



02358748

OIL & GAS
CONSERVATION COMMISSION

GEOLOGIC REPORT

Stuarco Oil Company and Don Winslow
#3 Propst
SE NE Section 10-10N-53W
Logan County, Colorado

Chronological Record

Well site surveyed and staked by Powers Surveyors, Inc.
Ground elevation 4224, K.B. 4229'
April 28, 1966 Moved on Stuarco rig #6. Set 104' of 8-5/8" @ 112',
Cemented with 100 sacks 50/50 pozmix.
April 29 Drilling at 429'
April 30 Drilling at 4034'
May 1 Drilling at 4855'
May 2 Drilling at 5001'
May 3 Coring at 5013', Ran DST #1
May 4 Reached TD @ 5072'. Ran Schlumberger Induction Log.
Plugged and abandoned.

Samples description

4000 - 4060	Shale, light gray, micaceous
4060 - 4390	Shale, gray-buff, speckled 10-20% with white limestone.
4390 - 4440	Limestone, white-cream, chalky, no effective porosity.
4440 - 4660	Shale, dark gray, silty, trace of brown limestone bottom 40'
4660 - 4680	Limestone, brown, sugary, no effective porosity.
4680 - 4900	Shale, dark gray, bentonitic.
4900 - 4905	Sandstone and shale, laminated, dirty, no effective porosity.
4905 - 4915	Sandstone, white, very fine grained, dense, low porosity and permeability, 50% spotty oil stain and fluorescence.

4915 - 4935 Sandstone and shale, mottled and reworked, no porosity, no show.

4935 - 5013 Shale, black, silty, pyritic.

5013 - 5031½ Cored Interval. Core barrel jammed. Full recovery obtained.

5031½ - 5043 Sandstone, white, fine grained, clean, good porosity and permeability, good even oil stain and fluorescence.

5043 - 5055 Sandstone, white, very fine grained, glauconitic, dense, no effective porosity, no show.

5055 - 5072 Shale, black, laminated 20% with siltstone and tight sandstone, no show.

Coring Data

Interval cored - 5013 - 31½

Recovery - 18½%

Coring time - 38-34-31-21-23-18-20-19-21-21
31-28-30-18-25-25-49-70

Core description

5013 - 14	1'	Shale, black, fissile
14 - 16	6'	Sandstone and shale, mottled and reworked, no effective porosity, no show.
16 - 17	1'	Shale, gray, silty
17 - 19	2'	Sandstone, gray, very fine grained, dirty, no permeability, no show.
19 - 23	4'	Sandstone, white, fine grained, dense, few scattered shale partings, low-fair porosity and permeability, even oil stain and fluorescence.
23 - 2	2'	Sandstone and shale, laminated, very low effective permeability, 20% spotty oil stain.
	2½'	Sandstone, white, fine grained, clean, good porosity and permeability, even oil stain and fluorescence, vertical fractures bottom 1'.

Core Analysis

<u>Depth</u>	<u>Permeability</u>		<u>Porosity</u>	<u>% Oil</u>	<u>% Water</u>
	<u>Horiz.</u>	<u>Vert.</u>			
5023-24	25	21	11.0	14.5	33.6
24-25	30	16	12.7	10.3	44.8
25-26	36	15	13.3	18.0	36.8
26-27	17	4.6	14.7	8.8	54.4
27-28	1.7	0.3	15.1	0.0	74.8
28-29	7.3	2.6	14.2	9.2	52.8
29-30	57	34	16.3	14.1	44.7
30-31	140	14.9	14.9	12.7	57.0

Drillstem Test Data

Interval tested - 5022-31

Tool open - 2 hrs.

Tool shut in (final) - 45 min.

Tool opened with a good blow and remained good throughout test period.

Recovery: 2500' Gas in drillpipe

90' Heavily oil cut mud

270' Brackish Water

Pressures: Initial hydrostatic 2921#
 Final hydrostatic 2910#
 Initial flow 15#
 Final flow 120#
 Shut in 784#

Schlumberger formation tops

elevation 4229 K.B.

Niobrara shale	4061
Ft. Hays lime	4390
Carlile shale	4442
Greenhorn lime	4670
bentonite	4809
"D" sand	4902
"J" sand	5015 (-786)

Discussion

The #3 Propst was drilled to a total depth of 5072, or 57' below the top of the Dakota "J" sandstone. The well was abandoned after sub-commercial shows were found in the "D" and "J" sands.

Structurally the #3 Propst ran 4' low to the two offset producing wells. This low structural position in combination with a tightening of the uppermost Bonanza pay sand unit made an attempted completion of this well extremely hazardous. It was felt that the pay section in this well (5024-28) could be adequately drained by the existing wells.

Donald C. Winslow

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