WELL REPORT ENERGY RESERVES GROUP, INC. JICARILLA 35 #4
BLANCO PICTURED CLIFFS - SOUTH OTERO CHACRA
RIO ARRIBA COUNTY, NEW MEXICO

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ABSTRACT

The Energy Reserves Group: Jicarilla 35 #4 was spudded January 10, 1977. The test was drilled to a total depth of 3841' Logger, 3830' Driller, in the Lewis Shale of Cretaceous age. A total of 101.5 rotating hours were required for the drilling of this test.

All formations were evaluated by a careful examination of rotary cuttings by a geologist in the field (from 2750' to 3830') and by qualitative and quantitative analyses of well log surveys conducted by Dresser Atlas. Potentially productive sands were indicated in Pictured Cliffs and Chacra zones.

Samples were stored in the Energy Reserves Group offices in Farmington, New Mexico.

WELL REPORT

ENERGY RESERVES GROUP: JICARILLA 35 #4 RIO ARRIBA COUNTY, NEW MEXICO

LOCATION

890 * FSL & 960 * FWL, Section 35, Township 25 North, Range 5 West, NMPM

ELEVATION

6789 GL: 6802 KB

CONTRACTOR

Arapahoe Drilling Company, Rig #6
Toolpusher: Roy Shepard

SPUD AND COMPLETION DATA

Spud Date: January 10, 1977 @3:00 A.M. Drillout Date: January 11, 1977 Date TD Reached: January 15, 1977 TD Driller: 3830 TD Logger: 3841

CASING

Surface: : 8 5/8" @223' w/150 sxs w/3% KCl Production: 5 1/2" @223' w/ sxs

ELECTRICAL SURVEYS

Dresser Atlas: Induction Electrolog from 226' to 3836'; Compensated Densilog and Compensated Neutron from 1830' to 3838'; Acoustilog from 1830' to 3831'

It should be noted that there was no charge made for the Compensated Neutron log as Dresser Atlas was attempting to illustrate their recommended porosity tools for the area.

FORMATION TOPS

Tertiary	Depth	KB Datum	Thickness
Tertiary Undivided Ojo Alamo	Surface 2293°	6802 • 4509 •	2293 ° 145 °
CRETACEOUS			
Kirtland Fruitland Pictured Cliffs Lewis Chacra TD Logger TD Driller	2438° 2700° 2805° 2930° 3655° 3841° 3830	4364° 4102° 3997° 3872° 3147° Per	262° 105° 125° 725° ntrtd 186°

WELL CUTTINGS

30° samples from 2130° to 2750° 10° samples from 2750° to 3830°

BIT RECORD

No.	Make	Size	Type	Depth Out	<u>Footage</u>	Hours Run
1	HTC	12 1/4"	osc1g	227	227°	5 3/4
2	Smith	7 7/8*	DTT	1425*	1198	15
3	Smith	7 7/8*	DGT	2036	611*	11 1/4
4	Smith	7 7/8*	DG	2474*	438•	9
5	Smith	7 7/8*	DGT	2763•	289*	11 1/4
6	Smith	7 7/8*	DG	3260 •	497"	19 1/2
7	Smith	7 7/8*	DG	3700*	440 •	19 3/4
8	STC	7 7/8"	DT	3830'	130'	10

DEVIATION RECORD

No.	Degree	Depth
1	3/4°	2271
2	2 1/2°	1425
3	1 3/40	2036•
4	1 1/2°	2474•
5	1 1/2°	2763*
6	3/4°	3260•
7	1/2°	3700•
8	None	

DAILY DRILLING REPORTS

- 1-9-77 Drlg surface, rig-up 20 hrs., Drlg 4 hrs.
 Water
- 1-10-77 Drlg 227°, Drlg surface 2 3/4 hrs, Serv rig 1 hr, Trip 1 1/4 hrs., run 8 5/8 csg and cement 1 1/2 hrs., WOC 6 hrs, nipple up 11 1/2 hrs.

 Deviation: 3/4° @227°

Water

1-11-77 Drlg 1548*, nipple up 2 hrs., serv 1/2 hrs, drlg plug and cement 1 1/2 hrs, drlg 16 3/4 hrs., cir and survey 1/2 hr., trip and survey 2 3/4 hrs.

Deviation: 2 1/20 @1425*

Mud Properties: Vis 28, Wt 8.8

1-12-77 Drlg 2474°, serv 1/2 hr., drlg 18 1/2 hrs., trip 5 hrs.

Deviation: 1 3/4° @2036°
1 1/2° @2474°

Mud Properties: Vis 35, Wt 9.0, W.L. 6cc, Cake 1/32"

- 1-13-77 Drlg 2960°, serv 1/4 hr., drlg 19 1/2 hrs., trip 4 1/4 hrs.

 Deviation: 1 1/2° @2763°
 - Mud Properties: Vis 30, Wt 9.2, W.L. 6.8cc, Cake 1/32"
- 1-14-77 Drlg 3520°, drlg 20 1/4 hrs., serv 1/4 hrs., trip 3 1/2 hrs. Deviation: 3/4° @3260°

Mud Properties: Vis 34, Wt 9.1, W.L. 6.2cc, Cake 1/32"

DAILY DRILLING REPORTS - CONTINUED

1-15-77 Drlg 3765°, drlg 15 hrs., WO Fuel 2.5 hrs., repair 2 hrs., trip 3 3/4 hrs., survey 1/4 hr.

Deviation: 1/2° @3700°

Mud Properties: Vis 38, Wt 9.2, W.L, 6cc, Cake 1/32°

1-16-77 TD @3830°, run logs and casing