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GEOLOGICAL SURVEY
OF WESTERN AUSTRALIA

WESTERN AUSTRALIA—1958

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REPORT

OF THE

GEOLOGICAL SURVEY BRANCH

FOR THE

YEAR 1956

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DEPARTMENT OF MINES

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1958

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DIVISION IV

Annual Progress Report of the Geological Survey Branch of the Mines Department for the Year 1956

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- Report on a Copper Prospect, Temp. Res. 1219H, 5 miles West of Jimble Bar—Peak Hill G.F.
- Report on Radioactivity near Corrigin, S.W. Div.
- Report on Water Supply Problem at Lorna Glen Station, 86 miles E.N.E. of Wiluna.
- Report on Mineral Claim 330 for Lead, Coongan Siding, Pilbara G.F.
- Summary Report on some Manganese Deposits in the Pilbara G.F.
- Report on Examination of the Collie Coal Field Sediments for Radioactivity.
- Report on an Examination of Some Middle Jurassic Limestone, near Geraldton.
- Report on the Use of the Falling Drill on Stratigraphic and Water Drilling in the Abba River Area, Busselton, W.A.
 Abba River Bores Nos. 1, 2, 3.
- Summary Progress Report on Reconnaissance Survey of Portion of the Pilbara G.F.
- Report on Exploratory Diamond Drilling of "Sunshine Reward Amalgamated" G.M., Edwards' Find, Yilgarn G.F.
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 D.D.H. No. EF4—Site C.
- Summary Report on Exploratory Drilling for Gold, Mt. Magnet, Murchison G.F.
- Exploratory Drilling for Gold, Mt. Magnet, Murchison G.F.
 - D.D.H. No. 1—Site MM2, G.M.L. 1527M "Eclipse."
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 - D.D.H. No. 3—Site MM6, Late G.M.L. 1408M "Boomer."
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Reports—*continued*.

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D.D.H. No. M6—Site C1, G.M.L.'s 1148, 1884 "Light of Asia" G.M.

D.D.H. No. M7—Site C1, G.M.L.'s 1148, 1884 "Light of Asia" G.M.

D.D.H. No. M8—Site C1, G.M.L.'s 1148, 1884 "Light of Asia" G.M.

Report on Bamboo Creek Mining Centre, Pilbara G.F.

Exploratory Diamond Drilling for Gold, Bamboo Creek, Pilbara G.F.

D.D.H. No. 8—Site B8, "Bamboo Queen."

D.D.H. No. 9—Site B7, "Perseverance."

D.D.H. No. 10—Site B7, "Perseverance."

D.D.H. No. 11—Site B9, "Perseverance."

D.D.H. No. 12—Site B10, "Kitchener."

D.D.H. No. 13—Site B11, "South Perseverance."

D.D.H. No. 14—Site B12, "Kitchener."

D.D.H. No. 15—Site B4, "Kitchener."

Summary Report on Underground Exploratory Drilling, "Comet" G.M., G.M.L. 927, Pilbara G.F.

NOTE.—*Owing to a change in the Mines Department's publication policy, the reports listed above do not appear with this Annual Report. The arrangement is that they will appear as a Geological Survey bulletin under the title of "Miscellaneous Bulletin."*

DIVISION IV

Annual Progress Report of the Geological Survey Branch of the Mines Department for the year 1956

The Under Secretary for Mines,

I have the honour to submit, for the information of the Honourable the Minister for Mines, my report on the operations and progress of the Geological Survey for the year ended 31st December, 1956.

STAFF.

Strength as at 31st December, 1956:—

Professional—

Ellis, H. A., B.Sc., Government Geologist A.O.S.M.	}	8
Berliat, K., D.Sc. Senior Geologist		
Sofoulis, J., B.Sc. Geologist, Grade 1		
de la Hunty, L. E., B.Sc. Do.		
Low, G. H., B.Sc. Do.		
Noldart, A. J., B.Sc. Do.		
Duggan, J. W., B.Sc. Geologist, Grade 2		
Wyatt, J. D., B.A. Do.		
Cannolly, R. R. Trainee Geologist	1	

Clerical—

Martin, T. J. Clerk	}	3
Samuel, E. J. Junior Clerk		
White, S. V. G. Typiste		

Laboratory—

Fimmell, L. H. Laboratory Technician	1
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Promotions, Resignations, Appointments.

Mr. J. D. Wyatt, B.A., was appointed to the Professional Staff as Geologist, Grade 2, and commenced duties on 9th January, 1956.

Mr. J. W. Duggan, B.Sc., was appointed to the Professional Staff as Geologist, Grade 2, and commenced duties on 23rd January, 1956.

Mr. J. N. Clift was transferred to the Mines Department Drafting Office as a Cadet on 20th February, 1956, and was replaced by Mr. E. J. Samuel as Junior Clerk on this day.

Professional Staff.

The approved establishment for professional officers as at 31st December, 1956, is as follows:—

Government Geologist	....	H. A. Ellis
Senior Geologist	....	K. Berliat
Geologist, Grade 1	....	J. Sofoulis
Do.	....	L. E. de la Hunty
Do.	....	G. H. Low
Do.	....	A. J. Noldart
Geologist, Grade 2	....	J. W. Duggan
Do.	....	J. D. Wyatt
Do.	....	Vacant
Do.	....	Vacant

This year again saw no resignations of professional officers, and efforts to fill existing vacancies gave two new appointments.

The following tabulated statement shows the relation between the area of the State and the availability of geologists during the year:—

Period.	No. of Geologists available including Government Geologist.	Area of State (sq. miles).	Square Miles per Geologist.	Population of State.
Jan.-Dec., 1956	8	975,920	121,990	680,686

Activities of Professional Officers.

H. A. Ellis, Government Geologist—

In addition to Head-office duties, the following field work was undertaken:—

Places Visited.	Purpose of Visit or Investigation.	Month.
Edward's Find	Diamond Drilling—Gold	Jan.
Day Dawn-Cue	Diamond Drilling—Gold	Feb.
Edwards' Find	Diamond Drilling—Gold	April
Edwards' Find	Diamond Drilling—Gold	May
Edwards' Find	Diamond Drilling—Gold	June
Marble Bar	Pilbara Regional Survey	} July
Exmouth Gulf	Oil Permit Area	
Kalgoorlie	Diamond Drilling—Gold	} Sept.
Coolgardie	Diamond Drilling—Gold	
Torbay Area	Beach Sands	
Bonnievale	Diamond Drilling—Gold	} Oct.
Coolgardie	Locating Drill Sites	
Day Dawn-Cue	Diamond Drilling—Gold	} Nov
Bonnievale	Diamond Drilling—Gold	

K. Berliat, Senior Geologist—

Jan.-Dec.—Iron Survey of the State.

J. Sofoulis, Geologist Grade 1—

Jan.-March—Copper Survey and Drilling Supervision—Pilbara Goldfield.

April-June—Copper Survey and Drilling Supervision—Murchison Goldfield.

July-Sept.—Copper Survey and Drilling Supervision—Pilbara Goldfield.

Oct.-Dec.—Long Service Leave.

L. E. de la Hunty, Geologist, Grade 1

Jan.-March—Manganese Survey and Drilling Supervision—Murchison Goldfield.

April-June—Manganese Survey and Drilling Supervision—Pilbara Goldfield.

July—Manganese Investigations.

Aug.—Water Supply Investigations—Wiluna Area.

Sept.-December—Manganese and Drilling Supervision—Pilbara Goldfield.

G. H. Low, Geologist, Grade 1—

Jan.—Sedimentary Area Investigation—State Geological Map.

Feb.-March—Collie Mineral Field Bulletin compilation.

April-June—Supervision of Drilling at Collie.

July-Nov.—Supervision of Drilling at Busselton—Abba River.

December.—Report writing.

A. J. Noldart, Geologist, Grade 1—

Jan.-March—Drilling Supervision—Murchison Goldfield.

April-Nov.—Regional Survey—Pilbara Goldfield.

Dec.—Progress Report writing.

J. W. Duggan, Geologist, Grade 2—

Jan.-Feb.—Drilling Supervision—Yilgarn Goldfield.

March-Dec.—Drilling Supervision—Murchison Goldfield.

J. D. Wyatt, Geologist, Grade 2—

Jan.-March—Office and Preparation for Regional Survey—Pilbara Goldfield.

April-Nov.—Regional Survey—Pilbara Goldfield.

Dec.—Progress Report writing.

R. R. Connolly, Trainee Geologist—

Jan.-Dec.—Second and Final Year—Training.

(6) Continuation of Exploratory Drilling of the Bamboo Creek Centre, Pilbara G.F., following very promising results.

(7) A Regional Survey of an area around Marble Bar and Nullagine, Pilbara G.F., was commenced.

(8) Continuation of the Iron Ore Survey of the State.

(9) Continuation of the Copper Reserves Survey of the State.

(10) Continuation of the Manganese-Chromite Survey of the State.

(11) Exploratory Diamond Drilling of Abandoned Gold Shows was commenced in the Coolgardie G.F.

(12) An Underground Exploratory Drilling Programme was commenced in conjunction with the owner of the "Comet" G.M., Marble Bar, Pilbara G.F.

Field Work for 1957.

(1) Continuation and completion of the Regional Survey of an area around Marble Bar and Nullagine, Pilbara G.F.

(2) Continuation of the Iron Ore Survey of the State.

(3) Continuation of the Copper Resources Survey of the State.

(4) Continuation of the Manganese-Chromite Survey of the State.

(5) Continuation of the Deep Drilling of the "Great Fingall" G.M.

(6) Continuation of Exploratory Diamond Drilling, Pilbara G.F.

(7) Continuation of Exploratory Diamond Drilling, Coolgardie G.F.

(8) An Exploratory Drilling Programme, Sandstone, East Murchison G.F.

(9) An Exploratory Drilling Programme, Peak Hill, Peak Hill G.F.

FIELD WORK.*Major Field Work Completed during the Year and in Progress as at 31st December, 1956.*

(1) Completion of Collie Coal Field Exploratory Drilling.

(2) Completion of Exploratory Diamond Drilling of "Sunshine Reward Amalgamated" G.M., Edwards' Find, Yilgarn G.F.

(3) Completion of Exploratory Diamond Drilling on Company held Gold Mining Leases at Mt. Magnet, Murchison G.F.

(4) Completion of Drilling Programme to test Abandoned Gold Shows, Cue District, Murchison G.F.

(5) Continuation of the Deep Drilling of the "Great Fingall" G.M., after a successful and promising intersection of this reef had been made.

TRANSPORT.

Tabulated details of transport at present in use by the Geological Survey are as follows:—

Vehicle W.A.G.	Make and Type	Load cwt.	Mileage as at 31/12/56	Mileage for 1956	Date Vehicle Purchased	Remarks
909	Willys Jeep	5	36,640	9,974	1953 (new)	
1194	Ford Utility	15	103,568	12,553	1946 (new)	
2044	Dodge Utility	18	61,021	9,808	1950 (new)	
2393	International Utility	14	76,520	18,315	1950 (new)	
2412	International Utility	14	82,834	10,341	1950 (new)	
2608	International Utility	14	62,213	13,785	1951 (new)	
3135	Fargo Utility	15	36,738	8,828	1954 (new)	
3535	Land Rover Utility	10	23,083	17,125	1955 (new)	
3678	Dodge Utility	15	17,474	11,891	1955 (new)	
3876	Land Rover Utility	10	9,400	9,400	1956 (new)	Purchased 29-3-56

Total miles : 122,020.

SERVICE TO THE GENERAL PUBLIC, MINING
INTERESTS AND GOVERNMENT DEPART-
MENTS.

Much information, both written and oral, was given to a variety of applicants during the year, and our publications were in constant demand. This year, as the technical reports show, assistance to private interests and other Government Departments in the search for water and minerals in the State, was restricted, due to drilling supervision commitments. Wherever possible however, the more urgent requests for assistance were dealt with.

ACTIVITIES OF THE COMMONWEALTH
BUREAU OF MINERAL RESOURCES.

During 1956 the Bureau of Mineral Resources continued geological surveys in the Carnarvon and Canning Basins. On the latter the area now covered by reconnaissance survey amounts to approximately 200,000 square miles.

Early in the year a seismic party conducted a survey in the Busselton area, and later transferred to the West Kimberleys, where a gravity meter team was already operating, for the remainder of the field season.

An airborne magnetic and scintillometer survey was conducted in the Yilgarn Goldfield, and also in four east-west strips (between latitudes 22°15' and 26°45') in the coastal region Geraldton to Onslow.

PUBLICATIONS.

Issued during 1956.

Annual Progress Report of the Geological Survey of Western Australia for 1953.

Compiled and Awaiting Authority to Print.

Mineral Resources of W.A. Bulletin No. 6—Gypsum, by L. E. de la Hunty, B.Sc., and G. H. Low, B.Sc.

Miscellaneous Bulletin Series Bulletin No. 109—Annual Progress Reports 1954.

Bulletin Series Bulletin No. 110—The Geology of the Phillips River Goldfield, W.A., by J. Sofoulis, B.Sc.

Bulletin No. 111—The Exploratory Diamond Drilling of the Koolyanobbing Iron Ore Deposits for Pyrite, by H. A. Ellis, B.Sc., A.O.S.M.

K. BERLIAT,
Acting Government Geologist.