



WELL ELEMENTARY

OIL SEARCH BENGWORDEN-1

(W391)

PE904112

This is an enclosure indicator page.
The enclosure PE904112 is enclosed within the
container PE904111 at this location in this
document.

The enclosure PE904112 has the following characteristics:

ITEM_BARCODE = PE904112
CONTAINER_BARCODE = PE906183
NAME = well card
BASIN =
PERMIT =
TYPE = WELL
SUBTYPE = WELL_CARD
DESCRIPTION = well card (from Well
elementary) Bengworden 1
REMARKS = abandoned 1932
DATE_CREATED =
DATE_RECEIVED =
W_NO = W391
WELL_NAME = Bengworden-1
CONTRACTOR =
CLIENT_OP_CO = Oil Search Ltd

(Inserted by DNRE - Vic Govt Mines Dept)

... of basalt; 54 ft. yellow clay; 60 ft. wash; 62 ft. bedrock, yellow slate; depth of bore, 66 ft. Five fine colours of gold.

Bore 14.

Position.—From Bore 13, 40 ft. westerly.

At 0 ft.—soil; 3 ft. 6 in.—volcanic clay; 7 ft. 6 in.—decomposed basalt; 26 ft.—basalt; 55 ft.—decomposed basalt; 59 ft.—quartz gravel; 59 ft. 6 in.—bedrock, yellow slate; depth of bore, 64 ft. Twenty-four fine colours of gold.

Bore 15.

Position.—From Bore 11, 90 ft. north.

At 0 ft.—soil; 3 ft. 6 in.—volcanic clay; 8 ft.—decomposed basalt; 27 ft.—basalt; 52 ft.—decomposed basalt; 56 ft.—sandy clay; 62 ft.—slate, few water-worn stones showing at 62 ft.; depth of bore, 85 ft.

Bore 16.

Position.—From Bore 11, 52 ft. north-easterly.

At 0 ft.—soil; 3 ft.—volcanic clay; 7 ft. 6 in.—decomposed basalt; 20 ft. 6 in.—basalt; 51 ft.—decomposed basalt; 54 ft.—sandy clay; 56 ft. 6 in.—water-worn gravel; 58 ft.—yellow sand; depth of bore, 61 ft. Thirty colours of gold obtained between 56 ft. 6 in. and 58 ft.

Bore 17.

Position.—From Bore 16, 318 ft. north.

At 0 ft.—soil; 4 ft.—volcanic clay; 7 ft. 6 in.—decomposed basalt; 36 ft.—basaltic clay; 40 ft.—yellow clay; 41 ft.—wash; 42 ft.—bedrock, yellow slate; depth of bore, 45 ft. Twelve fine colours of gold.

Bore 18.

Position.—From Bore 11, 82 ft. east.

At 0 ft.—soil; 6 ft.—volcanic clay; 9 ft.—decomposed basalt; 15 ft.—basalt; 43 ft.—basaltic clay; 48 ft.—yellow sandy clay; 53 ft.—yellow sandstone; depth of bore, 65 ft. No wash.

PARISH OF WOOLAMAI.

For Company Bores 1 to 9, see Diamond Drill Report No. 1, pages 15 and 25; Western Port Coal Bores 1 to 4 (subsidized by the Government), Diamond Drill Report No. 2, page 41; Departmental Bores 1 to 4, Annual Report for 1896, page 65; 12 to 15, Annual Report 1905, pages 165 to 167; 16 to 22, Annual Report for 1906, pages 164 to 167.

Further Departmental bores commenced in 1907 and numbered consecutively, are as follow:—Bores 1 to 31, Annual Report for 1907, pages 176 to 181; 32 to 34, Annual Report 1908, page 174; 35 (A, B, and C), Annual Report for 1910, page 151; 36 to 38, Annual Report for 1912, pages 138 and 139; 39, Annual Report for 1913, page 141; 40, Boring Reports for 1925, page 50; 41 and 42, Boring Reports for 1929, page 132.

Bore 43.

Position.—On road 2 chains west of bridge over Bourne Creek (Township of Kilcunda).

The following formations were encountered, commencing at the depths mentioned:—

At 0 ft.—sand; 12 ft.—solid sandstone; 125 ft.—mudstone; 141 ft.—sandstone; 169 ft.—broken mudstone; 250 ft.—solid mudstone; 257 ft.—sandstone; 266 ft.—mudstone; 273 ft.—sandstone, very hard band 365 ft. to 366 ft.; 418 ft.—mudstone; 444 ft.—coal; 2333.—2

Position.—From the west corner of allotment 21, 12 chains south-east (on road 1½ mile south-easterly from Kilcunda).

At 0 ft.—clay and sand; 14 ft.—sandstone; 503 ft.—mudstone; 533 ft.—coal; 533 ft. 6 in.—mudstone; 536 ft.—sandstone; 549 ft.—mudstone; 560 ft.—coal; 560 ft. 6 in.—mudstone; 627 ft.—sandstone; 658 ft.—mudstone; 659 ft.—coal; 659 ft. 9 in.—mudstone, very tough and puggy; 752 ft.—sandstone; 821 ft. 6 in.—mudstone; 865 ft.—calcareous mudstone; 870 ft.—mudstone; 873 ft.—coal (splint); 873 ft. 3 in.—mudstone; 877 ft.—sandstone; 881 ft.—mudstone; 918 ft.—sandstone; 947 ft.—mudstone; 952 ft.—sandstone; 970 ft.—mudstone; 1,010 ft.—sandstone; 1,043 ft.—mudstone; 1,052 ft.—calcareous sandstone; 1,090 ft.—mudstone; 1,105 ft.—sandstone; 1,126 ft.—mudstone; 1,140 ft.—sandstone; 1,150 ft. mudstone; 1,194 ft.—sandstone; 1,208 ft.—mudstone; 1,230 ft.—solid sandstone; depth of bore, 1,250 ft.

Bore 45.

Position.—From the west corner of allotment 21, 42 chains south-east (1½ mile south-easterly from Kilcunda).

At 0 ft.—soil and sand; 4 ft.—clay; 5 ft.—sand and silt; 36 ft.—clay; 40 ft.—clay and sand; 50 ft.—sand and silt; 110 ft.—sandstone; 130 ft.—mudstone; 132 ft.—sandstone; 194 ft.—sandstone, portion calcareous; 219 ft.—carbonaceous sandstone; 220 ft.—sandstone; 252 ft.—carbonaceous mudstone; 253 ft.—sandstone; 272 ft.—coal; 272 ft. 2 in.—sandy mudstone; 340 ft.—carbonaceous mudstone; 341 ft.—mudstone, bands of sandstone; 362 ft.—calcareous sandstone; 367 ft.—mudstone; 390 ft.—sandstone; 392 ft.—mudstone; 450 ft.—sandstone, very hard, partly calcareous; 489 ft.—mudstone; 494 ft.—coal; 494 ft. 2 in.—mudstone, part carbonaceous; 503 ft.—mudstone; 513 ft.—carbonaceous mudstone; 523 ft.—sandstone, hard, calcareous bands; 541 ft.—sandstone; 556 ft.—mudstone, sandstone bands; 619 ft.—sandstone with hard bands; 631 ft.—hard sandstone; 700 ft.—mudstone, sandy, parts calcareous; 710 ft.—very hard sandstone; depth of bore, 720 ft.

Year 1932.

PARISH OF BENGWORDEN.

Bore 1. W 391

Position.—From the south-west corner of allotment 17A, section 5, 11 chains south-east (12 miles south-westerly from Bairnsdale). Surface level, 105 ft.

The following formations were encountered, commencing at the depths mentioned:—

At 0 ft.—sandy soil; 2 ft.—clay, sandy, mottled; 9 ft.—clay, sandy, yellow, very stiff; 37 ft.—clay, grey and yellow, very stiff; 65 ft.—quartz gravel; 65 ft. 6 in.—clay, sandy, yellow, stiff; 69 ft. 6 in.—clay, grey and yellow, stiff; 88 ft.—clay, sandy, bluish, bands of sand; 136 ft.—dark clay; 143 ft.—sand, coarse bands; 165 ft.—clay, mottled, stiff; 171 ft.—clay; 179 ft.—sand, drift, coarse bands; 285 ft.—fine sand; 388 ft.—soft marl; 416 ft.—marl, grey, clayey; 428 ft.—marl, bluish, fossiliferous; 616 ft.—limestone and bluish marl; depth of bore, 924 ft. Fresh water struck at 65 ft. and 146 ft.

Bore 2.

W 391A

Position.—From the north-west corner of allotment 22, section 1, 13 chains southerly along road (13 miles south-westerly from Bairnsdale). Surface level, 75 ft.

P.T.O.

Bengworden District.

A series of bores to the south and south-west of Bairnsdale, in the Parishes of Bengworden, Coongulmerang, Moormung, Goon Nure, and Boole Poole, were drilled as shown hereunder:—

Nine bores were drilled to depths ranging down to 2,930 feet, two of which yielded traces of oil. One was the Amalgamated Oil Syndicate's bore at Goon Nure, which was finally abandoned without reaching bedrock at 2,930 feet, the limit of the capability of the plant. The other was the Valve Company's well on Pelican Point, where films of oil were recorded. This well penetrated to a depth of 2,400 feet before work was temporarily suspended. Both these bores reached the Oligocene series; the Goon Nure bore terminated in Lower Oligocene beds of alternating clay and coal seams, which persisted below 2,850 feet, the coal seams varying up to 10 feet in thickness.

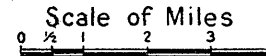
The series of bores between Bengworden, in the south, and the Mitchell River, to the north, were intended to be scout bores, for structural purposes, but the extensive beds of drift encountered considerably impeded progress.

Sale and Longford Districts.

Situated about 50 miles south-west of Lakes Entrance, and about 10 to 15 miles to the south-east of the town of Sale, is another area which has received a considerable amount of attention by different companies. Extensive boring was carried out by the Mines Department some years ago for the purpose of defining the brown coal area in this district, and in recent years the information obtained from these bores has been supplemented by data obtained from the drilling operations of oil companies.

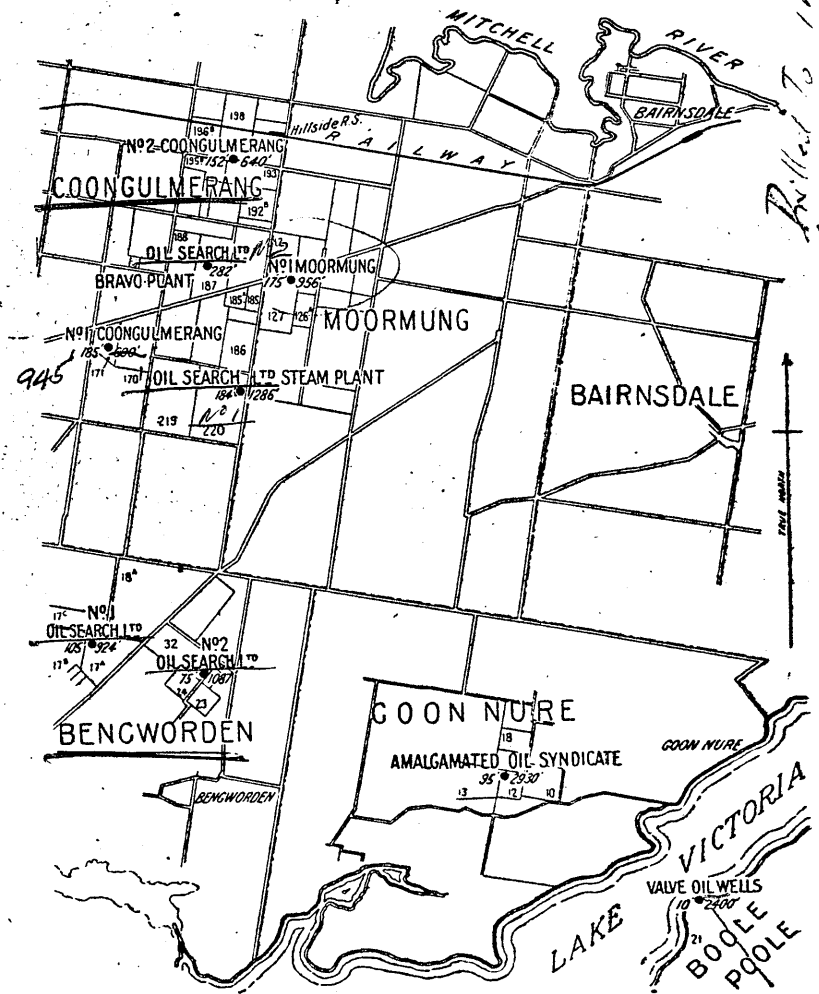
The Tertiary formations in this area are thicker than at Lakes Entrance, the Tanjil—Point Addis No. 2 bore showing 2,740 feet of beds before reaching Jurassic bedrock. The sequence of the strata and nature of the beds are very much the same as at Lakes Entrance, excepting that coal seams are conspicuous in the shallow bores.

BORING AT BENGWORDEN DISTRICT



REFERENCE

Height above sea level 35' • 2930' Depth of Bore.



*Drilled to investigate
physiocal phenomena.
All for Govt. S. Melbourne
1936. Mitchell & Co. Ltd.*

N 398'

*From Coongulmerang East
Geology & Mining Experiments
March Sept. 1936*

198A
198B

W398

28th August, 1945.

In February 1932 an article appeared in the Herald of 26th instant headed:

"New Gippsland Oil Tests.
Theory of the Buried Ridge Structure:

The results of an extensive magneto-meter survey of the Gippsland Basin made for Oil Search Limited have been examined by Dr. W. G. Woolnough who advises systematic boring of a defined area.

This area is believed by the Company's experts to contain what is called a "buried ridge" - a formation which usually indicates the presence of a major oilfield. A ridge of the same kind existed in the noted Panhandle Oil region of Texas.

The structure of the ridge assumed to exist in the Gippsland Basin is indicated in a sketch prepared by Mr. J. M. Rayner, a geophysicist.

An extract from the Federal Govt. report to Oil Search Limited states:-

"Your magneto-meter surveys have proved the existence of three anomalies whose trend coincides very closely with the assumed positions of the hypothetical buried ridges. Even such a degree of coincidence would be worthy of closer investigation.

In addition it can be pointed out that the probable prolongation of the causes with the major anomaly passed through the point at which there is a marked constriction between Lake Wellington and Lake Victoria..... Taken in conjunction with the other converging lines of argument @@@@@@ it assumes some importance and may well prove to be the surface indications of some well defined structure in depth.

The further tests which the Company has in view will consist of a series of shallow cored wells with an occasional deep hole. Nothing will be left to chance and @ all the cores will be submitted to the Govt. Palaeontologist for examination."

The publication of this article, rumours of which had been anticipated earlier, led to the marking out of some scores of leases in the Parishes of Coongulmerang, Meerlieu, Nindoo, Moormurrg, Yeerung and Goon Nure. Bores were put down in these several parishes between the years 1932 and 1936.

No evidence whatsoever in favour of the suggested buried ridge was met with and the booming leases in this area collapsed as suddenly as it started. The Amalgamated Oil Syndicate operated in the Parish of Goon Nure and carried the bore down to a depth of 2929 feet. The last 70 feet contained several layers of brown coal. Near the base of the limestone series which extended to approximately 2751 feet, a flow of artesian water was struck at a depth of 2727 feet. Operations at this bore ceased in 1931 by the Syndicate but in 1938 the large Govt. Drill operated on an area in the vicinity of the original Goon Nure bore. This bore carried limestones and marls to a depth of 2546 feet below which lignitiferous sands, clays, and brown coal were passed through until a depth of 3158 feet @@@, where a layer of cemented sand was passed through below which Jurassic strata were penetrated. A log of this bore is to be found in Boring Records 419758. 1938

For year 1938

From Baragwanath
1947

Following a geophysical survey, a large area to the south of Fernbank, and west of Goon Nure, was taken up under lease by Oil Search Ltd. Several bores were put down, but in no case was the lower Tertiary beds met with, except along the northern margin of the basin. The stratigraphical relation of all the bores where cores were supplied has been worked out, and is available for perusal, but for present purposes would only involve unnecessary detail.

Other areas where boring for oil in the Tertiary was carried out by various companies comprise:-

Boola Boola, to a depth of 1830 feet, through brown coal series, striking a coarse conglomerate at this depth, with a flow of artesian water at a temperature of 149°F.; Torquay, several bores westerly from coast line through the Tertiary series into Jurassic (private bores); Point Addis, some miles south of Torquay, several bores were sunk, some to bedrock (private bores), and in the Glenelg River district bores were sunk at Nelson, Mumbannar, Kanawinka, and passed through the Miocene beds into the lignitic series of Oligocene strata.

To summarise, oil has been found in the vicinity of Lakes Entrance, Gippsland, in strata of Oligocene age and of marine deposition. These strata are of similar age, and the marine representatives of the terrestrial or lagoonal deposits of brown coal so extensively developed in parts of the State. In various parts of the State, e.g., the Mallee, South Western Victoria and westward of Port Phillip, either terrestrial or estuarine deposits contemporary with the brown coal series are known, having been proved by boring. Frequently artesian water occurs at the base of the Tertiary series, but only at Lakes Entrance has any trace of oil been recognised in the artesian water flows. Folding of the Tertiary strata, while not common, is strongly indicated by boring results in the district south of Longford (Gippsland) and, to a minor degree, at Dartmoor (Glenelg River district), but at the latter site strata of Jurassic age were found at a shallow depth. In areas of maximum deposition, as indicated by bores at Longford, Goon Nure and to the south, also at Portland, the estuarine or marine Oligocene strata, with alternating layers of sand, are considered favorable for the concentration of oil.

MB
circa 1936

From Baragwanath. 1947