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**A RE-EVALUATION OF THE GREAT
SOUTH COMET MINE AND NEARBY
WORKINGS**

by

**Ian Gordon, Rosebery Mine Leases
Geologist
20th January, 1988**

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INTRODUCTION

The Great South Comet Mine and associated Kosminsky Hill and Adelaide Creek workings lie on the northwestern slopes of Mt. Dundas, approximately 14km's by road east of Zeehan, Western Tasmania.

Two mine leases, total area 28 Ha, are currently held by N. and B. Bennett and K. McDermott. The area around the leases was held as E.L. 15/76 by C.S.R. until 1987. The exploration licence is currently awaiting hearing of an objection brought by K. McDermott, prior to issue to Goldfields Consolidated Exploration as a new E.L.

Current interest in the South Comet area by EZ Rosebery's Geology Department was initiated in late 1987. The possibility of lead/zinc ore from South Comet was suggested as a source of Mill feed to replace Que River ore after 1991.

Work carried out for the re-evaluation of the area includes the implementation of a gravity and ground magnetics survey and investigation of drill core and exploration reports at the Mines Department in Hobart. The underground workings were examined by B. Titcombe and G. Iliff.

GEOLOGY

The rocks in the South Comet Mine Leases are meta-sediments belonging to the Dundas Group. A range of lithologies from grey and black shales through immature grits to fine and medium grained conglomerates are represented.

The mineralization occurs in a system of north-north-west trending shears and fractures which dip at 50-80° to the west. Minor sinistral movement has been documented on these shears (Discala, 1974) although net movement is not known. An approximately east-west trending sinistral wrench fault possibly offsets the South Comet mineralization north of the Mine, with the offset extension found in the Kosminsky Mine workings.

MINERALIZATION

The South Comet mineralization occurs as numerous lensoidal "shoots" of massive to semi-massive sphalerite+galena, with minor jamesonite, pyrite, chalcopyrite and siderite, separated by zones of massive siderite. The mineralization is hosted in the north-north-west trending set of shears and fractures described above. These structures, and by inference the mineralization, have been dated as late Tabberabberan (Geophoto - various reports).

Wallrock alteration related to the mineralization is slight, rarely extending more than 1 cm outside the generally well defined edge of the host structure.

PREVIOUS WORK

Interest in the potential of the South Comet area has fluctuated since the cessation of mining activities in 1949. [NB - The South Comet Mine has been worked intermittently since then, producing small tonnages of custom ores.] The four main periods of interest and exploration activity are summarized here. Of these by far the greatest amount of evaluation was carried out by Geophoto Resources Consultants on behalf of Texins Development Pty. Ltd. in the late 1960's and early 1970's.

The activity reviewed herein consists of:-

- * 1950 - Mines Department
- * 1959 - EZ Co. Rosebery
- * 1968 to 1974 - Geophoto Resources
- * 1976 to 1987 - C.S.R. Ltd.

1950 - Mines Department

A report presented in 1950 by B.L. Taylor of the Mines Department discusses the surface exposure and underground development. Taylor describes a series of north-west trending fractures, all of which are mineralized, extending from south of the Adelaide Creek to the South Comet Creek, where they are truncated by a left lateral transverse fault. He suggests a correlation between the Kosminsky Hill and South Comet lines of mineralization, indicating a movement of some 800 ft horizontally on the truncating South Comet Creek Fault.

There are four adit levels described on the northern face of the South Comet Ridge, with stoping mentioned in No. 1 and No. 3 adits. No. 1 adit is at creek level, with No. 2 adit 122 feet above No. 1, No. 3 adit 210 feet above No. 1 and No. 4 adit 350 feet above No. 1.

Three adits, No's 5, 6 and 7, are described in the Adelaide Creek gully. No's 5 and 6 occur on the northern side of the creek, and No. 7 on the south bank. These adits are small and inaccessible. It is believed No. 5 and 6 adits were around 100 feet long, and No. 7 adit 30 feet long.

Taylor describes considerable variation in the widths of three main lodges or lenses of economic mineralization. The width of No. 3 lode

is given as varying from 12 feet to 6 inches and of No. 2 lode as 4 feet to 9 inches. The average width of No's 1 and 3 lodes is 4 feet, and of No. 2 lode is 3 feet.

To quote Taylor's description of the mineralization exposed in the underground workings "...stringers of ore... vary from a fraction of an inch to several inches in width. The stringers are discontinuous, and more in the nature of flat lenses, the lenses being separated by ... siderite. In only one case was galena seen in a vein of more than 6 inches width."

Ore reserve calculations by Taylor gave 60,000 tons of proven ore at 8% Pb, 4% Zn, 8 ozs Ag with a further 300,000 tons of possible and probable ore.

Taylor recommended further development and the production of Zinc concentrate as well as lead in order for the operation to continue economically.

1959 - EZ Co. Rosebery/Rio Tinto Joint Venture

I.S. Gregory of EZ Co. in Rosebery presented a report on underground mapping and sampling carried out as a joint venture program with Rio Tinto.

A geologically acceptable method of sampling (as opposed to that used by Taylor, 1950) was used to evaluate the ore zone. On the basis of this sampling Gregory discounted the bulk of the mineralized system as being low grade and uneconomic. He identifies one ore lens (L13N) as containing a significant tonnage of ore grade material. The ore reserve calculated by Gregory is 7,000 tons of 8.6% Pb, 19.1% Zn, 0.09% Cu and 5.7 ozs Ag. It should be borne in mind that this ore reserve, as with Taylor's calculation, refers to ore occurring above the No. 1 adit level.

The other important point from Gregory's report is that he does not believe the mineralization extends to the Adelaide Creek workings in the south. This is based primarily on inspection of No. 5 adit where the northern face is "... barren sheared sandstone." It is noted that no evidence of gossaneous material south of the rather obvious gossan on top of the ridge has been observed during recent field work.

1968 to 1974 - Geophoto

This period saw the most intensive exploration activity in the South Comet area. The area explored, E.L. 7/68, covers much of the area between the Murchison Highway and Mt. Dundas, south of the Ring River.

An initial mapping and V.L.F. E.M. survey resulted in the identification of several prospects which were subsequently examined by diamond drilling. A total of 67 diamond drill holes were drilled in the E.L., with 35 in the most prospective area, the Kosminsky Hill-South Comet Prospect.

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Details of the other prospects will not be presented here as they are outside the currently available area.

Indications from the drilling program are that the mineralization is erratic and lensoidal in shape. The mineralized zone dips at 60-75° west and strikes north-north-west. Drilling around the South Comet Creek suggests that strike continuity is maintained across the South Comet Creek Wrench Fault (Thigpen, 1972), although this appears to be based on one drill hole which could conceivably still be to the south of the wrench fault.

A southerly extension to the mineralization as far as the Adelaide Creek workings is suggested. Although the host structure is continuous, drilling and surface outcrop suggest any base metal mineralization is sparse and of relatively low grade.

To the north two barren drill holes, KH10 and KH11, are interpreted to close the mineralization, however an untested V.L.F. anomaly does extend to the northwest, probably indicating a continuation of the host structure.

Drilling to 1972 has demonstrated the presence of a mineralized shear over some 3,500 feet from DDH KH15 to SC5 and this zone has been tested at significant depth in 4 drill holes. Assay information for intersections in several drill holes is included in Appendix 1. Two main trends of mineralization within the zone are identified. Trend 'W' could be equated to the Kosminsky Hill mineralization. This occurs west of the main trend and is indicated by drill core intersections, weak gossan development and a well defined though weak E.M. response.

Trend A is the major zone of mineralization. Three lodes are present in this zone. They occur as anastomosing sheets of siderite containing several pods or lenses of base metal mineralization. The best lens is lens No. 5 (L13N of Gregory, 1959) in lode A3, which exhibits "...continuity of ore grade over a length of 70 feet and a width of 7.5 ft, averaging 3.47% Pb, 11.47% Zn and 2.41 ozs Ag." (Discala, 1974).

Four minor trends of mineralization occur to the east of trend A, but appear generally low grade (though occasionally ore-grade) and are not continuous.

Ore reserves based on the drilling and presented by Discala (1974) are based on a cut off of 10% Zn or 13% Pb+Zn.

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Trend W	12,380 tons
A(Lens 5)	13,596 "
A(Lens KH1)	8,228 "
E2	9,000 "
E1	2,600 "
TOTAL	45,804 tons

Discala recommended no further work in the South Comet-Kosminsky area.

1976-1987 - C.S.R. Ltd.

C.S.R. Ltd. took the area of E.L. 7/68 as E.L. 15/76 in August 1976. Their exploration philosophy was that the near surface had been adequately explored. They consequently carried out extensive geophysical and geochemical surveys targeted primarily at deep seated deposits.

The zone around the South Comet Mine Leases was identified as geochemically anomalous by C.S.R. It was considered as not worthy of follow-up as extensive detailed evaluation had previously been done by Geophoto (Ellis, 1987).

CONCLUSIONS AND RECOMMENDATIONS

The South Comet Mine Leases contain structurally hosted lead/zinc/silver mineralization in several zones within a north-north-west trending shear zone. Based on consideration of available reports and inspection of diamond drill core it is concluded here that an economic resource of some 40,000 tons could be expected within the leases, with limited potential for a northward extension.

On this basis it is recommended that the gravity survey currently underway be completed and interpreted as a matter of priority. It is considered unlikely that this survey will indicate a resource much larger than that already known. Further, based primarily on inspection of drill core and a knowledge of the Dundas Group rocks elsewhere, it is considered that the remaining portions of the mine leases are unprospective for any currently marketable commodity.

Pending the result of the gravity survey it is clear that no further interest in the South Comet Mine by EZ Rosebery is warranted. There is no reason why ore from South Comet cannot be milled at Rosebery if such a tonnage can be economically extracted by a small operator.

REFERENCES

- DISCALA, L., 1974 Final Report Kosminsky-South Comet Zone of Mineralization. E.L. 7/68, West Tasmania. Geophoto Resources Consultants - Mines Department Report No. 74-998 (Unpub.)
- ELLIS, P.D., 1987 Past Exploration within the area of E.L. 15/76, Dundas, Tasmania. C.S.R. Ltd Minerals Exploration and Development Group - Mines Department Report No. 87-2678 (Unpub.)
- GREGORY, I.S., 1959 First and Final Report on Great South Comet Line, Dundas - Tasmania. EZ Co. Report No. 83 (Unpub.)
- TAYLOR, B.L., 1950 The Great South Comet Mine - Dundas Mines Department Report (Unpub.)
- THIGPEN, J.B., 1972 Summary Report of Diamond Drilling in E.L. 7/68 - Dundas. Geophoto Resources Consultants - Mines Department Report No. 72-896

Ian F. Gordon,
Mine Leases Geologist

APPENDIX 1

Drill Core Analytical Data Summary Sheets
for Selected Drill Holes - South Comet Mine

1	2	3	Length ft		Width ft		Chemical Assay			Value	Host Rock	A.S.L. Inters.
			From	To	Appr	True	Pb %	Zn %	Ag oz			
4	South Comet 12											
5	Location: South Comet-Kosminsky											
6	48S + 07E + 10'N											
7	A.S.L. collar: 1,390'											
8	Azimuth: 50°T											
9	Depression: 70°											
10	Length: 600'											
11	A.S.L. bottom: 850'											
12	Year drilled: 1973											
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	Length ft		Width ft		Chemical Assay			Value	Host Rock		A.S.L. Inters
	From	To	Appr	True	Pb%	Zn%	Ag oz				
1	South Comet 14										
2	Location: South Comet-										
3	Kosminsky										
4	36S + 6.45W + 115'S		138.5	146.3	7.8	5.3?	6.45	4.36	4.69	s.s., slst,	1,115'
5	A.S.L. collar: 1,246'										
6			175.9	181.1	5.2	3.6	13.4	1.4	13	"	1,082'
7	Azimuth: 78°T										
8			431.3	437.8	6.5	5.9	1.67	1.94	1.55	s.s., slst,	874'
9	Depression: 67°										
10			at 518'		5.0	4.5	1.19	7.14	0.13	"	803'
11	Length: 719'										
12	A.S.L. bottom: 672'										
13	Year drilled: 1972										
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1	South Comet 15	Length ft		Width ft		Chemical Assay			Value	Host Rock	A.S.L. Inters
		From	To	Appr	True	Pb%	Zn%	Ag oz			
2	Location: South Comet-										
3	Kosminsky	69.9	75.8	5.9	5.5	0.98	0.91	0.62			1,090'
4	32S + 7.9W + 55'S										
5		342.9	350	7.1	6.4	6.5	0.3	2.0		Qtite & bl.	
6	A.S.L. collar: 1,155'									gr. sl.	859'
7											
8	Azimuth: 80°T										
9											
10	Depression: 65°										
11											
12	Length: 449'										
13											
14	A.S.L. bottom: 786'										
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15	Year drilled: 1972										
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1	South Comet 16	Length ft		Width ft		Chemical Assay			Value	Host Rock	A.S.L. Inters.
		From	To	Appr.	True	Pb %	Zn %	Ag oz			
2	Location: South Comet-										
3	Kosminsky										
4	38S + 8.8W + 25'S										
5											
6	A.S.L. collar: 1,102.4'	Minor mineralisation only at 56.7', 79.8', 445.9', 485.3'.									
7											
8	Azimuth: 56°T										
9											
10	Depression: 75°										
11											
12	Length: 576.6'										
13											
14	A.S.L. bottom: 565'										
15											
16	Year drilled: 1972										
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051

D.D. 1/08 Dundas Drill Hole Mineralised Sections

1	South Comet 17	Length ft		Width ft		Chemical Assay			Value	Host Rock	A.S.L. Inters.
		From	To	Appr.	True	Fb%	Zn%	Ag oz			
2	Location: South Comet-										
3	Kosminsky										
4	40S + 5.5W + 20'N	200.1	205	4.9	3.5	1.5	6.2			sandstone/ slst.	1,070'
5											
6	A.S.L. collar: 1,260'	280.5	283.8	3.3	2.6	1.23	0.53	1.48			997'
7											
8	Azimuth: 78°T	316.6	321.5	4.9	3.9	2.57	0.93	4.13			964'
9											
10	Depression: 70°	354.3	359.2	4.9	3.9	7.2	2.1	8.9		s.s./slst/ congl.	925' 655'
11											
12	Length: 765'	689	690.9	1.9	1.8	0.21	0.68				
13											
14	A.S.L. bottom: 574'										
15											
16	Year drilled: 1973										
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E.L.7/68 Dundas Drill Hole Mineralised Sections

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	South Comet 18	Length ft		Width ft		Chemical Assay			Value	Host Rock	A.S.L. Inters.
		From	To	Appr.	True	Pb %	Zn %	Ag oz			
1											
2	Location: South Comet-										
3	Kosminsky										
4	52S + 24E + 66'N	129.9	148	18.1	9.9	0.51	0.7			slst/sandst	1,197'
5	A.S.L. collar: 1,320'										
6											
7	Azimuth: 70°T										
8											
9											
10	Depression: 75°										
11											
12	Length: 586'										
13											
14	A.S.L. bottom: 786'										
15											
16	Year drilled: 1973										
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18											
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1	South Comet 19	Length ft		Width ft		Chemical Assay			Value	Host Rock	A.S.L. Inters.
		From	To	Appr	True	Pb %	Zn %	Ag oz			
2	Location: South Comet-Kosminsky										
3	44S + 5.6W + 50'N	714.9	719.8	4.9	3.3	0.4	0.8			dk.green	662'
4										volcanic	
5	A.S.L. collar: 1,330	768.4	771.3	2.9	2.0	1.95	0.64				582'
6											
7	Azimuth: 75°T	804.8	806.1	1.3	0.9	-	1.3				542'
8											
9	Depression: 75°										
10											
11	Length: 1,306'										
12											
13	A.S.L. bottom: 204'										
14											
15	Year drilled: 1973										
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No	Description	Length ft		Width ft		Chemical Assay			Value	Host Rock	A.S.L. Intervals
		From	To	Appr	True	Pb %	Zn %	Ag oz			
1	South Comet 21										
2	Location: South Comet-										
3	Kosminsky										
4	42S + 4.3W + 80'N	At 413.7		5	2.7	1.8	2.6			Sandstone	976'
5											
6	A.S.L. collar: 1,375'	916	920.6	4.6	3.0	1.8	3.2			Sandstone/ slst.	511'
7											
8	Azimuth: 72°T										
9											
10	Depression: 75°										
11											
12	Length: 1047'										
13											
14	A.S.L. bottom: 400'										
15											
16	Year drilled: 1973										
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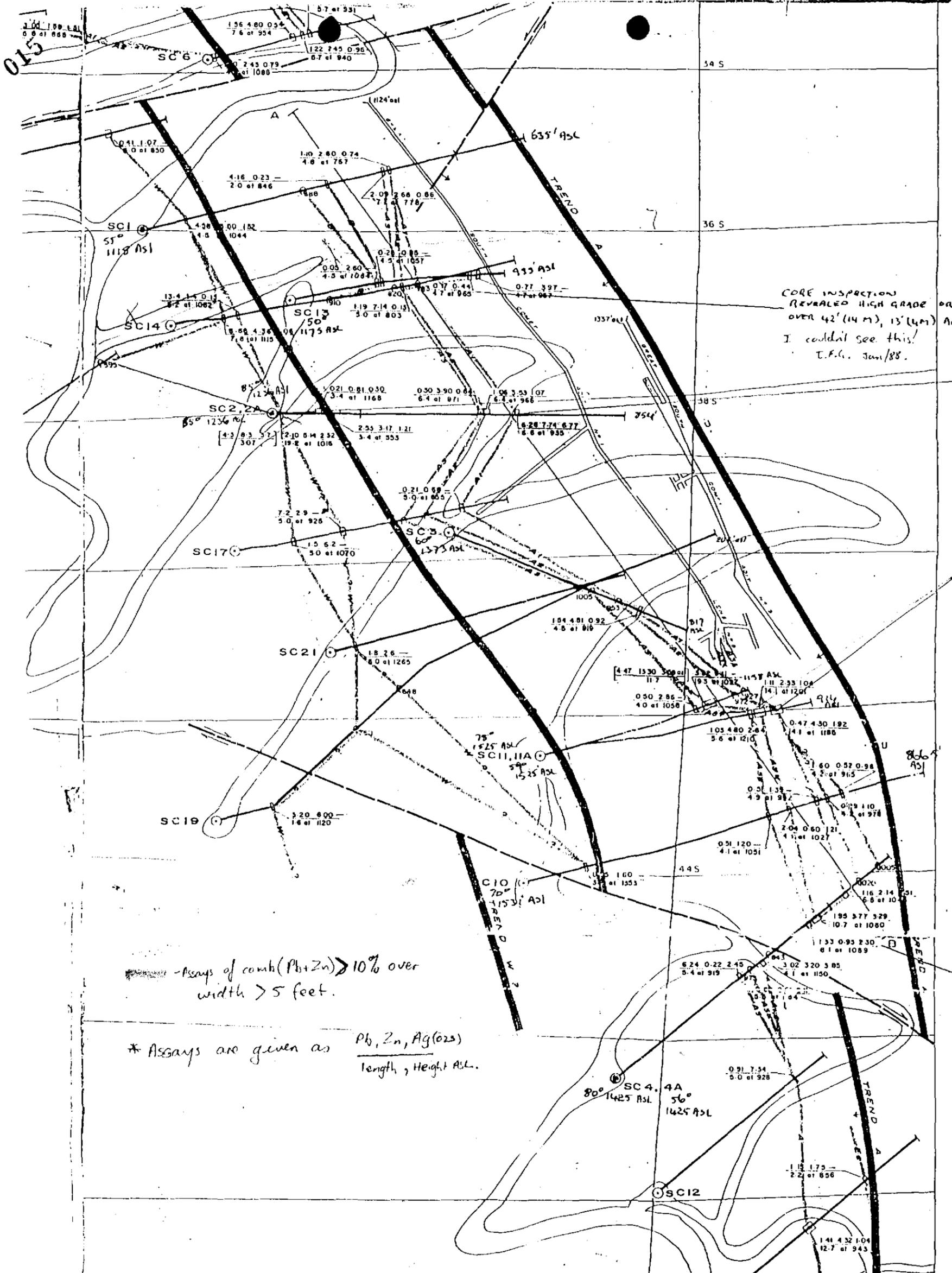
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CORE INSPECTION
REVEALED HIGH GRADE ore
over 42' (14m), 15' (4.5m) or
I couldn't see this!
T.F.G. Jun/88.

-Assays of comb (Pb+Zn) > 10% over
width > 5 feet.

* Assays are given as $\frac{Pb, Zn, Ag(ozs)}{\text{length, Height ASL}}$

SOUTH COMET ROADS
From Corephoto

SUMMARY

A limited gravity and magnetic coverage of part of the Dundas field in Western Tasmania has been completed. The coverage utilises available access and includes the South Comet, Kosminski, Maestries and Comet workings.

Although these sites were considered to contain small economic reserves the geophysical surveys were undertaken to determine whether any significant response was present which might indicate deeper mineralisation or encourage further exploration.

The coverage restrictions enforced upon the surveys have constrained interpretation and limited the range and precision of conclusions possible. Even so, the gravity survey has demonstrated that the NNW shear zone containing the South Comet mineralisation is distinctly anomalous. The magnetic data is more ambiguous due to the nearby presence of ultramafics but some inverse and disturbed field correlations can be made with the gravity results. All are consistent with a Pb-Zn ore in an altered zone rich in siderite.

Both surveys have been fully corrected and tied to reproducible datums which means that consistent augmentation is possible and is recommended for comprehensive appraisal.

The magnetic survey has shown that the ridge south of South Comet may be subdivided into three units, each segment marked by an approximately E-W offset. The pattern can be correlated with drilling information. Any ore in each zone is considered to be a relatively minor component and only one zone, that nearest South Comet, presents an isolated anomaly couplet which might be related to lead-zinc ore. A limited extent is implied.

The gravity data reveal that the entire fracture zone is anomalous but the threefold division is evident. Mass estimates are uncertain due to limited data on densities, background levels and the proportion of ore to siderite. The total anomalous mass is believed to be of the order of half a million tonnes in each zone and be largely due to siderite. The economic content is likely to be nearer one tenth of this or about 50 000 tonnes in each zone but the proportion should be determined by a review of available core.

The mineralised zone can be related to Devonian structures and granite forms and be shown to extend from north of South Comet Creek to south of Adelaide Mine Creek. In so far as correlations permit with the present limited data set there is no evidence to suggest any large, deep targets and the limited mineralisation lens style known to occur can account for the observations north of the ridge. The gravity anomaly is open toward Adelaide Mine Creek and further assessment is required before excluding any possibility of deeper mineralisation south of the ridge.

INTRODUCTION

Interest in the use of ore from the South Comet area, east of Dundas, as a Mill feed after 1991 has led to some re-evaluation of the region.

A geological summary has been prepared by Gordon (1988).

The evaluation has included trial use of gravity and magnetic methods in order to establish whether some aspects of control, structure or ore scale are recognisable which might help appraisal and guide more extensive investigation. It was not expected that the limited coverage possible without line or access preparation would resolve these issues but an indication of response was thought to be of interest.

The results and implication of this basic geophysical work are presented in this report.

SURVEYS AND RESULTS

Ground magnetic and gravity surveys have been undertaken using available access.

The magnetic survey consists of corrected observations, referred to Rosebery base values, made with a proton magnetometer. The overall station spacing is variable, but is about 25 m along tracks. An attempt to contour this data is provided in Map 1.

The gravity survey was completed between December 1 and 3, 1987. Observations were made by G. Rau of Solo Geophysics, Adelaide, using LaCoste and Romberg meter 556 with a scale constant of 1.0139 for the range used. The effective base station for the survey was 8051.9906 (gobs= 980281.24) of Richardson and Dix (1987) at Rosebery Post Office with an accessory base at Dundas.

The data was reduced using a density of 2.67 t/cu m and the results are presented in Table 1. The format allows integration with state and BMR data bases so that regional results can be used to enlarge the effective coverage.

The survey points are irregularly distributed but are about 50 m apart along available tracks. Positions have been surveyed and levelled. Possible errors in the Bouguer anomalies due to spatial location errors are less than 0.01 mGal.

Gravity observation reproducibility is about 0.02 mGal after loop and drift correction. No special tide correction was made due to relatively short loop and repeat times and any adjustment will be included in the drift correction.

A 20 km terrain correction has been applied and this represents the minimum radius able to define minor or long range

differences across the survey consistent with desired precision. Terrain corrections range from 1.54 to 4.39 mGal and more significant errors may be related to these. Random recalculation indicates a reproducibility of 0.1 mGal or better. The corrections were computed by hand using the Hammer method and 1:25000, 1:50000 topographic maps supplemented by near station notes up to a nominal radius of 25 m. All corrections should be considered minima depending on the adequacy of the near station description.

The overall precision of the survey effectively amounts to the precision of the terrain correction and overall RMS precision is estimated at about 0.1 mGal.

The Bouguer anomalies have been plotted in Map 1. Unfortunately regional stations occur irregularly around the present survey and in the highly variable geological conditions no base factor control can be provided by them for the South Comet area. They are also of lesser precision, having been barometrically levelled (est error approx 0.4 mGal).

NOTES

Regional setting:

Regional AEROMAGNETIC data (Corbett et al, 1982; Leaman, 1986a) have been overprinted on the geological basemap of Blissett and Gulline (1962) in Figure 1. There are some direct correlations relevant to the surface data acquired for the South Comet study. Precambrian Onah Formation exposed as faulted inliers to the north and east possess negligible magnetic properties and the Zeehan map is wholly believable in its correlation with the magnetic field. Contrast Corbett (1986) where the material SSW of Mt Dundas has been mapped as parts of the Dundas Group. The correlation is not immediately apparent with this mapping unless mapped quartz wackes are very thick and non magnetic.

It may be observed that the gradients across the Onah-Dundas boundaries north of Mt Dundas are displaced westward of the mapped position - as agreed by both Blissett and Gulline (1962) and Corbett (1986). This is consistent with the interpretation of Leaman (1986a, b) where it was suggested that the Onah Formation inliers are essentially faulted thrust slices and thus structurally underlain by more magnetic Dundas Group or older rocks. The eastern boundaries are thus inferred to dip westward.

Large anomalies in the region of the Kosminski and West Comet prospects can be directly related to ultramafic bodies. The Zeehan map is consistent in terms of rock and anomaly distribution. The body north of Kosminski is not well defined due to line spacing. Anomalies of moderate scale can be related to members of the Crimson Creek Formation and parts of the Dundas Group. Due to terrain clearance problems and the relatively coarse line spacing (500 m) the survey as presented can not be used to resolve fine detail associated with the small

prospects of the Dundas Field.

Some trends are apparent, however. The overall grain of the geology, as reflected in the magnetic field, is approximately N-S in the Dundas area. Some cross trends are evident; the principal feature being occupied by the Kosminski-South Comet axis. This nearly E-W feature has been mapped as a faulted contact between Donah Formation (to north) and Dundas Group (to south). Other features are suggested by association in Figure 1 but few can be confirmed with extant data in absence of more careful data analysis not relevant to the present discussion. The NNW trending fault-shear zone occupied by the South Comet mineralisation cannot be recognised in the regional magnetic data near the site but the trend is visible regionally and may be inferred by multiple offsets and terminations from Howards Road to Serpentine Hill. Segments have been disguised by the effect of ultramafics.

Regional GRAVITY data from the Mines Department TASGRAV data base are of limited value in the Dundas-Mt Dundas area. West of Dundas observations exist with a nominal spacing of 500 m but to the east, covering the present area of interest, the spacing is nominally 1000 m but in reality 1500 m. This is not sufficient to establish valid correlations and a map is not presented. Values have been included in Map 1.

The gravity data has been regionally interpreted (Leaman, 1986b, 1988). Leaman (1988) has shown that the Pine Hill Granite is a substantial body and, in the region of Dundas, may lie at depths of no more than 2 to 4 km. It is possible that high relief spines occur on the pluton wall but the extant interpretation is not sufficiently detailed to define such features. The shape of the west face of the Pine Hill Granite is of particular interest. Near Serpentine Hill the roof of the intrusion plunges steeply to the west and the strike of this face, several kilometres long, extends NNW and aligns approximately with the magnetic lineament and some of the mineralised Dundas shears - including that through South Comet.

When the extent of the granite is realised the disturbed and often erratic character of the magnetic field in the region is explained by thermal metamorphic effects of variable degree. See also Leaman (1986a).

There seems little doubt that the South Comet mineralisation is Tabberabberan and related to the emplacement and cooling of the Pine Hill Granite.

Detailed view:

More detailed presentation of the gravity and magnetic fields is given in Map 1. Although neither field is properly defined due to coverage limitations some observations and correlations are possible.

There is little direct correlation between surface MAGNETIC field and the aeromagnetic presentation. This reflects differences and inadequacies of coverage. The magnetic field clearly defines the ultramafic bodies and demonstrates the extent of the body north of Kosminski. This body was not evident in the aerial data but the surface response is consistent with the mapping of Blissett and Gulline (1962).

The magnetic field is not sufficiently defined elsewhere to allow definitive conclusions.

The GRAVITY survey is consistent with regional data and infills it usefully. There is a general negative gradient to the north with an approximate E-W strike. This reflects the approach of the south face of the Pine Hill Granite (Leaman, 1988).

Comparison of the gravity and magnetic surveys shows that the ultramafic-mafic bodies, while distinctly magnetic, may have variable densities. The body north of Kosminski is apparently less dense than those nearer Dundas and also less dense than the surrounding Dundas and Donah Formations. Although coverage is patchy there is a suggestion that this is not universal and that the anomaly pattern may be structurally and not compositionally induced. The relatively negative effect north of Kosminski may indicate a serpentinised body or a localised granitic spine. The material should be inspected since the ramifications of the second option are considerable.

There is no obvious correlation between the gravity field and the mapping of Corbett (1986) across the area enclosed by Kosminski, South Comet and Maestries; the field pattern is more consistent with the block patterns suggested by Blissett and Gulline (1962) and, in particular, the NNW trend from Adelaide Mine Creek to South Comet and to a point west of Maestries.

Gravity data are not able to confirm the suggestion, based on magnetics, of a structural axis extending NNW from South Comet due to coverage limitations - but it is possible. Neither data set permit sensible comment, with present coverage, about possible signatures or character for the Comet, Maestries or Kosminski prospects.

Near South Comet:

Most data is available for the ridge between South Comet and Adelaide Mine Creeks.

MAGNETIC data suggest, but do not accurately define the trends and position of, three or four transverse structures (ENE or possibly E-W) near 361200, 361370 and 361450 mN (see Map 1) within the NNW trending fracture system. Such displacements correlate with deductions by Thigpen (1972). See Figure 2. Distinct breaks were implied between holes SC6 and SC1, SC10 and SC4 or 12, and near SC17. The magnetic data observed cannot confirm the ESE offset suggested by Thigpen (1972) between SC10 and SC4/12 and the data could permit an ENE offset which could be sympathetic with the principal structure north of South Comet.

The region south of SC10 (Figure 2) is magnetically bland but the central portion of the area, at ridge top, is more magnetic. This may be a response to ridge top gossans or shallower oxidation mineralogy. The region immediately south of South Comet is distinctive and contains an isolated magnetic source. The magnetic couplet anomaly indicates a source dipping steeply west, but probably no more than 80 m long, and located near the ore intersections encountered in SC13 and SC14.

The GRAVITY data, although lacking true background level references for the anomalies, is definitive. Each E-W loop of the traverse across the hill reveals an axial high which corresponds to the shear system.

The data show that Thigpen (1972) was correct in suggesting ore zone continuity across South Comet Creek and over the hill to Adelaide Mine Creek. The data contradict Gregory (1959) who could find no evidence for mineralisation on the Adelaide Mine Creek side of the hill. Bouguer values at South Comet and Adelaide Mine Creek are comparable but the ridge top gossans are associated with more negative effects.

Bouguer anomaly character is of interest. There is no regional, geological reason for the local elevation in values along a NNW trend other than the shear system and its mineralisation. A normal shear system and its associated weathering-alteration products leads to negative responses due to loss of density. The host rocks could be expected to possess densities of the order of 2.74-2.80 t/cu m in good condition but perhaps less than 2.3 t/cu m when altered.

The minimum positive effect of about 0.7 mGal demonstrates a significant volume of introduced material.

Peak values have been located on trend A north of the ridge top, trend W? south of the ridge top and on trend W south of South Comet (refer Map 1 and Figure 2). Given the westerly dip of the materials between the trends labelled, the features identified

beneath trend W must be related to materials exposed further east (A). This means that the first listed feature must be exposed east of trend A. The paired negative/positive couplet in this central zone, noted near the apparent offset between holes SC2 and 21 (i.e., at SC17) also identified by the magnetics, may mean that the offset is to the east and that the mineralisation in SC17 has been displaced from the west and that mineralisation originally part of trend A now lies much further east. Low grade (?) ore was noted east of trend A during the Geophoto drilling programme.

Some estimates of the indicated anomalous mass have been made. Although these must be considered suspect in the absence of reliable base levels for background and reliable local densities it is still possible to suggest minimum ore or gangue reserves.

Each of the three positive anomalies has been examined. Using the minimum relief against surrounding observations each is equivalent to about 300 to 500 000 t of siderite. Siderite has been used as a basis for calculation since it would appear to be the dominant gangue mineral and its density has been contrasted against that of the host rocks. It should also be noted that a background shift of little more than 0.25 mGal would lead to a minimum five fold multiple for the mass estimates. Any reduction in density assumption from the value of 3.83 t/cu m used for siderite (and ore) would also increase the estimates.

All calculations are conservative.

It is not possible to separate sulphides from these estimates but if the gangue-ore ratio was a believable 5 or 6:1 in terms of its mass volume product then each anomaly would be equivalent to a minimum of 50 to 60 000 t of ore. Estimates of this order are comparable with present understanding based on drilling.

ref
1.6.

In view of the direct spatial relationship with known ore zones and the higher amplitude aspects of the anomalies there is little likelihood of deeper, larger ore volumes. This comment applies particularly to the mineralised zone north of the ridge. All features recognised in the available data indicate shallow, narrow, dipping source(s). This position is not as clear south of the ridge toward Adelaide Mine Creek since the gravity anomaly is open, the magnetic field is not featured and both responses could imply a deeper source. Any further work could usefully be concentrated in this zone.

CONCLUSIONS

1. Regional magnetic and gravity data confirm the existence of a major NNW-trending structure through the South Comet prospect.
2. The feature can be related to the shape of the west face of the Pine Hill Granite; a large intrusion perhaps no more than 2 km deep at Dundas. The mineralisation is Devonian in age.
3. Although survey coverage limitations exist the correlations between magnetic and gravity fields and mapping suggest that the work of Blissett and Gulline (1962) is more consistent than that of Corbett (1986).
4. The region SSE of the South Comet prospect is magnetically and gravimetrically anomalous.
5. Offsets trending approximately E-W can be identified magnetically which are consistent with drilling data. It is possible that the sense of the central offset near SC17 opposes previous inferences and that the main zone (A) is further east.
6. Both magnetic and gravity data imply three distinct zones between South Comet and Adelaide Mine Creeks. Each is mineralised but the ore-gangue mass may not be less than 500 000 t in any zone. The ore mass is not easily determined but may be of the order of 50 to 80 000 t minimum in each zone depending on the density, background and gangue proportion assumptions made. The latter factor could be assessed by review of core.

Most of the effects observed can be related to the abundance of siderite although the small magnetic anomalies south of South Comet indicate a definite ore pod based on the responses of other mineralised areas in W Tasmania.

7. The anomaly characters (both gravity and magnetic), breadth and spatial relationships with drilling and intersections indicate narrow, isolated, or relatively small ore pods and limited total mass overall with no large concealed target. Anomalies are open near Adelaide Mine Creek and any further assessment might need to review this zone.

REFERENCES

- Corbett, K.D., 1986. The Geology of the Henty River-Mt Read area Geological Map sheet 2, Mt Read Volcanics Project, Dep. Mines Tasm.
- Corbett, K.D., Richardson, R.G., Collins, P.L.F., Green, G.R., and Brown, A.V., 1982. The 1981 West Coast Aeromagnetic Survey: summary of information and results. Unpub. Rep. Dep. Mines Tasm., 1982/39.
- Gordon, I., 1988. A re-evaluation of the Great South Comet and nearby workings. EZ Rosebery report Jan 20.
- Gregory, I.S., 1959. First and Final Report on Great South Comet Mine, Dundas, Tasmania. EZ Co. Report 83 (Unpub).
- Leaman, D.E., 1986 a. Interpretation and evaluation report. 1981 West Tasmania Aeromagnetic Survey. Mt Read Volcanics Project Report, Dep. Mines Tasm.
- Leaman, D.E., 1986 b. Gravity interpretation west and north west Tasmania. Mt Read Volcanics Project Report, Dep. Mines Tasm.
- Leaman, D.E., 1988. Granites of W and NW Tasmania. Provisional Interpretation. Part 15, The Pine Hill Granite. Mt Read Volcanics Project Report, Dep. Mines Tasm.
- Richardson, R.G., and Dix, M. J., 1987. West Coast gravity tie stations (Revision 1). Unpub. Rep. Dep. Mines Tasm. 1986/79.
- Thigpen, J.B., 1972. Summary report of Diamond Drilling in EL 7/68, Dundas. Geophoto Resources Consultants. Mines Department Open File Report, 72-896.

TABLE ONE

GRAVITY DATA

The results are presented in two parts.

Part 1: Data prior to reduction. Station number, coordinates, elevation (levelled), corrected gravity difference from reference point and correction (terrain).

Part 2: Reduced data using a density of 2.67 t/cu m. Header provided.

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GRAVITY DATA

EZ SOUTH COMET APPRAISAL 1988

986267.66 9825.0000 1.01390 556 10187

0	1	0	1	1	1	8861			
1	2	371166	5361369	431.25	-17.66	3.61			
2	3	371112	5361408	396.84	-10.96	3.07			
3	4	371078	5361373	407.19	-13.00	3.03			
4	5	371070	5361337	415.18	-14.63	2.96			
5	6	371137	5361364	426.52	-16.80	3.79			
6	7	371195	5361369	436.48	-18.79	3.59			
7	8	371242	5361347	448.17	-21.13	3.29			
8	9	371188	5361345	450.46	-21.43	3.09			
9	10	371155	5361321	459.54	-23.33	3.24			
10	11	371123	5361271	467.34	-24.93	3.46			
11	12	371120	5361294	465.35	-24.07	3.65			
12	13	371160	5361285	456.21	-21.88	3.80			
13	14	371208	5361176	445.08	-19.78	3.85			
14	15	371255	5361166	433.05	-17.73	3.84			
15	16	371207	5361133	422.31	-15.53	4.05			
16	17	371187	5361070	404.55	-12.20	4.39			
17	18	371221	5361095	394.47	-10.79	4.31			
18	19	371238	5361059	391.34	-10.30	4.30			
19	20	371236	5361033	391.24	-10.43	4.24			
20	25	370889	5362478	322.87	0.00	1.90			
21	26	370987	5362474	333.50	-2.76	1.95			
22	27	371083	5362512	339.81	-3.98	2.16			
23	28	371163	5362549	350.02	-5.31	2.43			
24	29	371271	5362548	373.82	-9.91	2.70			
25	30	371388	5362475	401.10	-15.51	2.89			
26	31	371496	5362491	412.96	-17.70	3.46			
27	32	371570	5362513	430.53	-22.16	3.60			
28	33	371652	5362555	460.07	-28.14	3.83			
29	34	370806	5362305	279.66	9.24	2.36			
30	35	370884	5362316	283.11	8.47	2.35			
31	36	370929	5362331	284.99	7.88	2.45			
32	37	370933	5362281	285.39	7.46	2.54			
33	38	370822	5362225	294.45	6.56	2.85			
34	39	370759	5362164	309.97	3.87	2.67			
35	40	370677	5362113	320.86	1.96	2.33			
36	41	370581	5362041	341.91	-0.95	1.72			
37	42	370523	5362057	348.57	-2.50	1.70			
38	43	370613	5361931	368.49	-5.02	1.63			
39	44	370663	5361872	378.65	-6.75	1.64			
40	45	370680	5361735	352.40	-1.88	1.76			
41	46	370692	5361635	354.99	-2.69	2.04			
42	47	370807	5361595	347.13	-8.67	2.13			
43	48	370798	5361548	350.52	-1.27	2.23			
44	49	370894	5361526	338.42	0.43	2.68			
45	50	371057	5361522	339.31	-0.84	2.89			
46	51	370963	5361470	338.40	0.31	3.32			
47	52	370944	5361382	347.10	-1.15	3.19			
48	53	370931	5361298	360.74	-3.69	3.00			
49	54	370974	5361334	368.61	-5.41	3.03			
50	55	371011	5361375	376.74	-5.91	2.95			
51	56	370997	5361343	379.39	-6.50	3.09			

52	57	371019	5361424	368.82	-5.40	3.05
53	58	371076	5361458	378.49	-6.08	3.10
54	59	371054	5361416	384.03	-8.48	3.09
55	60	370512	5362099	346.35	-2.68	1.84
56	61	370495	5362130	346.43	-3.21	1.85
57	62	370453	5362113	356.20	-4.20	1.90
58	63	370810	5362397	296.35	5.03	1.89
59	64	370622	5361794	386.76	-9.29	1.67
60	65	370553	5361736	385.83	-9.66	1.61
61	66	370479	5361711	388.44	-8.56	1.54
62	67	370420	5361721	369.23	-6.54	1.61
63	68	370344	5361671	353.46	-2.88	1.68
64	69	370379	5361578	337.53	1.41	1.62
65	70	370488	5361523	329.53	3.17	1.68
66	71	370473	5361449	317.95	5.37	1.87
67	72	370338	5361749	338.89	-0.38	1.75
68	73	370266	5361798	344.86	-1.59	1.89
69	74	370204	5361851	343.99	-1.26	1.92
70	75	370125	5361801	339.03	-0.09	2.03
71	76	370049	5361770	318.72	4.32	2.03
72	77	370291	5361878	359.83	-4.74	2.04
73	78	370321	5361947	363.46	-5.93	2.05
74	79	370419	5362020	368.25	-7.11	1.88
75	80	370483	5362041	359.41	-4.81	1.85
76	81	370712	5361959	399.51	-11.98	2.39
77	82	370806	5361987	421.93	-17.63	2.82
78	83	370887	5361932	448.11	-20.95	3.41
79	84	370949	5361880	454.65	-24.28	3.26
80	85	371012	5361834	439.97	-20.45	2.89
81	86	371084	5361780	431.80	-18.19	3.12
82	87	371149	5361760	447.22	-22.00	3.98
83	88	370609	5361843	395.85	-11.00	1.85
84	89	370751	5361520	358.39	-1.46	2.16
85	90	371044	5361302	417.22	-14.95	3.13
86	91	371224	5361319	465.11	-24.29	3.76
87	92	371188	5361312	465.53	-24.18	3.53
88	93	371137	5361302	463.68	-24.87	3.37
89	94	371135	5361235	478.09	-27.28	3.99
90	95	371163	5361251	480.20	-27.38	4.09
91	96	371227	5361282	482.18	-27.65	4.28
92	97	371288	5361298	483.73	-28.37	3.96

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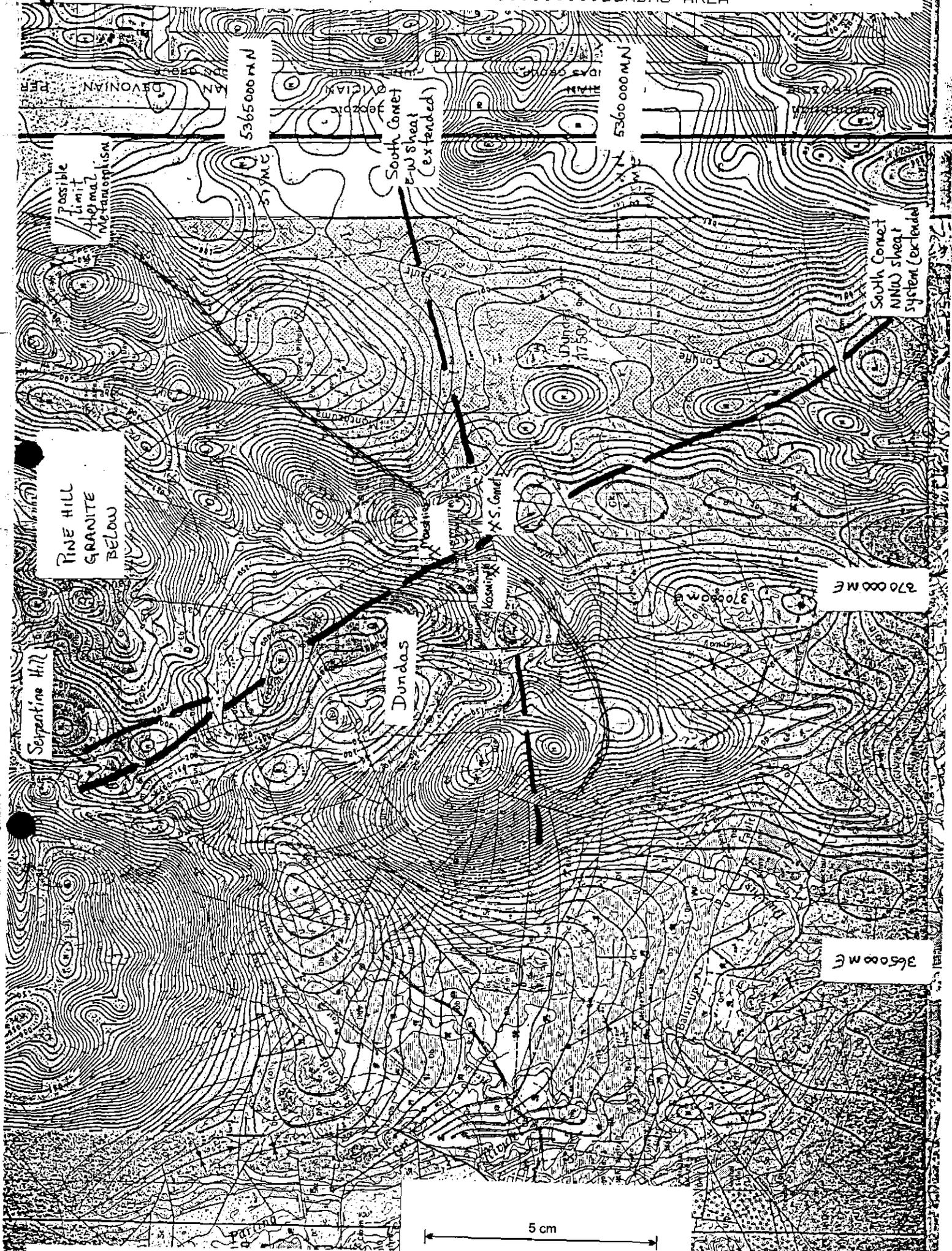
LEAMAN GEOPHYSICS GRAVITY REDUCTION

E2 SOUTH COMET APPRAISAL 1988

BASE VALUE	BASE NUMBER	METER	CAL DATE	SCALE	DENSITY	ELEV DATUM		
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NUMBER	EASTING	NORTHING	HEIGHT	Obs GRAV	THEO GRAV	CORR	BOUG ANOM	
8801.0002	371166.0	5361369.0	431.25	980249.75	980349.16	3.61	-10.97	
8801.0003	371113.0	5361408.0	396.84	980256.55	980349.13	3.07	-11.45	
8801.0004	371072.0	5361373.0	407.19	980254.48	980349.16	3.03	-11.55	
8801.0005	371070.0	5361337.0	415.18	980252.83	980349.19	2.96	-11.73	
8801.0006	371137.0	5361364.0	426.52	980250.63	980349.16	3.79	-10.85	
8801.0007	371195.0	5361369.0	436.48	980248.61	980349.16	3.59	-11.11	
8801.0008	371242.0	5361347.0	448.17	980246.24	980349.18	3.29	-11.50	
8801.0009	371188.0	5361345.0	450.46	980245.93	980349.18	3.09	-11.55	
8801.0010	371155.0	5361321.0	459.54	980244.01	980349.20	3.24	-11.56	
8801.0011	371123.0	5361271.0	467.34	980242.38	980349.24	3.46	-11.47	
8801.0012	371120.0	5361204.0	465.35	980243.26	980349.29	3.65	-10.85	
8801.0013	371160.0	5361205.0	456.21	980245.48	980349.29	3.80	-10.28	
8801.0014	371208.0	5361176.0	445.08	980247.61	980349.32	3.95	-10.32	
8801.0015	371255.0	5361166.0	433.05	980249.69	980349.33	3.84	-10.62	
8801.0016	371207.0	5361133.0	422.31	980251.91	980349.35	4.05	-10.32	
8801.0017	371187.0	5361070.0	404.55	980255.29	980349.40	4.39	-10.15	
8801.0018	371221.0	5361095.0	394.47	980256.72	980349.38	4.31	-10.76	
8801.0019	371238.0	5361059.0	391.34	980257.22	980349.41	4.38	-10.92	
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8801.0031	371486.0	5362491.0	412.96	980249.71	980348.26	3.46	-13.86	
8801.0032	371570.0	5362513.0	433.53	980245.19	980348.24	3.60	-14.18	
8801.0033	371652.0	5362555.0	460.87	980239.13	980348.21	3.83	-14.76	
8801.0034	370886.0	5362305.0	279.66	980277.03	980348.40	2.36	-14.00	
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8801.0036	370929.0	5362331.0	284.99	980275.57	980348.38	2.45	-14.30	
8801.0037	370933.0	5362281.0	285.39	980275.22	980348.42	2.64	-14.42	
8801.0038	370822.0	5362225.0	294.45	980274.31	980348.47	2.95	-13.39	
8801.0039	370759.0	5362164.0	309.97	980271.58	980348.51	2.67	-13.29	
8801.0040	370677.0	5362113.0	320.86	980269.65	980348.55	2.33	-13.46	
8801.0041	370581.0	5362041.0	341.91	980266.70	980348.61	1.72	-12.94	
8801.0042	370523.0	5362057.0	348.57	980265.13	980348.60	1.70	-13.21	
8801.0043	370613.0	5361931.0	368.49	980262.57	980348.70	1.63	-12.02	
8801.0044	370663.0	5361872.0	378.65	980260.02	980348.75	1.64	-11.81	
8801.0045	370680.0	5361735.0	352.40	980265.75	980348.86	1.76	-12.03	
8801.0046	370692.0	5361635.0	354.99	980264.93	980348.94	2.04	-12.14	
8801.0047	370807.0	5361595.0	347.13	980266.98	980348.97	2.13	-11.58	
8801.0048	370798.0	5361548.0	350.52	980266.37	980349.01	2.23	-11.46	
8801.0049	370894.0	5361526.0	338.42	980268.10	980349.03	2.68	-11.69	
8801.0050	371057.0	5361522.0	339.31	980266.01	980349.04	2.89	-12.60	
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8801.0052	370944.0	5361382.0	347.18	980266.49	980349.15	3.19	-11.17	
8801.0053	370931.0	5361298.0	360.74	980263.92	980349.22	3.00	-11.34	

NUMBER	EASTING	NORTHING	HEIGHT	Obs GRAY	THEO GRAY	CORR	BOUG ANOM
8801.0054	370974.0	5361334.0	368.61	980262.17	980349.19	3.02	-11.48
8801.0055	371011.0	5361375.0	376.74	980261.67	980349.15	2.95	-10.43
8801.0056	370997.0	5361343.0	379.39	980261.07	980349.18	3.09	-10.39
8801.0057	371019.0	5361424.0	368.82	980262.12	980349.12	3.05	-11.33
8801.0058	371076.0	5361458.0	370.49	980261.50	980349.09	3.10	-11.62
8801.0059	371054.0	5361416.0	384.03	980259.06	980349.12	3.09	-11.43
8801.0060	370512.0	5362099.0	346.35	980264.24	980348.56	1.84	-13.65
8801.0061	370495.0	5362130.0	346.43	980264.41	980348.54	1.85	-14.14
8801.0062	370453.0	5362113.0	356.20	980263.40	980348.55	1.90	-13.18
8801.0063	370010.0	5362397.0	296.35	980273.77	980348.32	1.89	-14.37
8801.0064	370622.0	5361794.0	366.76	980258.24	980348.81	1.67	-12.82
8801.0065	370553.0	5361736.0	385.83	980257.87	980348.86	1.61	-13.49
8801.0066	370479.0	5361711.0	380.44	980258.98	980348.88	1.54	-13.52
8801.0067	370420.0	5361721.0	369.23	980261.03	980348.87	1.61	-13.60
8801.0068	370344.0	5361671.0	353.46	980264.74	980348.91	1.68	-12.96
8801.0069	370379.0	5361570.0	337.53	980269.09	980348.99	1.62	-11.89
8801.0070	370488.0	5361523.0	329.53	980270.87	980349.03	1.68	-11.65
8801.0071	370473.0	5361449.0	317.95	980273.10	980349.09	1.87	-11.57
8801.0072	370338.0	5361749.0	338.89	980267.36	980348.84	1.75	-13.08
8801.0073	370266.0	5361798.0	344.96	980266.05	980348.80	1.89	-13.03
8801.0074	370204.0	5361851.0	343.99	980266.38	980348.76	1.92	-12.79
8801.0075	370125.0	5361801.0	339.03	980267.57	980348.80	2.03	-12.51
8801.0076	370049.0	5361770.0	318.72	980272.04	980348.82	2.03	-12.06
8801.0077	370291.0	5361870.0	359.83	980262.85	980348.74	2.04	-13.06
8801.0078	370321.0	5361947.0	363.46	980261.65	980348.68	2.05	-13.49
8801.0079	370419.0	5362020.0	368.25	980260.45	980348.62	1.98	-13.86
8801.0080	370483.0	5362041.0	359.41	980262.78	980348.61	1.85	-13.28
8801.0081	370712.0	5361959.0	399.51	980255.51	980348.68	2.39	-12.19
8801.0082	370806.0	5361987.0	421.93	980249.78	980348.66	2.82	-13.06
8801.0083	370887.0	5361932.0	440.11	980246.42	980348.70	3.41	-12.30
8801.0084	370949.0	5361880.0	454.65	980243.04	980348.75	3.26	-13.01
8801.0085	371012.0	5361834.0	439.97	980246.93	980348.78	2.89	-12.43
8801.0086	371064.0	5361780.0	431.80	980249.22	980348.83	3.12	-11.56
8801.0087	371149.0	5361760.0	447.22	980245.35	980348.85	3.98	-11.54
8801.0088	370609.0	5361843.0	395.85	980256.51	980348.77	1.85	-12.55
8801.0089	370751.0	5361520.0	350.39	980266.10	980349.03	2.16	-11.77
8801.0090	371044.0	5361302.0	417.22	980252.50	980349.21	3.13	-11.51
8801.0091	371224.0	5361319.0	465.11	980243.03	980349.20	3.76	-10.92
8801.0092	371188.0	5361312.0	465.53	980243.14	980349.21	3.53	-10.96
8801.0093	371137.0	5361302.0	463.68	980243.26	980349.21	3.37	-11.38
8801.0094	371135.0	5361235.0	478.08	980240.00	980349.27	3.99	-11.24
8801.0095	371163.0	5361251.0	480.20	980239.90	980349.26	4.09	-10.81
8801.0096	371227.0	5361282.0	482.10	980239.63	980349.23	4.28	-10.50
8801.0097	371268.0	5361298.0	483.73	980238.90	980349.22	3.96	-11.22

AEROMAGNETIC DATA (Corbett et al, 1992) and GEOLOGICAL BASEMAP (Blissett and Gulline, 1962).....DUNDAS AREA



18031

possible limit of normal metamorphism

PINE HILL GRANITE BELOW

Serpentine Hill

Dundas

South Comet NW Shear (extended)

South Comet NW Shear system (extended)

5365000 M

5360000 M

2700000 E

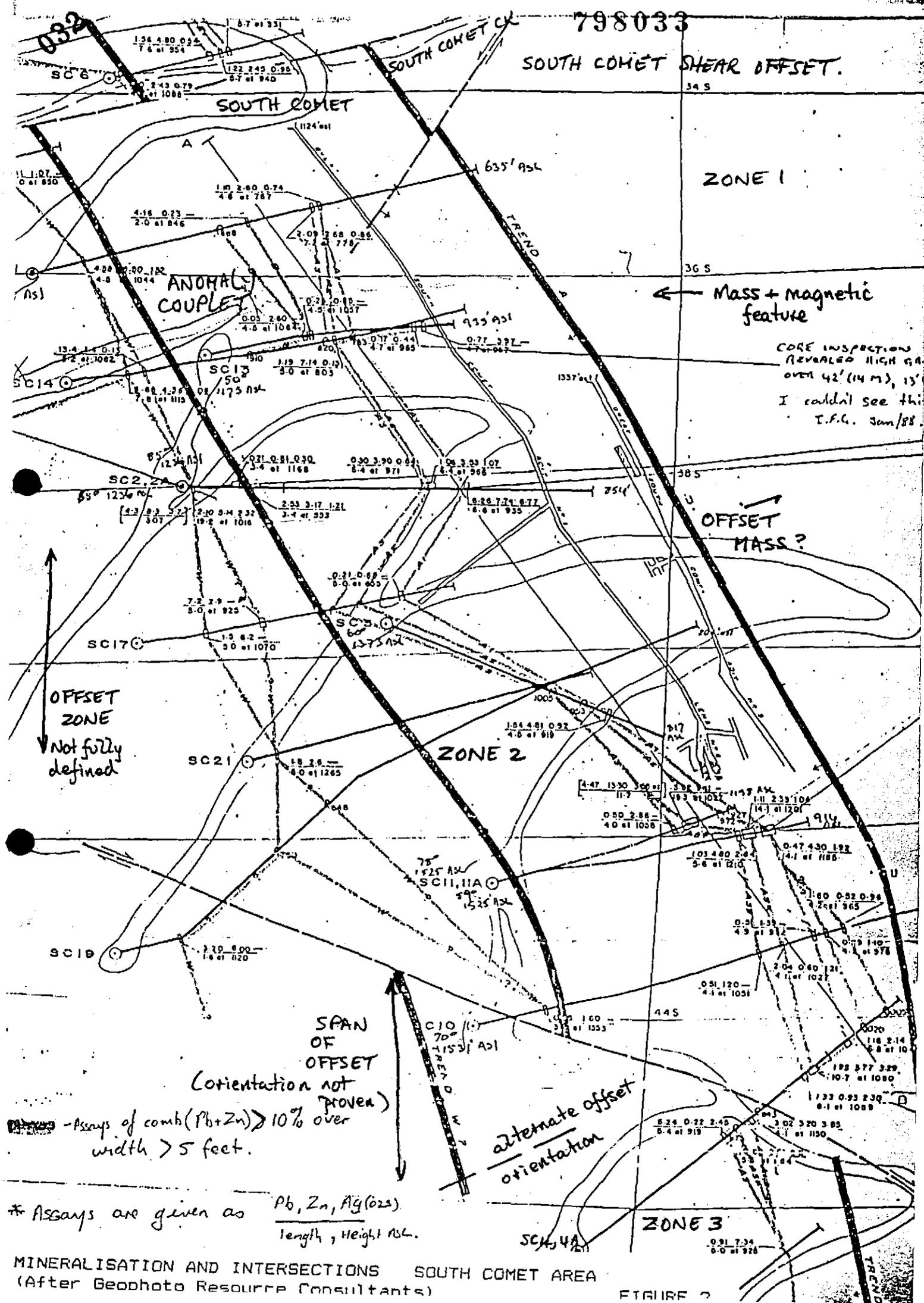
2700000 E

5 cm

Scale 1:63 360

798039

FIGURE 1



798033

SOUTH COMET SHEAR OFFSET.

ZONE 1

OFFSET MASS?

ZONE 2

ZONE 3

ANOMALY COUPLE

← Mass + magnetic feature

CORE INSPECTION REVEALED HIGH GRA. OVER 42' (14 m), 15' I couldn't see the T.F.G. Jan/88

OFFSET ZONE
Not fully defined

SPAN OF OFFSET

(orientation not proven)

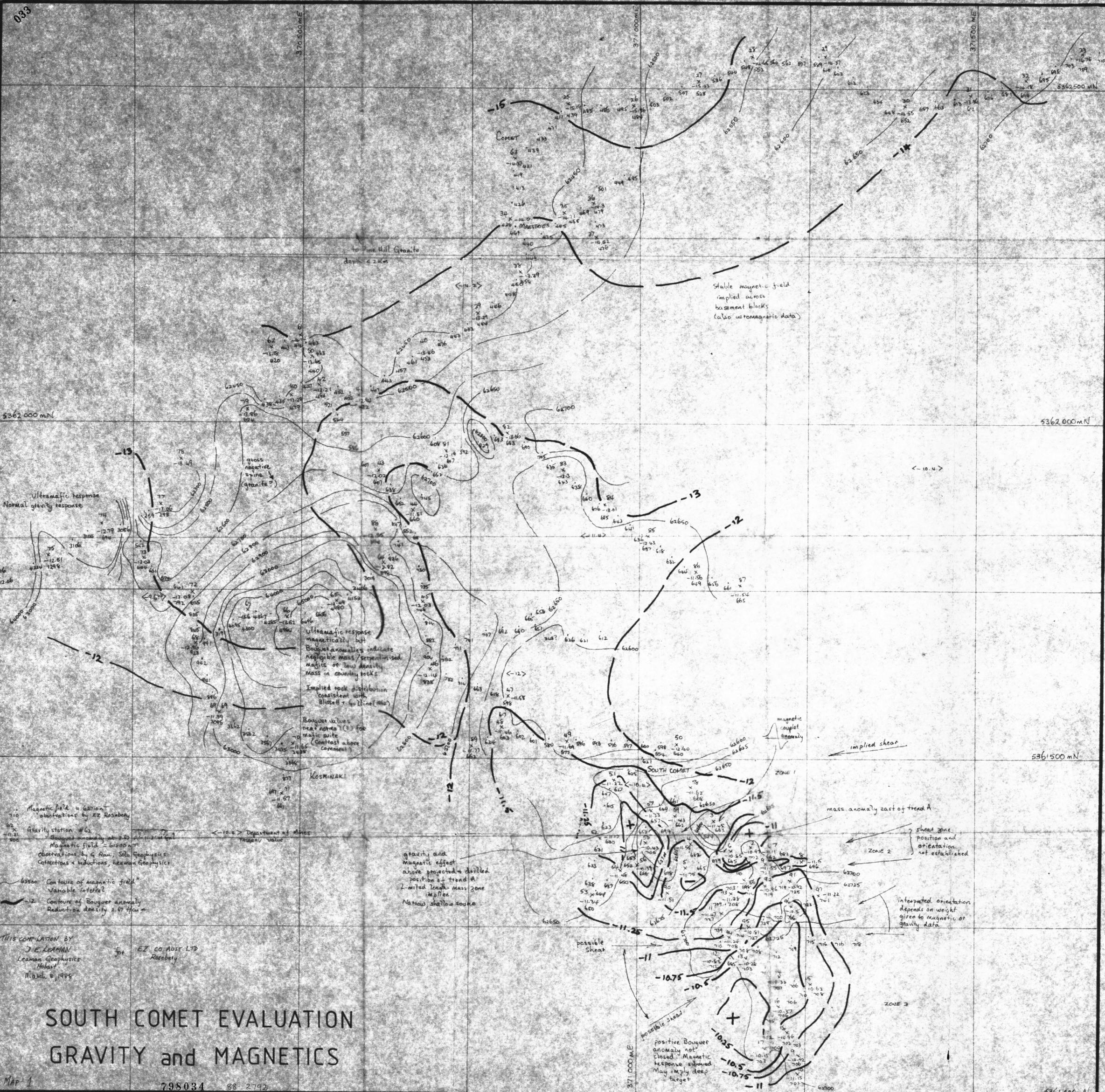
Assays of comb (Pb+Zn) > 10% over width > 5 feet.

alternate offset orientation

* Assays are given as $\frac{Pb, Zn, Ag(ozs)}{\text{length, Height ASL}}$

MINERALISATION AND INTERSECTIONS SOUTH COMET AREA (After Geophoto Resource Consultants)

FIGURE 2



Normal gravity response
Ultramafic response

gross negative spine (granite?)

Ultramafic response magnetically but Bouguer anomalies indicate negligible mass / serpentinised rocks or low density. Mass in country rocks.
Implied rock distribution consistent with Blissett + Co (line 14a)
Bouguer values near normal (?) for mafic suite (Comment above comment)

Stable magnetic field implied across basement blocks (also geomagnetic data)

Magnetic field = 63710 nT observations by RZ Rosebery
Gravity station #62
Bouguer anomaly at 2.52 g/cm³ density
Magnetic field = 63500 nT
Observations by G. Rau, Solo Geophysics
Collection & reductions, Leaman Geophysics

63500 Contours of magnetic field Variable interval
-12 Contours of Bouguer anomaly Reduction density 2.67 g/cm³

THIS COMPILATION BY
J. E. LEAMAN
Leaman Geophysics
Hobart
March 8 1995
RZ CO ABST LTD
Rosebery

gravity and magnetic effect above projected & drilled positive at trend A Limited leak mass zone implied. Narrow shallow source

implied shear

mass anomaly east of trend A

shear zone position and orientation not established

interpreted orientation depends on weight given to magnetic or gravity data

possible shear

possible shear

possible shear

possible shear

possible shear

SOUTH COMET EVALUATION GRAVITY and MAGNETICS