



GEOLOGICAL REPORT  
Vaughney and Vaughney #1 CHARLES M. AUGSTINER

LOCATION: C 8 1/2 NW SE, Section 20  
Township 12 North, Range 54 West, Logan County, Colorado

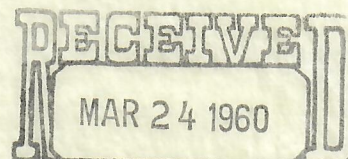
ELEVATION: 4730' K.B. (Estimated)  
4722' Ground (Surveyed)

SPUD DATE: March 6, 1960

COMPLETION DATE: March 13, 1960 -- PLUGGED AND ABANDONED

SURFACE CASING: 162' of 8-5/8", cemented w/120 sacks cement

CONTRACTOR: B. F. Allison Drilling Company  
R. L. Smith, Toolpusher  
Rig #5



OIL & GAS  
CONSERVATION COMMISSION

DRILLING HISTORY:

3/5/60 Moved in, rigging up  
3/6/60 Drilled Rat and Mouse hole and 178' of surface hole. Ran 4 joints of 8-5/8" and cemented  
3/7/60 Drilled 7 7/8" hole from 178 to 2506', drilling shale, nipples up and drill plug  
3/8/60 Drilled 7 7/8" hole from 2506' to 4184', drilling shale  
3/9/60 Drilled 7 7/8" hole from 4184' to 5201', had Bentonite at 4948', pipe strap was .72" long  
3/10/60 Drilled 7 7/8" hole from 5201' to 5711', circulating to condition hole for coring  
3/11/60 Drilled 6 1/8" hole from 5711' to 5761', taking core #1 from 5711' to 5761', 50' full recovery  
3/12/60 Reamed core hole from 6 1/8" to 7 7/8", Drilled 7 7/8" hole from 5761' to 5950', circulating to condition hole for electric log  
3/13/60 Plugged well w/10 sacks on bottom of surface and 5 sacks on top of surface.

BIT RECORD:

Size	Make	Type	From	To	Footage
7 7/8"	HTC	83J	178	3108	2930
7 7/8"	HTC	83J	3108	4463	1255
7 7/8"	HTC	83	4463	5232	869
7 7/8"	HTC	83	5232	5711	477
6 1/8"	Dia	DT	5711	5761	50
7 7/8"	HTC	MAN	5761	5878	167
7 7/8"	HTC	MAN	5878	5950	72

CORE DESCRIPTION:

All coring was done with 50 Quabroxin, 25 Caustic, 22 Soda Ash  
Core Number 1, from 5711' to 5761', cut and recovered 50'  
Coring time: 13-19-17-17-11-4-11-15-8-11-3-5-7-5-8-5-8-10-8-9-6-6-7-7-8-6-9-8-6-16-15-14-15-14-9-15-10-15-10-17-16-14-15-13-18-18-18-13-18-18-18

5711'	5716'	5'	Shale, black, poker chipped
5716'	5717 1/2'	1 1/2'	Sandstone, gray, very fine grained, fair P&P, some brown oil stain, appears wet
5717 1/2'	5722'	4 1/2'	Sandstone and shale, reworked, no P&P, occasional streaked stain, appears wet
5722'	5723'	1'	Sandstone, gray, argillaceous, very poor permeability, scattered brown oil stain in sandy sections
5723'	5743'	20'	Sandstone, siltstone and shale, interlaminated, hard, tight, occasional gas bubble
5743'	5761'	18'	Shale, black, poker chipped with occasional siltstone stringer

CORE ANALYSIS RESULTS:

None

DRILL STEM TEST:

None



FORMATION TOPS:

	<u>Schlumberger</u>
Niobrara	4868'
Fort Hayes	4974'
Carlile	5042'
Greenhorn	5440'
Bentonite	5622'
"D" Sand	5727' (-997')
"J" Sand	5830' (-1100')
Shall Creek	5923'
Total Depth	5964'

REMARKS:

Driller's time record and Driller's Log are available in the files of Vaughney and Vaughney, 1650 Denver Club Building, Denver 2, Colorado.

VAUGHNEY AND VAUGHNEY

By Thomas A. Crocker  
Thomas A. Crocker  
Chief Geologist

TAC:mef