




00599424

W. L. Richards-Purdy
Lot 6, Sec.13-35S-42W
Baca County, Colorado

FORMATION TOPS

STONE CORRAL	1354'
RED CAVE	1371'
NEVA	2559'
WABAUNSEE fm.	2698'
WABAUNSEE por. zone	2794'
TOPEKA	2871'
LANSING	3098'
MARMATON	3526'
CHEROKEE	3928'
ATOKA	4098'
MORROW	4230'
KEYES sand	4639'
CHESTER	4705'
TOTAL DEPTH	4730'
ELEVATION	3703.5 Ground
	3713.5 KB

BEST IMAGE
AVAILABLE


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COMMENCED: March 26, 1964

COMPLETED: April 10, 1964

TOTAL DEPTH: 4730' Driller
4730' Log

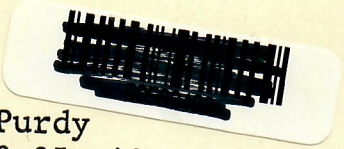
SURVEYS: Induction-Electric Log 1104'-4729'
Gamma Ray - Sonic Log 2400'-4724'
with Caliper Curve

RESULTS: Plugged and abandoned

HOLE SIZE: 12-1/4" 0' - 1104'
7-7/8" 1104' - 4730'

SURFACE CASING: 35 joints of 24# 8-5/8" casing set @
1102' with 475 sacks of regular cement
and 2% Ca Cl 2.

CONTRACTOR: Davis Drilling Company



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DRILL STEM TESTS

DST #1 (Marmaton) 3742-3766'

ISI 30 min, Open 180 min, FSI 30 min.


(Weak blow initially increasing to good blow and remaining constant throughout test.

Recovered: 30' mud, 120' slightly oil cut mud, 60' mud cut salt water, 300' salt water.

FP 72-226
SIP 783-618
HP 1875-1875

WATER ANALYSIS:

Top sample	Hydrogen Sulfide	none
Middle sample	Specific Gravity	1.065
Bottom sample	Ph	6.5
	Total solids	99,000
	Chlorides	59,400
	Iron	none


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DRILL STEM TESTS

DST #2 (Marmaton) 3793-3838'

ISI 30 min, Open 120 min, FSI 30 min.


(Weak blow increasing to good blow in 20 min. and remaining constant throughout test.

Recovered: 120' mud, 120' mud cut salt water, 300' salt water.

FP 171-297
SIP 775-718

WATER ANALYSIS:

Top sample	Hydrogen Sulphide	none
Middle sample	Specific Gravity	1.065
Bottom sample	Ph	6.5
	Total solids	99,000
	Chlorides	59,400
	Iron	none


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DRILL STEM TESTS

DST #3 (Keyes) 4642-4730'


ISI 30 min, Open 120 min, FSI 30 min.
(Strong blow throughout test)

Recovered: 40' mud, 300' mud cut salt water, 1290' salt water,
480' very slightly oil cut salt water.

FP 476-924
SIP 948-936
HP 2209-2162


WATER ANALYSIS:

Top sample	Specific gravity	1.020
Middle sample	Ph	7.5
Bottom sample	Sulfates	light
	Chlorides	24,996
	Iron	none


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LITHOLOGY

ALUVIUM			
0-30'	30'		Sand, vitreous, tan, fine to coarse, unconsolidated sub-rounded.
30-180'	150'		Gravel, chert pebbles and cobbles, unconsolidated.
RED BEDS			
180-785'	705'		Shale, orange to pink, with interbedded sandstone, vitreous to orange, sub-rounded, coarse to very coarse, unconsolidated.
			Dolomite, white to cream, dense, anhydritic with streaks of anhydrite, pink, massive.
			Siltstone and shale, orange to pink with interbedded sandstone vitreous to orange, angular to sub-rounded, unconsolidated, and with occasional streaks of anhydrite and dolomite.
BLAINE			
785-928'	143'		Anhydrite, white, granular to fibrous, massive; shale and siltstone interbedded, orange to pink with occasional interbedded sandstone vitreous to pink unconsolidated, sub-angular.
RED BEDS & GLORIETTA SAND			
928-1354	426'		Shale, orange to pink with interbedded red siltstone. Sandstone, vitreous, fine to coarse, sub-rounded with chert pebbles and ferromage, with occasional frosted grains.

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LITHOLOGY (continued)

STONE CORRAL 1354-1371'	17'	Anhydrite, grey, massive, blocky with interbedded dolomite, granular, buff, anhydritic.
RED CAVE 1371-1416'	45'	Siltstone, red grading into sandstone, pink, very fine, silty, anhydritic, loosely consolidated, no visible shows in cuttings.
RED BEDS 1416-2559'	1143'	Siltstone and shale, pink to red with abundant interbedded sandstone, vitreous to grey, very fine, silty to coarse unconsolidated to loosely consolidated, occasionally anhydritic; with numerous streaks of dolomite, pink to buff, fine crystalline to dense.
NEVA 2559-2584	25'	Limestone, white to light grey, fine crystalline to dense, with streaks gypsum, no shows.
RED BEDS 2584-2698	114'	Siltstone and shale, red with occasional grey-green shale inclusions. Interbedded limestone, grey to buff, dense to fine crystalline.
WABAUNSEE 2698-2794	96'	Limestone, white to buff, fine crystalline, trace oolitic limestone at top; shale, red, grey, slightly micaceous with interbedded thin limestones as above.

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LITHOLOGY (continued)

WABAUNSEE Porosity zone
2794-2871' 77'

Limestones, buff to cream, dense to very fine crystalline, slightly oolitic with interbedded shale, orange to red, grey, calcareous.

TOPEKA
2871-3098' 227'

Limestones, buff, fine crystalline to dense, slightly oolitic, interbedded with sandstones, orange, grey, very fine, consolidated, calcareous, interbedded with shale, red, orange, micaceous. No visible shows.

LANSING
3098'-3526' 428'

Limestones, buff, brown, grey, mottled, slightly oolitic, crystalline, occasionally chalky, trace of fusalinids, fossiliferous, interbedded with shale, maroon, orange, grey, calcareous, micaceous, some green shale and thin sandstones, grey, very fine, silty, micaceous. Staining @ 3742-3766', dolomitic limestone, sandy, with intercrystalline porosity.


MARMATON
3526-3928' 402'

Limestones, white to buff, very fine crystalline to dense, blocky, with interbedded shale, maroon, micaceous, calcareous, sandstone, very fine, calcareous grey sandstone @ 3802-3835', medium, consolidated, calcareous, with light stain, shale dark grey to black at base.

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LITHOLOGY (continued)

CHEROKEE 3928-4098'	170'	Limestones, white, buff to brown, fine crystalline to dense, occasionally oolitic, with occasional floating clear quartz grains with an occasional thin sandstone, very fine, silty, calcareous to conglomeratic sandstone, interbedded with shale, grey to dark grey, micaceous.
ATOKA 4098-4230'	132'	Limestone, white to buff oolitic, fossiliferous, dark grey to black limestone toward base, mottled, dense with interbedded dark grey to black shale.
MORROW 4230-4639'	409'	Shale, dark grey to black, trace of coal at top, pyritic. Occasional streaks of thin limestones, grey to buff, arenaceous, glauconitic, fossiliferous, thin sandstone beds or streaks, very fine to fine, grey, micaceous, calcareous grading to arenaceous limestone.
KEYES SAND 4639-4705'	66'	Sandstone, vitreous to light grey, fine to coarse, with occasional pyrite, angular, calcareous to dolomitic. Sandstone, unconsolidated, porous, angular, with occasional pyrite. 4670-4680' trace of spotted stain and fluorescence.



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LITHOLOGY (continued)

CHESTER
4705-4730'

25'

Shale, greenish-grey, with occasional varicolored shale, greenish - grey and maroon, with interbedded mottled red shale, limestone, orange to pink, micro-oolitic. Sandstone, medium to coarse, poorly sorted, tight, no show 4716-4725'.



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MUD DATA

The basic mud was a low ph (10) caustic quebracho mud, 10 to 14 lbs. of lost circulation material, cottonseed hulls and cedarbark per barrel of mud were used throughout drilling. Minor amounts of gel were used to help maintain desired viscosity and gel strength.

CORES

No cores were cut in this test.

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SAMPLES

A set of samples from 2400 feet to total depth, 4730 feet, was deposited in the American Stratigraphic Company, 1820 Broadway, Denver, Colorado.

PLUGGING DATA

As recommended by the Colorado Conservation Commission, the hole was filled with 10# mud and and 35 sack cement plug was set in and out of the bottom of the surface casing, 1075' to 1127'. A five sack cement plug was set at the top of the surface casing.