



GEOLOGICAL WELL REPORT

CONFIDENTIAL

CHANDLER & ASSOCIATES, INC.
SOUTHWEST RANGELY FEDERAL 15-25-1N-3
SW SE SEC. 25-T1N-R103W
RIO BLANCO COUNTY, COLORADO

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CO. OIL & GAS CONS. COM.

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November 6, 1990

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CHANDLER & ASSOCIATES, INC.
SOUTHWEST RANGELY FEDERAL 15-25-1N-3
SW SE Sec. 25-T1N-R103W
Rio Blanco County, Colorado

ELEVATIONS: KB 6196', GL 6184'

SURVEY: 500' FSL, 1820' FEL

SPUD DATE: October 25, 1990

SURFACE CASING: Set 13-3/8" at 172 KB with 195 sacks of cement.

INTERMEDIATE CASING: Set 8-5/8" at 3345' KB with 825 sacks of cement.

DRILLING FLUID: Air/mist with 3% KCl water.

CORES: None

FLARE TESTS: None

LOG SURVEYS: Schlumberger DI-SFL/GR/SP and CNL-LD/GR.

TOTAL DEPTH: 3386' Driller, 3357' Logger.

STATUS: Plugged back for completion attempt November 2, 1990.

CONTRACTOR: Chandler Drilling Corp., Rig 7;
TP Darrel Fladeland.

GEOLOGIST: Pleas Stringer

LOG TOPS:

	<u>DEPTH</u>
Rimrock ss	2774'
Mancos sh	2851'
Castlegate ss	3125' (+3071')

SAMPLES: Bulk samples of the Castlegate sand were delivered to the Chandler office in Denver, Colorado.

SAMPLE LITHOLOGIC DESCRIPTION

Depths are adjusted to the electric logs

MESAVERDE FM

- 2400-2460' Siltstone: dark gray, firm;
Shale: dark gray, firm, fissile, some carbonaceous material;
Sandstone: light gray, very fine grained, well sorted, angular, clay filled, scattered carbonaceous material, hard - friable, tight - fair porosity, no shows.
- 2460-2520' Siltstone: brown, carbonaceous, hard;
Shale: buff, carbonaceous, hard.
- 2520-2550' Sandstone: light gray, very fine grained, well sorted, angular, clay filled, carbonaceous, firm, poor porosity, no shows;
Coal: black.
- 2550-2600' Sandstone: light gray, very fine grained, well sorted, angular, clay filled, scattered carbonaceous material, firm - friable, poor porosity, no shows;
Siltstone: brown, carbonaceous, hard.
- 2600-2630' Sandstone: light gray, very fine - fine grained, poorly sorted, angular - subangular, partly clay filled, scattered carbonaceous material, firm - friable, fair porosity, no shows.
- 2630-2670' Sandstone: light - medium gray, very fine grained, well sorted, angular, clay filled, scattered carbonaceous material, firm - friable, poor porosity, no shows;
Shale: dark gray, firm, fissile.
- 2670-2685' Sandstone: light gray, very fine - fine grained, poorly sorted, angular - subangular, clay filled, scattered carbonaceous material, hard - friable, tight - poor porosity, no shows.
- 2685-2724' Siltstone: medium - dark gray, firm.
- 2724-2762' Sandstone: light gray, very fine grained, well sorted, angular, clay filled, scattered carbonaceous material, firm, poor porosity, no shows.
- 2762-2774' Shale: dark gray, firm, fissile.

RIMROCK SS

2774-2851' Sandstone: light gray, very fine - fine grained, poorly sorted, angular - subangular, partly clay filled, scattered carbonaceous material, firm - friable, fair porosity, no shows.

MANCOS SH

2851-2888' Shale: dark gray, firm, fissile;
Siltstone: dark gray, hard.

2888-2936' Shale: dark gray, firm, fissile.

2936'3081' Siltstone: dark gray, hard - firm.

3081-3125' Shale: dark gray, firm, fissile.

CASTLEGATE SS

3125-3140' Sandstone: light gray - buff, very fine - fine grained, fairly well sorted, angular, partly clay filled, scattered shale fragments & carbonaceous material, friable, good porosity, 50% of sand had no shows, 50% had light stain, even bright blue white fluorescence, slow cut.

3140-3162' Sandstone: light gray - buff, very fine - fine grained, fairly well sorted, angular, partly - fully clay filled, some shale fragments & carbonaceous material, friable - firm, good - poor porosity, 65% of sand had no shows, 35% had light stain, even weak - bright blue white fluorescence, no cut - good streaming cut.

3162-3171' Limestone: buff, very fine crystalline, very sandy, some shale fragments & carbonaceous material, hard, tight, even yellow gold mineral fluorescence, no cut.

3171-3185' Siltstone: dark gray, hard;
Shale: dark gray, firm, partly fissile.

3185-3240' Limestone: buff gray, very fine crystalline, very sandy, some shale fragments & carbonaceous material, hard, tight, even yellow mineral fluorescence, no cut.

3240-3310' Siltstone: dark gray, hard.

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SUMMARY OF FLARE AND FLUID DATA

<u>DEPTH</u>	<u>OPERATION</u>	<u>FLARE AND WATER FLOWS (6" Flow Line)</u>
1831'	Drilling	First water flow following trip. Too small to measure.
2400'	Drilling	Water flow est. 50 BPH.
3166'	Blowing the hole at 2140' while tripping in.	12 ft. flare for 10 min.
3166'	Blowing the hole at 3100' while tripping in.	8 ft. flare for 4 min.
3200'	Drilling	Water flow est. 50 BPH.

DRILLING PROGRESS SUMMARY

10-25-90		Spudded 6:00 P.M.
10-26-90	Ø 55'.	Ran surface casing.
10-27-90	Nippling up at 182'.	
10-28-90	Ø 920'.	
10-29-90	Ø 1897'.	Trip with magnet to recover buttons from Bit #3
10-30-90	Trip in hole at 2380'.	
10-31-90	Trip in hole at 3166'.	TD 3386'. Ran logs. Schlumberger on location over 13 hrs. The DI-SFL tool had to spud through a bridge at 1090'. The ILM curve did not appear to be tracking properly through the lower section of the log. Following the CNL-LD log, an attempt was made to run a second tool for verification, but it could not get below 1090'.
11- 1-90	Running intermediate casing.	
11- 2-90	Ø cement plug.	TD 3525'. Plugged back for completion attempt.

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BIT RECORD

<u>BIT NO.</u>	<u>SIZE</u>	<u>MAKE</u>	<u>TYPE</u>	<u>DEPTH OUT</u>	<u>FEET</u>	<u>HOURS</u>
1	12¼"	Smith	F-1	48'	36'	5
2	17½"	Security	S33S (RR)	182'	170'	14
3	12¼"	Smith	F-1 (RR)	1831'	1649'	27
4	12¼"	Hughes	J-11 (RR)	2380'	549'	15½
5	12¼"	Security	M44N	3166'	786'	16½
6	12¼"	Reed	FP-52 (RR)	3386'	220'	3½
7	7-7/8"	Hughes	ATJ-22 (RR)	3525'	139'	3½

SURVEY RECORD

<u>DEPTH</u>	<u>DEVIATION</u>
75'	3/4°
182'	1°
718'	1-3/4°
1210'	2°
1458'	2°
1701'	2°
2192'	1-1/2°
3427'	4-3/4°

PLUGGING RECORD

25 sacks of cement - 3420-3520'
 25 sacks of cement - 3270-3370'

Respectfully submitted

Pleas Stringer

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