

EAST JOHNNY'S CREEK NO. 1 WELL

S U M M A R Y

East Johnny's Creek No. 1 well was drilled by Exoil (N.T.) Pty. Ltd. and partners as a stratigraphic and structural test of the eastern end of the Johnny's Creek Anticline. The well was located 140 miles west of Alice Springs and ten miles south of the Mereenie gas field in the Northern Territory of Australia.

Oil Drilling and Exploration carried out the drilling operations with a T-32 rig using air, mist and aerated mud as circulating fluids. The well was spudded on 23rd March, 1965 and abandoned at 6344 feet as a dry hole on 20th May, 1965.

1075 feet of Ordovician Larapinta and 3481 feet of Cambrian Pertacorrta were found to overlie, unconformably, Proterozoic Areyonga and Bitter Springs Formations. This, together with the absence of some basal Pertacorrta, suggests deposition of the latter over a high of unlifted and eroded Proterozoic in a typical 'bald headed' anticline.

Although traces of gas and residual hydrocarbon were recorded, no measurable flows of oil or gas were encountered in the well.

RESUME OF DRILLING OPERATIONS

Drilled 12 $\frac{1}{4}$ " hole to 41 feet with hammerdril.
Reamed 12 $\frac{1}{4}$ " hole to 17 $\frac{1}{2}$ " and air drilled ahead 17 $\frac{1}{2}$ " hole to 95 feet using hammerdril. Bit broken, recovered fish. Air drilled 17 $\frac{1}{2}$ " hole ahead to 101 feet, without hammerdril. Ran 15" casing, hole tight at 64 feet, hoisted casing. Reamed 17 $\frac{1}{2}$ " hole to 20" to depth of 64 feet. Ran 15" casing to 101 feet and cemented to surface. Air drilled 13 $\frac{1}{4}$ " hole with hammerdril to 135 feet. Mist drilled 13 $\frac{1}{4}$ " hole ahead to 769 feet. Mist drilled 9 $\frac{7}{8}$ " pilot hole to 1323 feet. Reamed 9 $\frac{7}{8}$ " hole to 13 $\frac{1}{4}$ " from 769 feet to 1277 feet. Ran 10 $\frac{3}{4}$ " casing to 1277 feet and cemented. Mist drilled 9 $\frac{7}{8}$ " hole ahead to 3665 feet. Mudded up, logged. Ran D.S.T. over interval 3500' - 3665'. Recovered 2420 feet fresh water. Ran 8 $\frac{5}{8}$ " casing to 3665 feet and cemented. Mist drilled 7 $\frac{7}{8}$ " hole to 5113 feet. Ran D.S.T. from 5025' - 5113'. Recovered 320 feet fresh water. ^{4250 ppm} Mist drilled 7 $\frac{7}{8}$ " hole ahead to 5302 feet, drill pipe became plugged and stuck. Freed pipe, aerated mud drilled ahead 7 $\frac{7}{8}$ " hole to 6344 feet. Mudded up hole and logged. Backed off 8 $\frac{5}{8}$ " casing at approximately 1500 feet, plugged and abandoned well.

INTRODUCTION

East Johnny's Creek No. 1 well was drilled in O.P. 43, held by Magellan Petroleum Corporation and the operation was conducted on a farmout arrangement between Exoil and Magellan. Exoil's partners in the venture were Transoil (N.T.) Pty. Ltd. and Farmout Drillers No Liability. The well was the eighth wildcat to be drilled in the Amadeus Basin and the seventh completed by the Exoil Group.

The operation was designed to test the lower Ordovician and Cambrian on an anticlinal feature and to examine the nature of the Cambrian in this part of the basin. Targets were sands at the base of the Ordovician and throughout the Cambrian.