contain fewer coccoliths and exhibit very fine flakes of clay.

The porosities, permeabilities, grain densities, and mercury injection curves measured by Routine Testing and Analysis are enclosed. Inasmuch as the grain densities are anomalously low for carbonates, the porosities should probably be considered as minimum figures, and may actually be somewhat higher.

*Laurel Babcock*  
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LB:km  
1174

cc: H. D. Winland  
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