

SOUTH AUSTRALIA

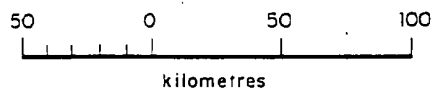
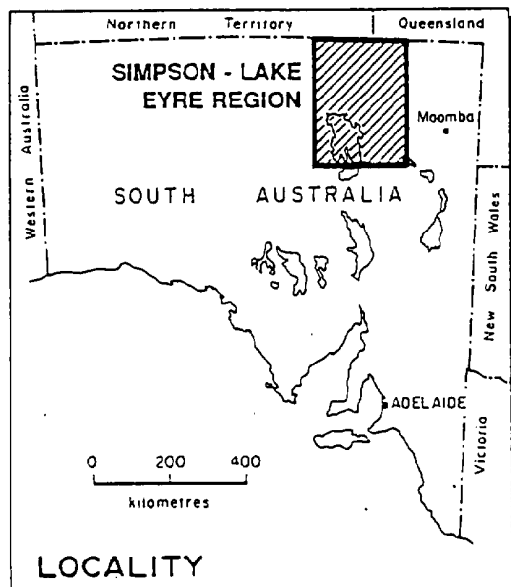
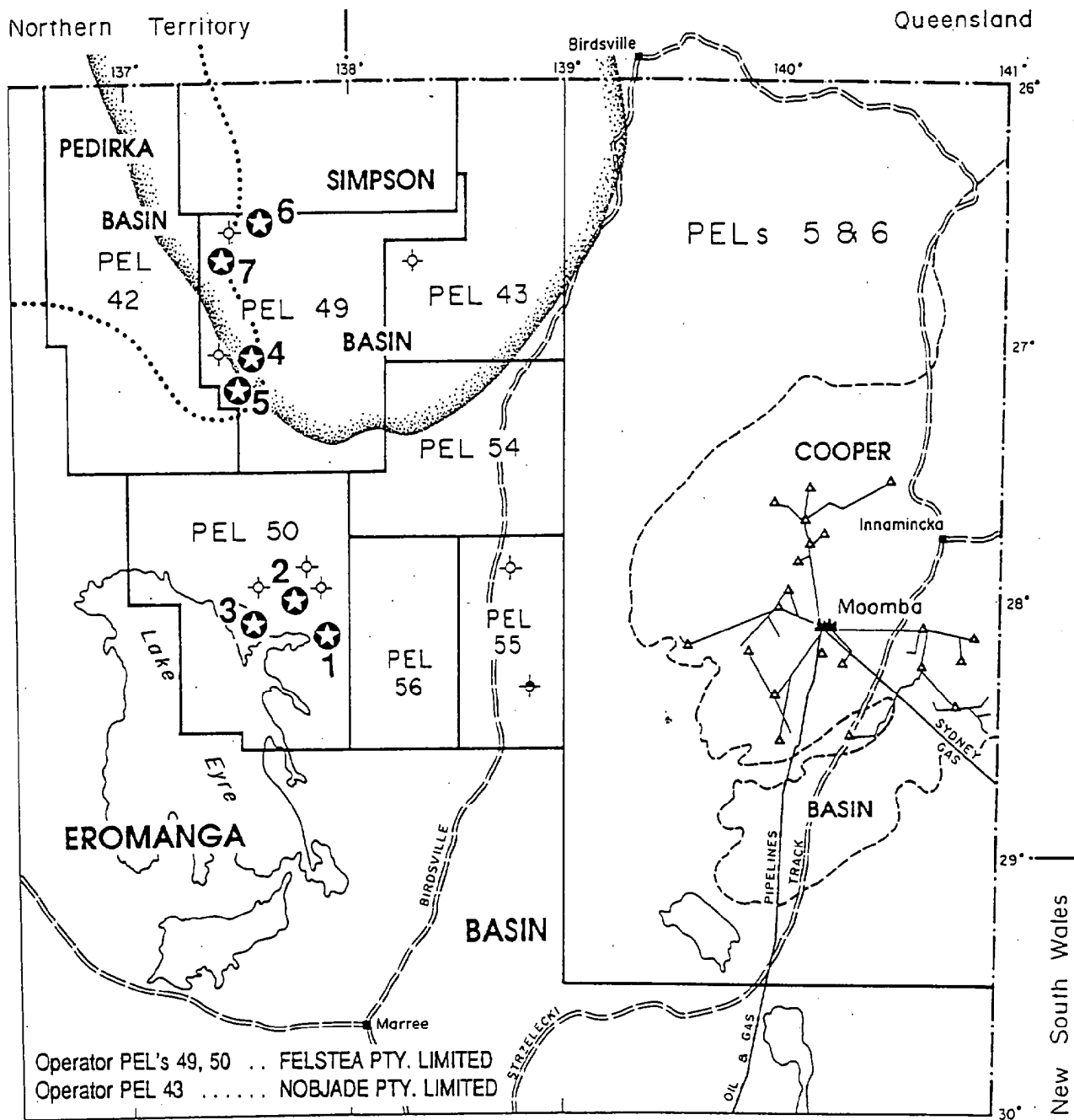


SIMPSON - LAKE EYRE REGION PETROLEUM PROSPECTS



**DEPARTMENT OF
MINES AND ENERGY
SOUTH AUSTRALIA**

October 1992



- ◆ Dry well
- ◆ Dry well, oil show
- ★ Prospect, strong lead
- Gas processing plant
- Oil or gas pipeline, satellite

SIMPSON - LAKE EYRE REGION PROSPECTS AND STRONG LEADS

PROSPECT 1

LAKE PROMISE

BASIN: EROMANGA

TENEMENT: PEL 50

OPERATOR: FELSTEAL PTY. LTD.

LATITUDE: 28 08'

LONGITUDE: 137 50'

SEISMIC LINE: 86-AGJ SP: 414

TD: 4,800 Ft 1,463 (m)

DRILLING TIME: 15 Days

DISTANCE TO MOOMBA: 250 km

OBJECTIVES:

Namur Sandstone oil

STRUCTURE:

Fault-bounded basement high with onlap and subsequent structural movement.

CLOSURE:

Namur: 15,320 acres (to LCC)

Pool: 6,200 acres

% Area fill: 40%

POTENTIAL RESERVES: 46 MMSTB Rec.

Assuming:

Porosity = 15%

Net Pay = 20 ft.

Area = 6,200 acres

Shrinkage Factor = 0.90

SW = 30%

Recovery = 40%

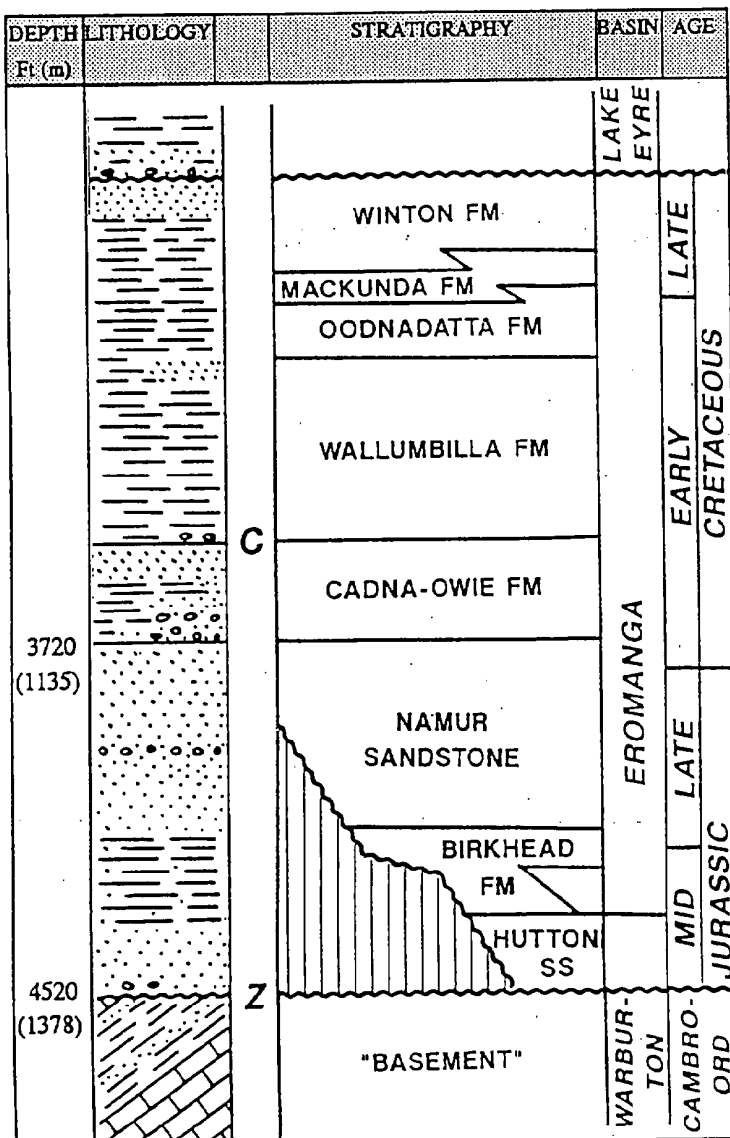
COMMENTS:

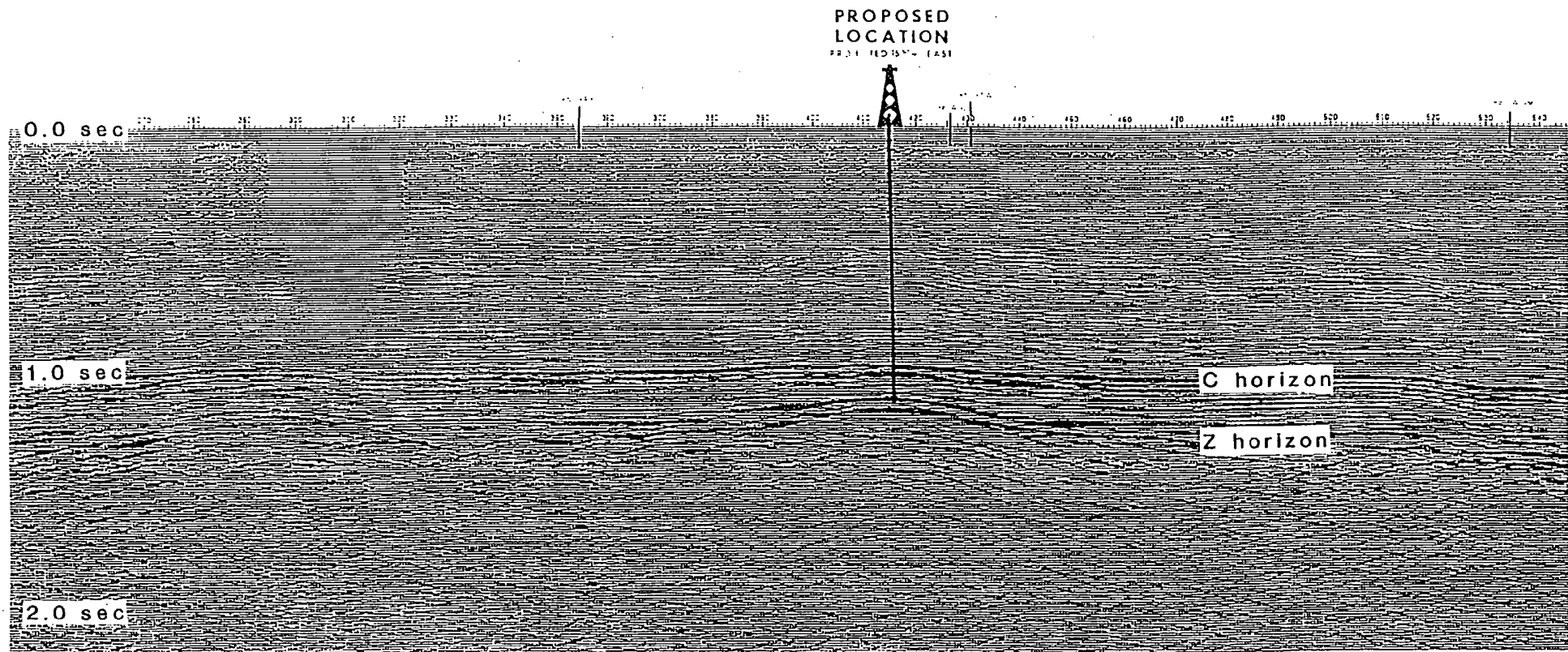
Drillable prospect defined by 8 seismic lines.

DATA SOURCES:

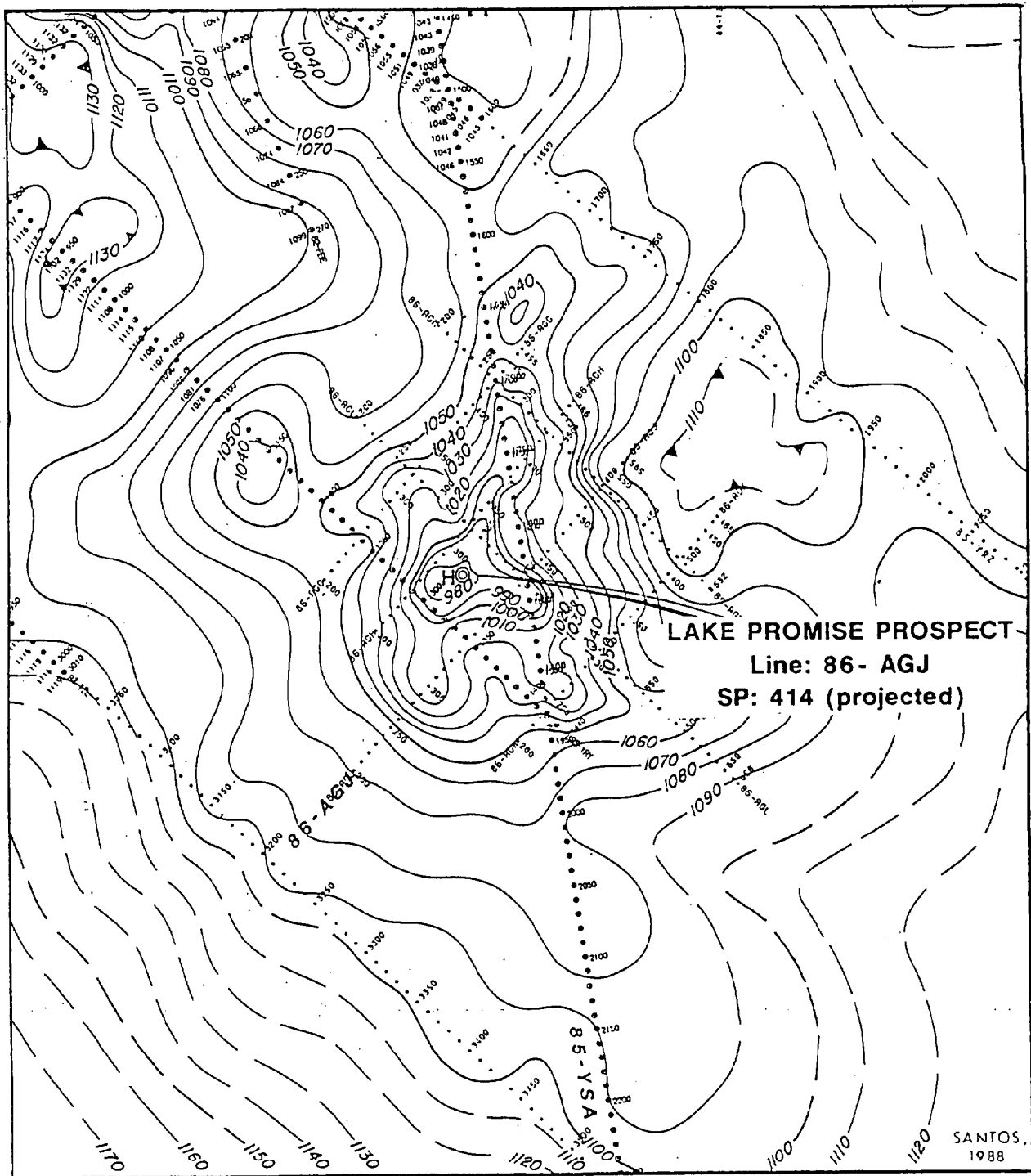
SANTOS

SCHEMATIC STRATIGRAPHIC SUMMARY





LAKE PROMISE PROSPECT
1986 FLETCHER SEISMIC SURVEY
86-AGJ SEISMIC SECTION



5 KM

LAKE PROMISE PROSPECT
1986 FLETCHER SEISMIC SURVEY

"C" TIME STRUCTURE

LAKE KOOL

BASIN: EROMANGA
 TENEMENT: PEL 50
 OPERATOR: FELSTE A PTY. LTD.

SCHEMATIC STRATIGRAPHIC SUMMARY

LATITUDE: 27 56'
 LONGITUDE: 137 50'
 SEISMIC LINE: 85-YRW SP: 1359

TD: 5,000 Ft 1,524 (m)
 DRILLING TIME: 15 Days
 DISTANCE TO MOOMBA: 250 km

OBJECTIVES:
 Namur Sandstone oil

STRUCTURE:
 Basement high with onlap and subsequent structural movement.

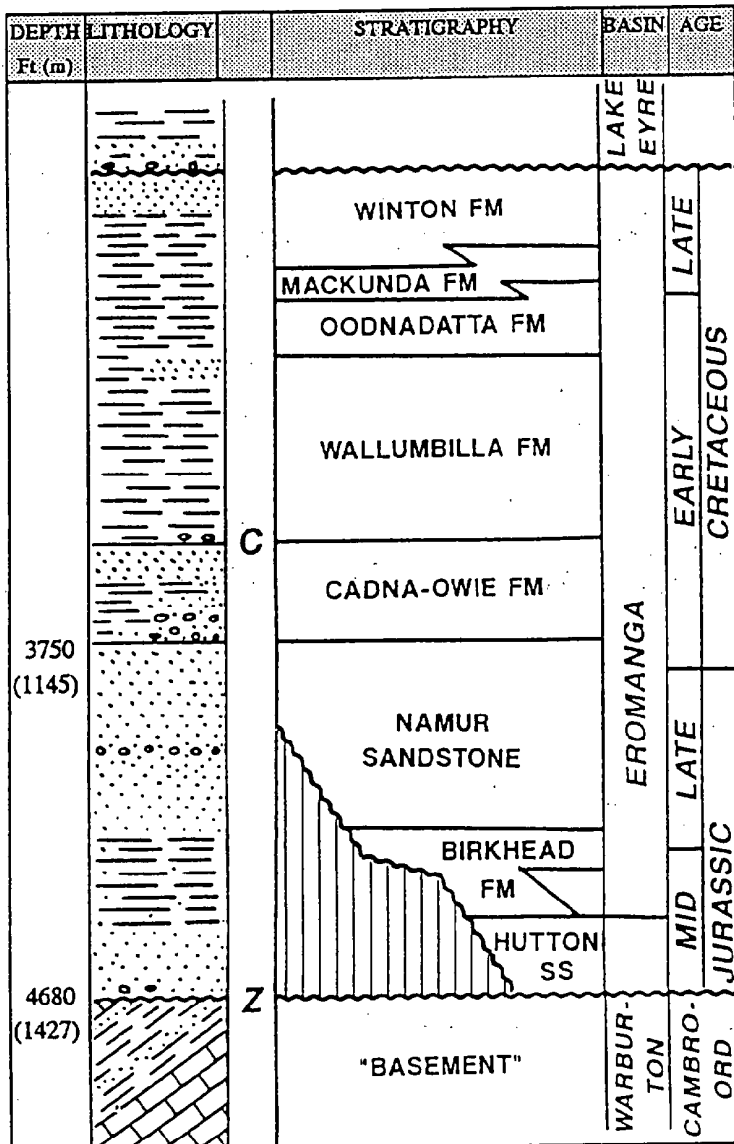
CLOSURE:
 Namur: 4,200 acres (to LCC)
 Pool: 2,225 acres
 % Area fill: 53%

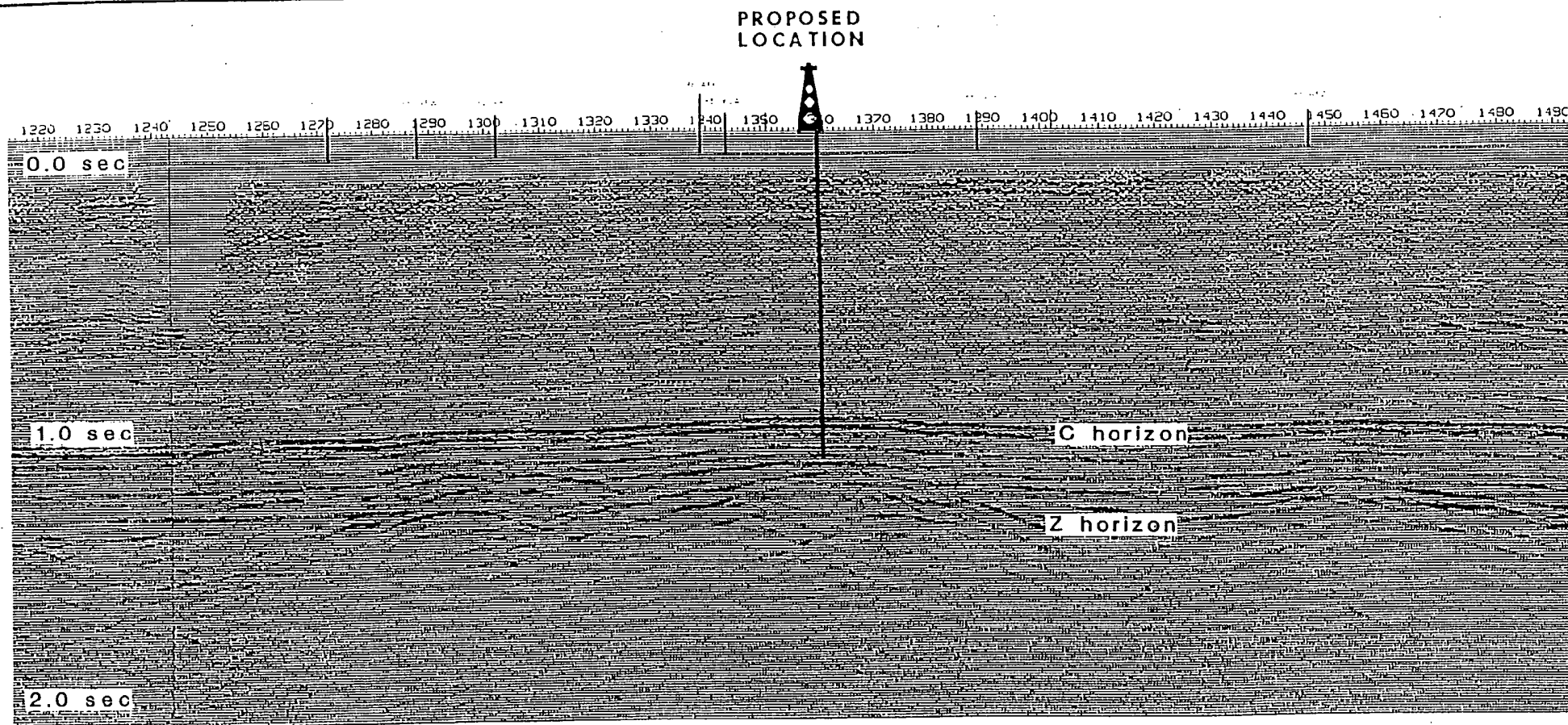
POTENTIAL RESERVES: 13 MMSTB Rec.
 Assuming:

Porosity = 15%
 Net Pay = 20 ft.
 Area = 2,225 acres
 Shrinkage Factor = 0.90
 SW = 30%
 Recovery = 40%

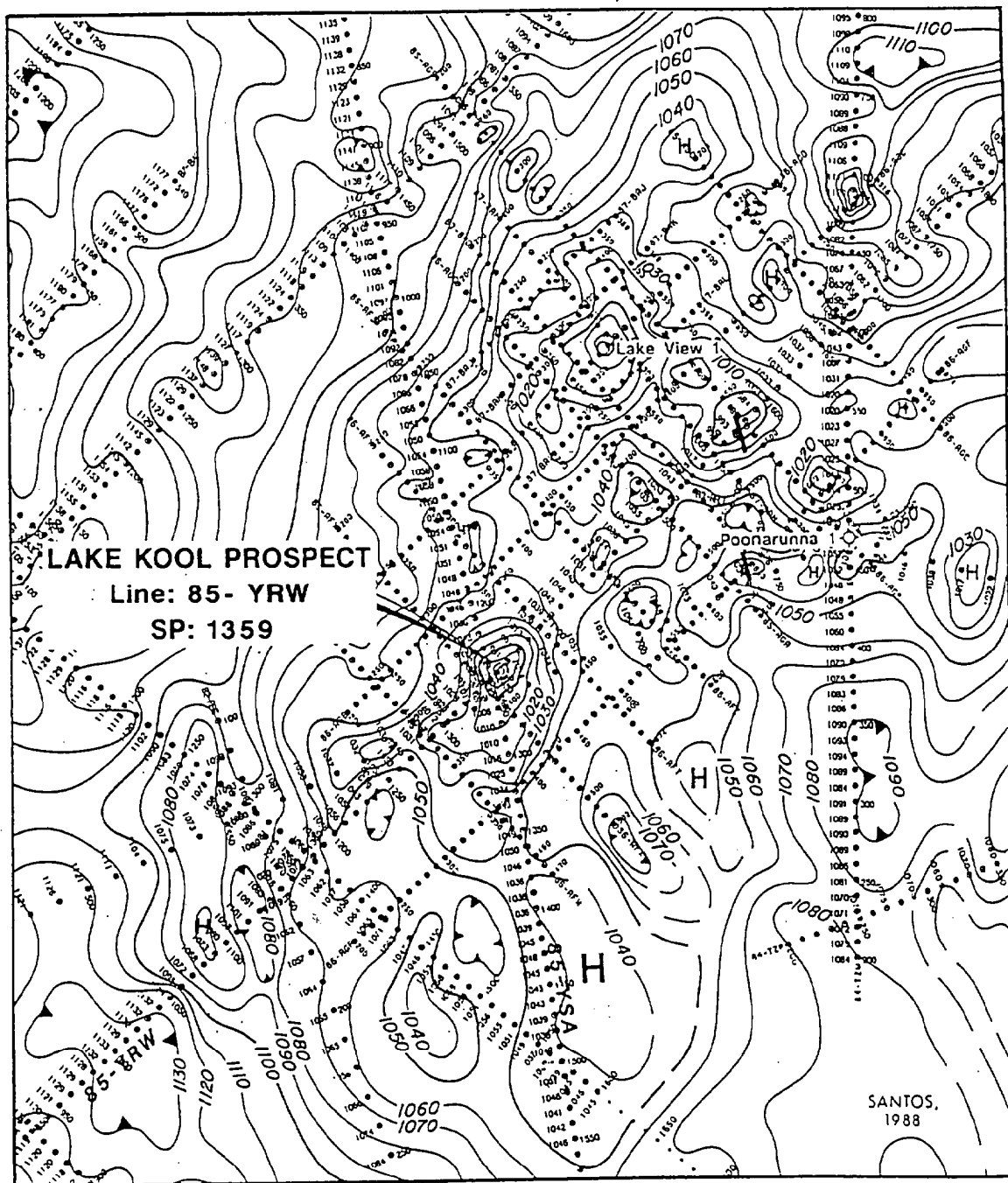
COMMENTS:
 Drillable prospect defined by 10 seismic lines.

DATA SOURCES:
 SANTOS





LAKE KOOL PROSPECT
1985 MORPHETT SEISMIC SURVEY
85-YRW SEISMIC SECTION



LAKE KOOL PROSPECT
1985 MORPHETT SEISMIC SURVEY
"C" TIME STRUCTURE

PROSPECT 3 LAKESIDE

BASIN: EROMANGA
TENEMENT: PEL 50
OPERATOR: FELSTEAL PTY. LTD.
LATITUDE: 28 05'
LONGITUDE: 137 34'

SEISMIC LINE: 86-AGN SP: 402

TD: 5,300 Ft 1,616 (m)

DRILLING TIME: 15 Days

DISTANCE TO MOOMBA: 280 km

OBJECTIVES:

Namur Sandstone oil
Hutton Sandstone oil

STRUCTURE:

NE-SW trending anticline with
prominent reverse fault on east flank.

CLOSURE:

Namur: 15,400 acres (to LCC)
Pool: 7,660 acres
% Area fill: 50%

POTENTIAL RESERVES: 46 MMSTB Rec.

Assuming:

Porosity = 15 %
Net Pay = 20 ft.
Area = 7,660 acres
Shrinkage Factor = 0.90
SW = 30 %
Recovery = 40 %

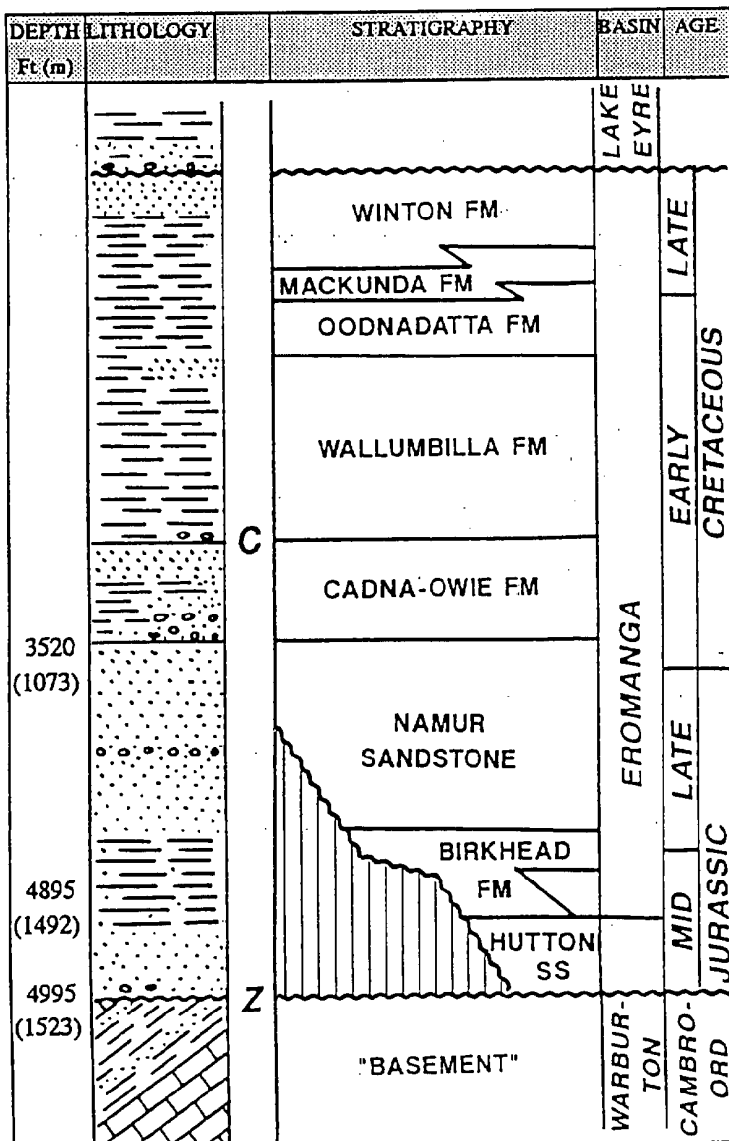
COMMENTS:

Anomalous saline water recovery on
trend suggests proximity to oil
accumulation.

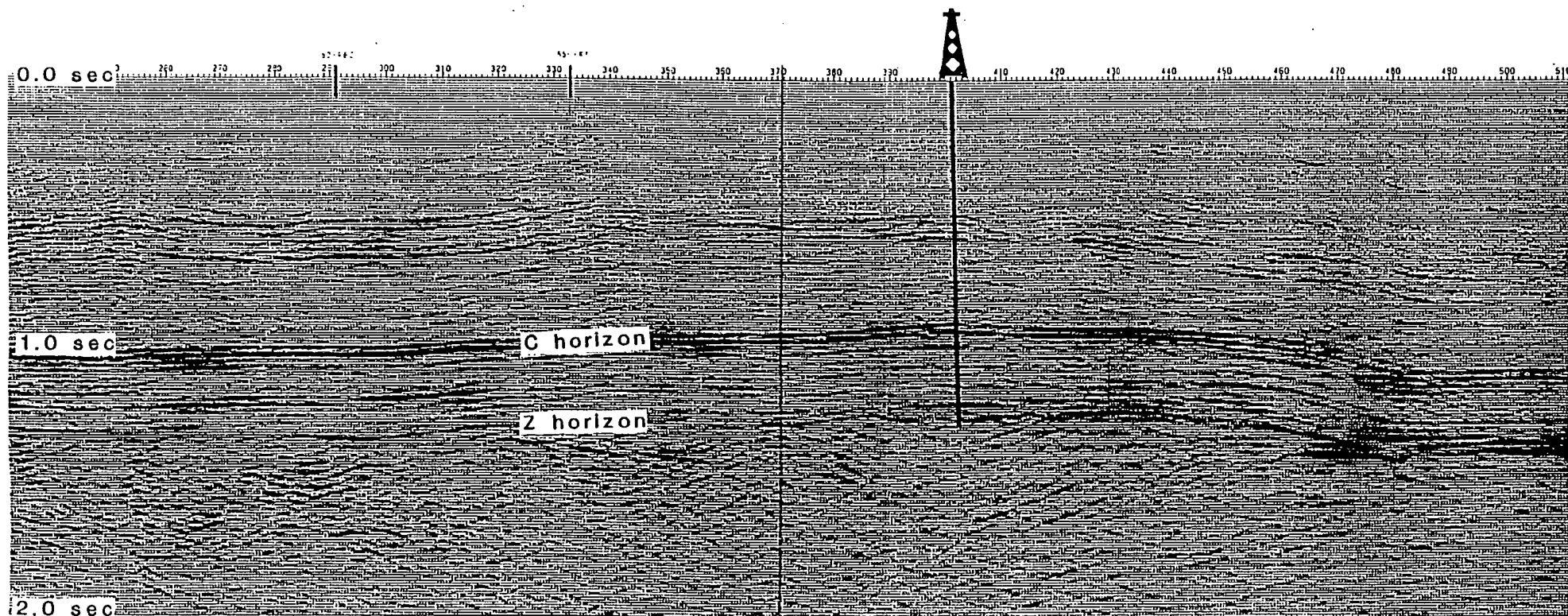
DATA SOURCES:

SANTOS

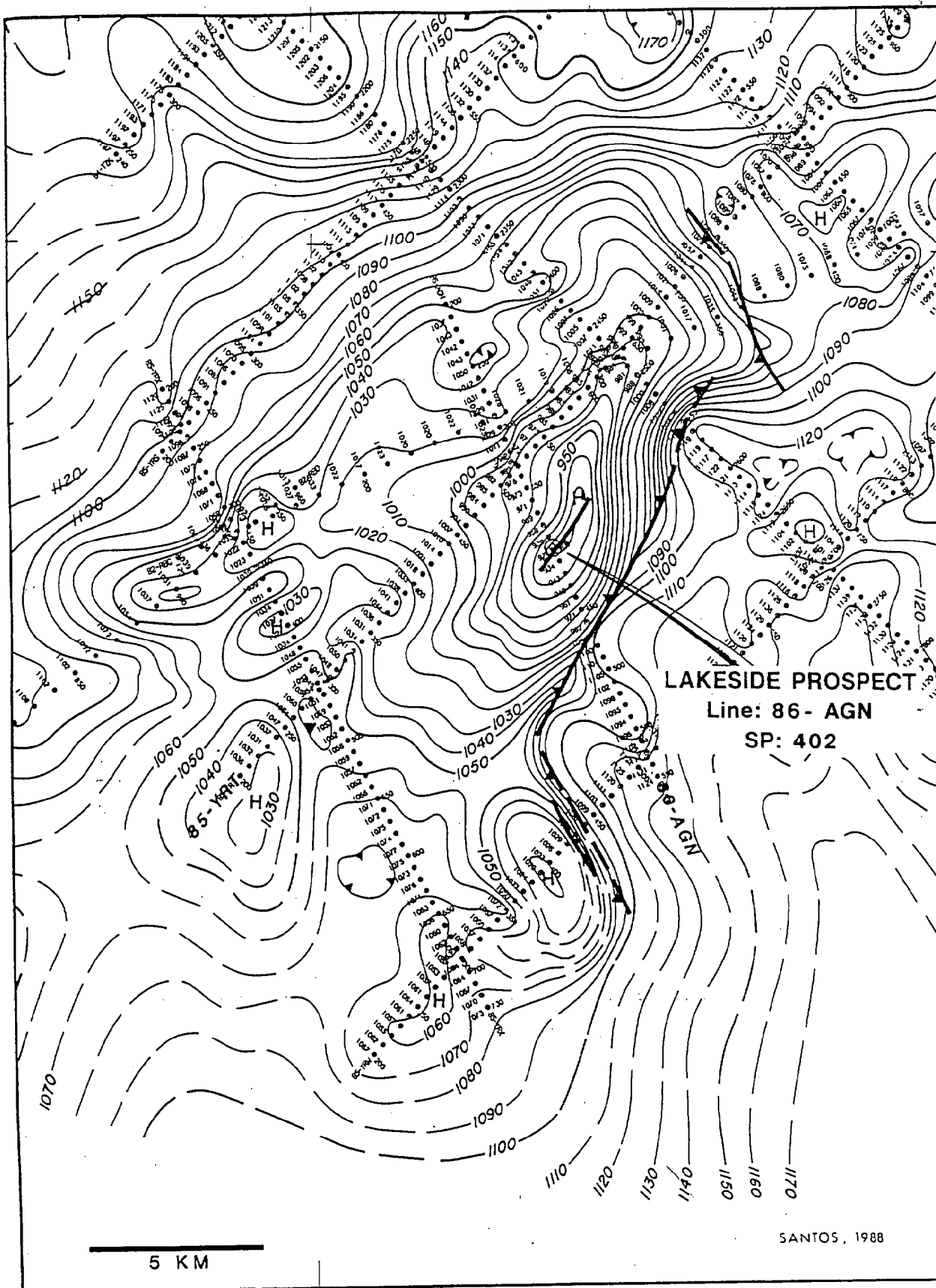
SCHEMATIC STRATIGRAPHIC SUMMARY



PROPOSED
LOCATION



LAKESIDE PROSPECT
1986 FLETCHER SEISMIC SURVEY
86-AGN SEISMIC SECTION



LAKESIDE PROSPECT
1986 FLETCHER SEISMIC SURVEY
"C" TIME STRUCTURE

SCHEMATIC STRATIGRAPHIC SUMMARY

PEDRINNA

DEPTH Ft (m)	LITHOLOGY	STRATIGRAPHY	BASIN	AGE
			LAKE EYRE	
		WINTON FM		LATE
		MACKUNDA FM		
		OODNADATTA FM		
		WALLUMBILLA FM		EARLY
		CADNA-OWIE FM		CRETACEOUS
5265 (1605)		NAMUR SANDSTONE	EROMANGA	LATE
		BIRKHEAD FM		MID
6750 (2058)		HUTTON SANDSTONE		JURASSIC
7900 (2408)		POOLOWANNA FM		EARLY
8230 (2509)		PEERA PEERA FM	SIMPSON	TRIASSIC
		WALKANDI FM		
8610 (2625)		"BASEMENT"	WARBUR- TON	CAMBRO- ORD

BASIN: EROMANGA

TENEMENT: PEL 49

OPERATOR: FELSTE A PTY. LTD.

LATITUDE: 27 05'

LONGITUDE: 137 30'

SEISMIC LINE: 79-WDS SP: 359

TD: 8,900 Ft 2,713 (m)

DRILLING TIME: 30 Days

DISTANCE TO MOOMBA: 280 km

OBJECTIVES:

PRIMARY:

Poolowanna Fm (Ss) oil - 7900'

Peera Peera Fm (Ss) oil - 8230'

SECONDARY:

Namur Ss oil - 5265'

Hutton Ss oil - 6750'

STRUCTURE:

NW-trending anticline on southern flank of Poolowanna Trough.

Extensive basement faulting.

CLOSURE:

Poolowanna: 3265 acres (to LCC)

Pool: 1,633 acres

% Area fill: 50%

POTENTIAL RESERVES: 14.3 MMSTB Rec

Assuming:

Porosity = 15%

Net Pay = 30 ft.

Area = 1,633 acres

Shrinkage Factor = 0.90

SW = 30%

Recovery = 40%

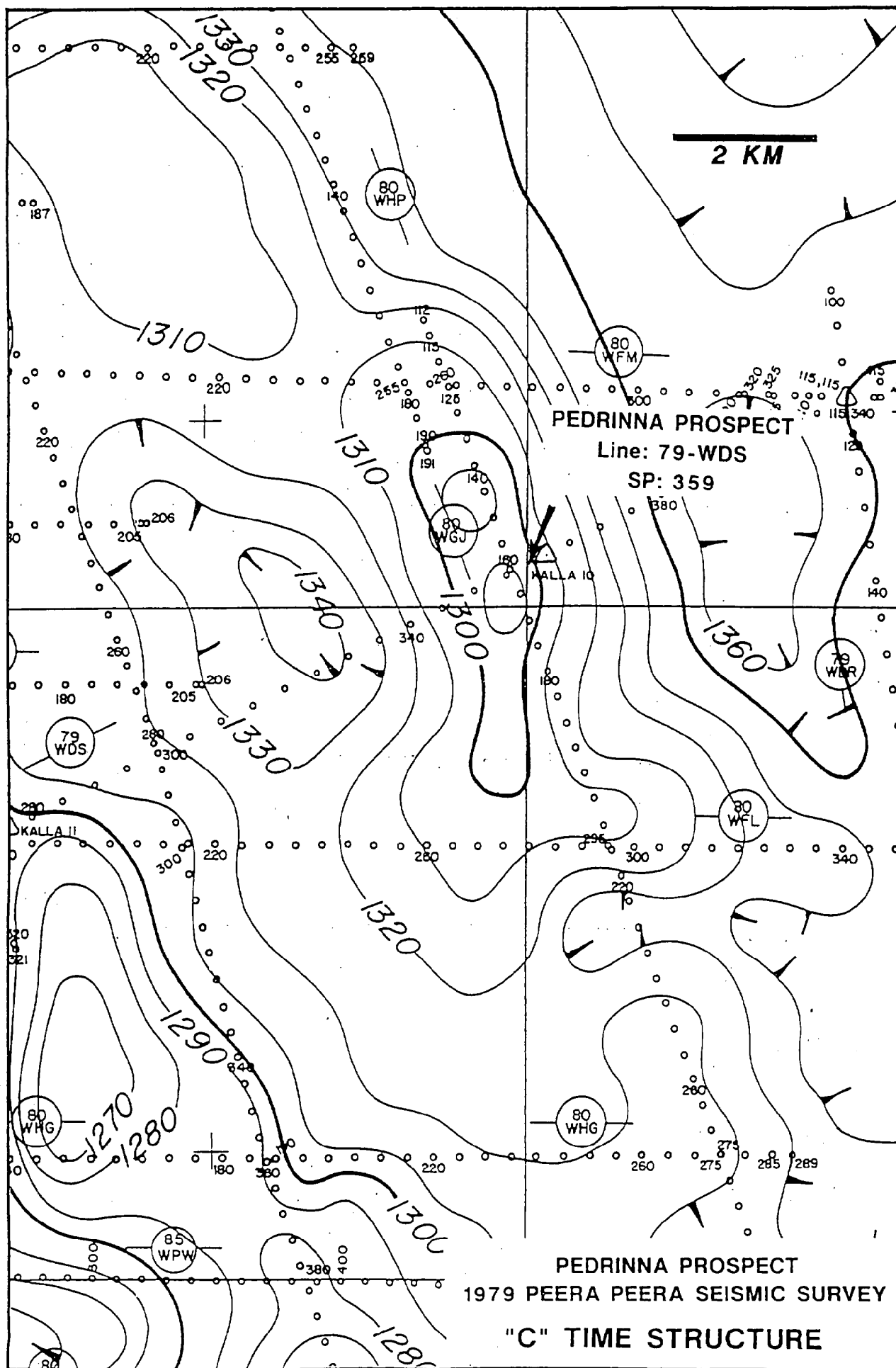
COMMENTS:

Shows (fluor. and cut) in Miandana 1 located 9 km west. Shallower seismic anomalies relate to basement blocks.

DATA SOURCES:

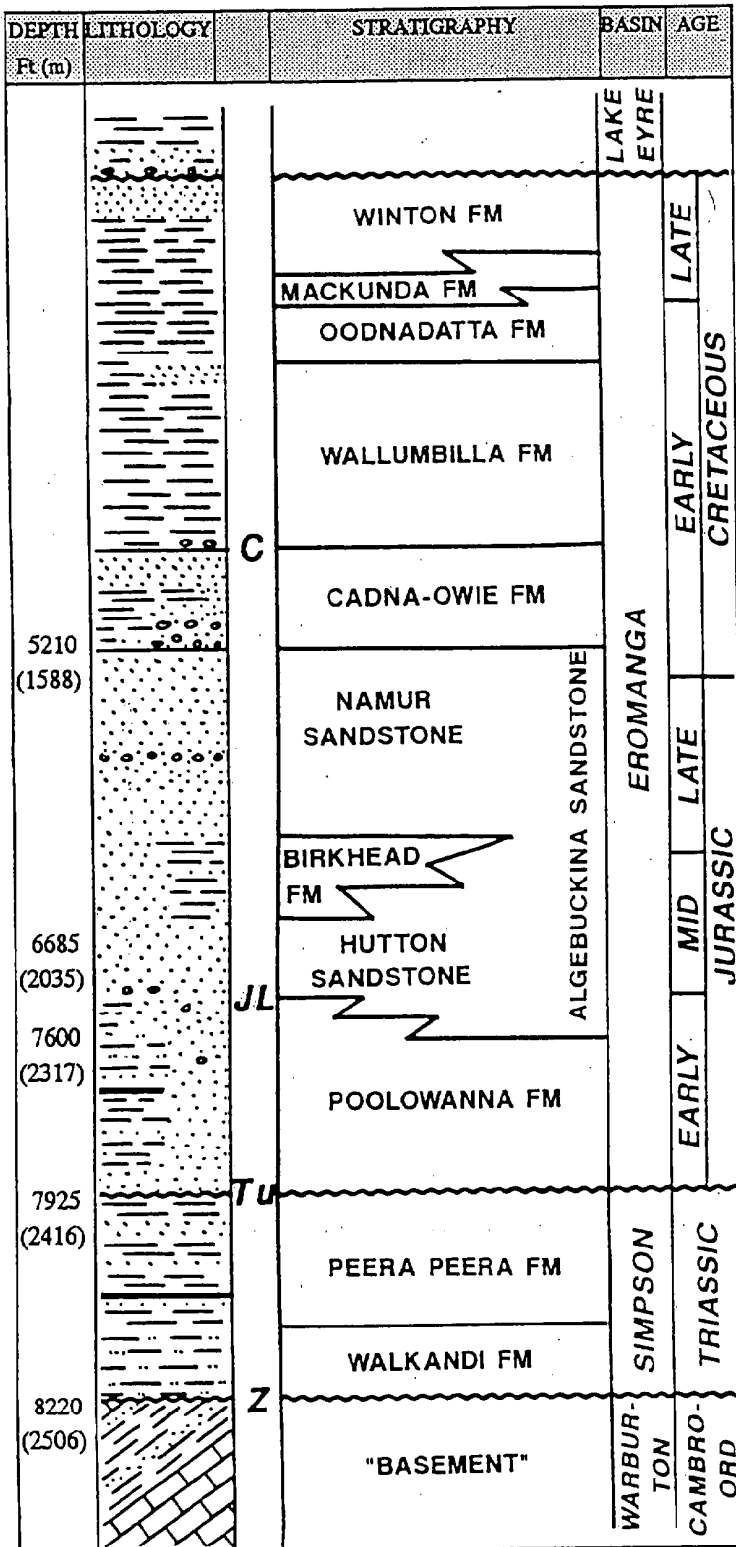
Delhi Petroleum

SANTOS



SCHEMATIC STRATIGRAPHIC SUMMARY

MIAMIANA



BASIN: EROMANGA

TENEMENT: PEL 49

OPERATOR: FELSTEPA PTY. LTD.

LATITUDE: 27 11'

LONGITUDE: 137 28'

SEISMIC LINE: 80-WFK SP: 208

TD: 8,500 Ft 2,590 (m)

DRILLING TIME: 30 Days

DISTANCE TO MOOMBA: 280 km

OBJECTIVES:

PRIMARY:

Poolowanna Fm (Ss) oil - 7600'

Peera Peera Fm (Ss) oil - 7925'

SECONDARY:

Namur Ss oil - 5210'

Hutton Ss oil - 6685'

STRUCTURE:

Major NW-trending anticline on southern flank of Poolowanna Trough.
Extensive basement faulting.

CLOSURE:

Namur Ss: 13,800 acres (to LCC)

Pool: 6,900 acres

% Area fill: 50%

POTENTIAL RESERVES: 60.5 MMSTB Rec

Assuming:

Porosity = 15%

Net Pay = 30 ft.

Area = 6,900 acres

Shrinkage Factor = 0.90

SW = 30%

Recovery = 40%

COMMENTS:

Shows (fluor. and cut) in Miandana 1 located 16 km NW. Peera Peera Ss channels cut into basement on structure on two seismic lines.

DATA SOURCES:

Delhi Petroleum

SANTOS



0.0 sec

1.0 sec

2.0 sec

C horizon

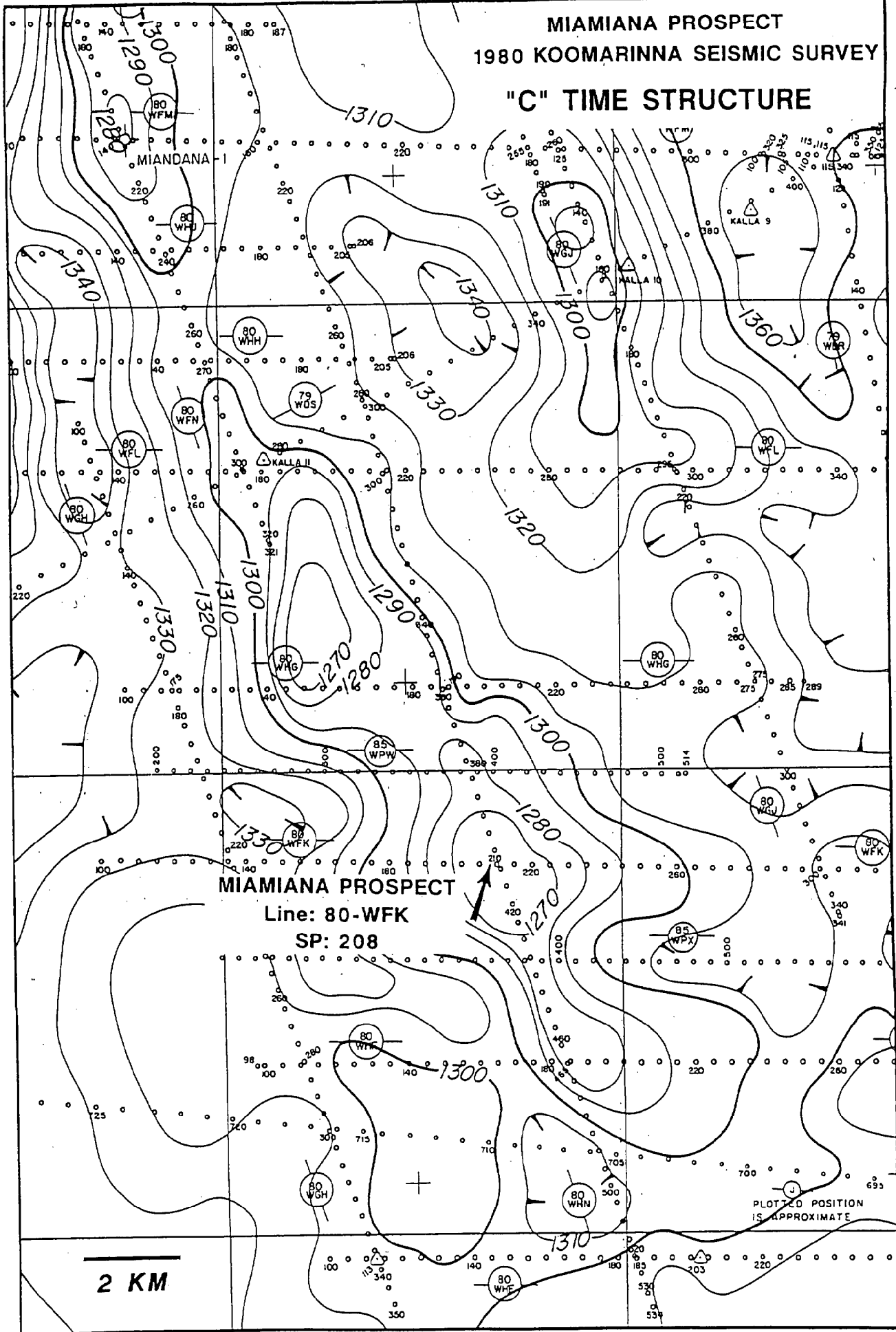
Poolowanna JL

Z horizon

MIAMIANA PROSPECT
1980 KOOMARINNA SEISMIC SURVEY
80-WFK SEISMIC SECTION

MIAMIANA PROSPECT
1980 KOOMARINNA SEISMIC SURVEY

"C" TIME STRUCTURE



SCHEMATIC STRATIGRAPHIC SUMMARY

PENDULLA

DEPTH Ft.(m)	LITHOLOGY	STRATIGRAPHY	BASIN	AGE
			LAKE EYRE	
		WINTON FM		LATE
		MACKUNDA FM		
		OODNADATTA FM		
		WALLUMBILLA FM		EARLY
				CRETACEOUS
		CADNA-OWIE FM		
5720 (1744)		NAMUR SANDSTONE	EROMANGA	LATE
		BIRKHEAD FM		MID
		HUTTON SANDSTONE		JURASSIC
8610 (2625)		POOLOWANNA FM		EARLY
8980 (2738)		PEERA PEERA FM	SIMPSON	TRIASSIC
		WALKANDI FM		
10000 (3049)		"BASEMENT"	WARBUR- TON	CAMBRO- ORD

BASIN: EROMANGA

TENEMENT: PEL 49

OPERATOR: FELSTE A PTY. LTD.

LATITUDE: 26 31'

LONGITUDE: 137 29'

SEISMIC LINE: 80-WFX SP: 209

TD: 10500 Ft. 3,200 (m)

DRILLING TIME: 35 Days

DISTANCE TO MOOMBA: 320 km

OBJECTIVES:

Poolowanna Fm (Ss) oil

Peera Peera Fm (Ss) oil

STRUCTURE:

NW-SE trending anticline in central
Poolowanna Trough

CLOSURE:

Poolowanna Fm: 1050 acres (to LCC)

Pool: 787 acres

% Area fill: 75%

POTENTIAL RESERVES: 4.7 MMSTB Rec.

Assuming:

Porosity = 15%

Net Pay = 20 ft.

Area = 787 acres

Shrinkage Factor = 0.90

SW = 30%

Recovery = 40%

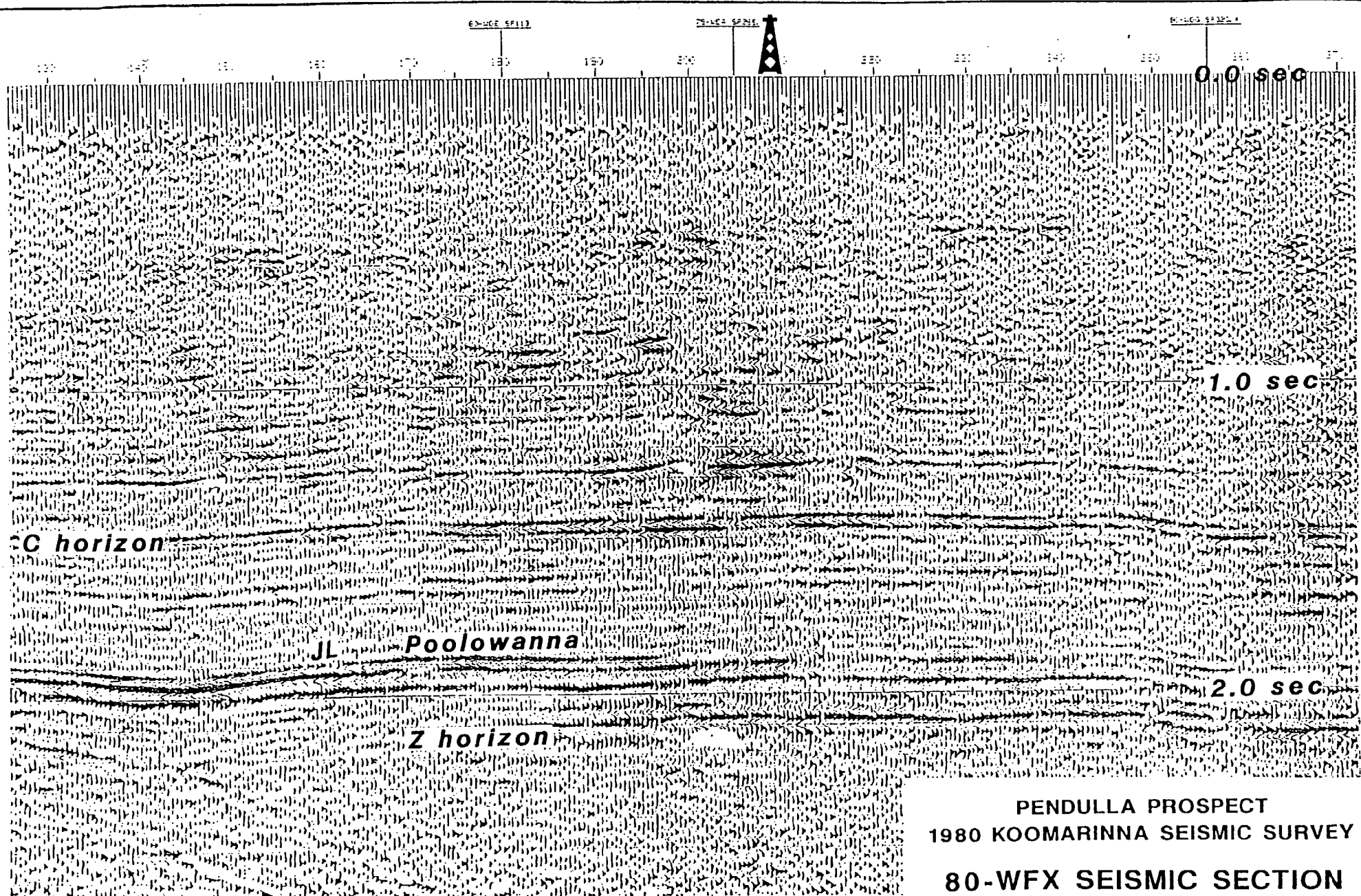
COMMENTS:

Poolowanna 1 oil recovery (96 BOPD)

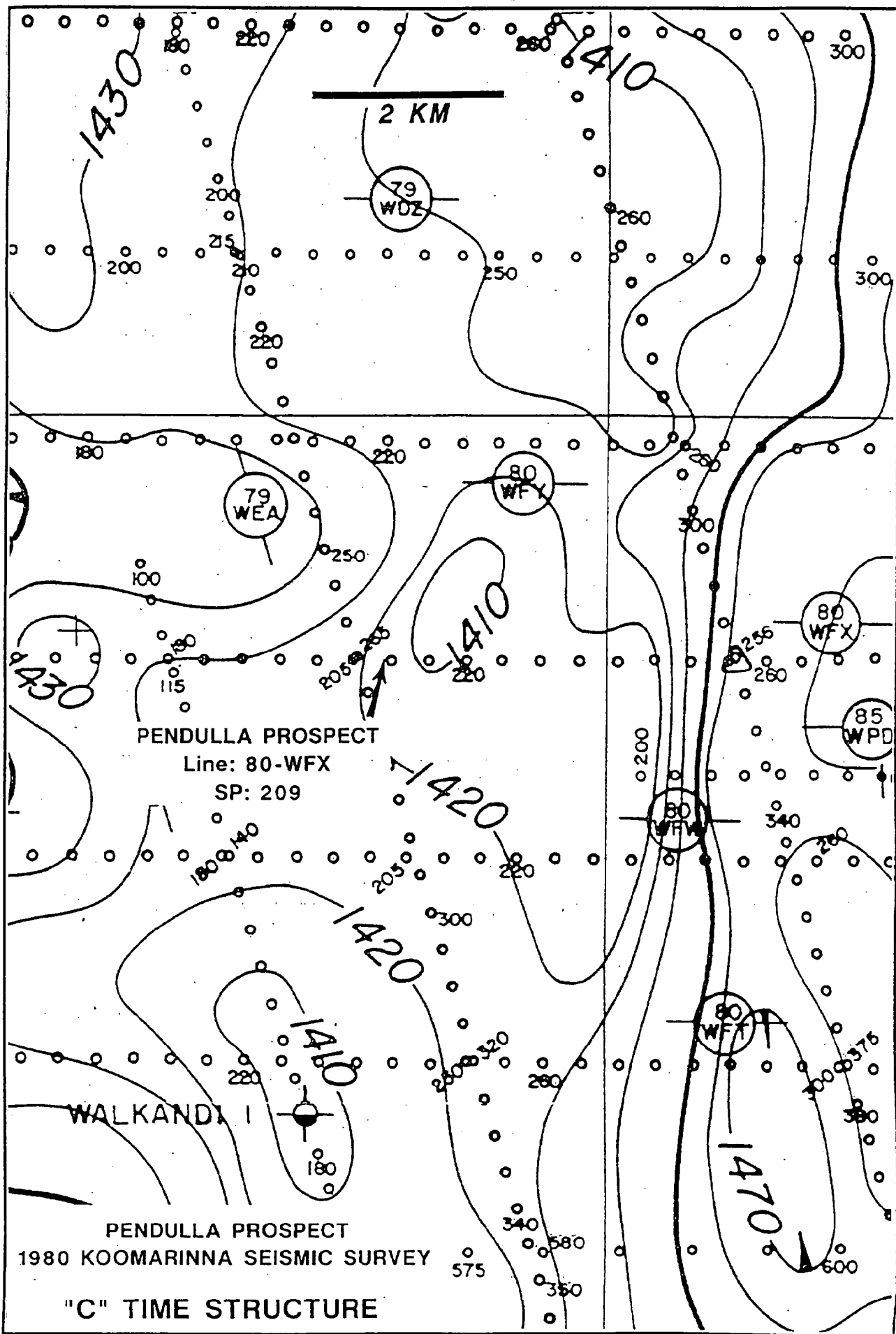
located 22km ENE; numerous shows
(fluor. and cut) reported from Walkandi 1
located 4 km SW.

DATA SOURCES:

Delhi Petroleum
SANTOS

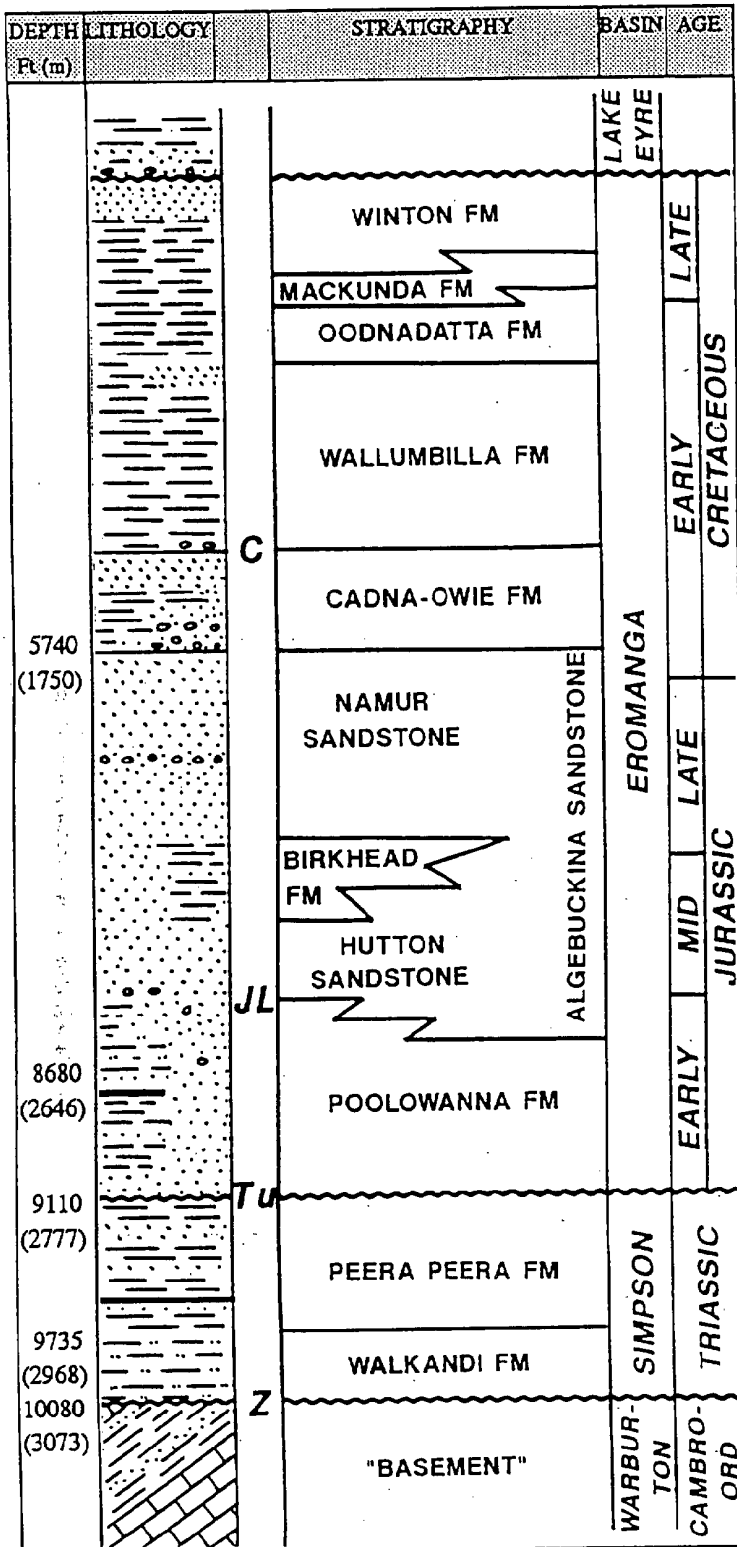


PENDULLA PROSPECT
1980 KOOMARINNA SEISMIC SURVEY
80-WFX SEISMIC SECTION



SCHEMATIC STRATIGRAPHIC SUMMARY

PENUNGA



BASIN: EROMANGA

TENEMENT: PEL 49

OPERATOR: FELSTEPA PTY. LTD.

LATITUDE: 26 37'

LONGITUDE: 137 26'

SEISMIC LINE: 79-WDY SP: 137

TD: 10500 3,200 (m)

DRILLING TIME: 35 Days

DISTANCE TO MOOMBA: 320 km

OBJECTIVES:

Poolowanna Fm (Ss) oil

Peera Peera Fm (Ss) oil

STRUCTURE:

NW-SE trending anticline in central
Poolowanna Trough

CLOSURE:

Poolowanna Fm: 2500 acres

Pool: 1875 acres

% Area fill: 75%

POTENTIAL RESERVES: 16.7 MMSTB Rec
Assuming:

Porosity = 15%

Net Pay = 30 ft.

Area = 1875 acres

Shrinkage Factor = 0.90

SW = 30%

Recovery = 40%

COMMENTS:

Poolowanna 1 oil recovery (96 BOPD)
located 30km NE; numerous shows
(fluor. and cut) reported from Walkandi
1 located 8 km NE.

DATA SOURCES:

Delhi Petroleum
SANTOS

