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DEPARTMENT OF MINES — TASMANIA

DIAMOND DRILL CORE RECORD

Hole No. 113

Drilled by ASSOCIATED DIAMOND DRILLERS

Core Recovery 85.2%

Geological Logging by —

D. J. PERKIN

Area of Operation SAVAGE RIVER, Tasmania

Location of Site 192' E ALONG TRAV. ADBO; 27' N

Date Commenced May 3, 1965

Date Completed June 11, 1965

MINE COORDS 23,109 N 21,584 E

Reduced Level of Site 1089.8

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Bearing of Hole 270°

Dip of Hole

0'	200'	400'	600'	800'	1000'	1150'
45°	47°	47°	49°	50°	49°	46°

Bore Depth 1180'

AM66 ords: 351379 E 5405245N.

Ref N° 2088.

No Core held.

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DRILL RECORD

Date 1965	From	To	Core Recov.
3/5	0.0	29.0	21.0
4	29.0	53.0	16.5
5	53.0	78.0	19.2
6	78.0	108.0	27.6
7	108.0	171.0	59.0
8	171.0	198.0	25.8
10	198.0	225.0	21.6
11	225.0	249.0	22.4
12	249.0	283.0	28.3
13	283.0	316.0	29.5
14	316.0	341.0	10.1
15	341.0	411.0	39.9
16	411.0	441.0	22.4
17	441.0	496.5	48.8
18	496.5	537.0	38.6
19	537.0	584.0	45.1
20	584.0	646.0	59.6
21	646.0	697.0	44.8
22	697.0	728.0	30.7
23	728.0	735.0	6.1
24	735.0	774.0	38.3
25	774.0	795.0	20.5
28	795.0	803.0	7.0
31	803.0	842.0	32.5
1/6	842.0	874.0	27.0
2	874.0	896.5	22.3
3	896.5	927.0	30.2

GEOLOGICAL LOG

From	To	Description
0.0	1.0	OVERBURDEN
1.0	218.0	AMPHIBOLITE:

From 1.0 to 66.0 is amphibolite clay, quite oxidised, fairly fine grained, massive and fairly friable. - Orange - brown in colour with black oxidised hematite and chlorite film along fracture planes.

From 66.0 to 92.0, amphibolite is greenish in colour, moderately oxidised, moderately hard and slightly friable with a brown oxide film along fracture planes.

From 92.0 to 108.0, amphibolite is fairly hard and only slightly oxidised. Fairly fine grained and massive. Green in colour with brown oxidised hematite and chlorite film along fracture planes.

From 108.0 to 194.0, amphibolite is fairly fine grained, massive, slightly altered with minor epidote, pyrite and serpentine throughout. - Occasional quartzofeldspathic, carbonate and hematite veinlets. - Hematite and chlorite film along fracture planes.

From 194.0 to 218.0, amphibolite is fine grained, altered with fair amounts of tremolite - actinolite. Fairly soft and friable with some clayey zones.

GEOLOGICAL SECTION

ASSAY RESULTS

Sample No. From Ft.	To Ft.	CRUDE Wt.%	CRUDE Fe Recovery	CONCENTRATE (-325 Mesh) % Fe	%SiO2	% Ni	% TiO2
0	1	Overburden					
1	218	(Amph)					
218	235	42.45	44.80	71.26		0.039	0.09
235	249	(Amph)					
249	269	13.39	11.32	63.63		0.022	0.20
269	287	(Amph)					
287	302	13.88	13.54	63.63		0.015	0.42
302	317	18.18	15.20	65.25		0.027	0.35
317	331	20.13	19.84	67.36		0.028	0.25
331	364	(Amph)					
364	377	37.98	38.86	69.39		0.083	0.28
377	390	36.93	39.12	69.15		0.080	0.27
390	591	(Amph)					
591	602	24.67	23.39	66.14		0.085	0.09
602	620	19.56	11.40	67.52		0.090	0.09
620	638	28.81	26.71	69.55		0.070	0.14
638	653	57.06	70.53	70.91		0.055	0.17
653	668	60.70	77.85	70.75		0.045	0.18
668	683	58.84	75.05	70.91		0.044	0.17
683	827	(Amph)					
827	839	31.05	34.21	70.35		0.035	0.37
839	852	54.69	70.40	69.86		0.066	0.74
852	864	58.60	76.93	70.84		0.031	0.72
864	987	(Amph)					
987	1005	41.92	48.33	71.33		0.033	0.64
1005	1015	16.10	9.53				

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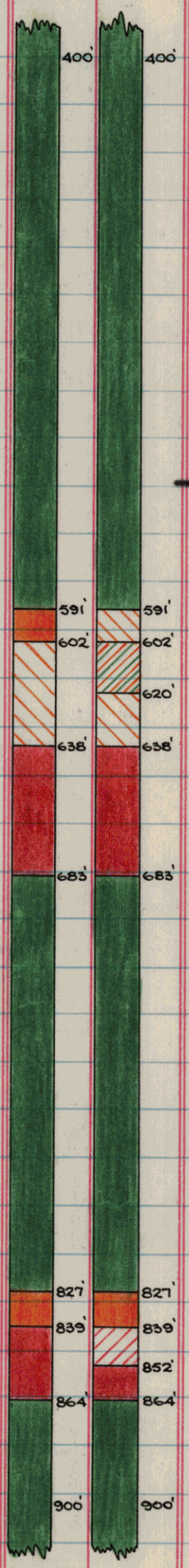
DRILL RECORD

Date	From	To	Core Recov.
1/6	927.0	960. 0	26.3
6	960.0	1020.0	59. 3
6	1020.0	1057. 0	35.1
7	1057. 0	1095. 0	18.3
9	1095.0	1104. 5	8.8
9	1104.5	1149. 5	40.3
10	1149.5	1178. 0	19.1
11	1178.0	1180. 0	1.6
	End of Hole		

GEOLOGICAL LOG

From	To	Description
		Slightly sheared actinolite - rich zone with minor magnetite and pyrite from 194.0 - 204.0 (Delta angle of shearing = 30-50^0)
218. 0	235. 0	MAGNETITE (Medium - Rich) Fine - medium grained, fairly massive with moderate amounts of tremolite - actinolite and moderate pyrite with occasional tendency to alignment - minor serpentine - rich and tremolite - actinolite - rich zones, fairly broken core with some soft zones.
235. 0	249. 0	AMPHIBOLITE; Fine grained serpentine - rich altered amphibolite with occasional magnetite veinlets.
249. 0	269. 0	MAGNETITE (Lean); Veinlets and blebs of fairly fine grained magnetite disseminated throughout serpentine and tremolite - actinolite - rich altered amphibolite with a tendency to alignment (Delta angle = 40 - 50^0) - Minor shear zone with fault gouge (?) At 263.0 & 266.0 - Fairly broken core.
269. 0	287. 0	AMPHIBOLITE; Fine - medium grain, fairly altered with moderate amounts of serpentine, tremolite & minor carbonite. Moderate amounts of

GEOLOGICAL SECTION



ASSAY RESULTS

Sample No. From Ft	From To Ft.	CRUDE % Fe	CRUDE Wt Recovery	CONCENTRATE % Fe	CONCENTRATE % SiO2	(-325 Mesh) % Ni	(-325 Mesh) % TiO2
1015	1025	57.22	75.04	71.46		0.046	0.59
1025	1041	30.42	30.91	71.13		0.039	0.27
1041	1061	35.17	39.75	71.46		0.039	0.43
1061	1075	14.49	8.40				
1075	1094	51.91	68.77	71.27		0.019	0.49
1094	1112	55.69	68.91	71.54		0.057	0.50
1112	1128	28.33.	28.18	71.52		0.040	0.26
1128	1142	54.25	69.60	71.70		0.026	0.31
1142	1180	(Amph)					
End							

LEGEND

RICH	> 55% Fe	MEDIUM LEAN	> 22% Fe
MEDIUM RICH	> 44% Fe	LEAN	> 11% Fe
MEDIUM	> 33% Fe	AMPHIBOLITE	< 11% Fe
		ZONE OF OXIDATION	

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DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS		
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From	To
				269.0	287.0	magnetite throughout - weakly magnetic,					
				Cont.		slightly sheared - fairly broken core.					
				287.0	331.0	MAGNETITE (Lean)					
						Fairly fine grained magnetite occurs disseminated irregularly in blebs and stringers (Delta Angle - 50-60°). Throughout a massive fine grained altered amphibolite which contains fair amounts of tremolite-actinolite, moderate pyrite and serpentine and minor carbonate. Tremolite-Actinolite breccia zone, rehealed with carbonate and pyrite 311.0 - 312.0 - Minor carbonate veins throughout with a carbonate zone 317.0 - 317.4 - Fairly broken core in places.					
				331.0	364.0	AMPHIBOLITE					
						Generally fine grained, massive, altered with fair amounts of epidote and minor serpentine throughout.					
				364.0	390.0	MAGNETITE (Medium)					
						Fairly fine grained, massive with fair amounts of tremolite-actinolite, moderate pyrite and minor serpentine throughout with a tendency to irregular alignment (Delta Angle - 30 - 60°) - Some pyrite - Rich zones. Fairly broken core and poor core recovery.					
				390.0	591.0	AMPHIBOLITE					
						From 390.0 - 411.0, amphibolite is fairly fine grained, fairly massive, slightly altered with moderate amounts of serpentine and some minor sheared zones - minor magnetite zone 400.2 - 400.6 - Fairly broken core.					

END.

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DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS									
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From	To							
				590. 0	591.0	From 411. 0 to 441. 0, amphibolite is fine grained, massive slightly altered with minor epidote, and Hornblende throughout - minor carbonate, quartzofeldspathic and actinolite veinlets associated with occasional chalcopyrite blebs.												
						From 441. 0 to 570. 0, amphibolite is fine grained, massive with occasional epidote, carbonate and quartzofeldspathic veinlets throughout - occasional pyrite - hematite and chlorite film along fractures planes.												
						From 570. 0 to 591. 0, amphibolite is fairly fine grained, massive, slightly altered with moderate amounts of epidote and minor serpentine. Minor quartzofeldspathic and carbonate veinlets throughout - occasional Chalcopyrite blebs - Hematite and chlorite along fracture planes.												
				591. 0	602.0	MAGNETITE (Medium)												
						Massive blebs and bands of magnetite alternate with bands of pyrite and tremolite - actinolite (Delta Angle of banding = 30 - 60°) - Minor serpentine.												
				602. 0	638.0	MAGNETITE (Medium Lean)												
						Zones of banded magnetite, pyrite and tremolite - actinolite (Delta Angle = 30-60°) alternate with zones of barren, fine grained amphibolite containing minor pyrite, unbanded magnetite zone 631.0 - 633. 0												

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047

DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS										33 167
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From	To								
				638.0	683.0	MAGNETITE (Rich) Fairly fine grained, massive with minor pyrite, tremolite-actinolite and occasional serpentine disseminated throughout in blebs and minor stringers - minor altered amphibolite zone 672.0 - 673.0 - fairly broken blocky magnetite zone 681.0 - 683.0.										
				683.0	827.0	AMPHIBOLITE From 683.0 to 795.0, amphibolite is fine grained, massive with minor epidote, carbonate, hematite and occasional actinolite veinlets, throughout. Minor magnetite zones with moderate amounts of pyrite 684.5 - 684.7, 687.0 - 687.3, 755.2 - 756.0, 756.3 - 757.0, 757.6 - 757.8 - Minor magnetite blebs associated with carbonate at 787.0 - 788.0. Hematite and chlorite film along fracture planes. From 795.0 to 827.0 amphibolite is fairly fine grained, massive with occasional blebs and minor stringers of epidote and hematite throughout minor serpentine and occasional carbonate minerals occur throughout - Magnetite with minor pyrite 801.0 - 801.5, 825.0 - 825.5.										
				827.0	839.0	MAGNETITE (Medium) Fairly fine grained, rich massive magnetite with moderate amounts of pyrite and tremolite-actinolite occurs 827.0 to 834.5 and fine grained altered massive amphibolite with moderate amounts of epidote occurs 834.5 to 839.0 - chlorite										

DDH 113 (Continued)

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DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS				33 168
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From	To		
				Cont.									
				827.0	839.0	along fracture planes.							
				839.0	864.0	MAGNETITE (Rich)							
						Fine-medium grained, massive with moderate amounts of tremolite, actinolite and pyrite and occasional talc.							
				864.0	987.0	AMPHIBOLITE							
						From 864.0 - 927.0, amphibolite is fine grained, massive with minor epidote and hematite veinlets throughout - Altered serpentine and actinolite-rich zone with occasional magnetite in blebs and stringers 864.0 - 872.0. Hematite and chlorite along fracture planes.							
						From 927.0 - 987.0, amphibolite is fairly fine grained, massive with minor epidote, pyrite, magnetite and carbonate disseminated throughout in blebs and stringers - minor magnetite in actinolite - rich zone 950.0 - 951.0 - a lean magnetite zone 974.0 - 980.0 contains pyrite, tremolite-actinolite and talc alternating with bands of magnetite (Delta Angle - 30 - 40°). Hematite and chlorite film along fracture planes.							
				987.0	1005.0	MAGNETITE (Medium Rich)							
						Fine medium grained, massive with moderate amounts of talc, pyrite and tremolite-actinolite disseminated throughout - minor altered amphibolite zones.							
				1005.0	1015.0	AMPHIBOLITE							
						Fairly fine grained, massive with minor epidote, pyrite magnetite and carbonate disseminated throughout in blebs and stringers. Hematite chlorite and carbonate film along fracture							

DDH 113 (Continued)

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DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS											33 169
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From	To									
				Cont.																
				1005.0	1015.0	planes.														
				1015.0	1025.0	MAGNETITE (Lean)														
						Fine-medium grained, massive magnetite occurs in granular masses, blebs and stringers. Throughout a massive fine grained slightly altered amphibolite with minor pyrite and occasional carbonate minerals - chlorite along fracture planes.														
				1025.0	1041.0	MAGNETITE (Rich)														
						Medium grained with voids, slightly friable, massive with minor amounts of pyrite and tremolite, actinolite and occasional carbonate disseminated in blebs and stringers throughout.														
				1041.0	1061.0	MAGNETITE (Medium)														
						Fine-medium grained with minor voids, massive with moderate amounts of tremolite-actinolite and minor pyrite together with occasional carbonate, talc and chalcopyrite. Fairly barren massive altered amphibolite zone 1045.0 - 1051.0.														
				1061.0	1075.0	AMPHIBOLITE														
						Fairly fine grain, massive with minor pyrite, epidote and occasional magnetite disseminated throughout in blebs and stringers - moderately broken core in places.														
				1075.0	1112.0	MAGNETITE (Rich)														
						Fine-medium grain with moderate amounts of pyrite and tremolite-actinolite disseminated throughout in blebs and occasional stringers with a tendency to alignment (Delta Angle - 40 - 50°) - occasional chalcopyrite blebs.														

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DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS									
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From	To							
				1112.0	1128.0	MAGNETITE (Lean) Fine-medium grained magnetite occurs in granular masses, blebs and stringers with moderate amounts of pyrite within slightly altered fine-grained amphibolite containing moderate amounts of epidote.												
				1128.0	1142.0	MAGNETITE (Rich) Medium grained with minor voids, massive with moderate amounts of tremolite-actinolite and minor pyrite.												
				1142.0	1149.5	AMPHIBOLITE Fairly fine grained, massive containing minor pyrite and a minor magnetite band - broken core 1148.0 1149.5.												
				1149.5	1160.0	BANDED QUARTZOFELDSPATHIC - CARBONATE - CHLORITE SCHIST, with minor pyrite and occasional magnetite octahedrons (Schistosity Delta angle = 40 - 50°) - altered and sheared amphibolite? Fairly soft clay zone 1149.5 - 1154.1 and very broken core 1154.1 - 1155.5 - shear zone. - The core fractures parallel to the banding (Delta angle = approx. 45°) - Chlorite along fracture planes.												
						END OF HOLE												