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MICROFILMED

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SUMMARY REPORT

ON THE

COMET MINE EL7/68

GEOPHOTO MINERALS REPORT 1970/71

RODNEY G. PATERSON

OCTOBER 1970

GEOLOGY

The Comet line is marked by a discontinuous outcrop of hard black gossan up to 20 feet wide surrounded by a friable chocolate clay gossan halo giving a combined width of anything up to 200 feet. It extends north from Comet creek to Maestries Siding, a distance of approximately 2,000 feet. The gossan appears to be the result of oxidation of a siderite-ankerite lode channel where it crosses a massive bedded dolomite unit within the Precambrian Onah Quartzite and Slate. Calcareous siltstones and shales surround a massive coarsely crystalline marble in which bedding is mostly obliterated. The central dolomite or marble unit appears to have a true width of at least 200 feet. Judging from the unoxidised drill sections it is within this unit that the siderite-ankerite lode channels worked occurred. Oxidation extended down to the 335' level and ore extracted was typically a black Fe-Mn gossan containing veins and slugs of galena and cerrussite. Ore below this level was primary consisting of galena pyrite and siderite in dolomite, however widths and grade were reduced suggesting secondary enrichment in the upper levels.

It seems most likely that the lode channel follows a 330° True trending shear zone which almost parallels the strike of the dolomite unit. The dolomite may have presented itself as a line of least resistance to imposing crustal forces.

The lode channel appears to have been displaced west to the north of the main workings by an ENE crossfault dipping to the north. This can best be visualised by looking at plans of the lower two levels. This cross fault may also be mineralised (i.e. refer to Finucane's "crosslode poor and broken" on 335' level) but to a lesser degree, and possibly by remobilising of previously existing lode. There is no apparent field evidence to support this apart from the apparent displacement in surface outcrop between Maestries open cut and the more northern open cuts. A very shallow dipping fault would be necessary if this was to be introduced as evidence.

It is apparent from the main surface gossan that the width of the lode channel is very variable or else that it has been displaced at numerous intervals by small crossfaults. There is a very definite mushrooming effect due to the migration of Fe away from the siderite lodes but it is considered that the hard black gossan has formed in situ.

Various small isolated gossan outcrops are probably smaller subsidiary lodes formed in bifurcating or parallel fissures or fracture zones.

A less extensive gossan similar to the main Comet gossan line occurs 7 -800' NE and parallel to it.

003

The Comet shear appears to bring the PC Oonah quartzite and slate up against the Concert schist to the east on top of the Comet ridge however, the rock types are very similar and this was not verified in the drilling. More definitely green phyllites and quartz mica schists form the eastern wall of the more easterly gossan line about 800' further along the ridge. This eastern gossan where costeamed appears to be contained in contorted black slate.

The Comet line or shear appears to extend northwest from Maestries Siding where occasional ironstone outcrops are visible. These however do not appear to be in situ and are unmineralised for the first 2,000'. Outcrops of a dolomitic breccia or breccia conglomerate with associated calcareous shales and siltstones were observed in the Dundas Rivulet NNW of Maestries Siding and appear to be a continuation of the dolomites intersected beneath the main Comet workings. Due to the presence of some secondary CO_3 veining they tend to resemble gossan outcrops when weathered.

About 2,000 feet NNW of the Maestries Siding a mineralized gossan zone commences which is up to 300 feet wide, 1,000 feet long. This may represent a lode horizon similar to the Comet and related to the same structural feature. It has been dealt with elsewhere and described as the North Comet prospect. Geochemically it is dissimilar to the Comet where the gossan is strong in Pb and Ag. The North Comet gossan is stronger in Zn than Pb and is much lower in Ag. Values of up to 1% Ni with associated Cu have been detected also.

GEOPHYSICS

A Self Potential survey has been carried out over the Comet line and numerous very large anomalies occur. It is considered however, that anomalies to be expected from a Pb sulphide body are too small (and tend to be even further reduced by a non conductive oxidation coat of cerrussite), to show above the extraordinary anomalies related to large fluctuations in ground water levels, topography and graphitic and pyritic slates. The results are difficult to interpret and survey errors are at times almost uncontrollable.

Some I.P. work has been done in the area mainly to the north of Maestries Siding by South Broken Hill. Some good anomalies were obtained and one diamond drill hole tested what was considered the best and most accessible of these. The anomaly was attributed to pyrite and graphite. This seems likely. Numerous other anomalies were obtained over typically graphitic and pyritic zones. A lot of these are marked by self potential minima.

Some of these I.P. anomalies warrant follow up by geochemistry and possible drilling.

Ground conditions make accurate I.P. work difficult in this area and some of the South Broken Hill results appear unreliable.

005

A number of I.P. lines were run by S. Broken Hill over the open cuts north of the main workings but due to the oxidation depth and only partially complete copies of the results no great faith can be placed on this work.

A short V.L.F. traverse was made over the gossan about 200' N. of Maestries Mill by the B.M.R. No effect was observed.

DRILLING

1952 Three holes were apparently drilled by North Broken Hill beneath the Comet workings. Only one of these holes reached target depth due to caving difficulties. The results were not located.

1952 Three short holes were drilled by the Mines Department beneath the Comet gossan in the vicinity of Maestries Siding. Values on assayed recovered core agreed closely with Finucane's surface sampling results but very little core was recovered. Gossan samples assayed contained less than 1 oz. of Ag and no Pb. Difficulty was experienced in coring the cavernous gossan formation. Similar problems were experienced by our own company at the West Comet Prospect.

1969-1970 Two holes Comet No. 1 and Comet No. 2 were drilled by

006

Geophoto Resources Consultants beneath the Comet workings at or about the locations of Finucane's No. 2 and No. 3 proposed holes respectively. Comet No. 1 intersected a 16 feet wide siderite ankerite lode horizon immediately down dip from the Comet "Main shoot" (as described by Finucane). The intersection was made approximately 50' below No. 4 level and contained very minor galena with scattered pyrite. Elsewhere throughout the hole occasional disseminated Cu mineralisation was associated with quartz-calcite veining but was too weak to be of any significance. Assays and a geologic section are illustrated in Plate No. 1. 246.

Comet No. 2 intersected a similar 36' wide siderite ankerite lode horizon about 100' down dip from 3 level and below the "south shoot" (as described by Finucane) however critical intervals of core were lost i.e. 357 - 362 and 366 - 371 the second of which lead up to the best assayed zone. A 20' wide cavity at about 230' in the hole was apparently a natural one and was not bottomed. No workings are known in that vicinity although it was intersected at about No. 3 level.

HISTORICAL

Development

For a description of the development carried out on the Comet

007

Mine, Finucane's report entitled The Comet-Maestries Mine is referred to. He considered that it had been prospected along sound lines. His plan showing surface workings, geology and sampling results is appended. Comet No. 1 and Comet No. 2 horizontal traces have been added. Plans of the mine workings and longitudinal sloping pattern are also appended although these are most likely not complete.

Production

Total production is summarised by Reid and confirmed by Finucane as being approximately 60 -70,000 tons of crude ore exclusive of gossan mined as flux. An approximate estimate of the average Pb content is given as 12%. Ore down to an average lower limit of 10% - 12% Pb was mined and treated.

In addition the gossan mined as flux amounted to 90,000 tons containing 5% Pb and 2.5 ozs. Ag per ton. The greater part of this was mined by tributors from 1907 - 1913.

It would seem probable that an oz. of Ag could be expected for every two units of Pb on the average.

Conclusions Regarding Possible Ore

It is apparent from the holes drilled that the whole sideritic lode horizon is not mineralised below the depth of oxidation. Secondary enrichment of the whole of the decaying sideritic lode horizon probably occurred above the 335' level. It is possible however that rich Ag - Pb lodes occur at intervals within this sideritic channel below the depth of oxidation. It seems that the cut off of mineralisation is quite sharp within this sideritic channel and that ore occurs as veins rather than disseminations.

It should be noted that widths of shoots mined were on the average 8 - 9' wide (Maximum 16' and minimum 3'). Taking a minimum average grade of 4 - 6% Pb it is possible that the whole of the sideritic channel (a 16 - 35' width is indicated in drilling to date) could be mined providing at least half the lode horizon averaged 12% or more Pb. This has not been verified in drilling up to date, and results have been disappointing.

Summary Conclusions and Recommendations

Due to the inconclusiveness of the Comet No. 2 intersection it is recommended that another hole be drilled 200 - 300' south of this one to intersect below the south shoot at about the 500' level. i.e. It is stated that the south shoot pitches south below 3 level, at about this point.

009

Considering the values obtained in Finucane's gossan sampling program over the northern open cuts and in view of the lode being virtually untested at depth at this point it is recommended that at least one hole, to be sited approximately 400' N. of Comet No. 1, be drilled to intersect below these cuts at about the 500' level.

A hole could also be drilled to test the sideritic lode horizon at depth for possible recurrence of significant lode shoots, ie. the 1,000 foot level should be considered as a possible depth for its intersection. The hole could be drilled vertically from the vicinity of Finucane's No. 1 proposed bore.

It is proposed that the mineralised ankerite sections of the lode channel are southerly pitching lenticular or groups of lenticular bodies and the increasing barrenness of the gossan as the channel proceeds north is sited as evidence of this. Mineralised sections might be expected to recur at intervals along the shear i.e. the North Comet gossan may represent one of these. The southern extension of the shear is uncertain. Some detailed geophysics should be attempted to gain some idea of a possible southern extension. It does not seem likely that the Kosminski Hill body is related to the Comet due to the differences in Precambrian lithology in the most northerly Kosminski drill hole KH2 and Comet No. 2. One would expect to find the massive dolomite unit in the former.

The possibility of treating the large low grade oxidised portions of the Comet lode (and others similar to it within the area) should be considered even should it eventuate that nothing of economic significance lies below the level of oxidation. These would have to be considered in conjunction with a much richer deposit and a centrally located treatment plant as the tonnages are too small to be significant alone. The oxidised portions of the lodes could be open cut quite cheaply.

Plans

- 1 Assays and Geologic Section Comet No. 1 1/246
- 2 Assays and Geologic Section Comet No. 2 1/244
- 3 Summary section Mines Dept. Comet Mine Diamond Drill Holes 1, 2 and 3. 2/22-50
- 4 Surface Plan and Sampling Results Comet-Maestries Mine, Finucane x24-4A
- 5 Mine Plan and drill pattern Comet-Maestries Mine, Finucane 1/250
- 6 North Comet Geologic Map Geophoto) 1/213
- 7 Comet-Kosminsky Geologic Map Geophoto) 1/203
- 8 S.B.H. I.P. Results 1/214
- 9 Self Potential Contours. ✓

Also

1/249 + 1/248

References

The Comet-Maestries Mine , J. Finucane, 1947.

011

959012

ASSAYS : D.D.H. CORE : COMET NO. 2.

013

GEOCHEMICAL LABORATORY REPORT 959013

FIELD SHEET No. 000294

PROJECT No. EL7/68

COMET NO. 2

COMET NO. 2.

LAB. SHEET No. 253/2.

SAMPLE TYPE: DDH Core

DATE: 28th April, 1970.

SAMPLE No.	LAB. No.	Cu ppm		Pb %		Zn %		Ag ppm	
			Av.		Av.		Av.		Av.
366'-372'	70-D-683	440	1.93		0.10		48		
		445	1.93	1.93	0.10	0.10	47	48	
372'-374'	70-D-684	20	0.03		0.13		8		
		20	0.03	0.03	0.13	0.13	7	8	
374'-376'	70-D-685	20	0.75		0.06		18		
		20	0.75	0.75	0.06	0.06	20	19	
376'-378'	70-D-686	130	0.58		0.06		27		
		130	0.58	0.58	0.06	0.06	25	26	
378'-380'	70-D-687	BLD	0.02		0.02		7		
		BLD	0.02	0.02	0.02	0.02	7	7	
380'-382'	70-D-688	BLD	0.01		0.03		6		
		BLD	0.01	0.01	0.03	0.03	5	6	
382'-386'	70-D-689	BLD	0.02		0.05		BLD		
		BLD	0.02	0.02	0.05	0.05	BLD	BLD	
386'-388'3"	70-D-690	10	0.02		0.04		BLD		
		10	0.02	0.02	0.04	0.04	BLD	BLD	
388'3"-391'	70-D-691	BLD	0.02		0.02		2		
		BLD	0.02	0.02	0.02	0.02	2	2	

GEOCHEMICAL LABORATORY REPORT 959014

COMET NO. 2.

FIELD SHEET No. 000294 PROJECT No. EL7/68

COMET NO. 2.

LAB. SHEET No.: 253/5. SAMPLE TYPE: DDH Core DATE: 28th April, 1970.

Cd ppm	Bi ppm	Sb ppm	Mn %
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SAMPLE No.	LAB. No.		AV.		AV.		AV.		AV.
366'-372'	70-D-683	10	10	110	110	790	790	7.38	7.38
		10		110		790		7.38	
372'-374'	70-D-684	10	10	100	105	500	500	7.38	7.38
		10		110		500		7.38	
374'-376'	70-D-685	BLD	BLD	100	100	535	535	6.77	6.77
		BLD		100		535		6.77	
376'-378'	70-D-686	10	10	110	110	645	645	8.00	8.00
		10		110		645		8.00	
378'-380'	70-D-687	BLD	BLD	100	100	500	500	8.20	8.20
		BLD		100		500		8.20	
380'-382'	70-D-688	BLD	BLD	110	110	535	535	7.78	7.78
		BLD		110		535		7.78	
382'-386'	70-D-689	BLD	BLD	85	90	550	545	7.78	7.78
		BLD		90		535		7.78	
386'-388' 3"	70-D-690	BLD	BLD	90	90	575	575	8.62	8.62
		BLD		90		575		8.62	
388' 3"-391'	70-D-691	BLD	BLD	90	90	500	500	6.57	6.57
		BLD		90		500		6.57	

S1

GEOCHEMICAL LABORATORY REPORT COMET NO. 2

014

FIELD SHEET No. 000294 PROJECT No. EL7/68 COMET NO. 2. **959015**

LAB. SHEET No. 253/7 SAMPLE TYPE: DDH Core DATE: 28th April, 1970

SAMPLE No.	LAB. No.	Cd ppm		Bi ppm		Sb ppm		Mn %	
			Av.		Av.		Av.		Av.
<u>C 2</u>									
382 ¹	NO LAB NO.	-	-	-	-	-	-	5.77	5.77
		-	-	-	-	-	-	5.77	
366 ¹ -372 ¹	NO LAB NO.	-	-	-	-	-	-	7.60	
		-	-	-	-	-	-	7.60	7.60

METHODS:



This laboratory is registered by the National Association of Testing Authorities, Australia. The tests reported herein have been performed in accordance with its terms of registration.

Chief Chemist

Ray W. Zerkow

GEOCHEMICAL LABORATORY REPORT 959016

015

FIELD SHEET No.: 000294 PROJECT No.: EL7/68 COMET NO. 2.

LAB. SHEET No.: 253/8. SAMPLE TYPE: DDH Core DATE: 28th April, 1970.

SAMPLE No.	LAB. No.	Ca %		Mg %		Fe %		CO ₃ %	
			Av.		Av.		Av.		Av.
<u>G 2</u>									
382'	NO LAB NO.	0.18		3.27		29.00		32.20	
		0.18	0.18	3.27	3.27	29.00	29.00	35.80	34.00
		0.18		3.27		29.00		35.80	
366'-372'	NO LAB NO.	0.33		4.60		23.35		32.50	
		0.33	0.33	4.63	4.63	23.35	23.35	34.20	34.20
		0.33		4.65		23.35		35.90	

METHODS:

Ca, Mg, by G.R.C. No. 19.

Fe by G.R.C. No. 10B.

CO₃ by G.R.C. No. 53.



This laboratory is registered by the National Association of Testing Authorities, Australia. The tests reported herein have been performed in accordance with its terms of registration.

Chief Chemist

Ray W. Zerkow

ASSAYS : D.D.H. CORE : COMET NO. 1.

959018 GEOCHEMICAL LABORATORY REPORT COMET NO. 1

FIELD SHEET No. 001511 PROJECT No. EL. 7/68 DUNDAS, COMET - KOS/S. COMET

LAB. SHEET No. 469/1 SAMPLE TYPE. D.D.H. CORE DATE. 4th November, 1970.

COMET NO. 1.

SAMPLE No.	LAB. No.	Cu ppm	Ave.	Ni ppm	Ave.	Co ppm	Ave.	Pb ppm	Ave.
665' - 667'	70-K-1679	640	640	35	35	35	35	100	100
667' - 669'	70-K-1680	480	480	40	40	35	35	125	125
669' - 671'	70-K-1681	165	165	40	40	30	30	155	155
671' - 671'6"	70-K-1682	140	140	35	35	30	30	85	85
569' - 570'	70-K-1683	1300	1300	85	85	45	45	55	55
550' - 551'	70-K-1684	1050	1050	45	45	35	35	205	205
551' - 553'	70-K-1685	1100	1100	40	40	35	35	200	200
553' - 555'	70-K-1686	970	970	50	50	40	40	175	175
520' - 522'	70-K-1687	50	50	35	35	30	30	80	80
522' - 524'	70-K-1688	45	45	35	35	25	25	95	95
524' - 526'	70-K-1689	45	45	55	55	40	40	95	95
526' - 528'	70-K-1690	50	50	65	65	40	40	105	105
486'6"-488'	70-K-1691	3100	3100	30	30	20	20	70	70
441'6"-443'6"	70-K-1692	35	35	40	40	40	40	3950	3950
398' - 401'6"	70-K-1693	20	20	50	50	40	40	275	275
401'6"-403'	70-K-1694	20	20	50	50	60	60	2250	2250
403' - 406'	70-K-1695	840	830	55	55	60	60	5.70%	5.71%
		820		55		60		5.72%	
406' - 407'	70-K-1696	15	15	45	45	40	40	380	380
414'6"-417'	70-K-1697	20	20	45	45	45	45	1400	1400

959019 GEOCHEMICAL LABORATORY REPORT COMET NO.1

018

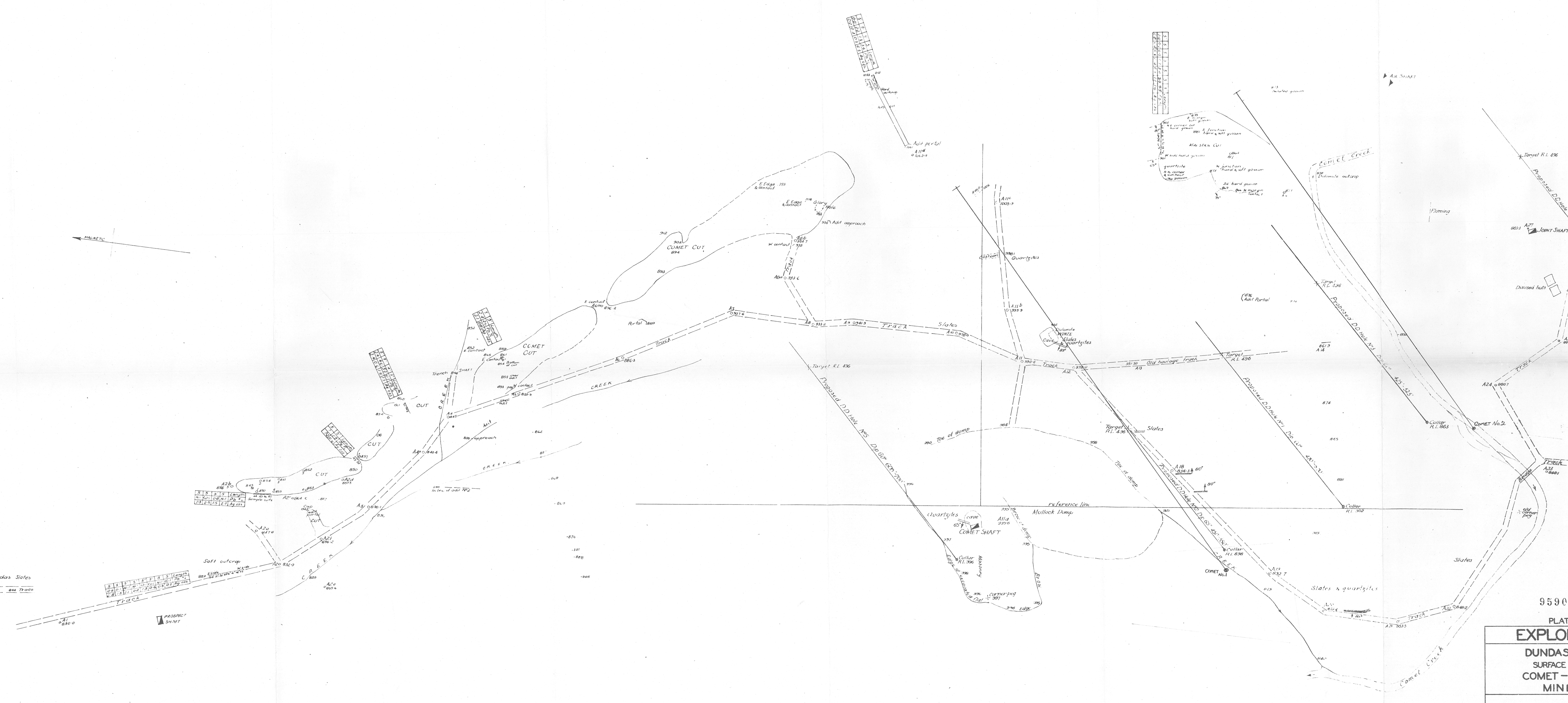
FIELD SHEET No. 001511 PROJECT No. EL.7/68 - DUNDAS COMET

LAB. SHEET No. 469/3 SAMPLE TYPE: D.D.H. CORE DATE: 4th November, 1970/
COMET NO. 1.

SAMPLE No.	LAB. No.	Zn ppm	Ave.	Ag ppm	Ave.	Cd ppm	Ave.	Bi ppm	Ave.
665' - 667'	70-K-1679	120		3		BLD		80	
667' - 669'	70-K-1680	95		3		BLD		85	
669' - 671'	70-K-1681	45		2		BLD		75	
671' - 671'6"	70-K-1682	40		2		BLD		70	
569' - 570'	70-K-1683	105		8		BLD		20	
550' - 551'	70-K-1684	295		6		10		100	
551' - 553'	70-K-1685	1450		10		15		105	
553' - 555'	70-K-1686	3810		5		20		110	
520' - 522'	70-K-1687	35		1		BLD		65	
522' - 524'	70-K-1688	30		2		BLD		60	
524' - 526'	70-K-1689	35		2		BLD		55	
526' - 528'	70-K-1690	40		2		BLD		70	
486'6"-488'	70-K-1691	90		3		BLD		35	
441'6"-443'6"	70-K-1692	190		14		BLD		105	
398' - 401'6"	70-K-1693	50		2		BLD		100	
401'6"-403'	70-K-1694	130	130	7	7	10	10	110	110
403' - 406'	70-K-1695	8400	8400	152	155	40	40	105	105
		8400		158					
406' - 407'	70-K-1696	185	185	4	4	10	10	110	110
414'6"-417'	70-K-1697	350	350	6	6	10	10	105	105

959020
019GEOCHEMICAL LABORATORY REPORT COMET NO. 1.FIELD SHEET No. QQ1511 PROJECT No. EL. 7/68 - DUNDAS/COMETLAB. SHEET No. 469/5 SAMPLE TYPE D.D.H. CORE DATE 4th November, 1970.
COMET NO. 1.

SAMPLE No.	LAB. No.	Sb ppm	Ave						
665' - 667'	70-K-1679	BLD	BLD						
667' - 669'	70-K-1680	BLD	BLD						
669' - 671'	70-K-1681	BLD	BLD						
671' - 671' 6"	70-K-1682	BLD	BLD						
569' - 570'	70-K-1683	BLD	BLD						
550' - 551'	70-K-1684	BLD	BLD						
551' - 553'	70-K-1685	BLD	BLD						
553' - 555'	70-K-1686	BLD	BLD						
520' - 522'	70-K-1687	BLD	BLD						
522' - 524'	70-K-1688	BLD	BLD						
524' - 526'	70-K-1689	BLD	BLD						
526' - 528'	70-K-1690	BLD	BLD						
486' 6" - 488'	70-K-1691	BLD	BLD						
441' 6" - 443' 6"	70-K-1692	BLD	BLD						
398' - 401' 6"	70-K-1692	BLD	BLD						
401' 6" - 403"	70-K-1694	BLD	BLD						
403' - 406'	70-K-1695	BLD	BLD						
406' - 407'	70-K-1696	BLD	BLD						
414' 6" - 417'	70-K-1697	BLD	BLD						



959021 3602
70-680

PLATE II

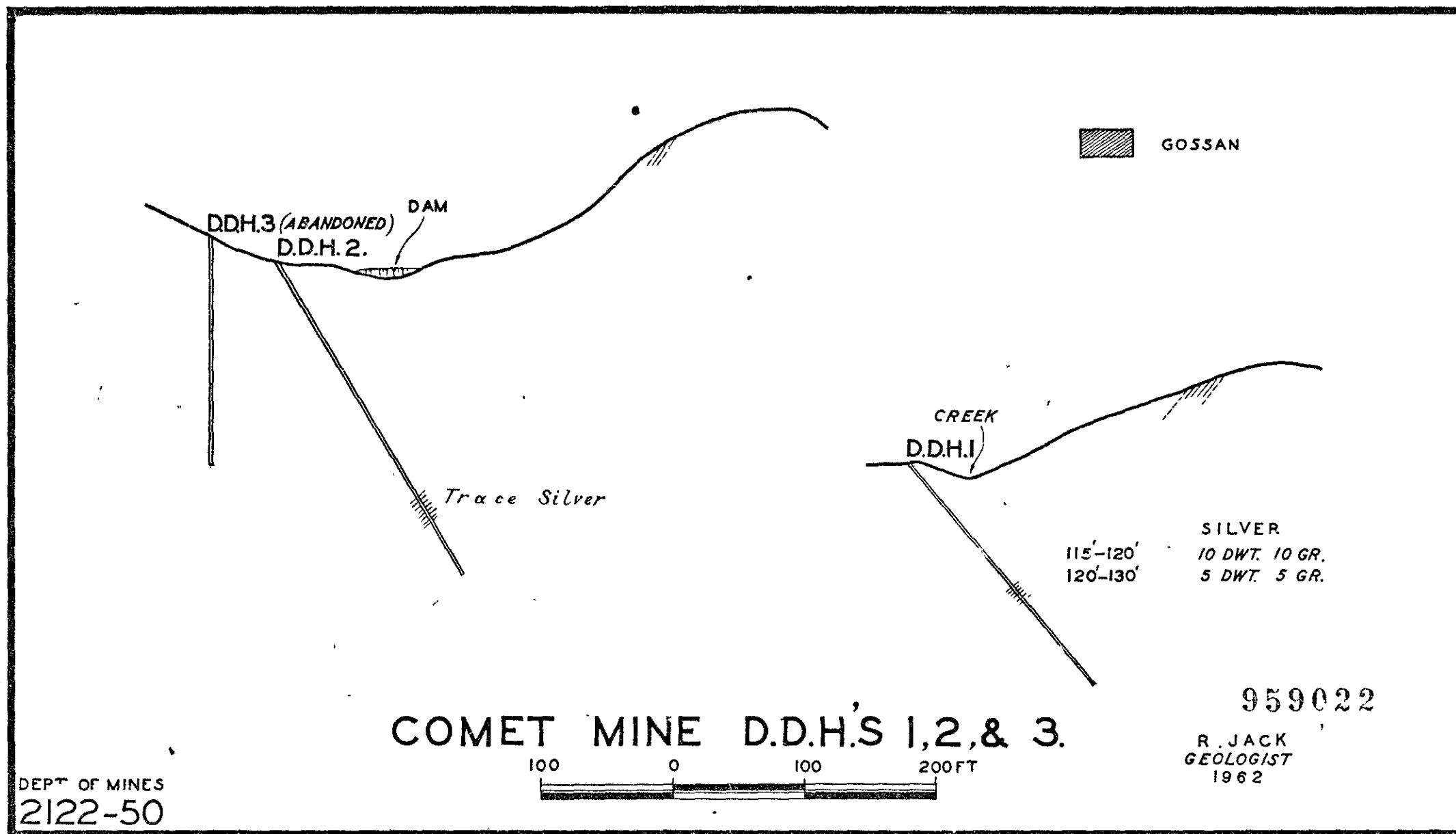
EXPLORATION

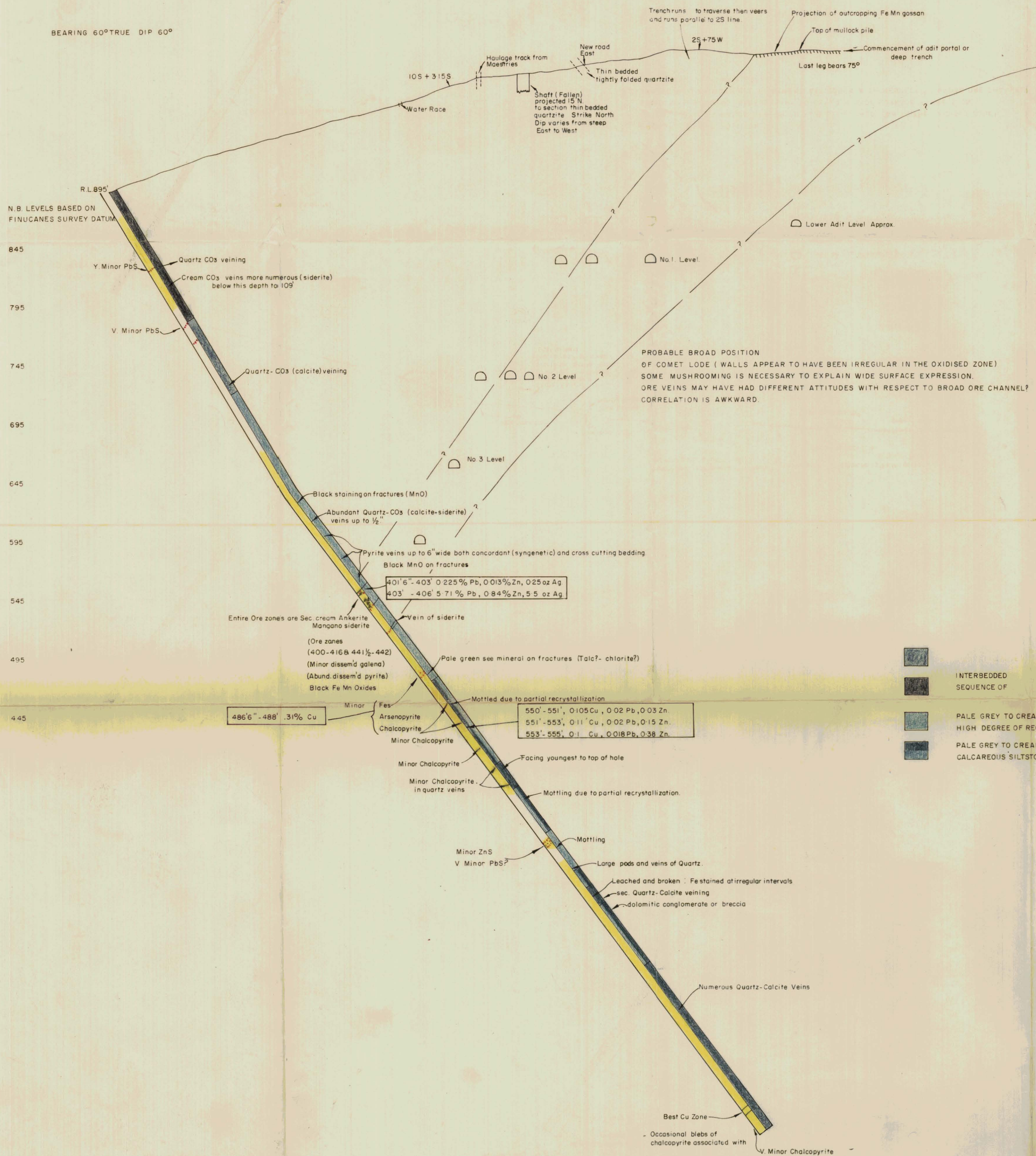
DUNDAS AREA
SURFACE PLAN
COMET-MAESTRIE
MINE

SCALE: 1 IN = 50 FT

X24-4A

5 cm





959024

5 cm

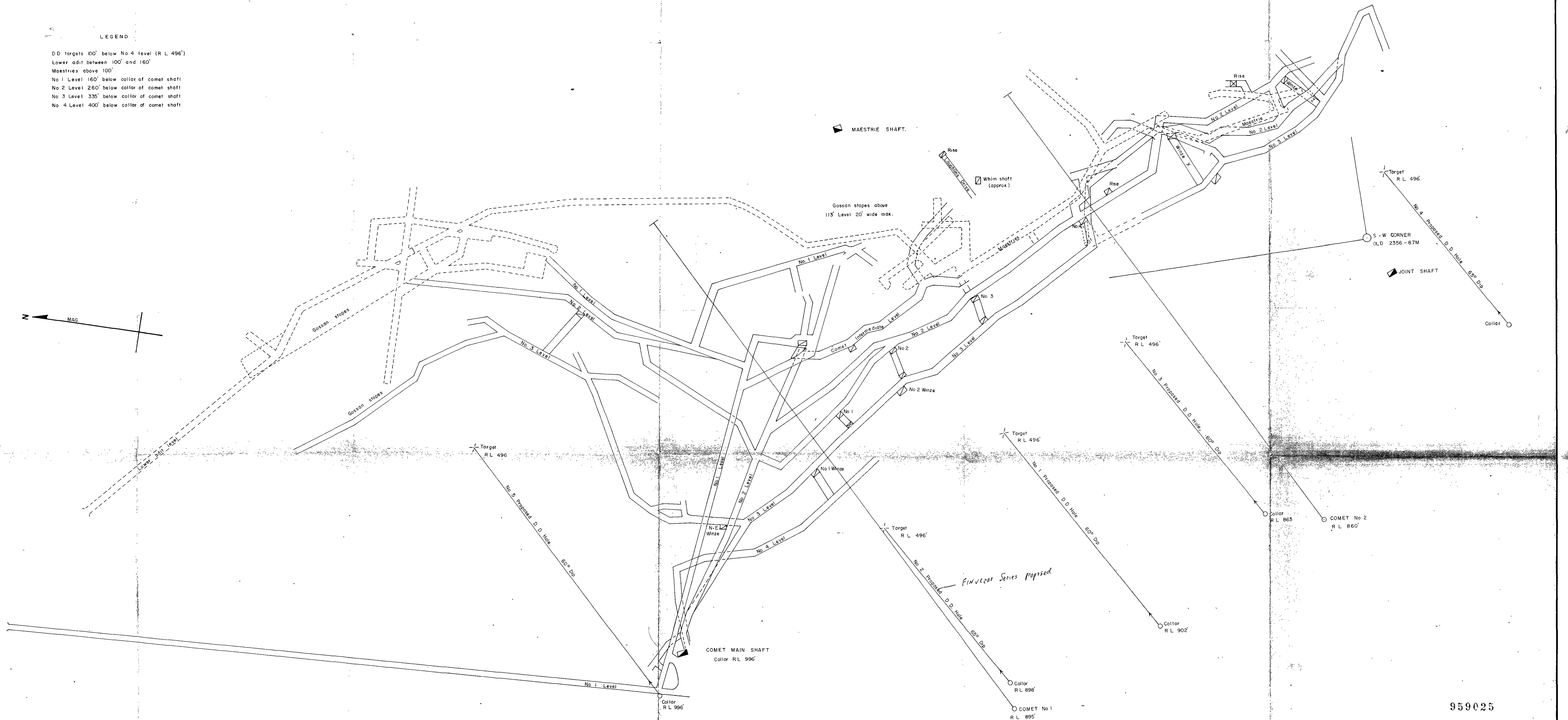
3599

70-680

TEXAS INSTRUMENTS INCORPORATED SCIENCE SERVICES DIVISION		BRISBANE, AUSTRALIA	
GEOPHOTO RESOURCES CONSULTANTS		TEXINS DEVELOPMENT PTY. LTD.	
DRAWN		E.L.7/68 DUNDAS DISTRICT, TASMANIA	
TRACED B PACEY NOV. '70		TOPOGRAPHIC PROFILE	
CHECKED		AND GEOLOGIC SECTION	
GEOLOGIST		OF COMET	
APPROVED		NO.1	
SCALE 1" = 50'		PROJECT	
REVISIONS		DRAWING NO. 1/246	

LEGEND

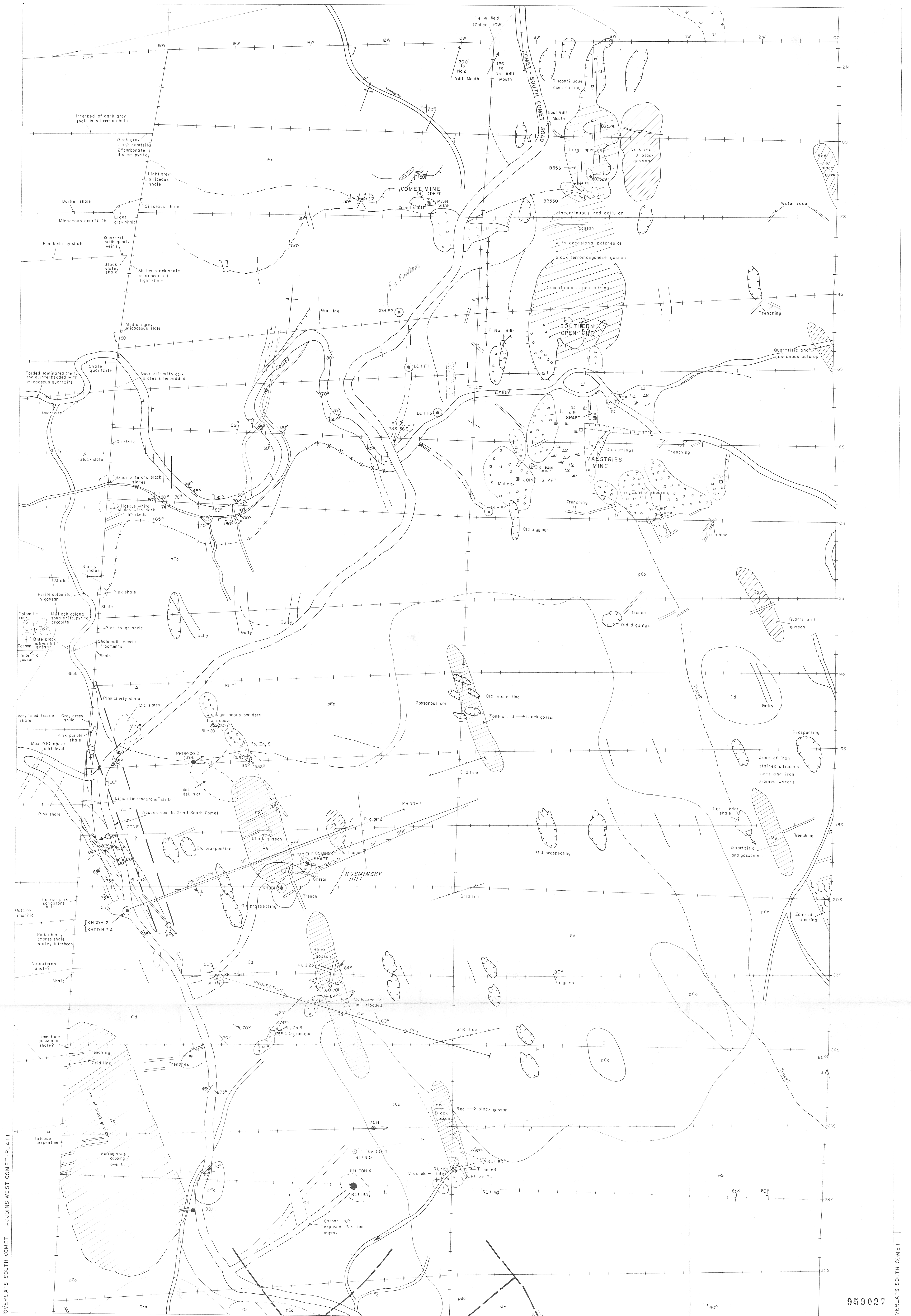
D.D targets 100' below No 4 level (R.L. 496')
 Lower adit between 100' and 160'
 Maestries above 100'
 No 1 Level 160' below collar of comet shaft
 No 2 Level 260' below collar of comet shaft
 No 3 Level 335' below collar of comet shaft
 No 4 Level 400' below collar of comet shaft



959025

3603
70-680

TEXAS INSTRUMENTS INCORPORATED SCIENCE SERVICES DIVISION GEOPHOTO RESOURCES CONSULTANTS BRISBANE AUSTRALIA			
DRAWN		TEXINS DEVELOPMENT PTY LTD	
TRACED	M McGuire 4/12/70		
CHECKED		E.L. 7/68 DUNDAS DISTRICT TAS.	
GEOLOGIST			
APPROVED		COMET-MAESTRIE MINE	
SCALE 1 inch = 40 feet		DRILLING PATTERN	
REVISIONS		PROJECT 7/68	DRAWING NO 1/250



OVERLAPS SOUTH COMET

OVERLAPS SOUTH COMET

959027

GEOPHOTO RESOURCES CONSULTANTS
BRISBANE

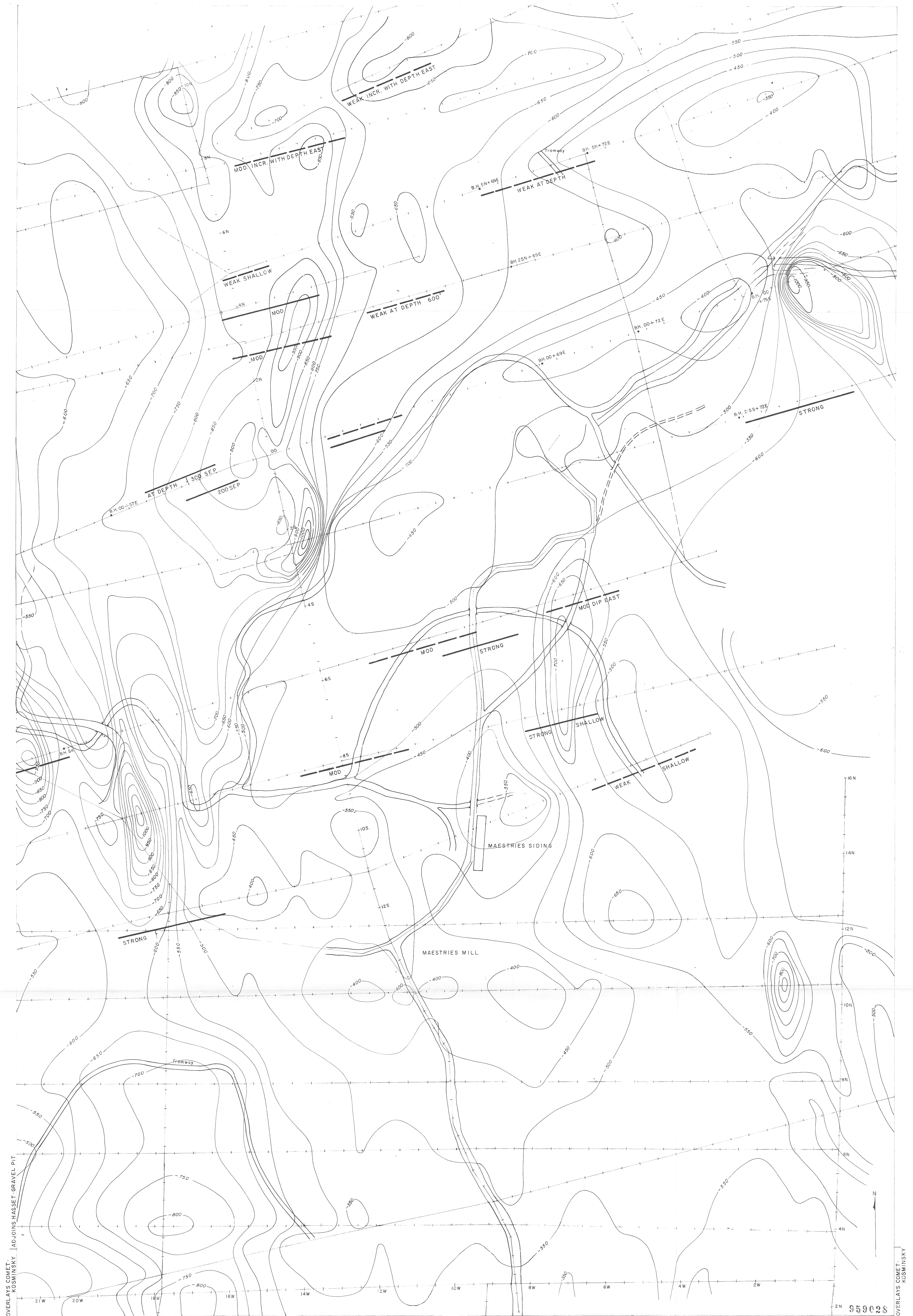


TEXINS DEVELOPMENT PTY. LTD.
E.L. 7/68 DUNDAS DISTRICT

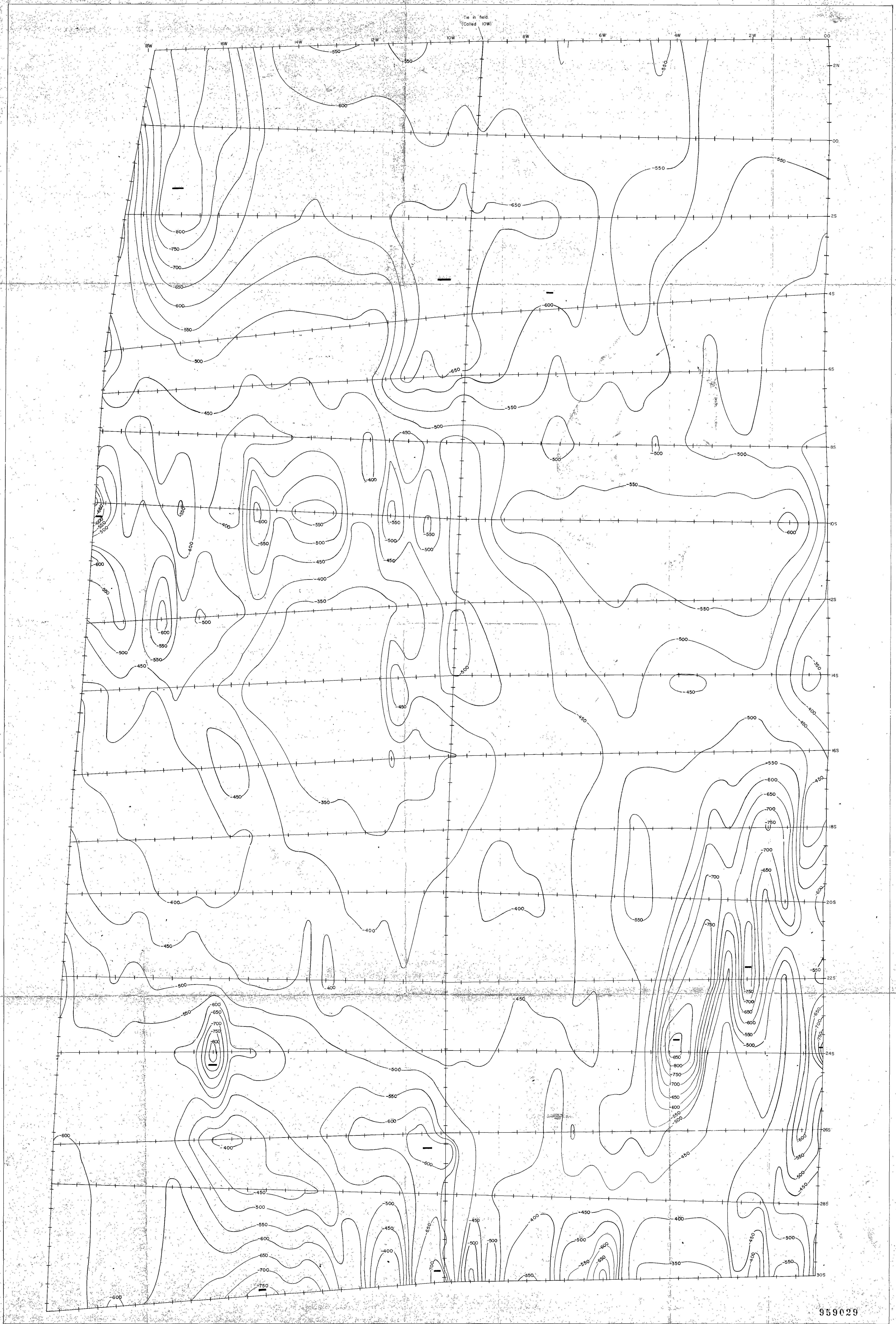
COMET-KOSMINSKY GRID
GEOLOGIC MAP

70-680
DRAWING NO. 1/203

3605



605



959029

SCALE 0 50 100 200 300 400 FEET

5 cm

Contour Interval 50 mv

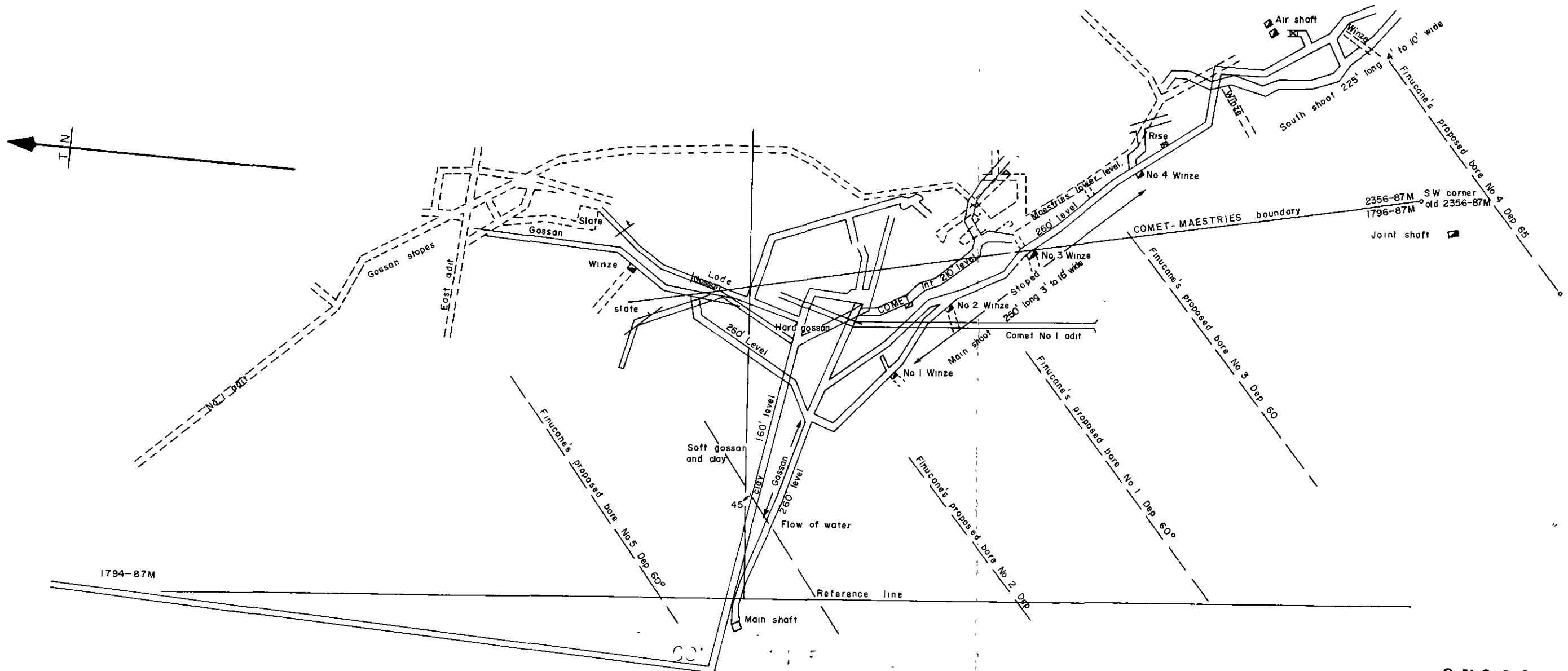
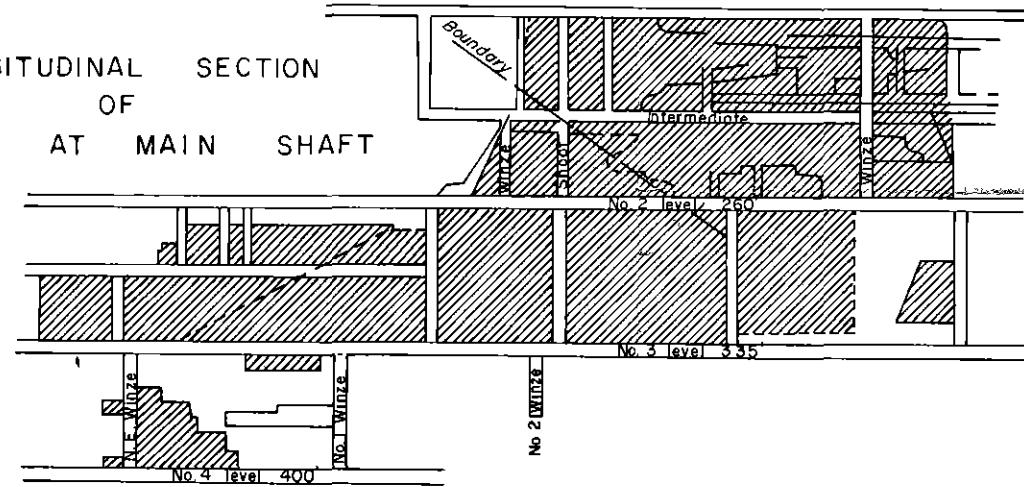


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COMET-KOSMINSKY GRID
EL 7/68 DUNDAS, TASMANIA
SELF POTENTIAL CONTOURS

70-680
SHEET 1 OF 2 SHEETS

LONGITUDINAL SECTION
OF
STOPING AT MAIN SHAFT



TEXINS DEVELOPMENT PTY LTD
E L 7/68 DUNDAS AREA TASMANIA
COMET MINE — PLAN AND SECTION

Scale 1 inch = 100 feet

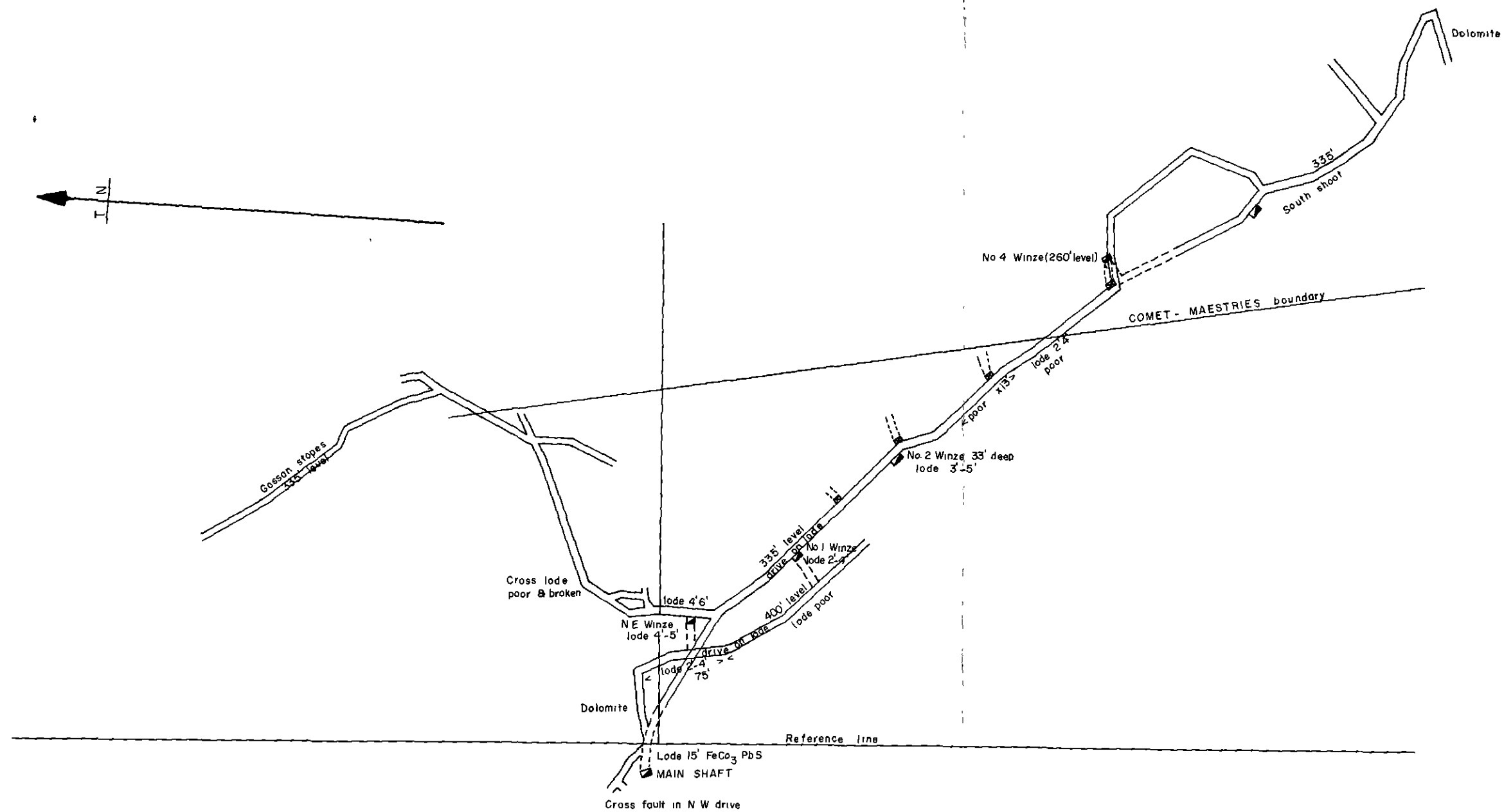
5 cm

959030

70-680

3609

DRAWING NO 1/248



TEXINS DEVELOPMENT PTY LTD
 E.L 7/68 DUNDAS AREA TASMANIA
COMET MINE — PLAN

Scale 1 inch = 100 feet

5 cm

959031

70-680

DRAWING NO 1/249

3608