

71-821

U.S. G.P.O.

E.L. 6/71 Drilling Results – Flinders Island

By

Samedan Australia Limited

1971

002
GEOCHEMICAL AND MINERALOGICAL LABORATORIES PTY. LTD.

TELEPHONE: 31 9011 (3 LINES)
 AFTER HOURS: 36 4904
 TELEGRAMS & CABLES:
 GEOCHEM-SYDNEY

DKSS 807002

76 MCLACHLAN AVENUE,
 RUSHCUTTERS BAY,
 N.S.W. 2011

Samedan Australia Limited,
 P.O. Box 140,
CIVIC SQUARE, ACT., 2608.

E.L. 6/71
 Hinder Is.
 Plans to follow?

QUANTITATIVE MINERAL ESTIMATE

The samples of sand have been weighed, screened on -30 ϕ and composites of the -30 ϕ material made as shown. The composites have been examined for Ilmenite, Rutile and Zircon with the following results.

Sample No	Total Wt gms	Wt -30 ϕ gms	Wt - 30 taken for composite	Composite No	Heavy mineral concentrate Wt gms	<i>92ϕ - 30ϕ</i>
F 1 - 1	825	241	24.1)	-30 ϕ = 82% of sample Hm =	1	0.514
2	1033	1003	100.3)			
3	956	947	94.7)			
4	757	728	72.8)			
	<i>3571</i>	<i>2414</i>	<i>241.4</i>			<i>0.176</i>
F 1 - 5	972	812	81.2)	2	1.142	<i>0.264</i>
6	1029	973	97.3)			
7	1158	1119	111.9)			
8	623	589	58.9)			
9	858	831	83.1)			
F 1 - 10	590	328	200.0)	3	0.132	<i>0.066</i>
F 1 - 11	1097	1085	216.9)			
12	1052	1032	206.4)			
13	1111	1101	220.1)			
14	864	863	172.6)	4	1.278	<i>0.157</i>
F 1 - 15	956	552	110.3)			
16	792	667	133.4)			
17	922	892	178.4)			
18	893	887	177.3)			
19	812	795	159.0)	5	2.530	<i>0.334</i>
	<i>4375</i>					
F 1 - 20	922	939	93.9)			
21	866	808	80.8)			
22	912	701	70.0)			
23	760	746	74.6)	6	1.040	<i>0.250</i>
24	980	959	95.9)			
F 1 - 25	782	772	1920)			
26	1050	1014	154.4)	7	0.998	<i>0.288</i>

Composition of heavy mineral Concentrate:

<u>Sample No</u>	<u>Ilmenite%</u>	<u>Rutile%</u>	<u>Zircon%</u>
Comp. 1	11	$\frac{1}{2}$	Trace
2	$17\frac{1}{2}$	$11\frac{1}{2}$	1
3	$17\frac{1}{2}$	4	Trace
4	5	$12\frac{1}{2}$	Trace
5	$4\frac{1}{2}$	$8\frac{1}{2}$	Trace
6	7	14	Trace
7	$5\frac{1}{2}$	$12\frac{1}{2}$	Trace

Balance mainly garnet; less amphibole

DB 10070/HJD

Your ref: 14.2.1/41.

SAMEDAN OF AUSTRALIA
 FLINDERS ISLAND PROJECT
 EXPLORATION LICENCE 6/71

COMPOSITION OF HEAVY MINERALS
 FROM PANNED CONCENTRATES
 OF SELECTED BEACH SANDS

(MICROSCOPIC GRAIN COUNT DETERMINATIONS)

<u>SAMPLE</u>	<u>FI-101</u>	<u>FI-102</u>	<u>PRIS-02</u>	<u>CI-1</u>
Location	beach near Sella Point	transgressive dune near Sella Point	Beach, N.E. coast of Preservation Island	Beach, N.E. coast of Clarke Island
Ilmenite %	19	29	68	30
Magnetite %	trace	0.5	trace	trace
Monazite %	2	0.5	1.5	0.5
Rutile %	3	13	0.5	2
Zircon %	trace	9.5	trace	trace
Cassiterite %	nil	nil	nil	nil
Garnet %	11.5	21.5	4	16
Tourmaline %	12	16	12.5	19
Topaz %	52.5	10	13.5	32.5

Determination by:

Geochemical & Mineralogical Laboratories Pty. Ltd.,
 76 McLachlan Avenue,
RUSHCUTTERS BAY, N.S.W. 2011

April 7, 1971

003 GEOCHEMICAL AND MINERALOGICAL LABORATORIES PTY. LTD.

TELEPHONE: 31 9011 (3 LINES)
 AFTER HOURS: 38 4904
 TELEGRAMS & CABLES:
 GEOCHEM. SYDNEY

76 MCLACHLAN AVENUE,
 RUSHCUTTERS BAY,
 N.S.W., 2011

Samedan of Australia,
 P.O. Box 140,
 Civic Square,
 A.C.T. 2608

SP1-1 → SP1-3A
 Complete

ANALYTICAL REPORT

Samples from the series SP1-1 to SP1-15 were screened on 30 mesh and the -30 mesh product bromoformed to give a heavy mineral concentrate with the following results:

<u>Sample No.</u>	<u>% -30 mesh</u>	<u>Percent of -30 mesh Heavy Mineral Conc.</u>
SP1-1 1-5	73.0	0.24
5-10	50.9	0.14
10-14	28.9	0.13
SP1-2 1-5	66.8	0.006
5-10	31.3	0.05
10-15	32.5	0.05
15-20	32.6	0.075
20-25	30.3	0.057
25-28	5.7	0.107
SP1-3 1-5	54.9	0.028
5-10	27.1	0.025
10-15	48.7	0.042
15-20	22.9	0.06
20-23	17.9	0.016
SP1-4 1-5	62.4	0.028
5-10	59.6	0.045
10-15	51.3	0.072
15-20	27.4	0.061
SP1-5 1-5	78.8	0.05
5-10	47.1	0.042
10-15	52.3	0.032
20-22	30.6	0.061
SP1-6 1-5	77.9	0.041
5-10	69.9	0.039
10-15	66.9	0.049
15-20	52.2	0.131
20-25	52.1	0.033
25-28	74.5	0.025
SP1-7 1-5	88.2	0.088
5-10	57.5	0.055
10-15	57.4	0.013
15-20	40.4	0.004
20-25	78.7	0.045
SP1-8 1-5	71.9	0.051
5-10	57.1	0.074
10-15	37.6	0.055
SP1-9 1-5	26.1	0.07
5-10	74.6	0.064
10-15	56.3	0.025
15-20	95.3	0.014
SP1-10 1-5	74.8	0.39
5-10	92.3	0.042
10-15	95.8	0.011
15-17	95.7	0.015

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of Australia.

<u>Sample No.</u>	<u>% -30 mesh</u>	<u>Percent of -30 mesh Heavy Mineral Conc.</u>
SP1-11 1-5	77.5	0.25
5-10	98.7	0.03
10-14	96.4	0.02
SP1-12 1-5	94.8	0.11
5-10	98.5	0.05
10-15	88.1	0.023
15-20	86.3	0.07
SP1-13 1-5	92.0	0.082
5-10	96.6	0.025
10-13	58.4	0.025
SP1-14 1-5	100.0	0.28
5-10	100.0	0.086
10-15	89.1	0.016
15-19	80.6	0.029
SP1-15 1-5	99.4	0.14
5-10	99.3	0.16
10-15	69.1	0.033
15-20	84.6	0.045

13170/GM

27th April 1971

P. J. Jurgens

005 GEOCHEMICAL AND MINERALOGICAL LABORATORIES PTY. LTD.

TELEPHONE: 31 9011 (3 LINES)
 AFTER HOURS: 36 4904
 TELEGRAMS & CABLES:
 GEOCHEM-SYDNEY

76 McLACHLAN AVENUE,
 RUSHCUTTERS BAY,
 N.S.W. 2011

Samadan of Australia,
 P.O. Box 140,
 Civic Square,
 A.C.T. 2608

ANALYTICAL REPORT

Samples from the series SP1 - 16 to SP1 - 34 were screened on 30 mesh and the -30 mesh product bromoformed to give a heavy mineral concentrate with the following results:

<u>Sample No.</u>	<u>Z -30 mesh</u>	<u>Percent of -30 mesh Heavy Mineral Conc.</u>
SP1-16 1-5	100.0	0.47
5-10	100.0	0.27
10-15	100.0	0.23
15-20	100.0	0.26
20-25	93.6	0.17
25-30	93.3	0.06
30-35	73.9	0.06
SP1-17 1-5	100.0	0.24
5-10	100.0	0.22
10-15	99.6	0.24
15-20	98.7	0.39
20-25	85.2	0.07
25-30	85.8	0.08
30-34	74.3	0.04
SP1-18 1-5	98.7	0.31
5-10	97.6	0.20
10-15	96.3	0.19
15-19	92.9	0.08
SP1-19 1-5	100.0	0.19
5-10	100.0	0.17
10-15	84.5	0.09
15-20	88.2	0.28
20-25	82.1	0.07
25-29	65.7	0.04
SP1-20 1-5	98.5	0.26
5-10	83.2	0.27
10-15	74.5	0.16
15-18	64.5	0.05
SP1-21 1-5	100.0	0.35
5-10	98.5	0.23
10-15	85.2	0.18
15-20	72.7	0.08
SP1-22 1-5	94.5	0.12
5-10	60.6	0.10
10-15	51.1	0.06
15-16	64.7	0.06
SP1-23 1-5	64.2	0.24
5-10	77.8	0.18
10-15	75.1	0.06
15-19	77.0	0.04
SP1-24 1-5	82.0	0.18
5-10	89.3	0.42
10-15	73.8	0.11

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Sandstone of Australia

<u>Sample No.</u>	<u>% -30 mesh</u>	<u>Percent of -30 mesh Heavy Mineral Conc.</u>	
SP1-25	1-5	97.9	0.34
	5-10	98.7	0.38
	10-15	80.7	0.09
	15-17	79.5	0.07
SP1-26	1-5	100.0	0.45
	5-10	100.0	0.45
	10-15	98.8	0.57
	15-20	89.4	0.21
SP1-27	1-5	100.0	0.74
	5-10	93.7	0.32
	10-15	78.8	0.06
SP1-28	1-5	100.0	0.29
	5-10	97.1	0.27
	10-15	79.2	0.05
	15-20	94.0	0.04
SP1-29	1-5	98.3	0.24
	5-10	97.3	0.16
	10-15	95.2	0.04
	15-20	92.5	0.02
SP1-30	1-5	100.0	0.31
	5-10	100.0	0.33
	10-15	98.9	0.19
	15-20	95.6	0.06
SP1-31	1-5	100.0	0.11
	5-10	100.0	0.23
	10-15	99.6	0.50
	15-20	97.0	0.06
SP1-32	1-5	100.0	0.14
	5-10	100.0	0.24
	10-15	96.8	0.15
	15-20	82.3	0.04
SP1-33	1-5	100.0	0.26
	5-10	100.0	0.20
	10-15	85.2	0.08
	15-20	82.5	0.05
SP1-34	1-5	100.0	0.13
	5-10	100.0	0.36
	10-15	80.4	0.12
	15-20	74.8	0.03
	20-25	73.9	0.02

13340/PY/GM

28th April 1971

TELEPHONE: 31 9011 (3 LINES)
 AFTER HOURS: 36 4904
 TELEGRAMS & CABLES:
 GEOCHEM-SYDNEY

76 McLACHLAN AVENUE,
 RUSHCUTTERS BAY,
 N.S.W. 2011

Samedan of Australia,
 P.O. Box 140,
 Civic Square,
 A.C.T. 2608

Date: 10-5-'71
 File: 14.2.1
 No. 312

ANALYTICAL REPORT

Samples from the series SP1 - 47 to SP1 - 65 were screened on 30 mesh and the -30 mesh product bromoformed to give a heavy mineral concentrate with the following results:

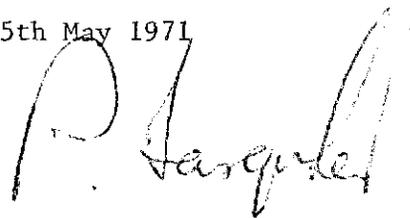
<u>Sample No.</u>	<u>% -30 mesh</u>	<u>Percent of -30 mesh Heavy Mineral Conc.</u>
SP1-47 1-5	87.1	0.022
5-10	83.3	0.032
10-15	77.1	0.029
15-20	82.1	0.035
20-25	94.7	0.043
SP1-48 1-5	64.1	0.033
5-10	74.8	0.04
10-15	77.9	0.032
15-18	74.3	0.033
SP1-49 1-5	76.0	0.039
5-10	80.9	0.045
10-15	80.2	0.04
SP1-50 1-5	77.2	0.032
5-10	79.4	0.035
10-15	80.2	0.028
SP1-51 1-5	88.0	0.051
5-10	85.8	0.029
10-15	87.3	0.054
SP1-52 1-5	82.6	0.052
5-10	83.3	0.052
10-15	83.5	0.042
SP1-53 1-5	78.0	0.049
5-10	76.0	0.041
10-15	90.3	0.05
15-20	97.0	0.062
SP1-54 1-5	82.8	0.058
5-10	89.5	0.038
10-15	95.0	0.042
15-20	97.1	0.042
SP1-55 1-5	95.5	0.072
5-10	95.7	0.025
10-15	95.6	0.031
15-20	100.0	0.037
SP1-56 1-5	98.5	0.067
5-10	98.3	0.032
10-15	93.9	0.023
15-20	93.9	0.037
20-25	100.0	0.08
SP1-57 1-5	100.0	0.053
5-10	95.7	0.031
10-15	98.2	0.03
15-20	97.8	0.094

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<u>Sample No.</u>	<u>% -30 mesh</u>	<u>Percent of -30 mesh Heavy Mineral Conc.</u>
SP1-58 1-5	97.3	0.018
5-10	100.0	0.052
10-15	98.6	0.023
15-20	97.5	0.125
SP1-59 1-5	100.0	0.063
5-10	97.4	0.035
10-15	94.1	0.044
15-20	92.2	0.05
20-25	92.4	0.189
SP1-60 1-5	97.9	0.043
5-10	100.0	0.049
10-15	94.0	0.053
15-20	93.5	0.044
SP1-61 1-5	98.3	0.067
5-10	100.0	0.058
10-15	95.9	0.047
15-20	97.5	0.035
SP1-62 1-5	99.4	0.076
5-10	100.0	0.059
10-15	97.3	0.042
SP1-63 1-5	89.8	0.053
5-10	100.0	0.071
10-15	90.6	0.062
15-20	78.2	0.129
20-25	74.9	0.11
25-30	90.2	0.219
SP1-64 1-5	90.1	0.196
5-10	99.0	0.069
10-15	78.1	0.071
15-20	68.9	0.104
20-25	66.0	0.105
SP1-65 1-5	92.8	0.066
5-10	95.6	0.206
15-20	75.0	0.109
20-25	70.0	0.066
25-30	91.6	0.021
30-32	98.2	0.24
X1	75.8	0.105

13400/PF/GM

5th May 1971



TELEPHONE: 31 9011 (3 LINES)
 AFTER HOURS: 36 4904
 TELEGRAMS & CABLES:
 GEOCHEM-SYDNEY

76 MCLACHLAN AVENUE,
 RUSHCUTTERS BAY,
 N.S.W., 2011

Date: 10-5-71
 File: 14-2.1
 No. 313

Samedan of Australia,
 P.O. Box 140,
 Civic Square,
 A.C.T. 2608

ANALYTICAL REPORT

Samples from the series SP1 - 35 to SP1 - 46 were screened on 30 mesh and the -30 mesh product bromoformed to give a heavy mineral concentrate with the following results:

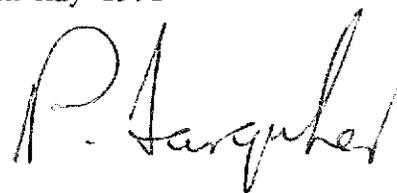
<u>Sample No.</u>	<u>% -30 mesh</u>	<u>Percent of -30 mesh Heavy Mineral Conc.</u>
SP1-35 1-5	100.0	0.153
5-10	100.0	0.099
10-15	86.4	0.047
15-20	71.6	0.049
20-25	55.9	0.03
SP1-36 1-5	100.0	0.107
5-10	88.0	0.07
10-15	72.7	0.047
15-20	54.0	0.048
SP1-37 1-5	91.7	0.039
5-10	72.1	0.065
10-15	74.9	0.034
15-20	35.6	0.03
SP1-38 1-5	84.8	0.045
5-10	73.4	0.044
10-15	45.0	0.029
15-20	57.2	0.025
20-25	59.6	0.036
SP1-39 1-5	81.6	0.046
5-10	72.0	0.058
10-15	57.7	0.047
SP1-40 1-5	91.0	0.114
5-10	81.8	0.027
10-15	33.8	0.042
SP1-41 1-5	88.0	0.056
5-10	51.7	0.022
10-15	60.0	0.035
15-20	67.6	0.028
SP1-42 1-5	89.5	0.038
5-10	76.9	0.058
10-15	64.4	0.035
15-20	71.0	0.033
SP1-43 1-5	82.9	0.043
5-10	79.6	0.047
10-15	63.0	0.032
15-20	78.0	0.029
SP1-44 1-5	72.1	0.051
5-10	81.3	0.027
10-15	76.5	0.031
15-20	81.4	0.034

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<u>Sample No.</u>	<u>% -30 mesh</u>	<u>Percent of -30 mesh Heavy Mineral Conc.</u>
SP1-45 1-5	88.4	0.031
5-10	86.1	0.033
10-15	62.9	0.034
15-20	68.7	0.026
SP1-46 1-5	91.5	0.052
5-10	70.7	0.025
10-15	76.5	0.033
15-20	95.9	0.028

13374/PF/GM

5th May 1971



GEOCHEMICAL AND MINERALOGICAL LABORATORIES PTY. LTD.

TELEPHONE: 31 9011 (3 LINES)
 AFTER HOURS: 36 4904
 TELEGRAMS & CABLES:
 GEOCHEM-SYDNEY

78 McLACHLAN AVENUE,
 RUSHCUTTERS BAY,
 N.S.W., 2011

S & A	CC & M	D.S.M.E.
RECEIVED		Registrar
- 3 JUN 1971		E & IL
ANSWERED		
DEPT. OF MINES		
REF. NO. 4543/71		

Samedan of Australia,
 P.O. Box 140,
 Civic Square,
 A.C.T. 2608

SP1 → 65-71
 ↓
 In file SP2-1-8
 Complete

ANALYTICAL REPORT

Samples from the series SP1 - 66 to SP1 - 71 and SP2 - 1 to SP2 - 8 were screened on 30 mesh and the -30 mesh product bromoformed to give a heavy mineral concentrate with the following results:

<u>Sample No.</u>	<u>% -30 mesh</u>	<u>Percent of -30 mesh Heavy Mineral Conc.</u>
SP1-66 1-5	93.1	0.54
5-10	62.9	0.49
10-15	73.1	0.27
15-20	89.1	0.17
20-25	82.5	0.1
25-30	91.3	0.18
30-35	95.8	0.25
SP1-67 1-5	58.0	0.41
5-10	72.5	0.35
10-15	85.3	0.11
15-20	79.1	0.1
20-25	84.9	0.1
25-30	98.1	0.25
30-35	95.6	0.26
SP1-68 1-5	74.7	0.2
5-10	87.0	0.15
10-15	80.5	0.13
15-20	71.9	0.09
20-25	93.5	0.21
25-30	97.4	0.25
30-35	96.5	0.26
35-37	81.3	0.15
SP1-69 1-5	80.9	0.18
SP1-70 1-5	84.8	0.14
SP1-71 1-5	75.0	0.17
5-10	90.4	0.16
10-13	79.9	0.07
SP2-1 1-5	77.0	0.78
5-10	34.2	0.34
SP2-2 1-5	90.4	0.27
5-10	94.9	0.26
10-15	91.8	0.38
15-20	92.1	0.24
20-25	84.7	0.46
SP2-3 1-5	96.3	0.22
5-10	94.2	0.28
10-15	96.1	0.34
15-20	90.5	0.2
20-25	88.2	0.2
25-30	72.8	0.19
30-35	48.1	0.14
35-40	53.7	0.11

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<u>Sample No.</u>	<u>% -30 mesh</u>	<u>Percent of -30 mesh Heavy Mineral Conc.</u>
SP2-4 1-5	98.5	0.28
5-10	97.9	0.19
10-15	97.5	0.25
15-20	97.1	0.22
20-25	98.2	0.3
25-30	92.1	0.17
30-35	82.8	0.13
35-40	71.9	0.13
SP2-5 1-5	92.4	0.14
5-10	80.0	0.09
10-15	80.5	0.15
15-20	70.9	0.11
20-25	74.7	0.15
25-30	43.7	0.27
SP2-6 1-5	82.4	0.07
5-10	65.4	0.06
10-15	63.0	0.11
15-20	39.0	0.3
20-25	36.4	0.15
SP2-7 1-5	74.2	0.1
5-10	81.5	0.09
10-15	68.3	0.09
15-20	66.3	0.15
20-25	46.2	0.13
25-29	37.7	0.14
SP2-8 1-5	68.1	0.08
5-10	62.7	0.06
10-15	56.9	0.08
15-20	52.9	0.1
20-25	53.7	0.1

13492/PF/GM

11th May 1971

GEOCHEMICAL AND MINERALOGICAL LABORATORIES PTY. LTD.

TELEPHONE: 31 9011 (3 LINES)
 AFTER HOURS: 36 4904
 TELEGRAMS & CABLES:
 GEOCHEM-SYDNEY

76 MCLACHLAN AVENUE,
 RUSHCUTTERS BAY,
 N.S.W., 2011

Samadan of Australia,
 P.O. Box 140,
 Civic Square,
 A.C.T.

ANALYTICAL REPORT

Samples from the series SP2-39, SP2-53, SP2-59 were screened on 30 mesh and the -30 mesh product bromoformed to give a heavy mineral concentrate with the following results:

<u>Sample No.</u>	<u>X -30 mesh</u>	<u>Percent of -30 mesh Heavy Mineral Conc.</u>
SP2-39: 10-15	98.49	8.41
SP2-53: 1-5	98.89	0.36
5-10	99.55	0.39
10-15	98.44	0.24
SP2-59: 1-5	98.22	0.56
5-10	95.33	0.20
10-15	80.66	0.36

13699/PY/CLM

21st May 1971

014

807016

GEOCHEMICAL AND MINERALOGICAL LABORATORIES PTY. LTD.

TELEPHONE: 31 9011 (3 LINES)
AFTER HOURS: 36 4904
TELEGRAMS & CABLES:
GEOCHEM-SYDNEY

76 MCLACHLAN AVENUE,
RUSHCUTTERS BAY,
N.S.W. 2011

Def M	S & A	CG	CC & M	D.S.M.E.
RECEIVED				Registrar
- 7 JUL 1971				E & IL
ANSWERED				
DEPT. OF MINES				
REF. NO.				

Samadam of Australia,
P.O. Box 140,
CIVIC SQUARE A.C.T.

*Conflict
SP2-9 → SP2-65
Recheck SP2-38, 39
required*

QUANTITATIVE MINERAL ESTIMATE

Sample Nos.: SP2-39: 10-15, SP2-53: 1-5 5-10
SP2-59: 1-5

Percent of -30 mesh Heavy Mineral Concentrate:

SP2-39: 10-15	8.41
SP2-53: 1-5 5-10	0.38
SP2-59: 1-5	0.56

Composition of Heavy Mineral Concentrate:

	<u>SP2-39:</u> <u>10-15</u>	<u>SP2-59:</u> <u>1-5</u>	<u>SP2-53:</u> <u>1-5 5-10</u>
Ilmenite %	1	8	9
Rutile %	trace	5	11
Zircon %	trace	trace	trace
Monazite %	trace	trace	trace
Cassiterite %	not seen	not seen	not seen
Topaz %	83	-	-

14095/PY/GLM

29th June 1971

TELEPHONE: 31 9011 (3 LINES)
 AFTER HOURS: 36 4904
 TELEGRAMS & CABLES:
 GEOCHEM-SYDNEY

76 MCLACHLAN AVENUE,
 RUSHCUTTERS BAY,
 N.S.W., 2011

Date: 5-7-'71
File: 14.2.1
No. 455

Samedan of Australia,
 P.O. Box 140,
 CIVIC SQUARE A.C.T.

ANALYTICAL REPORT

Samples from the series SP3-2 to SP3-14, AB1-1, AB2-5 and LL4-33 were screened on 30 mesh and the -30 mesh product was bromoformed to give a heavy mineral concentrate with the following results:

<u>Sample No.</u>	<u>% -30 mesh</u>	<u>Percent of -30 mesh Heavy Mineral Conc.</u>
SP3-2 5-10	92.56	0.45
SP3-8 5-10	97.42	1.18
SP3-9 1-5	96.26	1.03
SP3-9 25-30	97.78	2.35
SP3-11 1-5	97.59	0.86
5-10	97.49	0.92
10-15	91.21	0.64
15-20	97.47	0.27
20-25	97.69	0.18
SP3-11 25-30	92.97	0.36
SP3-12 1-5	96.81	0.93
5-10	98.89	0.96
10-15	97.87	0.59
15-20	96.85	0.79
20-25	94.73	1.13
SP3-12 25-30	87.59	0.71
SP3-14 1-5	99.22	0.73
5-10	95.33	0.26
10-15	94.64	0.14
15-20	93.13	0.21
20-25	95.15	0.76
SP3-14 25-27	85.68	0.23
<u>AB1-1</u> 1-5	97.62	0.53
5-10	48.16	0.13
<u>AB1-1</u> 10-15	71.39	0.05
<u>AB2-5</u> 10-15	99.56	0.10
<u>AB2-5</u> 15-20	97.79	0.14
<u>LL4-33</u> 1-5	84.73	0.10
5-10	92.66	0.20
10-15	96.38	0.23
LL4-33 15-20	92.17	0.12

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GEOCHEMICAL AND MINERALOGICAL LABORATORIES PTY. LTD.

TELEPHONE: 31 9011 (3 LINES)
 AFTER HOURS: 36 4904
 TELEGRAMS & CABLES:
 GEOCHEM-SYDNEY

76 MCLACHLAN AVENUE,
 RUSHCUTTERS BAY,
 N.S.W., 2011

Saradon of Australia,
 P.O. Box 140,
 CIVIC SQUARE Q.C.T.

QUANTITATIVE MINERAL ESTIMATE

Sample Nos.: SP1-10 (1-5) to SP2-1 (1-5)

Heavy Mineral Concentrate:

SP1-10	(1-5)	0.39
SP1-11	(1-5)	0.25
SP1-14	(1-5)	0.28
SP1-16	(1-5)	0.47
SP1-16	(15-20)	0.26
SP1-18	(1-5)	0.31
SP1-24	(5-10)	0.42
SP1-26	(1-5, 5-10)	0.45
SP1-26	(15-20)	0.21
SP1-27	(1-5)	0.74
SP1-31	(10-15)	0.50
SP1-65	(25-30)	0.21
SP1-66	(1-5, 5-10)	0.51
SP1-67	(1-5, 5-10)	0.38
SP2-1	(1-5)	0.78

Composition of Heavy Mineral Concentrate:

	<u>SP1-10 (1-5)</u>	<u>SP1-11 (1-5)</u>	<u>SP1-14 (1-5)</u>	<u>SP1-16 (1-5)</u>
Ilmenite X	14	trace	8	7
Monsite X	1	nil	trace	trace
Zircon X	trace	trace	trace	trace
Rutile X	10	8	10½	11
Cassiterite X	*	*	*	*
Garnet X	8	20	10	12
Tourmaline X	26½	20	25½	15
Amphibole X	25	20	35½	44
Topaz X	15	32	10½	11

	<u>SP1-16 (15-20)</u>	<u>SP1-18 (1-5)</u>	<u>SP1-24 (5-10)</u>	<u>SP1-26 (1-5, 5-10)</u>
Ilmenite X	6	7½	9	5
Monsite X	trace	1	2	trace
Zircon X	trace	trace	trace	trace
Rutile X	8½	2½	11½	3½
Cassiterite X	*	*	*	*
Garnet X	5	12	9½	12
Tourmaline X	24	30½	29	33½
Amphibole X	44	20½	12	13
Topaz X	12½	26	27	33

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Scandinavia of Australia

	<u>SP1-26 (15-20)</u>	<u>SP1-27 (1-5)</u>	<u>SP1-31 (10-15)</u>	<u>SP1-65 (25-30)</u>
Ilmenite X	5½	9½	8	9
Mnaxite X	trace	trace	trace	nil
Zircon X	trace	trace	trace	trace
Rutile X	5	2	6	1
Cassiterite X	*	*	*	*
Garnet X	11	trace	8½	trace
Tourmaline X	28	35	23	20
Amphibole X	6	17½	8	49
Topaz X	43½	36	46	19½

	<u>SP1-66 (1-5,5-10)</u>	<u>SP1-67 (1-5,5-10)</u>	<u>SP2-1 (1-5)</u>
Ilmenite X	3½	5	1
Mnaxite X	nil	nil	trace
Zircon X	trace	trace	trace
Rutile X	2	2	½
Cassiterite X	*	*	*
Garnet X	8½	7	2
Tourmaline X	18½	21	30
Amphibole X	1	1	trace
Topaz X	66	63	66½

* Cassiterite was not detected in any of the samples.

14115/PF/GLM

16th July 1971

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807020.

GEOCHEMICAL AND MINERALOGICAL LABORATORIES PTY. LTD.

TELEPHONE: 31 9011 (3 LINES)
 AFTER HOURS: 38 4904
 TELEGRAMS & CABLES:
 GEOCHEM-SYDNEY

78 McLACHLAN AVENUE,
 RUSHCUTTERS BAY,
 N.S.W., 2011

Samadan of Australia,
 P.O. Box 140,
 Civic Square,
 A.C.T. 2608.

QUANTITATIVE MINERAL ESTIMATE

Sample Nos: series SP 3 - 8 to SP 3 - 14

Heavy Mineral ConcentrateX:

SP 3-8 (5-10)	1.18
SP 3-9 (1-5)	1.03
SP 3-9 (25-30)	2.35
SP 3-11 (1-5)	0.86
SP 3-11 (5-10)	0.92
SP 3-12 (1-5)	0.93
SP 3-12 (5-10)	0.96
SP 3-12 (15-20)	0.79
SP 3-12 (20-25)	1.13
SP 3-14 (1-5)	0.79
SP 3-14 (20-25)	0.76

Composition of Heavy Mineral Concentrate:

	<u>IlmeniteX</u>	<u>RutileX</u>	<u>ZirconX</u>
SP 3-8 (5-10)	12	7½	trace
SP 3-9 (1-5)	8	3	trace
SP 3-9 (25-30)	4	1½	trace
SP 3-11 (1-5)	9½	10	trace
SP 3-11 (5-10)	8½	2½	trace
SP 3-12 (1-5)	9½	5½	trace
SP 3-12 (5-10)	10	2½	trace
SP 3-12 (15-20)	6	1½	trace
SP 3-12 (20-25)	6	3½	trace
SP 3-14 (1-5)	8	4½	trace
SP 3-14 (20-25)	6½	6½	trace

No cassiterite was detected in any of the samples.

In all samples the balance consists mainly of topaz, less tourmaline, less garnet and amphibole

14302/PV/KR

19th July 1971

807021

019
GEOCHEMICAL AND MINERALOGICAL LABORATORIES PTY. LTD.

TELEPHONE: 31 9011 (3 LINES)
AFTER HOURS: 38 4904
TELEGRAMS & CABLES:
GEOCHEM-SYDNEY

76 McLACHLAN AVENUE,
RUSHCUTTERS BAY,
N.S.W., 2011

Sweden of Australia,
P.O. Box 140,
CIVIC SQUARE, A.G.T. 2608.

HEAVY MINERAL CONCENTRATE

As requested a check was done on sample SP-2-39. The sample was screened on 30 mesh and the -30 mesh product was bromoformed to give a heavy mineral concentrate with the following result:

<u>Sample No.</u>	<u>Percent of -30 mesh Heavy Mineral Concentrate</u>
SP-2-39:10-13	8.12

13930/FF/KR

28th July 1971

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807022

GEOCHEMICAL AND MINERALOGICAL LABORATORIES PTY. LTD.

TELEPHONE: 31 9011 (3 LINES)
AFTER HOURS: 36 4902
TELEGRAMS & CABLES:
GEOCHEM-SYDNEY

76 McLACHLAN AVENUE,
RUSHCUTTERS BAY,
N.S.W., 2011

Sarnedam of Australia,
P.O. Box 140,
CIVIC SQUARE, A.C.T. 2680.

ANALYTICAL REPORT

Sample from the series FC, PI, SP and AR were screened on 30 mesh and the -30 mesh product bromoformed to give a heavy mineral concentrate with the following results:

<u>Sample No.</u>	<u>Z-30 mesh</u>	<u>Percent of -30 mesh Heavy Mineral Conc.</u>
FC 2-1:1-5	95.72	0.21
FC 2-1:5-10	92.79	0.31
FC 2-3:5-10	95.03	0.23
FC 2-3:10-15	92.83	0.90
FC 2-4:10-15	99.14	0.58
PI 1-1:1-5	89.08	1.52
5-10	80.72	0.68
10-15	87.31	0.58
15-20	81.16	0.26
PI 1-1:20-25	90.92	0.08
PI 1-2:1-5	98.11	1.21
PI 1-2:5-10	97.06	1.19
PI 1-3:1-5	97.26	0.98
PI 1-3:5-10	93.21	0.74
PI 1-7:5-10	94.02	2.96
PI 1-12:5-10	94.69	2.17
PI 2-1:1-5	99.31	3.20
PI 2-4:5-20	95.91	0.59
SP 2-38:1-5 <i>Bedrill</i>	98.03	0.15
5-10	97.28	0.20
10-15	98.14	0.73
30-32	94.20	0.86
15-20	96.17	1.05
20-25	77.41	0.21
SP 2-38:25-30	86.09	0.17
SP 2-39:5-10 <i>Bedrill</i>	98.01	0.31
10-15	96.26	2.71
SP 2-39:13 $\frac{1}{2}$ -14 $\frac{1}{2}$	98.34	13.82
SP 5-38:15-20	95.98	1.17
AR 1-4:10-15	95.06	0.07
15-20	96.22	0.08
20-25	98.36	0.11
AR 1-4:25-30	40.49	0.10

14457/PP/KR

28th July 1971

TELEPHONE: 31 9011 (3 LINES)
 AFTER HOURS: 36 4902
 TELEGRAMS & CABLES:
 GEOCHEM-SYDNEY

Date: 30-7-71
File: 14.2.1
No. 511

76 MCLACHLAN AVENUE,
 RUSHCUTTERS BAY,
 N.S.W., 2011

Samedan of Australia,
 P.O. Box 140,
 CIVIC SQUARE, A.C.T. 2680.

ANALYTICAL REPORT

Sample from the series FC, PI, SP and AR were screened on 30 mesh and the -30 mesh product bromoformed to give a heavy mineral concentrate with the following results:

<u>Sample No.</u>	<u>%-30 mesh</u>	<u>Percent of -30 mesh Heavy Mineral Conc.</u>
FC 2-1:1-5	95.72	0.21
FC 2-1:5-10	92.79	0.31
FC 2-3:5-10	95.03	0.23
FC 2-3:10-15	92.83	0.90
FC 2-4:10-15	99.14	0.58
PI 1-1:1-5	89.08	1.52
5-10	80.72	0.68
10-15	87.31	0.58
15-20	81.16	0.26
PI 1-1:20-25	90.92	0.08
PI 1-2:1-5	98.11	1.21
PI 1-2:5-10	97.06	1.19
PI 1-3:1-5	97.26	0.98
PI 1-3:5-10	93.21	0.74
PI 1-7:5-10	94.02	2.96
PI 1-12:5-10	94.69	2.17
PI 2-1:1-5	99.31	3.20
PI 2-4:5-20	95.91	0.59
SP 2-38:1-5	98.03	0.15
5-10	97.28	0.20
10-15	98.14	0.73
30-32	94.20	0.86
15-20	96.17	1.05
20-25	77.41	0.21
SP 2-38:25-30	86.09	0.17
SP 2-39:5-10	98.01	0.31
10-15	96.26	2.71
SP 2-39:13½-14½	98.34	13.82
<u>SP 5-38:15-20</u>	95.98	1.17
AR 1-4:10-15	95.06	0.07
15-20	96.22	0.08
20-25	98.36	0.11
AR 1-4:25-30	40.49	0.10

GEOCHEMICAL AND MINERALOGICAL LABORATORIES PTY. LTD.

TELEPHONE: 31 9011 (3 LINES)
AFTER HOURS: 36 4904
TELEGRAMS & CABLES:
GEOCHEM-SYDNEY

76 McLACHLAN AVENUE,
RUSHCUTTERS BAY,
N.S.W., 2011

Samedan of Australia,
P.O. Box 140,
Civic Square, A.C.T. 2608.

QUANTITATIVE MINERAL ESTIMATE

Ref: 14.2.1/900

Heavy Mineral Concentrate% in product of sample screened on -30 mesh:

FC 2-3-10-15	0.90
FC 2-4-10-15	0.58
PI 1-1-1-5	1.52
PI 1-2-1-5	1.21
PI 1-2-5-10	1.19
PI 1-3-1-5	0.98
PI 1-3-5-10	0.74
PI 1-7-5-10	2.96
PI 1-12-5-10	2.17
PI 2-1-1-5	3.20
SP 2-38-15-20	1.05
SP 5-38-15-20	1.17

Composition of Heavy Mineral Concentrate:

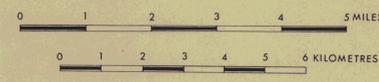
	<u>FC 2-3-10-15</u>	<u>FC 2-4-10-15</u>	<u>PI 1-1-1-5</u>
Ilmenite%	6½	10½	4
Rutile%	8	12½	trace
Zircon%	trace	trace	trace
Cassiterite%	not seen	not seen	trace
Balance:	topaz tourmaline garnet	topaz tourmaline garnet	topaz tourmaline garnet
	<u>PI 1-2-1-5</u>	<u>PI 1-2-5-10</u>	<u>PI 1-3-1-5</u>
Ilmenite%	10½	6½	7½
Rutile%	9½	5½	15½
Zircon%	trace	trace	trace
Cassiterite%	trace	trace	not seen
Balance:	topaz tourmaline garnet	topaz tourmaline garnet	topaz tourmaline garnet
	<u>PI 1-3-5-10</u>	<u>PI 1-7-5-10</u>	<u>PI 1-12-5-10</u>
Ilmenite%	4	2	9
Rutile%	5½	½	6
Zircon%	trace	trace	trace
Cassiterite%	not seen	trace	trace
Balance:	topaz tourmaline garnet	topaz tourmaline garnet	topaz tourmaline garnet
	<u>PI 2-1-1-5</u>	<u>SP 2-38-15-20</u>	<u>SP 5-38-15-20</u>
Ilmenite%	3½	3	2
Rutile%	1½	trace	1
Zircon%	trace	trace	trace
Cassiterite%	trace	not seen	not seen
Balance:	topaz tourmaline garnet	topaz tourmaline	topaz tourmaline

DRILLING RESULTS
FLINDERS ISLAND EL 6/71

LIST OF MAPS:

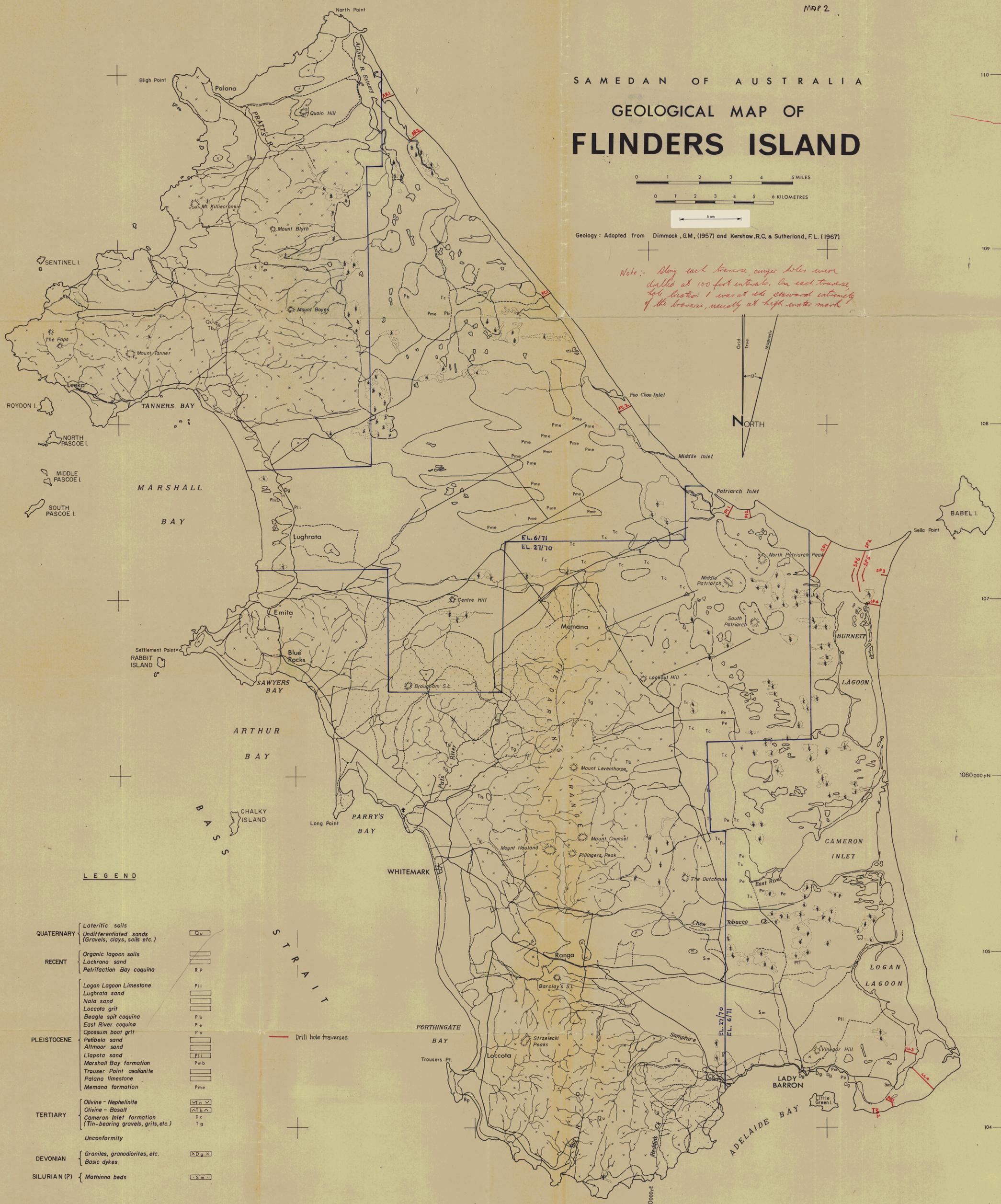
1. Geological Map of Flinders Island
2. Geological Map of Flinders Island

SAMEDAN OF AUSTRALIA
 GEOLOGICAL MAP OF
FLINDERS ISLAND



Geology: Adapted from Dimmock, G.M., (1957) and Kershaw, R.C. & Sutherland, F.L. (1967).

Note: Along each traverse core holes were drilled at 100 foot intervals. On each traverse hole location 1 was at the seaward extremity of the traverse, usually at high water mark.



LEGEND

QUATERNARY	Lateritic soils Undifferentiated sands (Gravels, clays, soils etc.)	Q
RECENT	Organic lagoon soils Lackrana sand Petrifaction Bay coquina	R P
PLEISTOCENE	Logan Lagoon Limestone	PII
	Lughrata sand	
	Nala sand	
	Loccota grit	
	Beagle spit coquina	P b
	East River coquina	P e
	Opossum boat grit	P o
	Pethela sand	
	Allmoor sand	
	Liapota sand	PII
Marshall Bay formation	Pmb	
Trouser Point aeolianite		
Palana limestone	Pme	
Memana formation		
TERTIARY	Olivine - Nephelinite	VI n
	Olivine - Basalt	VI b
	Cameron Inlet formation (Tin-bearing gravels, grits, etc.)	T c
	Unconformity	
DEVONIAN	Granites, granodiorites, etc. Basic dykes	D g
SILURIAN (?)	Mathinna beds	S m

— Drill hole traverses