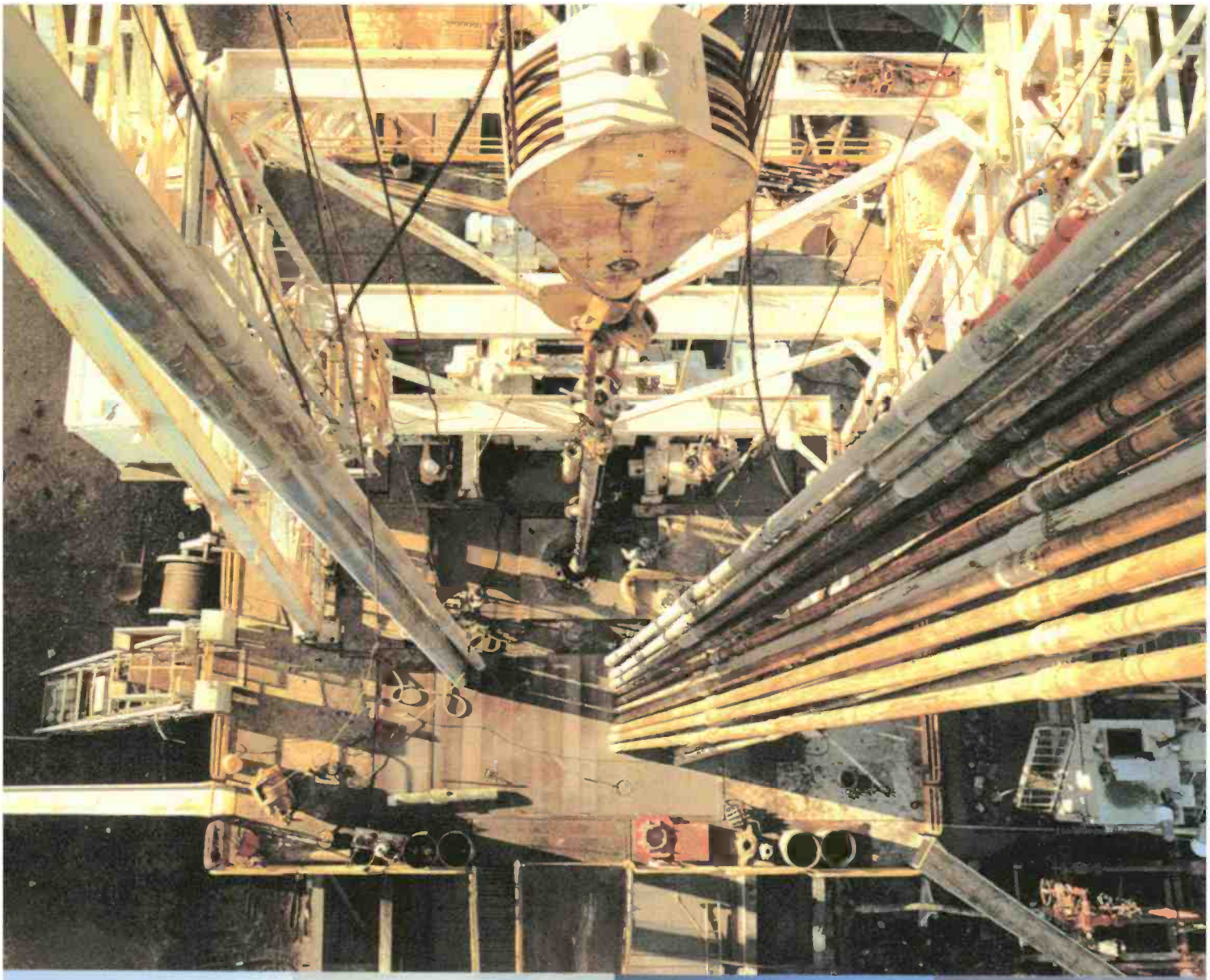

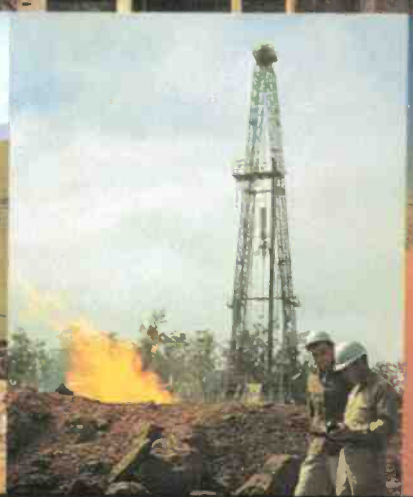

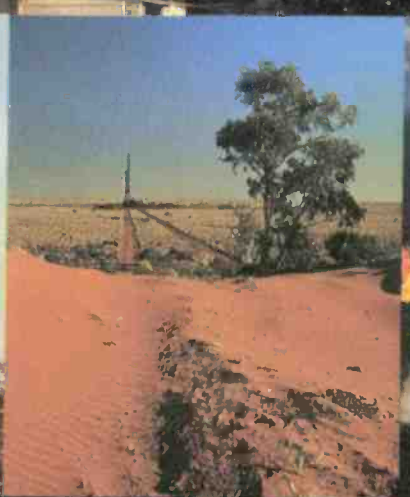

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Petroleum Management Associates, PMA, is a professional Australian petroleum organisation providing comprehensive management services to the Petroleum Industry and to the direct investor in Petroleum exploration, development and production. The Principals and senior staff of PMA are experienced petroleum professionals of significance and standing within the Australian petroleum industry.

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PMA provides a total management service to Petroleum investors from the time of considering various investment options, through the grass roots exploration stage to the development and production of discovered petroleum resources. This fully comprehensive management service is unique within Australia.

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For further information please contact:

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The new TOOLPUSHER™ Open Hole Logging Technique developed by Gearhart uses drill pipe to transport and position logging tools in highly deviated wells. This assures you highest quality logs in wells that prohibit normal logging procedures.

This new high angle logging system utilizes standard size logging tools for logs of highest resolution and accuracy. A single run can include Dual Induction Laterolog, Compensated Density, Gamma Ray, and Compensated Neutron logs, all with computerized Direct Digital Logging calibration and accuracy.

A wireline latch assembly inserted into a side entry sub is lowered and connected to the drill pipe conveyed logging assembly. Circulation can be established at anytime to provide pump-down for the latch assembly and to reduce the risk of sticking pipe.

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If you want to increase the number of wells drilled from a single platform by reaching further with more highly deviated holes . . . Call Gearhart for the TOOLPUSHER.™

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TOOLPUSHER™ COMPOSITE WELL DATA

First 21 Wells
Average Well Depth . . . . . 11,246 ft.
Average (Max) Well Angle . . . . . 64.2 deg.

PROCEDURE	Average Time (hrs)
Rig Up Logging Tools	2.0
Trip Pipe to S.E.S.* Depth	3.5
Install S.E.S.* & Pump Latch	2.2
Log In	3.6
Log Out	4.1
Remove Latch & S.E.S.*	1.5
Trip Pipe Out	3.3
Rig Down Logging Tools	1.0
Average Run Time	21.2

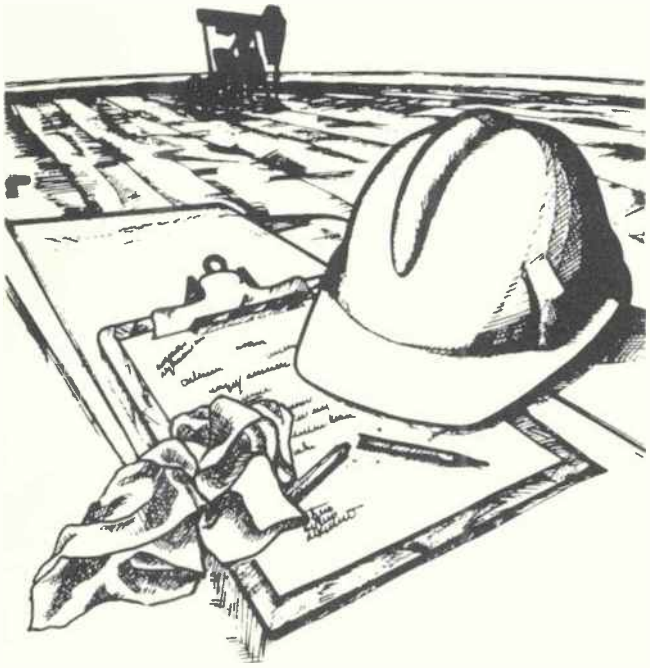
Average Feet Logged . . . . . 3,879 ft.
Average Time/1000 ft. Logged . . 6.5 hrs.
*Side Entry Sub

TOOLPUSHER™ MAXIMUM PERFORMANCE

Angle Logged . . . . . 90 deg.
Angle Reached with S.E.S* . . . . . 80 deg.
Logging Depth . . . . . 15,250 ft.
Log Interval . . . . . 9,450 ft.
Temperature . . . . . 270°F

From the Natural Resources Group at Ernst & Whinney.

Are you looking for a well of financial information and coming up dry?



Just as you need good technical information to make sound drilling decisions, you need to have good financial information if you're to make effective business decisions.

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There are quite a few vendors of 2-D and 3-D interpretation systems for petroleum exploration. They all have their specialties but it's when you try and get them to interface with one another you'll realise they're not a very workable team.

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It's a unique single solution source for an integrated exploration and production system.

Only CYBER-EPIC offers a complete suite of the petroleum industry's leading application technology from a single source.

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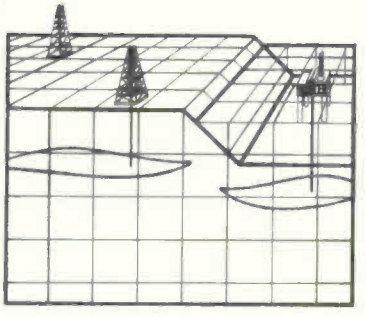
- Mapping



- Graphic display utilities
- Seismic and reservoir data interpretation
- Synthetics and modelling
- Well log analysis
- Specialised seismic enhancements and processing
- Reconnaissance (image processing)

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The commonsense built into CYBER-EPIC extends to its compatability with your existing work station hardware, its human engineering to maximise interpreter productivity, and its attractive growth path. With CYBER power available right up to the legendary 205 CYBER-EPIC will never be outgrown by your needs.

The development of CYBER-EPIC is another step in Control Data's ongoing involvement with petroleum exploration and recovery.

If you'd like to find out more write to or telephone Nick Kirchner in Melbourne on **(03) 268 9500.**

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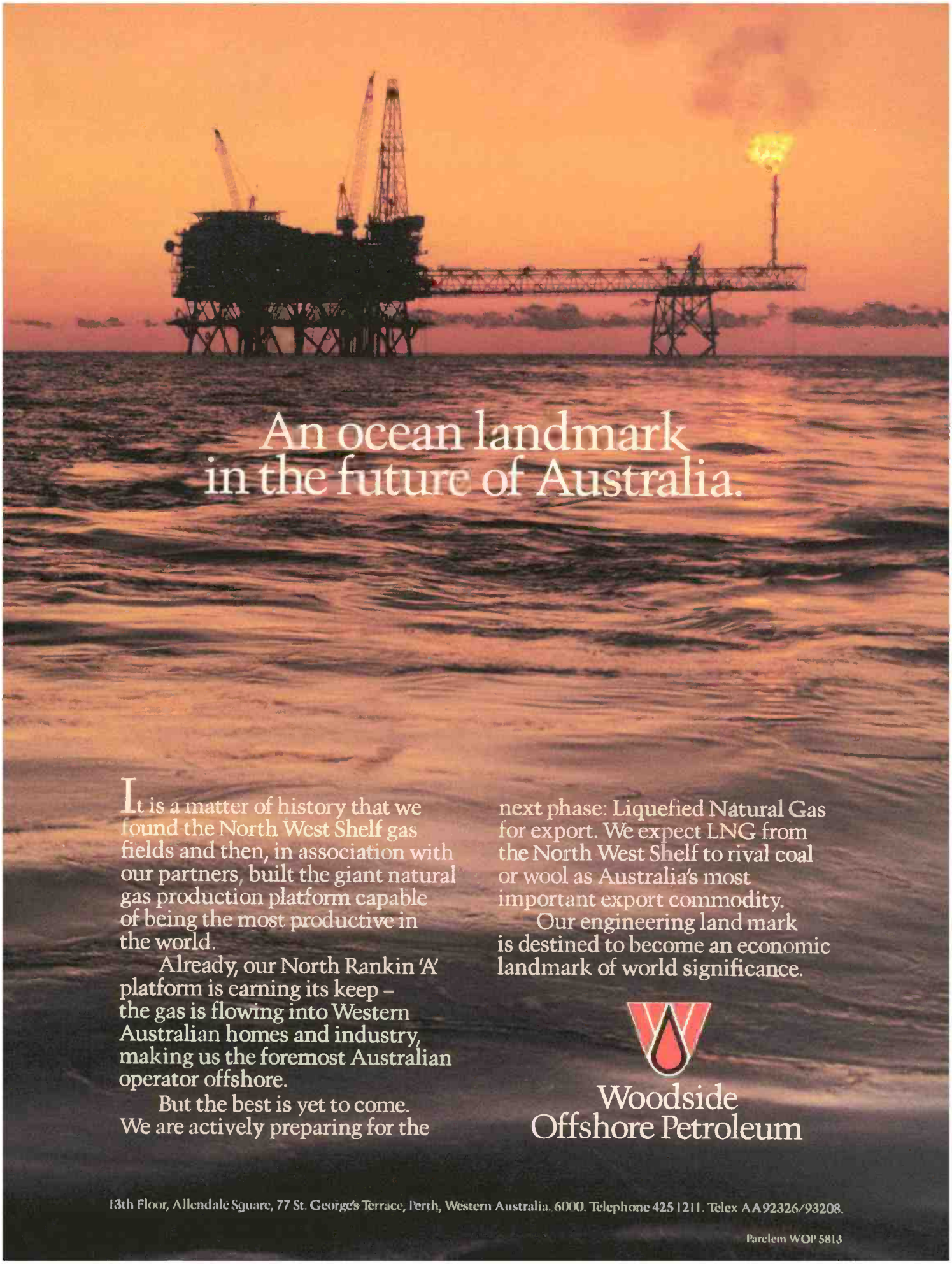
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The E.R.W. process gives a quality pipe with close dimensional control. It comes in lengths up to 18m that enable fast, economical construction techniques, and the smooth, cold formed steel surface—combined with the high integrity weld—provides benefits like uniform flow and operational security.

The quality monitoring programmes undertaken at our A.P.I. licensed mills in both Newcastle and Kembla Grange make sure that every piece of E.R.W. pipe we make stands up to the rigorous A.P.I. licensing standards. With highly sensitive, destructive and non-destructive tests applied to the high quality steel strip at all stages of pipe production.

In fact, no matter which way you look at it, Tubemakers' E.R.W. pipe is the ideal linepipe for everything from gathering lines to lines for oil and gas transmission and slurry pipelines. So wherever you have a need for pressure pipes, and pipelines with outside diameters between 60.3mm and 457.0mm, Tubemakers' E.R.W. is your logical choice.

And if all this isn't enough to convince you that using Tubemakers' E.R.W. pipe is merely a matter of excellent foresight, then we'd just like to remind you that it's already been extensively and very successfully used for a number of large projects in the recent past. Projects like our lines between Jackson and Moonie, Bendigo and Kyneton, Young to Wagga, Dalton to Canberra, Perth to Bunbury and Palm Valley to Alice Springs.

So now you know where Tubemakers' E.R.W. pipe has been, just call us or write and we'll show you just how far out of our way we'll go to get you where you're going.

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