ANNUAL REPORT EL2981

REPORT NO.2

Auger Geochemical Drilling in The Area of EL block 36/69-EL2981

ZAPOPAN CONSOLIDATED PTY. LTD.

CONTENTS

		PAGE
1.	Introduction	1
2.	Summary	2
3.	Area and Title	2
4.	Location and Access	2
5.	Geological Setting	2
6.	Drilling and Sampling	3
7.	Assay Results	3
8.	Mean Background and Threshold Values	4
9.	Discussion	4

Figures		BETWEEN
Fig 1	EL 2981 Block Numbers	2 and 3
Fig 2	Location Map	2 and 3
Fig 3	Mineralization Zones	3 and 4

Table

Table 1	Assay Results	6

Map

Map 1

Map 2

Map 3

Appendices

Appendix 1 Certificate of Analysis by Analabs
Appendix 2 Calculation, Medium, Mean and Standard Deviation

1. INTRODUCTION

EL2981 was composed of 13 km^2 or 4 EL blocks. The four blocks were No's 35/69, 35/70 36/69 and 36/70. These are shown on Fig 1. EL blocks 35/69 and 36/70 were retained for the ensuing year and 35/70 was relinquished. EL block 36/69 was relinquished but retained as Mineral Claims which were pegged covering all areas.

The annual report on exploration work carried out during the 1984 field season in the area of Exploration Licence 2981 and a group of Gold Mining Leases is composed of the following three separate reports.

Report No. 1 — Auger geochemical drilling in the retained part of EL2981. (Blocks 35/69 and 36/70).

Report No. 2 — Auger geochemical drilling in the area of EL block 36/69 - EL2981.

Report No. 3 — Reconnaissance soil geochemical survey in the relinquished part of EL2981 (block No. 35/70).

This report is one of the above three reports and concerns auger geochemical drilling carried out in the area of EL block 36/69.

The work was scheduled and carried out by the writer, the undersigned. Drilling was carried out by Bynoe Drilling and samples were analysed by Analabs.

ZAPOPAN CONSOLIDATED PTY. LTD.

M. SAKURAI
Director

2. SUMMARY

Auger drilling was carried out on a 50 metre - centre grid. Samples were collected from C soil horizon below a 2 metre depth. Samples were analysed for gold and arsenic by Analabs.

A mean background and a threshold arsenic values were estimated by calculation.

Two distinct mineralization zones containing high arsenic values up to 540 ppm As have been located. One of these is a known mineralization zone connecting between Faded Lilly and the Zapopan old underground working area and the other being previously unknown zone at 400 metres north of New Zapopan Shaft. Gold up to 0.8 ppm was detected in few holes.

3. AREA AND TITLE

EL 2981 was granted to Zapopan Consolidated on 28th October 1981. It was originally composed of an area of 26 km^2 or 8 EL blocks. Half of them were relinquished on 27th October 1983 and further half on 27th October 1984.

4. LOCATION AND ACCESS

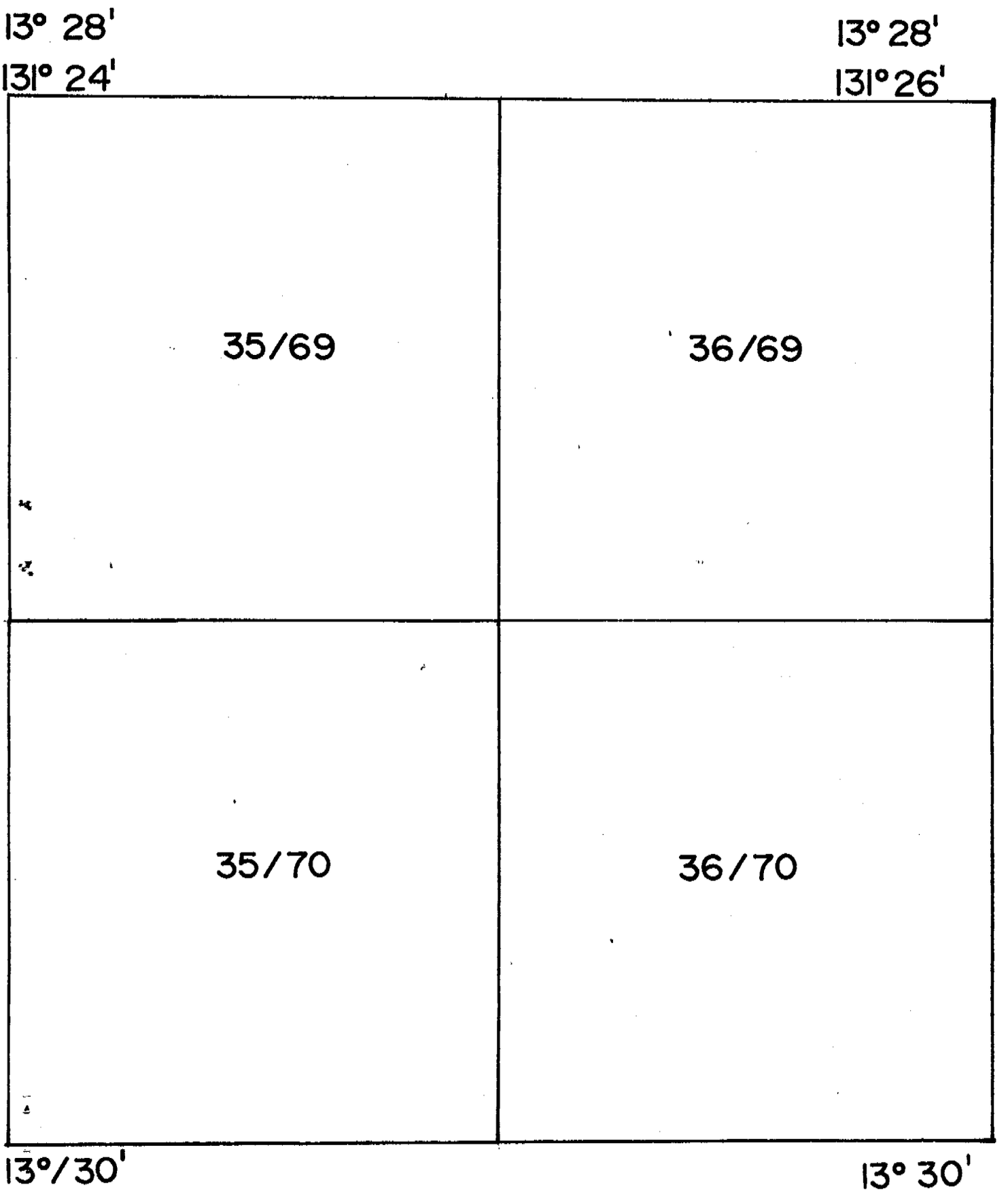
The area is situated approximately 130 km due southeast of Darwin or 170 km from Darwin along the Stuart Highway and the Fountain Head road (Fig 2). Any sites of the area are accessible during the dry season with a four wheel drive vehicle.

5. GEOLOGICAL SETTING

The area is situated in Pine Creek Geosyncline of the Lower Proterozoic age and lies in the southern outskirts of the Burnside Granite Cupola. Any outcrops are very scarce in the area. General geological setting in this locality is described as follows.

FIG 1: EL 2981 -

BLOCK NUMBERS



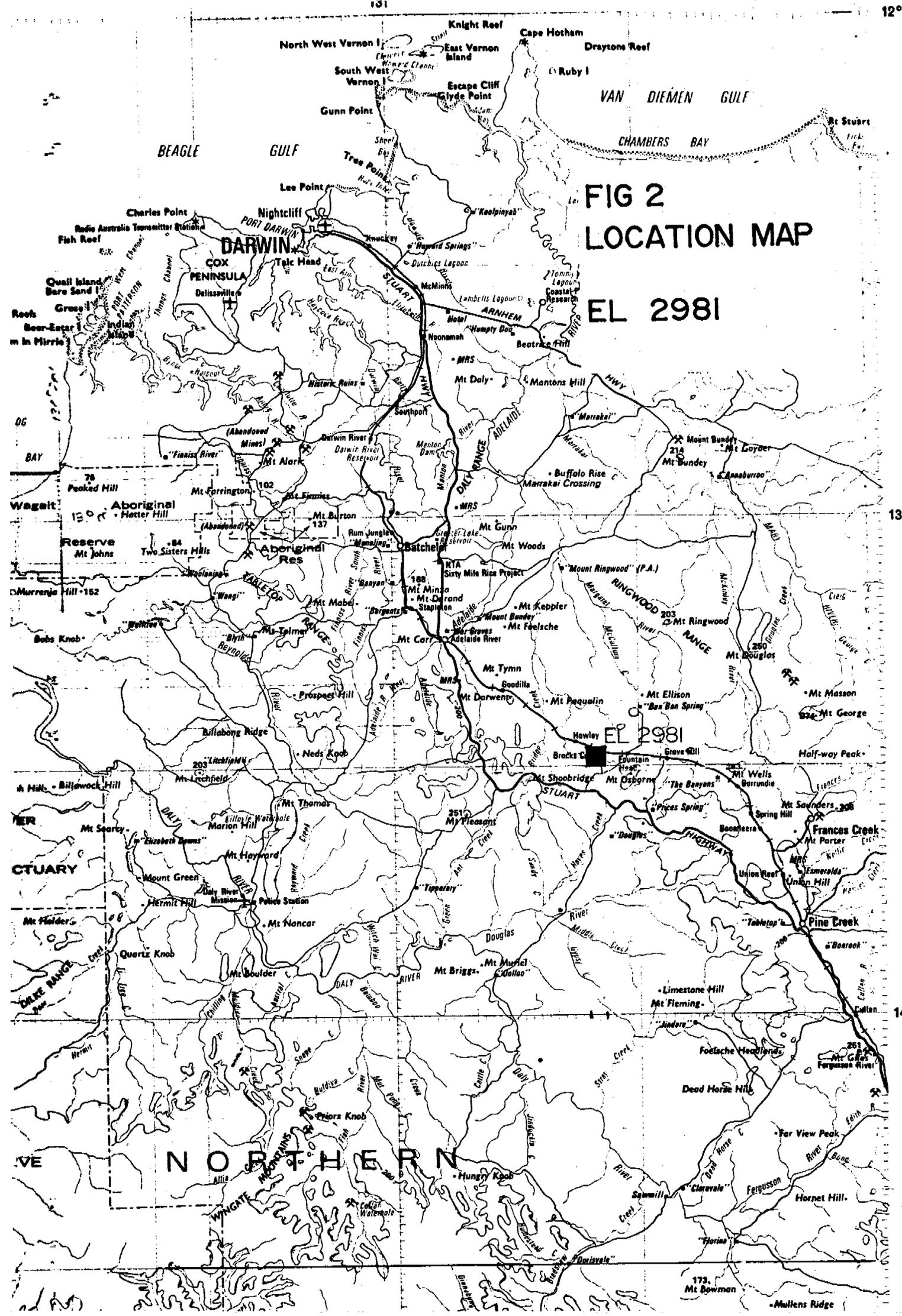


FIG 2
LOCATION MAP
EL 2981
EL 2981
DARWIN
COX PENINSULA
BEAGLE GULF
VAN DIEMEN GULF
CHAMBERS BAY
ARNHEM
STUART
DALY RANGE
ADELAIDE
RINGWOOD RANGE
TABLETOP RANGE
NORTHERN
Knight Reef
Cape Hotham
Draytons Reef
North West Vernon I
East Vernon Island
South West Vernon I
Escape Cliff
Clyde Point
Ruby I
Gunn Point
Mt Stuart
Tree Point
Lee Point
Charles Point
Nightcliff
PORT DARWIN
Radio Australia Transmitter Station
Fish Reef
Knuckey
"Koolpinyah"
"Hayward Springs"
Dutchies Lagoon
Talc Head
East Arm
McMinns
Lambells Lagoon
Coastal Research
Quail Island
Bare Sand I
Delissaville
Hotel
"Humpty Doo"
Beatrice Hill
Nhonanah
MRS
Mt Daly
Mantons Hill
Historic Ruins
Southport
(Abandoned Mines)
Darwin River
Darwin River Reservoir
Manton Dam
"Marrakai"
Mount Bundey
Mt Goyder
Mt Bundey
"Annaburroo"
"Finniss River"
Mt Alark
Buffalo Rise
Marrakai Crossing
Peaked Hill
Mt Farrington
Mt Finniss
Wagait Aboriginal Reserve
Hatter Hill
Mt Johns
Two Sisters Hills
Mt Burton
(Abandoned)
Rum Jungle
"Manaling"
Batchelor
Mt Gunn
Mt Woods
Aboriginal Res
NTA
Sixty Mile Rice Project
"Mount Ringwood" (P.A.)
Woolaning
"Wangi"
Mt Minza
Mt Durand
Stapleton
Mt Mabel
"Burgents"
Mt Keppler
Mount Bundey
Mt Feelsche
Mt Ringwood
Murrenje Hill
Bobs Knob
Mt Tolmer
Mt Carr
Adelaide River
Mt Douglas
Mt Tymn
Goodilla
Mt Darwent
Mt Pequalin
Mt Ellison
"Bon Bon Spring"
Mt Masson
Mt George
Prospect Hill
Billabong Ridge
Howley
Brocks Creek
Fountain Head
Grove Hill
Half-way Peak
Neds Knob
Litchfield
Mt Litchfield
Billabock Hill
Mt Shoobridge
Mt Osborne
Mt Wells
Burrundie
The Banyans
Prices Spring
Mt Saunders
Spring Hill
Frances Creek
Mt Porter
Boomleera
Mt Thomas
Killalyle Waterhole
Marion Hill
Mt Pleasant
Mt Searcy
"Elizabeth Downs"
Mt Hayward
Mount Green
Daly River Mission
Police Station
Hermit Hill
Union Reef
Union Hill
Esmeralda
Pine Creek
Tableton
Mt Nancar
Douglas
Quartz Knob
Mt Boulder
Mt Briggs
Mt Muriel
"Gallao"
Limestone Hill
Mt Fleming
"Bonrook"
"Jindare"
Foelsche Headlands
Mt Giles
Fergusson River
Dead Horse Hill
Priors Knob
Far View Peak
Hungry Knob
Collar Waterhole
Sawmill
"Claravale"
Fergusson
Hornet Hill
"Florina"
"Dorisvale"
Mt Bowman
Mullens Ridge
131
12°
13°
14°

The oldest unit is the South Alligator Group. The unit, about 5,000 metres thick, consists of pyritic black shale and siltstone, chert banded siltstone, algal carbonate, banded iron formation, jaspilite and tuff.

The South Alligator Group is intruded by basic sills and dykes (Zamu Dolerite). The Zamu Dolerite is folded together with the sediments.

The South Alligator Group is overlain by the Finniss River Group. The unit, 1,500 to 5,000 metres thick, consists of siltstone, slate and minor aukose, quartzite and schist.

All the formations are intruded by granitic intrusives, one of which is the Burnsite Granite. The intrusive granite activity brought about intensive folding in the region.

It appears that most of the report area is covered by the South Alligator group.

6. DRILLING AND SAMPLING

Auger drilling was carried out by Bynoe Drilling on a 50 metre - centre grid and, near the Zapopan mine, on a 25 metre - centre grid. The drill rig used was Warman Investigator Model Mark V and auger diametre was 9 mm.

Samples were collected from C soil horizon. Soil from 2 metres to a depth of refusal at each site was made up as a sample. Sampling depths of 123 holes are detailed on Table 1. An average depth drillled was 2.7 metres. Samples were analysed for gold and arsenic by Analabs.

7. ASSAY RESULTS

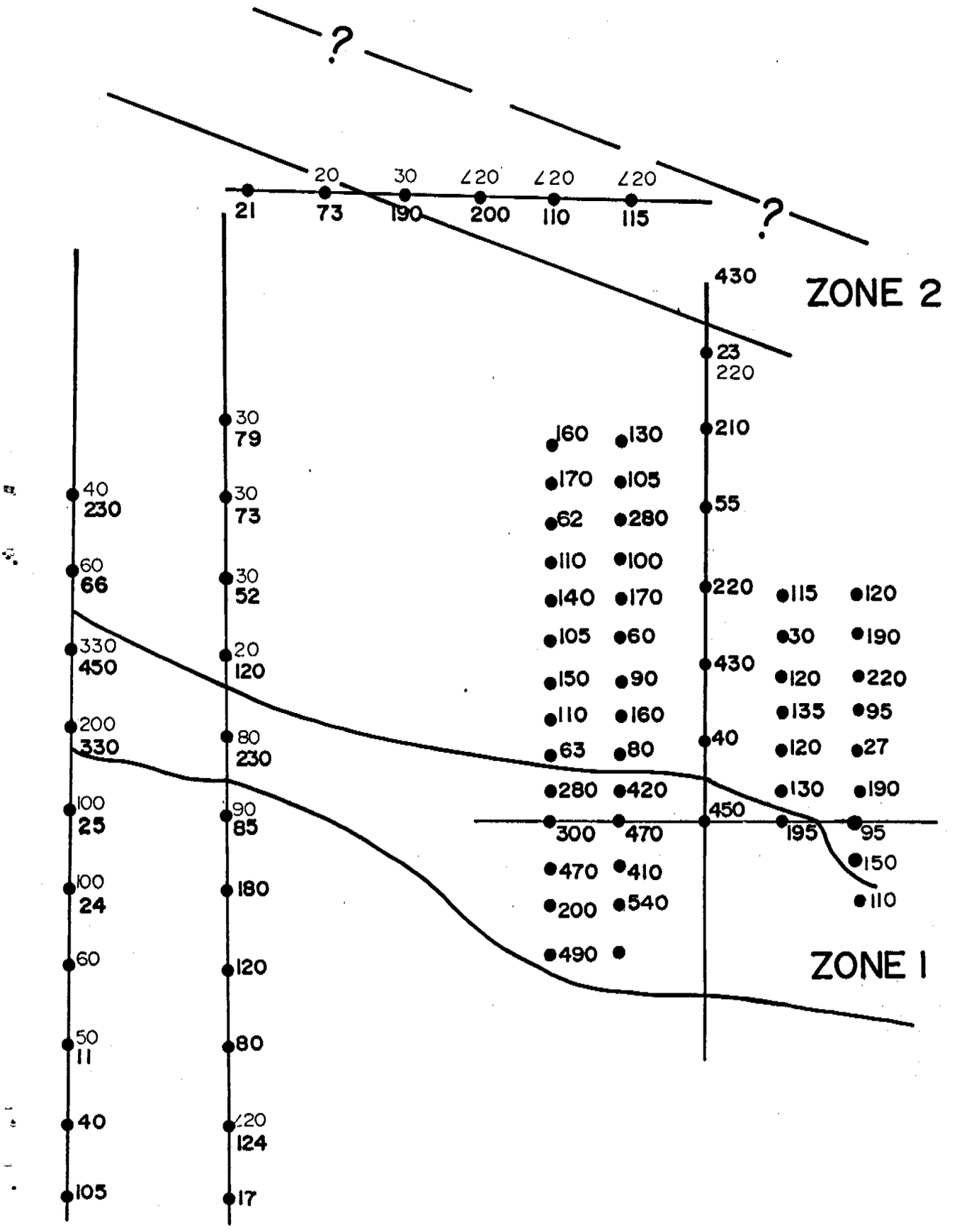
a) All the assay results are listed on Table 1.

b) Certificate of Analysis by Analabs are attached as Appendix 1.

FIG 3

● ∠20 1981 As

130 1984 As



c) The assay results for the samples collected on a 50-metre-centre grid are plotted on Maps 1 and 2. Near the Zapopan mine, samples were collected at 25 metre intervals along the NS lines, each 50 metres apart. The results of this are shown on the separate map (Map 3). The results of soil sampling and back-hoe pitting carried out in 1981 are also plotted on the maps. Maps are titled as follows:

Map 1. Map showing results on auger drilling (1984) and soil sampling (1981) - Arsenic.

Map 2. Map showing results on auger drilling (1984), soil sampling (1981) and back-hoe pitting (1981) - Gold.

Map 3. Map showing auger drilling results near the Zapopan mine (1984).

8. MEAN BACKGROUND AND THRESHOLD VALUES

ARSENIC

In addition to samples from the area, samples were collected in the Company's various EL areas during the previous field seasons. The median (M), the mean (X) and the standard deviation (S) of arsenic contents in 382 samples are given as follows. The details of calculation are shown in Appendix 2.

M = 7.9 ppm As (from Table App 1)

X = 44.1 ppm As ------ X

S = 84.4 ppm As ------ S

A mean background value is considered as the median and, therefore, is 7.9 ppm As. A threshold value (T) is taken as the mean plus twice the standard deviation. It is given as follows:-

$$T = \frac{X + 2S}{2}$$

$$= \frac{44.1 + 2 \times 84.4}{2}$$

$$= 106.45$$

A threshold value of 106.45 ppm As is estimated.

GOLD

Few holes indicate gold values. The highest value is 0.84 ppm Au.

9. DISCUSSION

Two distinct mineralization zones having high arsenic values up to 540 ppm As have been located. These are shown on Fig 3. One of these is a zone connecting between Faded Lilly and the Zapopan old underground working area and is shown as zone 1 on Fig 3. The zone contains the area known as anriferous for some 100 years. The other zone is situated 400 metres north of New Zapopan Shaft and is shown as zone 2 on Fig 3. The zone has been located for the first time by this study.

It should be closely examined by follow-up auger geochemical drilling on a grid of closer spacing and further by perscussion and diamond drilling.

The analytical method used for gold - aqua regia digestion and spectrographical analysis is obviously unsuitable for the samples. A method of either mechanical concentration or soaking a large sample (5 kg) in cyanide solution for a considerable time would be required to determine gold contents in the samples.

TABLE 1 - ASSAY RESULTS

Sample No	Co-ordinate		Depth in Metres		Results (ppm)	
	N/S	E/W	From	To	Au	As
1A	400S	1200W	2	3	<0.02	12
2A	"	1150W	2	3	<0.02	11
3A	"	1100W	2	2.6	"	14
4A	"	1050W	2	2.5	"	18
5A	"	1000W	2	3	"	21
6A	"	950W	2	3	"	15
7A	"	900W	2	3	"	10
8A	"	850W	2	2.1	"	14
9A	"	800W	2	3	"	12
10A	"	750W	2	3	"	11
11A	"	700W	2	3.1	"	20
12A	"	650W	2	2.9	"	4
13A	"	600W	0	1.7	"	3
14A	"	550W	2	3	"	3
15A	"	500W	2	3	"	2
16A	"	450W	2	3	"	3
17A	400S	400W	2	2.7	"	85
18A	350S	400W	2	2.4	"	64
19A	300S	"	2	2.8	"	17
20A	250S	"	2	3	"	105
21A	200S	"	2	3	"	40
22A	150S	"	2	2.7	<0.02	11
24A	50S	"	2	2.3	<0.02	24
25A	00N	"	2	3	"	22
26A	50N	"	0	0.6	"	330
27A	100n	"	2	2.7	"	450
28A	150N	"	2	3	"	66
29A	200N	400W	0	1.4	<0.02	230

Sample No	Co-ordinate		Depth in Metres		Results (ppm)	
	N/S	E/W	From	To	Au	As
1B	200S	800W	2	2.8	<0.02	25
3B	300S	"	2	3.1	"	13
4B	350S	"	2	3.1	"	14
5B	450S	"	2	3.1	"	11
6B	500S	"	2	2.7	"	23
7B	550S	"	2	2.4	"	14
8B	600S	800W	2	2.4	"	41
1C	400S	350W	0	0.8	"	25
2C	"	300W	0	2	"	40
3C	350S	"	2	2.2	<0.02	41
4C	300S	"	2	2.3	0.04	11
5C	250S	"	2	2.8	<0.02	17
6C	200S	"	2	3.0	"	124
7C	150S	"	2	3.0	"	80
8C	100S	"	0	2	0.02	120
9C	50S	"	2	2.1	"	180
10C	00N	"	2	2.4	"	85
11C	50N	"	1	2	"	230
12C	100n	"	1	2	<0.02	120
13C	150N	"	2	2.7	0.72	52
14C	200N	"	2	3.1	<0.02	73
15C	250N	300W	2	3.0	"	79
1D	00N	00E	2	2.4	0.04	450
2D	50N	"	1	1.9	<0.02	40
3D	100N	"	2	2.6	"	430
4D	150N	"	1	2	"	220
5D	200N	"	2	2.4	"	55
6D	250N	00E	2	2.3	<0.02	210
7D	300N	"	2	2.2	"	23

Sample No	Co-ordinate		Depth in Metres		Results (ppm)	
	N/S	E/W	From	To	Au	As
8D	350N	00E	2	2.2	"	430
9D	400N	50W			"	115
10D	"	100W	2	2.6	"	110
11D	"	150W	2	3.0	"	200
12D	"	200W	0	1.1	"	190
13D	"	250W	2	3.0	"	73
14D	400N	300W	2	2.9	"	21
H1	300S	00E	0	1.3	"	100
H2	350S	"	0	1.6	"	29
H3	400S	"	2	2.3	"	120
H4	450S	"	2	2.5	"	95
H5	500S	"	2	3	"	30
H6	550S	"	2	3	"	3
H7	600S	"	2	3	"	2
H8	650S	"	2	2.6	"	2
H9	700S	"	2	3	"	2
H10	750S	"	2	3	"	2
H11	800S	"	2	2.9	"	2
H12	850S	"	2	2.5	"	2
H13	900S	00E	2	3.0	<0.02	4

Sample No	Co-ordinate		Depth in Metres		Results (ppm)	
	N/S	E/W	From	To	Au	As
	00N	50W	2	3	0.52	90
	"	"	3	4.6	0.12	470
	25N	50W	2	2.5	<0.02	420
	50N	50W	2	2.1	<0.02	80
	75N	50W	2	2.9	<0.02	160
	100N	50W	0	1.9	<0.02	90
	125N	50W	2	3	<0.02	60
	"	"	3	4.6	<0.02	40
	150N	50W	2	2.2	<0.02	170
	105N	50W	2	2.3	<0.02	100
	200N	50W	2	2.9	<0.02	280
	225N	50W	0	1.6	<0.02	105
	250N	50W	2	3	<0.02	130
	"	"	3	4.6	<0.02	52
	25S	50W	2	3	<0.02	410
	"	"	3	4.6	<0.02	200
	50S	50W	2	3	<0.02	540
	"	"	3	4.4	<0.02	140
	00N	100E	0	2	<0.02	50
	25N	100E	2	3	<0.02	190
	25N	100E	3	4.6	<0.02	43
	50N	100E	2	3.2	<0.02	27

Sample No	Co-ordinate		Depth in Metres		Results (ppm)	
	N/S	E/W	From	To	Au	As
	75N	100E	2	3	<0.02	95
	"	"	3	4.5	<0.02	14
	100N	100E	2	2.6	0.12	220
	145N	100E	2	2.6	<0.02	190
	150N	100E	2	3	<0.02	120
	150N	100E	3	4.6	<0.02	13
	25S	100E	0	1.5	<0.02	95
	50S	100E	2	2.6	<0.02	150
	75S	100E	2	3	<0.02	110
	"	"	3	4.6	<0.02	55
	00N	100W	2	2.7	<0.02	300
	25N	100W	2	2.3	<0.02	280
	50N	100W	2	2.4	<0.02	63
	75N	100W	2	3	<0.02	71
	"	"	3	4.6	<0.02	110
	100N	100W	2	3	<0.02	150
	"	"	3	4.6	<0.02	80
	125N	100W	0	1.6	<0.02	105
	150M	100W	2	2.2	<0.02	140
	175N	100W	2	2.7	<0.02	110
	200M	100W	2	3	<0.02	~~621~~ 62
	"	"	3	4.6	<0.02	24
	225M	100W	2	3.1	<0.02	170

Sample No	Co-ordinate		Depth in Metres		Results (ppm)	
	N/S	E/W	From	To	Au	As
	250N	100W	2	3	<0.02	160
	"	"	3	4.6	<0.02	40
	25S	100W	2	2.6	<0.02	470
	50S	100W	0	2	<0.02	200
	75S	100W	0	1.7	<0.02	490
	00N	250E	2	3	<0.02	195
	"	"	3	4.6	<0.02	21
	25N	250E	2	3	<0.02	130
	"	"	3	4.6	<0.02	41
	50N	250E	2	3	<0.02	120
	"	"	3	4.6	<0.02	26
	15N	250E	2	3	<0.02	135
			3	4.6	<0.02	26
	100N	250E	2	2.9	<0.02	120
	125N	250E	2	2.3	<0.02	30
	150N	250E	2	3	0.84	63
	"	"	3	4.6	<0.02	115

ANALABS

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ANALYTICAL REPORT No. 247.0.01.36765

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

Zapopan Consolidated Pty Ltd
PO Box 4045

DARWIN
NT 5790

ORDER No.	PROJECT

DATE RECEIVED	RESULTS REQUIRED
07/01/85	ASAP

No. OF PAGES OF RESULTS	DATE REPORTED	No. OF COPIES	TOTAL No. OF SAMPLES
4	09/01/85	1	87

REFER BELOW	SAMPLE NUMBERS	STATE OF SAMPLES	PRE-TREATMENT: DRY	CRUSH	SPLIT	PULVERISE	SIEVE	OTHER SEE REMARKS	NONE	ANALYSIS: REFER TO ANALYSIS SECTION	PREPARATION	METHOD
	01/03,05/09,11								1	As		114
	12,14/22,24/29									Au		329
	01,03/08								1	As		114
										Au		329
	000N 000/150								1	As		114
	050N 000/150									Au		329
	100N 000/100											
	050S 000/150											
	100S 000/100											
	150S 000/100											
	200S 000/150											

RESULTS TO: as above

RESULTS TO:

REMARKS

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STATE OF SAMPLES		ANALYSIS — PREPARATION				ANALYSIS — METHOD	
whole core	WC	perchloric acid	A1	cold acid	CA	atomic absorbtion	AAS
split core	SC	hydrochloric acid	A2	specific sulphide	SS	x-ray fluorescence	XRF
cutting	CU	nitric acid	A3	other mixed acids	Ma	spectrophotometry	SPEC
rock	Ro	aqua regia	A4	alkaline attack	AA	colorimetry	COL
soil	SO	nitric-perchloric	A5	volatilization	VO	chromatography	CHR
pulp	PU	HF mixture	A6	ignition	IG	titration	TTN
water	WA	HF under pressure	A7	pressed powder (XRF)	PP	other chemicals means	CHEM
tissue	TI	fusion	A8	glass fusion (XRF)	GF	miscellaneous	MISC
stream sediment	SS					fluorescence	FLUOR
heavy mineral	HM					inductively coupled plasma	ICP

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ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
	247.0.01.36765	09/01/85		1 OF 4

TUBE No.	SAMPLE No.		As	Au						
1	000N 000 E		11	X						
2	000N 050 E		6	X						
3	000N 050 W		5	X						
4	000N 100 E		20	X						
5	000N 100 W		5	X						
6	000N 150 E		5	X						
7	000N 150 W		6	X						
8	000N 200 W		14	X						
9	01 A		12	X						
10	01 B		25	X						
11	02 A		11	X						
12	03 A		14	X						
13	03 B		13	X						
14	04 B		14	X						
15	05 A		21	X						
16	05 B		11	X						
17	050N 000 E		6	X						
18	050N 050 E		4	X						
19	050N 050 W		8	X						
20	050N 100 E		4	X						
21	050N 100 W		5	X						
22	050N 150 E		4	X						
23	050S 000 E		6	X						
24	050S 050 E		12	X						
25	050S 050 W		35	X						

Results in ppm unless otherwise specified
T = element present; but concentration too low to measure
X = element concentration is below detection limit
— = element not determined

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ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
	247.0.01.36765	09/01/85		OF 4

TUBE No.	SAMPLE No.		As	Au						
1	050S 100 E		4	x						
2	050S 100 W		5	x						
3	050S 150 E		5	x						
4	050S 150 W		5	x						
5	050S 200 W		4	x						
6	06 A		15	x						
7	06 B		23	x						
8	07 A		10	x						
9	07 B		14	x						
10	08 A		14	x						
11	08 B		41	x						
12	09 A		12	x						
13	100N 000 E		4	x						
14	100N 050 E		3	x						
15	100N 100 E		3	x						
16	100S 000 E		10	x						
17	100S 050 E		19	x						
18	100S 100 E		10	x						
19	11 A		20	x						
20	12 A		4	x						
21	14 A		3	x						
22	15 A		2	x						
23	150S 000 E		7	x						
24	150S 050 E		5	x						
25	150S 100 E		7	x						

Results in ppm unless otherwise specified
T = element present; but concentration too low to measure
X = element concentration is below detection limit
— = element not determined

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ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
	247.0.01.36765	09/01/85		1 OF 4

TUBE No.	SAMPLE No.		As	Au						
1	16 A		3	X						
2	17 A		85	X						
3	18 A		64	X						
4	19 A		17	X						
5	20 A		105	X						
6	200S 000 E		6	X						
7	200S 050 E		2	X						
8	200S 100 E		2	X						
9	200S 150 E		16	X						
10	21 A		40	X						
11	22 A		11	X						
12	24 A		24	X						
13	25 A		22	X						
14	250S 000 E		3	X						
15	250S 050 E		26	X						
16	250S 100 E		6	X						
17	250S 150 E		21	X						
18	26 A		330	X						
19	27 A		450	X						
20	28 A		66	X						
21	29 A		230	X						
22	300S 000 E		20	X						
23	300S 050 E		20	X						
24	300S 100 E		5	X						
25	300S 150 E		6	X						

Results in ppm unless otherwise specified
T = element present; but concentration too low to measure
X = element concentration is below detection limit
— = element not determined

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A division of MacDonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
	247.0.01.36765	09/01/85		1 OF 1

TUBE No.	SAMPLE No.		As	Au						
1	350S 000 E		1	x						
2	350S 050 E		2	x						
3	400S 000 E		2	x						
4	400S 050 E		4	x						
5	450S 000 E		3	x						
6	450S 050 E		10	x						
7	500S 000 E		3	x						
8	500S 050 E		2	x						
9	550S 000 E		3	x						
10	550S 050 E		4	x						
11	600S 000 E		5	x						
12	600S 050 E		4	x						
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23	DETECTION		1	0.02						
24	DIGESTION									
25	METHOD		114	329						

Results in ppm unless otherwise specified
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X = element concentration is below detection limit
— = element not determined

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A division of MacDonald Hamilton & Co. Pty. Ltd.
Phone (09) 458 7999 — 52 Murray Road, Welshpool, W.A. 6106 — Telex AA92560

ANALYTICAL REPORT No. 247.0.01.36935

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

Zapopan Consolidated Pty Ltd
PO Box 4045

DARWIN
NT 5790

ORDER No.	PROJECT

DATE RECEIVED	RESULTS REQUIRED
22/01/85	ASAP

No. OF PAGES OF RESULTS	DATE REPORTED	No. OF COPIES	TOTAL No. OF SAMPLES
7	25/01/85	1	152

STATE OF SAMPLES		PRE-TREATMENT							ANALYSIS			
REFER BELOW	SAMPLE NUMBERS	DRY	CRUSH	SPLIT	PUL-VERISE	SIEVE	OTHER SEE REMARKS	NONE	REFER TO ANALYSIS SECTION	PREPARATION	METHOD
	Pref:050W										
6	various							1	As		114
									Au		329
6	various										
6	various										
	Pref:100E										
	various							1	As		114
									Au		329
6	various										
6	various										
6											

RESULTS TO

as above

RESULTS TO

REMARKS

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STATE OF SAMPLES		ANALYSIS — PREPARATION				ANALYSIS — METHOD	
whole core	WC	perchloric acid	A1	cold acid	CA	atomic absorbtion	AAS
split core	SC	hydrochloric acid	A2	specific sulphide	SS	x-ray fluorescence	XRF
cutting	CU	nitric acid	A3	other mixed acids	Ma	spectrophotometry	SPEC
rock	Ro	aqua regia	A4	alkaline attack	AA	colorimetry	COL
soil	SO	nitric-perchloric	A5	volatilization	VO	chromatography	CHR
pulp	PU	HF mixture	A6	ignition	IG	titration	TTN
water	WA	HF under pressure	A7	pressed powder (XRF)	PP	other chemicals means	CHEM
tissue	TI	fusion	A8	glass fusion (XRF)	GF	miscellaneous	MISC
stream sediment	SS					fluorescence	FLUOR
heavy mineral	HM					inductively coupled plasma	ICP

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ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
	247.0.01.36933	25/01/85		1 OF 7

CO-ORDINATES DEPTH IN MTRS RESULTS.

TUBE No.	SAMPLE No.		As	Au						
1	050W 000N	2-3	90	0.52						
2	050W 000N	3-4.6	470	0.12						
3	050W 025N	2-2.5	420	X						
4	050W 050N	2-2.1	80	X						
5	050W 075N	2-2.9	160	X						
6	050W 100N	0-1.9	90	X						
7	050W 125N	2-3	60	X						
8	050W 125N	3-4.6	40	X						
9	050W 150N	2-2.2	170	X						
10	050W 175N	2-2.3	100	X						
11	050W 200N	2-2.9	280	X						
12	050W 225N	0-1.6	105	X						
13	050W 250N	2-3	130	X						
14	050W 250N	3-4.6	52	X						
15	050W 25S	2-3	410	X						
16	050W 25S	3-4.6	200	X						
17	050W 50S	2-3	540	X						
18	050W 50S	3-4.4	140	X						
19	100E 000N	0-2	50	X						
20	100E 025N	2-3	190	X						
21	100E 025N	3-4.6	43	X						
22	100E 050N	2-3.2	27	X						
23	100E 075N	2-3	95	X						
24	100E 075N	3-4.6	14	X						
25	100E 100N	2-2.6	220	0.12						

Results in ppm unless otherwise specified
T = element present; but concentration too low to measure
X = element concentration is below detection limit
— = element not determined

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ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
	247.0.01.36935	25/01/85		2 OF 7

TUBE No.	SAMPLE No.		As	Au						
1	100E 125N	2-2.6	190	x						
2	100E 150N	2-3	120	x						
3	100E 150N	3-4.6	13	x						
4	100E 25S	0-1.5	95	x						
5	100E 50S	2-2.6	150	x						
6	100E 75S	2-3	110	x						
7	100E 75S	3-4.6	55	x						
8	100W 000N	2-2.7	300	x						
9	100W 025N	2-2.3	280	x						
10	100W 050N	2-2.4	63	x						
11	100W 075N	2-3	71	x						
12	100W 075N	3-4.6	110	x						
13	100W 100N	2-3	150	x						
14	100W 100N	3-4.6	80	x						
15	100W 125N	0-1.6	105	x						
16	100W 150N	2-2.2	140	x						
17	100W 175N	2-2.7	110	x						
18	100W 200N	2-3	62	x						
19	100W 200N	3-4.6	24	x						
20	100W 225N	2-3.1	170	x						
21	100W 250N	2-3	160	x						
22	100W 250N	3-4.6	40	x						
23	100W 25S	2-2.6	470	x						
24	100W 50S	0-2	200	0.04						
25	100W 75S	0-1.7	490	0.10						

Results in ppm unless otherwise specified
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ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
-	247.0.01.36935	25/01/85		3 OF 7

TUBE No.	SAMPLE No.		As	Au						
1	250E 000N	2-3	195	x						
2	250E 000N	3-4.6	21	x						
3	250E 025N	2-3	130	x						
4	250E 025N	3-4.6	41	x						
5	250E 050N	2-3	120	x						
6	250E 050N	3-4.6	26	x						
7	250E 075N	2-3	135	0.02						
8	250E 075N	3-4.6	26	x						
9	250E 100N	2-2.9	120	x						
10	250E 125N	2-2.3	30	x						
11	250E 150N	2-3	63	0.84						
12	250E 150N	3-4.6	115	x						
13	A 04		18	x						
14	A 10		11	x						
15	A 13		3	x						
16	C 01		25	x						
17	C 02		40	x						
18	C 03		41	x						
19	C 04		11	0.04						
20	C 05		17	x						
21	C 06		124	x						
22	C 07		80	x						
23	C 08		120	0.02						
24	C 09		180	x						
25	C 10		85	x						

Results in ppm unless otherwise specified
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— = element not determined

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ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
-	247.0.01.36935	25/01/85		5 OF 7

TUBE No.	SAMPLE No.		As	Au						
1	D 21		210	0.04						
2	D 22		100	x						
3	D 23		160	x						
4	D 24		68	x						
5	D 25		71	x						
6	D 26		105	x						
7	D 27		13	x						
8	D 28		61	x						
9	D 29		33	x						
10	D 30		13	x						
11	D 31		21	x						
12	G 01		12	x						
13	G 02		1	x						
14	G 03		1	x						
15	G 04		1	x						
16	G 05		1	x						
17	G 06		1	x						
18	G 07		1	x						
19	G 08		1	x						
20	G 09		8	x						
21	G 10		4	x						
22	G 11		24	x						
23	G 12		35	x						
24	G 13		4	x						
25	G 14		6	x						

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ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
	247.0.01.36935	25/01/85		6 OF 7

TUBE No.	SAMPLE No.		As	Au						
1	G 15		4	x						
2	G 16		2	x						
3	G 17		11	x						
4	G 18		6	x						
5	G 19		21	x						
6	G 20		11	x						
7	G 21		12	x						
8	G 22		8	x						
9	G 23		7	x						
10	G 24		4	x						
11	G 25		1	x						
12	G 26		1	x						
13	G 27		1	0.04						
14	G 28		1	x						
15	H 01		100	x						
16	H 02		29	x						
17	H 03		120	x						
18	H 04		95	x						
19	H 05		30	x						
20	H 06		3	x						
21	H 07		2	x						
22	H 08		2	x						
23	H 09		2	x						
24	H 10		2	x						
25	H 11		2	x						

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ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
	247.0.01.36935	25/01/85		7 OF 7

TUBE No.	SAMPLE No.		As	Au						
1	H 12		2	X						
2	H 13		4	X						
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23	DETECTION		1	0.02						
24	DIGESTION									
25	METHOD		114	329						

Results in ppm unless otherwise specified
T = element present; but concentration too low to measure
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APPENDIX 2

APPENDIX 2 - CALCULATION - MEDIAN, MEAN AND STANDARD DEVIATION

Frequency, cumulative frequency and cumulative proportion distribution of arsenic contents in 382 samples are given in Table APP 1.

From Table APP 2

$\Sigma fx = 16,838.9$ X: Mean

$\Sigma fx^2 = 3,465,901.1$ S: Standard deviation

$$X = \frac{\Sigma fx}{n} = \frac{16,838.9}{382} = 44.1$$

$$S^2 = \frac{\Sigma fx^2 - \frac{(\Sigma fx)^2}{n}}{n} = \frac{3,465,901.1 - \frac{(16,838.9)^2}{382}}{382} = 7,129.9$$

$S = 84.4$

TABLE APPENDIX 1

FREQUENCIES, CUMULATIVE FREQUENCIES AND CUMULATIVE PROPORTIONS FOR ARSENIC CONTENTS IN 382 SAMPLES

As content ppm	Frequency (f)	Cumulative frequency (cf)	Cumulative proportion % (cp)
<1	19	19	5.0
1	32	51	13.4
2	38	89	23.3
3	24	113	29.6
4	23	136	35.6
5	19	155	40.6
6	17	172	45.0
7	8	180	47.1
8	13	193	50.5
9	9	202	52.9
10	10	212	55.5
11	8	220	57.6
12	7	227	59.4
13	7	234	61.3
14	4	238	62.3
15	3	241	63.1
16	2	243	63.6
17	1	244	63.9
18	2	246	64.4
19	2	248	64.9
20	4	252	66.0
21	6	258	67.5
22	1	259	67.8
23	2	261	68.3
24	4	265	69.4
25	2	267	69.9
26	3	270	70.7

As content ppm	Frequency (f)	Cumulative frequency (cf)	Cumulative proportion % (cp)
27	1	271	70.9
29	1	272	71.2
30	5	277	72.5
33	1	278	72.8
35	2	280	73.3
40	5	285	74.6
41	2	287	75.1
43	1	288	75.4
45	1	289	75.7
50	2	291	76.2
51	1	292	76.4
52	3	295	77.2
54	1	296	77.5
55	2	298	78.0
60	1	299	78.3
61	1	300	78.5
62	1	301	78.8
63	2	303	79.3
68	1	304	79.6
71	2	306	80.1
73	2	308	80.6
74	1	309	80.9
79	1	310	81.2
80	3	313	81.9
85	2	315	82.5
90	2	317	83.0
95	3	320	83.8
100	5	325	85.1
105	5	330	86.4
110	4	334	87.4
115	2	336	88.0
120	7	343	89.8

As content ppm	Frequency (f)	Cumulative frequency (cf)	Cumulative proportion % (cp)
124	1	334	90.0
130	2	346	90.6
135	1	347	90.8
140	3	350	91.6
150	2	352	92.1
160	3	355	92.9
170	2	357	93.5
180	1	358	93.7
190	3	361	94.5
195	1	362	94.8
200	3	365	95.5
210	2	367	96.1
220	2	369	96.6
230	1	370	96.9
280	2	372	97.4
300	1	373	97.6
410	1	374	97.9
420	1	375	98.2
430	2	377	98.7
450	1	378	99.0
470	2	380	99.5
490	1	381	99.7
540	1	382	100

TABLE APPENDIX 2

CALCULATION OF THE VARIANCE FROM THE FREQUENCY DISTRIBUTION OF ARSENIC CONTENTS IN 382 SAMPLES

As content ppm (x)	Frequency (f)	(fx)	(fx^2)
<1(0.1)	19	1.9	0.19
1	32	32	32
2	38	76	152
3	24	72	216
4	23	92	368
5	19	95	475
6	17	102	612
7	8	56	392
8	13	104	832
9	9	81	729
10	10	100	1000
11	8	88	968
12	7	84	1008
13	7	91	1183
14	4	56	784
15	3	45	675
16	2	32	512
17	1	17	289
18	2	36	648
19	2	38	722
20	4	80	1600
21	6	126	2646
22	1	22	484
23	2	46	1058
24	4	96	2304
25	2	50	1250
26	3	78	2028

As content ppm (x)	Frequency (f)	(fx)	(fx^2)
27	1	27	729
29	1	29	841
30	5	150	4500
33	1	33	1089
35	2	70	2450
40	5	200	8000
41	2	82	3362
43	1	43	1849
45	1	45	2025
50	2	100	5000
51	1	51	2601
52	3	156	8112
54	1	54	2916
55	2	110	6050
60	1	60	3600
61	1	61	3721
62	1	62	3844
63	2	126	7938
68	2	68	4624
71	2	142	10082
73	2	146	10658
74	1	74	5476
79	1	79	6241
80	3	240	19200
85	2	170	14450
90	2	180	16200
95	3	285	27075
100	5	500	50000
105	5	525	55125
110	4	440	48400
115	2	230	26450
120	7	840	100800
124	1	124	15376

As content ppm (x)	Frequency (f)	(fx)	(fx^2)
130	2	260	33800
135	1	135	18225
140	3	420	58800
150	2	300	45000
160	3	480	76800
170	2	340	57800
180	1	180	32400
190	3	570	108300
195	1	195	38025
200	3	600	120000
210	2	420	88200
220	2	440	96800
230	1	230	52900
280	2	560	156800
300	1	300	90000
410	1	410	168100
420	1	420	176400
430	2	860	369800
450	1	450	202500
470	2	940	441800
490	1	490	240100
540	1	540	291600
	382	16838.9	3465901.1

LEGEND

TRACK

CREEK

MCN,GML BOUNDARIES

● As 2 (1984) AUGER DRILLING
ppm 2 (1981) GEOCHEMICAL SOIL SURVEY

MCN 879

MCN 879

MCN 877

MCN 913

MCN 912

MCN 914

GML 343

GML 346

GML 338

GML 339

GML 340

GML 344

21 20 73 30 190 ∠20 200 ∠20 110 ∠20 115 430

∠20 23 50 210 55 220 430 40 450

30 79 30 73 30 52 20 120 80 230 90 85 180 120 80 ∠20 124 17 11 41

40 230 60 66 330 450 200 330 100 25 100 24 60 50 11 40 105 17 64

25 13 14 12 11 20 4 3 3 2 20 3 85 25 40

12 11 14 18 21 15 10 14

11 23 14 41

100 29 120 95 30 3 2 2

ZAPOPAN CONSOLIDATED PTY LTD	
EL 2981	
MAP SHOWING AUGER DRILLING RESULTS - As	
BLOCK No 36/69	
MAP 1	SCALE: 1:250
DRAWN BY: SMcG	DATE: 17/01/85

CR85/147A

NORTHERN TERRITORY GEOLOGICAL SURVEY

LEGEND

TRACK

CREEK

MCN, GML BOUNDARIES

● Au ∠·02 1984

12 1981 BACK-HOE SURVEY

12 1981 GEOCHEMICAL SOIL SURVEY

MCN 879

MCN 879

∠005 ∠005 ∠005 ∠005 ∠005

∠0·05(±7)
∠0·05

∠0·05(±7)
∠0·05

∠005(±7)
∠0·05

GML 338

GML 339

∠005(±7)
0 05

∠0·05(±7)

MCN 877 ∠·02
0·05

∠001

0·01

GML 343

∠·02
0·05

0·05

∠·02
0·70

0·72
∠0·10

∠·02
012

0·05

∠13 (±95)
∠001

∠·02
∠0·05

0·15

04 556
016 (±95)

∠·02
∠0·05

∠·02
∠0·05

0·02
24·3 (9·5)
∠0·01 (9·5)

∠·02
∠0·05

35·8 (9·5)
∠0·01 (9·5)

MCN 913

∠·02
∠0·05

∠005

GML 340

GML 346

∠·02

52 (95)
∠0·01 (-9·5)

∠·02

33·6 (9·5)
∠0·01 (9·5)

∠·02

∠·02

0·04

∠·02

∠·02

55·3 (9·5)
∠0·01 (-9·5)

∠·02 ∠·02 ∠·02 ∠·02 ∠·02 ∠·02 ∠·02 ∠·02 ∠·02 ∠·02 ∠·02 ∠·02 ∠·02 ∠·02 ∠·02 ∠·02 ∠·02

GML 344

42·7
(9·5)
∠001
(-9·5)

∠·02

∠·02

∠·02

∠·02

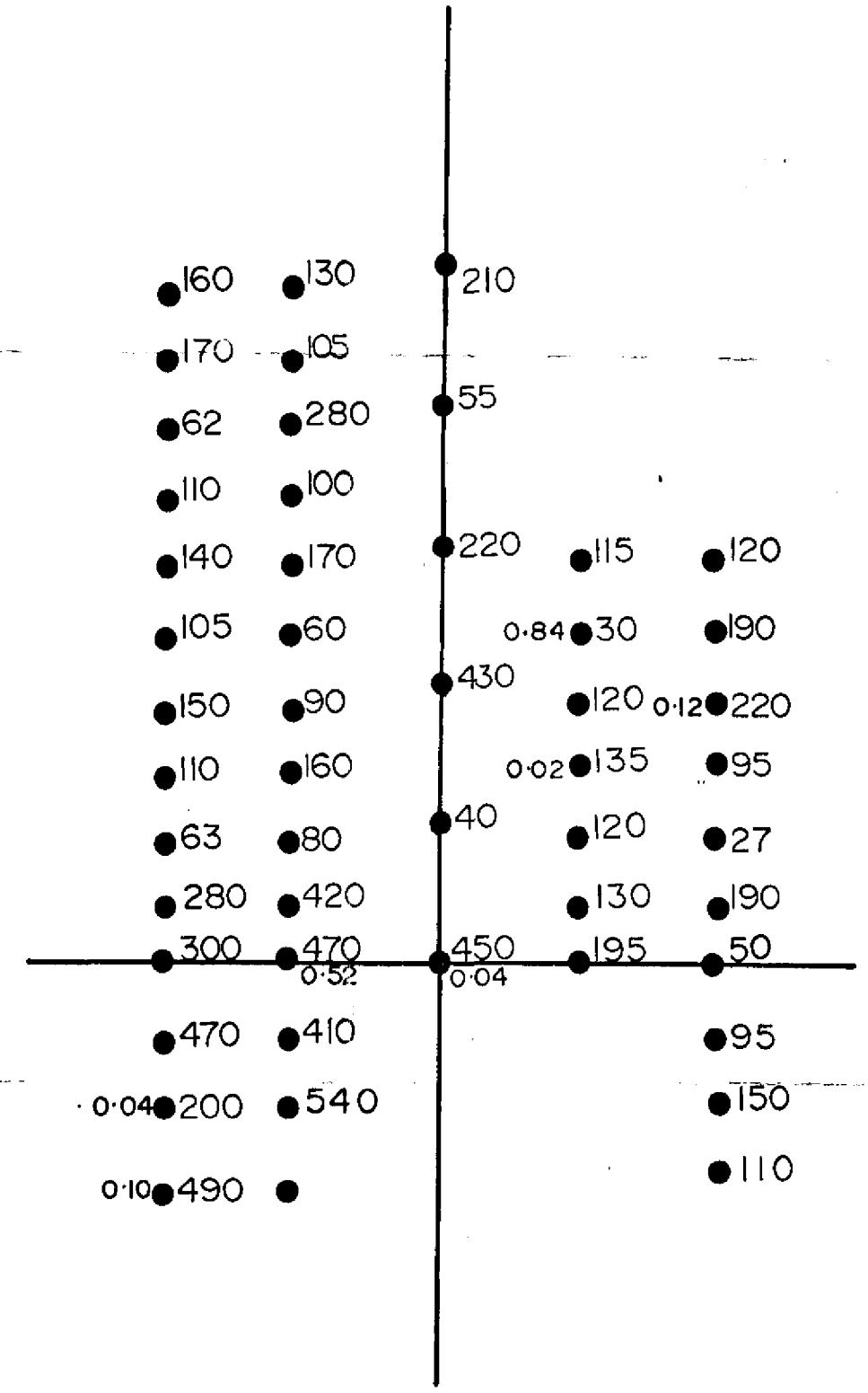
∠·02

MCN 912

MCN 914

ZAPOPAN CONSOLIDATED PTY LTD	
EL 2981	
MAP SHOWING AUGER DRILLING and BACK-HOE PITTING RESULTS – Au	
BLOCK No 36/69	
MAP 2	SCALE 1:250
DRAWN BY S McG	DATE 17/01/85

CR85/147A NORTHERN TERRITORY GEOLOGICAL SURVEY



ZAPOPAN CONSOLIDATED PTY LTD	
EL 2981 / 2540 **BLOCK No** MAP SHOWING AUGER DRILLING 1984 RESULTS - As, Au	
SHEET No MAP 3	SCALE 1:250
DRAWN BY SMc G	DATE 31/01/85

NORTHERN TERRITORY
GEOLOGICAL SURVEY

CR85/147A