The longitudinal section and data collected during open pit grade control operations in 1989 clearly indicate a northerly plunge to eastern zone high grade mineralisation near the centre of the School pit. Narrow high grade mineralisation (e.g. 3 metres at 19.15 g/t gold) beneath the south end of the current pit floor also appears to have a northerly plunge. These plunges may reflect a north dipping cross structure (fault; cross-fold axis?), or a northerly plunge for the fold complex.

Pending work to make the School Pit floor safe and accessible for drillhole collar locations, the balance of the planned 1989 programme to test for depth extensions of the eastern lode should be completed. The southern part of the Southern Hercules area (partially tested by 1988 RC drilling and 1989 air-trac drilling) has potential for low-moderate tonnage mineralisation and should be further assessed in due course.

TRIG

The Trig prospect is immediately south along strike from the Moline Pit, where essentially "stratabound" but tectonically modified quartz-limonite-(sulphide) associated gold mineralisation is being mined from a westerly dipping chert-shale-(greywacke) sequence. The area was originally defined as prospective by the continuity of gold-anomalous sulphidic chert (BIF) horizons southwards from the current pit area. Several RC holes were drilled in 1985-87 and a systematic drill testing programme planned for late 1987 early 1988, but not completed at that time.

Geological Mapping

The area has been previously mapped at 1:1,000 scale, and the data presented (plan 4649 Moline Dam Geology and Mineralisation) in previous reports. This plan is represented here (enclosure 133) with the Moline pit boundary and 1989 drillholes marked on. Additional geological data relevant to the area are shown on enclosure 132 - a 1:1,000 scale plan showing the geology of the southern and eastern faces of the Moline pit.

Trig mineralisation is essentially the same as Moline Dam. It appears "stratabound" in a sulphidic chert/shale sequence but is probably locally tectonically controlled close to an overturned anticline axis. It appears to be on the eastern limb of a locally north plunging fold complex - possibly an M structure as in the School Pit.

Drilling

During the year a 300 metre strike length was drill-tested by 443 metres of shallow air-trac drilling (in 25 holes) initially, then by 443 metres of RC (in 19 holes). The RC drilling was on a 25 x 15-20 metre pattern; the air-trac on 50 x 10-15 metres. Drill logs for the RC drilling are presented as part of appendix 3 while air-trac and RC drillhole gold analyses are contained in appendix 4. (There are no drill logs available for the air-trac drilling which was commissioned and monitored by the mining division). Any available repeat gold together with arsenic-silver-copper-lead-zinc analysis are contained in appendix 5.

A drillhole collar summary is presented as table 6 while drillhole locations are shown on enclosures 133 and 134. There are no downhole survey data. Enclosures 135-145 are 1:250 scale drill sections containing lithological and assay data as well as interpreted ore blocks. Drillhole intersections are listed on table 7.

Though no calculations were carried out after the final phase of the 1989 drilling, it appears there is a geological resource in the indicated inferred category of approximately 70,000 tonnes grading 2.33 g/t gold (as shown on table 8) of which around 50,000 tonnes would be oxidised. Of this resource around 45,000 tonnes at 2.8 g/t is contained in one lode extending from the southern end of the Moline pit to 14312.5 north. About 40,000 tonnes of this would be in the oxidised zone.

Discussion

The Trig prospect is at the stage where it should be closely looked at from the engineering/economic point of view to decide whether mining is a possibility and what further (i.e. closer spaced drilling near surface) may need to be carried out.

MOLINE DAM NORTH

Two RC holes (with a total metreage of 66) were drilled to test for northerly extensions to mineralisation in the Moline Dam north deposit. A drillhole collar summary is presented below:

HOLE ID	NORTHING	EASTING	R.L.	DEPTH	DIP	AZIMUTH
MRC573	15600	12010	?	42.0	-60.0	90.0
MRC574	15550	12097	?	24.0	-60.0	90.0

TABLE 6.
TRIG

Surpac - DRILL HOLE COLLAR SUMMARY - \MOL database

HOLEID	NORTHING	EASTING	R.L.	DEPTH	DIP	AZIMUTH
AT001	14354.60	12174.40	148.70	18.00	-60.00	90.00
AT002	14352.90	12199.20	152.30	18.00	-60.00	90.00
AT003	14352.60	12212.60	152.70	18.00	-60.00	90.00
AT004	14351.50	12226.30	153.40	12.00	-60.00	90.00
AT005	14300.00	12205.40	160.80	18.00	-60.00	90.00
AT006	14300.10	12219.80	161.90	18.00	-60.00	90.00
AT007	14300.00	12235.40	161.80	18.00	-60.00	90.00
AT008	14299.90	12248.70	160.50	17.00	-60.00	90.00
AT009	14200.30	12247.50	158.30	18.00	-60.00	90.00
AT010	14200.00	12260.00	159.00	18.00	-60.00	90.00
AT011	14200.40	12271.10	161.30	18.00	-60.00	90.00
AT012	14244.90	12202.30	166.70	18.00	-60.00	90.00
AT013	14246.50	12217.50	167.40	18.00	-60.00	90.00
AT014	14248.00	12231.30	166.90	18.00	-60.00	90.00
AT015	14249.20	12243.30	167.00	18.00	-60.00	90.00
AT028	14100.30	12283.80	163.10	18.00	-60.00	90.00
AT029	14100.20	12295.40	162.30	18.00	-60.00	90.00
AT030	14100.20	12270.50	159.20	18.00	-60.00	90.00
AT031	14100.10	12253.90	152.60	18.00	-60.00	90.00
AT032	14124.90	12267.90	157.20	18.00	-60.00	90.00
AT033	14150.00	12268.50	158.10	18.00	-60.00	90.00
AT034	14150.20	12256.10	153.10	18.00	-60.00	90.00
AT035	14175.10	12264.10	159.10	18.00	-60.00	90.00
AT036	14353.80	12186.30	151.00	18.00	-60.00	90.00
AT037	14350.70	12239.80	153.00	18.00	-60.00	90.00
MRC535	14250.10	12223.10	167.40	39.00	-60.00	90.00
MRC536	14325.00	12209.90	156.90	42.00	-60.00	90.00
MRC537	14275.00	12219.80	166.40	42.00	-60.00	90.00
MRC538	14224.80	12243.40	163.10	42.00	-60.00	90.00
MRC539	14250.00	12238.20	167.40	18.00	-60.00	90.00
MRC540	14300.00	12225.00	162.40	24.00	-60.00	90.00
MRC541	14350.00	12209.80	152.90	30.00	-60.00	90.00
MRC542	14350.10	12164.40	146.30	24.00	-60.00	90.00
MRC543	14350.10	12220.00	153.00	18.00	-60.00	90.00
MRC544	14350.00	12194.70	152.10	42.00	-60.00	90.00
MRC545	14300.10	12210.00	161.00	36.00	-60.00	90.00
MRC546	14150.00	12261.30	154.30	24.00	-60.00	90.00
MRC547	14150.00	12174.80	144.60	30.00	-60.00	90.00
MRC622	14350.00	12156.30	143.00	73.00	-58.50	90.00
MRC623	14350.00	12184.00	150.00	60.00	-60.00	90.00
MRC624	14325.00	12193.00	154.00	60.00	-60.00	90.00
MRC625	14325.00	12227.00	158.00	24.00	-60.00	90.00
MRC629	14325.00	12181.00	152.00	72.00	-59.00	90.00
MRC630	14300.00	12196.00	159.00	66.00	-57.50	90.00

Drill Statistics :

25x Airtrac =	443.00 m
19x RCP =	766.00 m
TOTAL =	1,209.00 m

NOTE:
Azimuth 90.00 = GRID EAST

TABLE 7.

TRIG - Drillhole Intersections

Data from database MOL MAR-90
Reporting grade = 0.500
Tolerences:-
min grade = 0.500
min lowgrade length = 2.000

HOLE ID	FROM	TO	LENGTH	AU1 GRADE
AIRTRAC DRILLING				
AT001	5.00	8.00	3.00m.@	1.470
AT001	9.00	10.00	1.00m.@	1.070
AT003	10.00	18.00	8.00m.@	2.794
AT007	5.00	8.00	3.00m.@	1.167
AT010	8.00	9.00	1.00m.@	2.200
AT011	3.00	4.00	1.00m.@	1.590
AT014	16.00	18.00	2.00m.@	2.730
AT033	2.00	3.00	1.00m.@	1.360
AT033	6.00	8.00	2.00m.@	1.310
RC DRILLING				
MRC536	24.00	26.00	2.00m.@	2.670
MRC537	26.00	28.00	2.00m.@	1.685
MRC538	4.00	6.00	2.00m.@	1.985
MRC541	16.00	17.00	1.00m.@	1.070
MRC541	19.00	25.00	6.00m.@	2.192
MRC542	8.00	10.00	2.00m.@	0.855
MRC542	15.00	17.00	2.00m.@	2.260
MRC542	19.00	20.00	1.00m.@	0.990
MRC543	3.00	5.00	2.00m.@	5.115
MRC543	6.00	8.00	2.00m.@	1.025
MRC543	10.00	12.00	2.00m.@	1.830
MRC544	29.00	35.00	6.00m.@	3.688
MRC544	40.00	42.00	2.00m.@	1.625
MRC545	33.00	36.00	3.00m.@	1.870
MRC622	12.00	15.00	3.00m.@	1.017
MRC622	18.00	20.00	2.00m.@	1.985

TABLE 7. CONTINUED

MRC623	12.00	14.00	2.00m.@	1.455
MRC623	37.00	43.00	6.00m.@	5.117
MRC623	52.00	54.00	2.00m.@	1.270
MRC624	41.00	42.00	1.00m.@	2.410
MRC624	44.00	48.00	4.00m.@	4.528
MRC625	0.00	6.00	6.00m.@	5.142
MRC629	0.00	4.00	4.00m.@	1.418
MRC629	6.00	10.00	4.00m.@	0.978
MRC629	40.00	42.00	2.00m.@	2.150
MRC629	57.00	59.00	2.00m.@	1.130
MRC630	37.00	38.00	1.00m.@	1.990
MRC630	47.00	49.00	2.00m.@	1.250

TABLE 8.

MOLINE - TRIG

Preliminary Geological Resource

SECTION	TONNES	GOLD GRADE g/t	TONNES X GRADE (gms gold)
14350N	35214	2.52	88739
14325N	11171	3.87	43232
14300N	4785	1.42	6795
14275N	1093	1.68	1836
14250N	1522	1.76	2679
14225N	1406	1.98	2784
14200N	1406	1.89	2657
14175N			
14150N	12116	1.08	13085
14125N			
14100N	1328	0.86	1142
TOTAL	70041	2.33	162949

Drill logs are presented in appendix 3. while drillhole gold analyses are presented in appendix 4. (For logistical reasons - the originals of the plans had already been sent to Moline - no drill sections are presented nor are the holes plotted on the geological plan for the area).

Neither of the drillholes - designed to test surface gossanous horizons - intersected any significant mineralisation (the best was 2 metres grading 0.69 g/t in MRC574) and failed to provide encouragement for immediate further work in the area.

HIGHWAY

The Highway prospect contains the immediate northerly extension of the shear-controlled mineralisation currently being mined from the Hercules open pit. The area was initially drill-tested in 1987, a resource of around 35,000 tonnes grading about 3.2 g/t gold outlined and an oxide zone pit designed. The 1989 programme was designed to more accurately define and try and increase the grade/tonnage figures.

Geological Mapping

The area was mapped at 1:1,000 scale in 1986 (ref. enclosure 46) and additional geological data for the area are available as a result of 1:1,000 scale mapping of the Hercules pit area (enclosure 132) and 1:5,000 scale mapping of the surrounds (enclosure 184). The gold mineralisation is associated with quartz-pyrite-(limonite) veining in a shear zone cutting obliquely through a shale-siltstone-greywacke-tuff sequence that, while possibly at the Gerowie Tuff or Mount Bonnie Formation level, appears stratigraphically higher than the Tumbling Dice - Moline Dam - Southern Hercules level.

Drilling

The 1989 drilling programme comprised 395 metres of air-trac drilling (in 22 holes) and 1298 metres of RC drilling (33 holes). The air-trac drilling (commissioned and monitored by the mining division) was on a 12.5 x 25 x 10-20 metre pattern while the RC holes were drilled on a 25 x 15 metre pattern.

Drill logs for the RC holes (there are no available air-trac logs) are presented in appendix 3 while drillhole gold analyses are contained in appendix 4. Any available repeat gold together with arsenic-silver-copper-lead and zinc analyses are contained in appendix 5.

A complete drillhole collar summary report is presented as Table 9. There are no downhole survey data presented, though the mining division did survey some of the holes. Enclosures 147-165 are 1:250 scale drill sections containing some lithological data, all gold assay data and interpreted ore blocks. Intersections in 1989 drill holes are listed on table 10.

TABLE 9.

HIGHWAY

Surpac - DRILL HOLE COLLAR SUMMARY - \HER database

HOLEID	NORTHING	EASTING	R.L.	DEPTH	DIP	AZIMUTH
AT074	2075.00	1084.40	129.80	18.00	-60.00	90.00
AT075	2074.60	1089.70	129.10	12.00	-60.00	90.00
AT076	2049.10	1081.70	129.30	12.00	-60.00	90.00
AT077	2022.50	1065.40	127.30	18.00	-60.00	90.00
AT078	1999.20	1062.10	126.10	12.00	-60.00	90.00
AT079	1999.40	1058.60	126.20	15.00	-60.00	90.00
AT080	1975.70	1051.10	127.00	18.00	-60.00	90.00
AT081	1975.70	1060.90	126.70	18.00	-60.00	90.00
AT118	1975.70	1054.30	126.70	12.00	-60.00	90.00
AT119	1961.40	1040.20	127.70	24.00	-60.00	90.00
AT120	1988.20	1050.50	126.20	24.00	-60.00	90.00
AT121	1999.40	1051.30	126.50	24.00	-60.00	90.00
AT122	1999.30	1065.40	126.00	9.00	-60.00	90.00
AT123	2010.90	1060.40	126.60	19.00	-60.00	90.00
AT124	2022.70	1060.50	127.20	18.00	-60.00	90.00
AT125	2022.20	1070.90	127.50	17.50	-60.00	90.00
AT127	2036.50	1069.80	128.80	22.00	-60.00	90.00
AT128	2049.20	1073.30	129.30	24.00	-60.00	90.00
AT129	2062.30	1080.70	129.80	19.00	-60.00	90.00
AT130	2099.60	1081.70	132.30	18.00	-60.00	90.00
AT131	2100.00	1101.00	133.00	16.00	-60.00	90.00
AT133	1975.50	1043.80	127.20	25.00	-60.00	90.00
MGM018	2175.02	1100.89	138.25	36.00	-60.00	90.00
MGM019	2174.93	1072.33	137.38	45.00	-60.00	90.00
MGM020	2099.96	1095.38	132.03	36.00	-60.00	90.00
MGM021	2074.93	1078.60	130.23	53.00	-60.00	90.00
MRC570	1923.90	1030.40	129.60	60.00	-60.00	90.00
MRC571	1949.10	1011.40	128.80	60.00	-60.00	90.00
MRC572	1948.90	1048.30	127.60	24.00	-60.00	90.00
MRC575	1999.00	1033.30	127.50	54.00	-60.00	90.00
MRC576	1999.00	1065.50	126.00	30.00	-60.00	90.00
MRC577	1999.10	1050.30	126.60	30.00	-60.00	90.00
MRC578	2024.00	1067.70	127.40	36.00	-60.00	90.00
MRC579	2048.80	1070.50	129.10	30.00	-60.00	90.00
MRC580	2049.00	1082.40	129.00	18.00	-60.00	90.00
MRC581	2074.10	1090.40	129.30	30.00	-60.00	90.00
MRC582	1974.10	1035.30	127.30	48.00	-60.00	90.00
MRC583	1974.00	1050.70	127.00	24.00	-60.00	90.00
MRC584	2024.00	1046.40	127.20	48.00	-60.00	90.00
MRC585	2074.10	1071.40	130.20	42.00	-60.00	90.00
MRC586	2098.90	1087.70	132.10	36.00	-60.00	90.00
MRC587	2123.40	1086.00	132.60	42.00	-60.00	90.00
MRC588	2175.00	1095.40	138.30	18.00	-60.00	90.00
MRC608	2149.10	1083.70	135.30	30.00	-60.00	90.00
MRC609	2123.70	1075.90	133.00	24.00	-60.00	90.00
MRC610	1974.00	1025.50	127.50	60.00	-60.00	90.00
MRC611	1924.10	1018.40	129.70	48.00	-60.00	90.00
MRC612	1924.20	1038.30	129.40	18.00	-60.00	90.00
MRC613	1899.10	1045.20	131.00	36.00	-60.00	90.00
MRC614	1974.20	1060.70	126.80	30.00	-60.00	90.00
MRC626	2123.70	1067.90	133.20	42.00	-60.00	90.00
MRC627	1974.10	1016.50	127.60	84.00	-60.00	90.00
MRC628	1974.00	1043.10	127.20	48.00	-60.00	90.00

TABLE 9. CONTINUED
HIGHWAY

Surpac - DRILL HOLE COLLAR SUMMARY - \HER database

HOLEID	NORTHING	EASTING	R.L.	DEPTH	DIP	AZIMUTH
MRC661	1988.60	1037.70	126.80	42.00	-60.00	90.00
MRC662	2013.50	1049.50	127.40	36.00	-60.00	90.00

Drill Statistics :	22x Airtrac =	394.50 m
	33x RCP =	1298.00 m
	TOTAL =	1692.50 m

NOTE:
Azimuth 90.00 = GRID EAST

TABLE 10.

HIGHWAY - 1989 Drillhole Intersections

Data from database HER/HWY MAR-90
Reporting grade = 0.500
Tolerences:-
min grade = 0.500
min lowgrade length = 2.000

HOLE ID	FROM	TO	LENGTH	AU1 GRADE
AIRTRAC DRILLING				
AT076	3.00	12.00	9.00m.@	5.169
AT077	2.00	3.00	1.00m.@	1.760
AT077	10.00	11.00	1.00m.@	2.580
AT078	4.00	11.00	7.00m.@	4.514
AT079	4.00	6.00	2.00m.@	1.405
AT079	11.00	15.00	4.00m.@	3.533
AT080	2.00	4.00	2.00m.@	1.175
AT080	6.00	11.00	5.00m.@	2.554
AT118	2.00	3.00	1.00m.@	1.370
AT120	8.00	11.00	3.00m.@	0.883
AT120	13.00	14.00	1.00m.@	2.400
AT120	15.00	16.00	1.00m.@	0.710
AT120	17.00	21.00	4.00m.@	2.208
AT121	13.00	17.00	4.00m.@	1.038
AT121	22.00	24.00	2.00m.@	1.230
AT122	4.00	6.00	2.00m.@	1.750
AT123	6.00	9.00	3.00m.@	2.120
AT123	10.00	16.00	6.00m.@	2.727
AT124	8.00	10.00	2.00m.@	0.775
AT125	3.00	5.00	2.00m.@	1.285
AT127	5.00	9.00	4.00m.@	1.373
AT127	11.00	13.00	2.00m.@	1.150
AT127	15.00	22.00	7.00m.@	3.110
AT128	16.00	18.00	2.00m.@	0.820
AT130	7.00	10.00	3.00m.@	0.780
AT131	6.00	8.00	2.00m.@	0.790
AT133	12.00	14.00	2.00m.@	0.900
AT133	16.00	20.00	4.00m.@	1.688
AT133	21.00	23.00	2.00m.@	1.050

TABLE 10. CONTINUED

RC DRILIING

MGM019	20.00	21.00	1.00m.@	1.900
MGM020	16.00	18.00	2.00m.@	5.720
MGM021	21.00	24.00	3.00m.@	2.550
MRC570	18.00	20.00	2.00m.@	6.460
MRC571	54.00	56.00	2.00m.@	0.660
MRC572	0.00	2.00	2.00m.@	1.925
MRC575	37.00	38.00	1.00m.@	1.570
MRC575	47.00	48.00	1.00m.@	4.100
MRC576	0.00	3.00	3.00m.@	1.860
MRC576	4.00	7.00	3.00m.@	4.653
MRC577	14.00	19.00	5.00m.@	1.468
MRC577	23.00	25.00	2.00m.@	1.115
MRC578	0.00	2.00	2.00m.@	1.550
MRC578	8.00	11.00	3.00m.@	11.227
MRC579	20.00	21.00	1.00m.@	5.380
MRC579	22.00	24.00	2.00m.@	1.460
MRC580	1.00	7.00	6.00m.@	5.697
MRC582	24.00	26.00	2.00m.@	0.845
MRC582	27.00	29.00	2.00m.@	2.210
MRC582	31.00	32.00	1.00m.@	1.660
MRC582	37.00	40.00	3.00m.@	10.437
MRC583	3.00	5.00	2.00m.@	2.280
MRC583	7.00	9.00	2.00m.@	0.745
MRC584	26.00	27.00	1.00m.@	2.480
MRC584	30.00	32.00	2.00m.@	0.675
MRC585	28.00	30.00	2.00m.@	0.610
MRC585	32.00	36.00	4.00m.@	1.103
MRC586	26.00	28.00	2.00m.@	1.030
MRC587	2.00	5.00	3.00m.@	11.270
MRC587	33.00	34.00	1.00m.@	2.500
MRC608	3.00	5.00	2.00m.@	0.735
MRC609	14.00	16.00	2.00m.@	2.575
MRC609	18.00	19.00	1.00m.@	1.340
MRC610	39.00	40.00	1.00m.@	1.070
MRC610	43.00	45.00	2.00m.@	1.950
MRC610	50.00	55.00	5.00m.@	31.038
MRC613	30.00	31.00	1.00m.@	2.470

TABLE 10. CONTINUED

MRC626	24.00	25.00	1.00m.@	1.080
MRC627	56.00	57.00	1.00m.@	1.560
MRC627	58.00	60.00	2.00m.@	10.135
MRC628	15.00	20.00	5.00m.@	1.488
MRC628	25.00	26.00	1.00m.@	1.210
MRC661	23.00	25.00	2.00m.@	0.725
MRC662	27.00	28.00	1.00m.@	1.460

TABLE 11.

HIGHWAY

Preliminary Geological Resource

SECTION	TONNES	GOLD GRADE (g/t)	TONNES X GRADE (gms gold)
2175N	664	5.99	3977
2150N	1249	0.75	937
2125N	2304	7.79	17948
2100N	4451	1.84	8190
2075N	3789	1.72	6517
2050N	5156	3.96	20418
2025N	2147	4.79	10284
2000N	10234	3.92	40117
1975N	11483	6.29	72228
1950N	585	1.92	1123
1925N	1132	6.46	7313
1900N	2070	1.48	3064
TOTAL	45264	4.24	192116

Though no re-calculations were completed after the drilling of the final two holes later in the year, initial estimates of the geological resource suggested about 45,000 tonnes grading 4.2 g/t gold (as shown on table 11.). As the final two holes - MRC661 and MRC662, designed to check continuity of mineralisation between 25 metre spaced drill sections - did not intersect good mineralisation at the RL level tested, the resource tonnage figure is possibly reduced by 10-20%.

A feature of the drill results was the intersection of some very high grade mineralisation - including 5 metres grading 31 g/t (centred on one metre grading 132 g/t).

Discussion

It's clear from the drilling results that the mineralisation through the Highway area is narrow and erratic in terms of grade, but sometimes containing very high grades. Further work in the area should involve drilling out the deposit on a 12.5 by 10 metre pattern to try and arrive at accurate tonnage/grade figures.

KENDERGARDEN

The Kendergarden prospect is approximately 200 metres west of the northern end of the Hercules Pit. Mineralisation can be seen in shallow pits to comprise discordant quartz-limonite (sulphide) veining within a sequence of shales, siltstones and greywackes. The trend of the mineralisation is sub-parallel to the Northern Hercules trend.

The area straddles the former boundary between Cyprus tenements and a tenement block owned by Ken Day Pty Ltd but acquired by Cyprus in early 1988. The ground was always considered prospective for gold mineralisation and it was geologically mapped (enclosure 146) and one RC hole drilled (with negative results) in 1986 but any systematic drilling programme was deferred until the ownership situation was rationalised.

As well as the 1989 work described below, some costeaning was carried out by the mining division. Location and assay details for this costeaning will be supplied in a later report.

Geological Mapping

The geological setting of this area is shown on enclosures 146, 184 and 132. The mineralisation is essentially Northern Hercules style and it appears to be located close to the point of intersection of a major shear and an anticline axis.