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MEMORANDUM REPORT ON PROGRESS OF

ROCK AND SOIL GEOCHEMISTRY ON RESTRICTED TARGETS

EL6/68 TO JULY 31ST,1969.

BY

J.H. RATTIGAN AND B.R. HERD

GEOPHOTO RESOURCES CONSULTANTS

BRISBANE, QUEENSLAND,AUSTRALIA

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1. Proposed locations & Cross Section
2. Geochemical Sampling
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INTRODUCTION

Rock and soil geochemistry is being carried out on several restricted targets on old mineralised areas, and on targets outlined by drainage prospecting.

These include Cobra rock drilling and soil sampling on

1. The Constables Creek (Echo) Molybdenum, Tungsten and Copper prospects. (Figures 1 and 2),
2. The Liberator Tin-Molybdenum Prospect. (Figure 3),
3. The Mt. Michael Prospect. (Figure 4),
4. The F.B. Lode. (Figure 5),
5. Areas in the Scamander District (Neuss, Geophoto Minerals Report 1969/4).

Ridge and Spur Soil Sampling was carried out over

6. The Upper Scamander Drainage Anomaly,
7. Queen of the Earth Drainage Anomaly.

Much of this work is in progress but sampling positions and analytical results to date are appended. Interpretation will await completion of gridding, where considered warranted and full analysis.

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THE COBRA DRILL

The Cobra BBM 47L is an all round, compact petrol-driven, self-contained drill, breaker and soil sampler. Its' light weight makes it particularly suitable for obtaining rock and soil geochemical samples from areas inaccessible to vehicles.

By using graded drill steels it is possible to get undisturbed samples from approximately 13 feet in hard rock, or by using the soil sampler in soft formations, an 8" core can be recovered to the same depth.

SOIL GEOCHEMISTRY

Soil samples were obtained by light pitting to the B soil horizon on residual soils and by Cobra auger attachment.

ELEMENTS ANALYSED FOR

All samples have been or are being analysed for the metals Cu, Pb, Zn, Ag, Mo and Bi and some for Sn and W. Results to date are appended.

J.H. RATTIGAN

B.R. HERD

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TABLE 1

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COBRA DRILL SAMPLES - CONSTABLES CREEK

SAMPLE	CU	NI	CO	PB	ZN	AG	AS
B 1	10	10	10	25	30	BLD	
B 2	10	10	5	25	55	BLD	
B 3	10	5	10	20	115	BLD	
B 4	10	5	10	15	100	BLD	
B 5	10	5	10	10	90	BLD	
B 6	15	5	10	25	70	BLD	
B 7	10	5	10	20	35	BLD	
B 8	10	5	10	20	40	BLD	
B 9	10	5	10	20	250	BLD	
B 10	20	10	10	15	155	BLD	
B 11	15	10	10	25	160	BLD	
B 12	20	35	10	20	45	BLD	
B 13	25	30	10	25	65	BLD	
B 14	580	20	10	525	1350	BLD	
B 15	50	35	10	40	165	BLD	
A 1	10	40	10	30	15	BLD	
A 2	15	20	5	20	20	BLD	
A 3	10	15	5	20	40	BLD	
A 4	15	15	5	20	30	BLD	
A 5 L	15	15	10	20	20	BLD	
A 6 L	20	20	10	20	115	BLD	
A 6 R	10	20	5	15	55	BLD	
A 7 L	5	20	10	20	85	BLD	
A 7 R	10	15	5	25	90	BLD	
A 8 L	5	15	5	20	45	BLD	
A 8 R	5	15	5	20	55	BLD	
A 9 L	BLD	15	5	10	35	BLD	
A 9 R	5	5	10	20	35	BLD	

TABLE 1

COBRA DRILL SAMPLES - CONSTABLES CREEK

SAMPLE	BI	MO	W
B 1	BLD	BLD	5
B 2	BLD	BLD	BLD
B 3	5	BLD	11
B 4	BLD	BLD	BLD
B 5	5	BLD	2
B 6	BLD	BLD	BLD
B 7	BLD	BLD	BLD
B 8	BLD	BLD	BLD
B 9	5	BLD	BLD
B 10	10	BLD	BLD
B 11	55	BLD	237
B 12	375	70	1425
B 13	195	20	607
B 14	375	500	1815
B 15	BLD	BLD	BLD
A 1	BLD	BLD	BLD
A 2	5	BLD	BLD
A 3	BLD	BLD	BLD
A 4	BLD	BLD	BLD
A 5 L	BLD	BLD	8
A 6 L	BLD	BLD	131
A 6 R	BLD	BLD	3
A 7 L	BLD	BLD	321
A 7 R	BLD	BLD	BLD
A 8 L	BLD	BLD	BLD
A 8 R	BLD	BLD	2
A 9 L	10	BLD	19
A 9 R	BLD	BLD	BLD

TABLE 2

COBRA SAMPLING - LIBERATOR MINE, TASMANIA

SAMPLE	CU	NI	CO	PB	ZN	AG	BI	MO
L 3 S 2	10	15	15	10	90	BLD	15	20
L 1 S 2	15	10	15	10	40	BLD	15	10
L 2 S 2	5	10	10	10	90	BLD	15	10
L 4 S 2	10	10	15	15	125	BLD	BLD	BLD
L 5 S 2	10	10	15	15	230	BLD	BLD	BLD
L 6 S 2	10	10	15	10	80	BLD	5	10
L 7 S 2	10	10	15	10	85	BLD	5	20
L 9 S 2	10	10	20	10	50	BLD	5	20
L 8 S 2	10	10	20	10	50	BLD	10	20
L 10 S 2	5	10	15	10	50	BLD	10	20
L 11 S 2	10	10	15	10	25	BLD	10	20
L 12 S 2	15	10	10	10	25	BLD	15	20
L 15 S 2	15	10	10	10	80	BLD	25	40
L 13 S 2	20	10	10	10	50	BLD	80	30
L 14 S 2	10	10	15	10	40	BLD	40	20
L 16 S 2	5	10	15	10	55	BLD	60	20
METHOD	101B	101B	101B	101B	101B	101B		

Exploration L1 etc. is sample station (Figure 3)

S2 is a 6" sample at 5' depth of rock.

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TABLE 3

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MT.MICHAEL GRID - ROCK SAMPLES

SAMPLE	GRID POSITION	CU	CO	PB	ZN	AG	~~AXX~~ BI	~~AXX~~ MO
MM 1	3N 00 / No. 3	20	BLD	50	230	4	25	10
MM 2	3N 1W / "	25	BLD	100	95	2	5	10
MM 3	5N 1E / "	30	BLD	50	70	BLD	5	10
MM 4	5N 00 / "	40	BLD	40	65	BLD	10	10
MM 5	7N 1W / "	25	BLD	20	25	BLD	10	10
MM 6	7N 2W / "	20	BLD	20	55	BLD	5	20
MM 7	8N 1W / "	30	BLD	20	85	BLD	10	10
MM 8A	8N 2E / "	40	5	20	45	BLD	10	10
		sample missing.						
MM 9	9N 2W / "	40	BLD	20	80	BLD	10	10
MM 10A	9N 00 / "	35	BLD	15	90	BLD	15	10
MM 10B	9N 00 / "	45	5	10	75	BLD	5	10
MM 11	9N 1E / "	45	BLD	15	80	BLD	15	10
MM 12	10N 1W / "	45	BLD	20	150	BLD	5	10
MM 13	10N 2W / "	40	BLD	15	95	BLD	10	10
MM 14	10N 00 / "	40	BLD	10	90	BLD	10	10
MM 15	10N 1E / "	40	BLD	20	55	BLD	15	10
MM 16	11N 00 / "	20	BLD	25	105	BLD	15	10
MM 17	11N 2W / "	10	5	20	60	BLD	10	10
MM 18	11N 1W / "	10	BLD	20	80	BLD	10	10
MM 19	11N 1E / "	15	BLD	20	85	BLD	5	10
METHOD		101B	101B	101B	101B	101B	102	102

MT. MICHAEL - SOIL SAMPLES

SAMPLE	GRID POSITION	CU	CO	PB	ZN	AG	~~AXX~~ MO	AS
BTS 1	3N/1W	10	BLD	5	15	BLD	BLD	
BTS 2	3N/1E	15	BLD	BLD	15	BLD	BLD	
BTS 3	5N/1W	20	BLD	5	20	BLD	BLD	
BTS 4		20	BLD	10	15	BLD	BLD	
BTS 5	7N/2W	20	BLD	BLD	10	BLD	BLD	
BTS 6	7N/1E	20	BLD	BLD	10	BLD	BLD	
BTS 7	7N/00	20	BLD	10	15	BLD	BLD	
BTS 8	8N/1E	20	BLD	BLD	15	BLD	10	
BTS 9	8N/2E	20	BLD	BLD	15	BLD	10	
BTS 10	8N/00	20	BLD	BLD	20	BLD	10	
BSK 11	9N/2W	25	BLD	BLD	15	BLD	10	
BTS 12	9N/1E	20	BLD	BLD	25	BLD	10	
BTS 14	10N/00	25	BLD	10	15	BLD	10	
BTS 15	10N/2E	20	BLD	10	25	BLD	10	
BTS 16	10N/2W	20	BLD	10	25	BLD	BLD	
BTS 17	11N/2W	20	BLD	10	10	BLD	BLD	
BTS 18	11N/1W	20	BLD	BLD	15	BLD	BLD	
		101B	101B	101B	101B	101B	102	102

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TABLE 3

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COBRA DRILL ROCK SAMPLES - MT. MICHAEL

	CU	NI	CO	Pb	Zn	Ag	
MM 100	5	5	5	20	25	BLD	
MM 101	5	5	5	10	40	BLD	
MM 102	5	10	5	10	5	BLD	
MM 103	5	5	5	10	25	BLD	
MM 104	5	10	5	15	20	BLD	
MM 105	40	10	5	10	35	BLD	
METHOD	101B	101B	101B	101B	101B	101B	102

		BI	MO	W
MM 100	13N/00	No.3 BLD	BLD	BLD
MM 101	13N/1W	" 5	BLD	BLD
MM 102	13N/00	No.1 5	BLD	BLD
MM 103	13N/1E	No.3 5	BLD	12
MM 104	13N/1E	No.1 5	BLD	BLD
MM 105	13N/1W	" 5	BLD	BLD
METHOD		102	MO 2	

drill hole #2

B14

B15

B13

B12

B9

B10

S47W

drill hole #1

B11

Constables Creek

3

2

91/2°

B8

B6

Shack

B7

A1

Shack

A2

A3

A4

drill hole #1, line of intersection

4

3

2

Elevation

True Strike

1

Relative Elevations.

A

Contour lines ..... 10'

Streams

Roads

Survey Strike

True Strike

Geochem drill holes ⊙A1

200'

S 47° W #2 drill hole

35° 20'

S 47° W #1 drill hole

41° 50'

Figure 1.

Constables Creek Survey

D. Drill Holes

Proposed Locations and Cross-Section

Scale 1" = 40'

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5 cm

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Date: 6/5/69

Drawn by: B. Herd 69-597

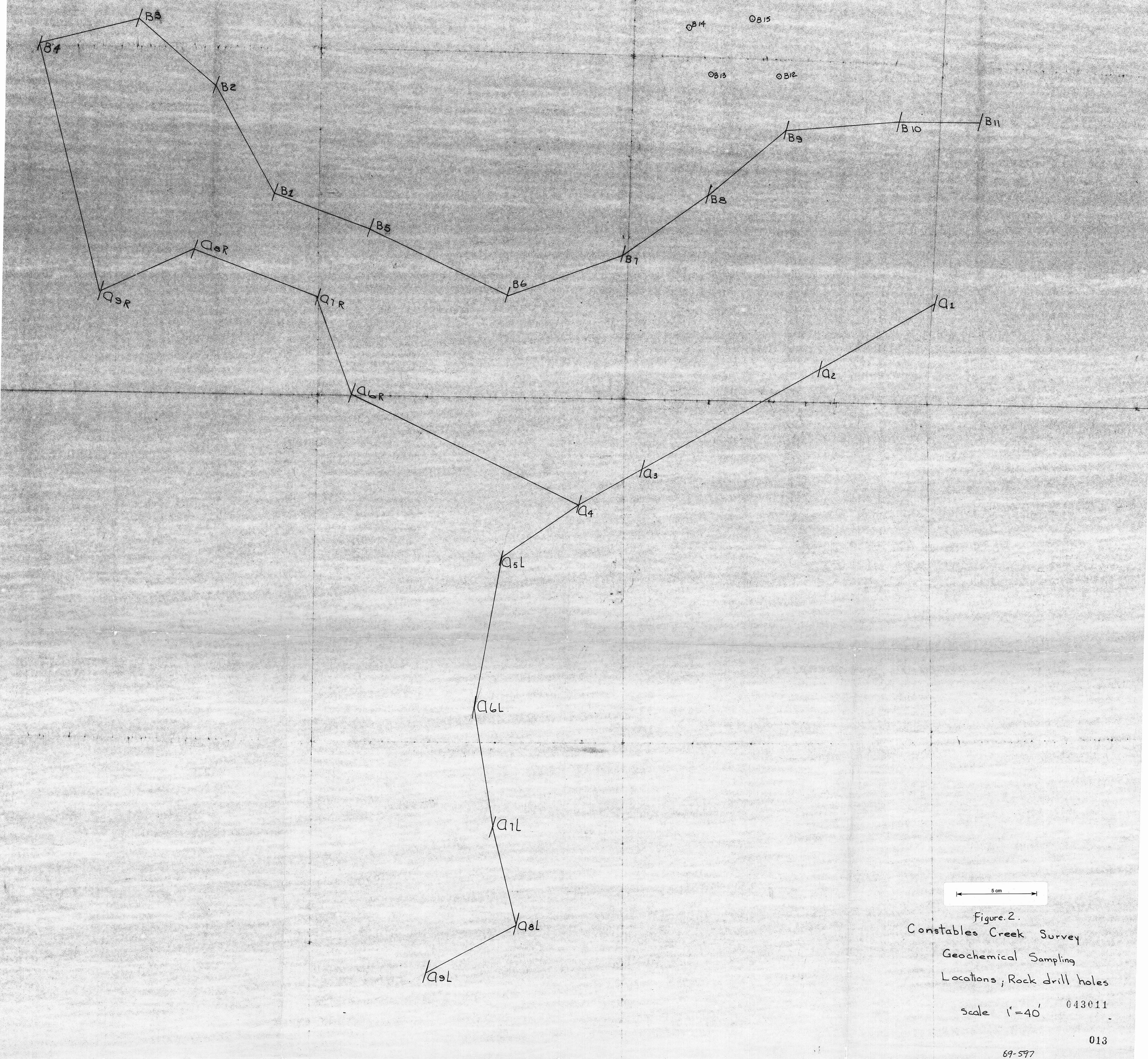

Figure. 2.
Constables Creek Survey
Geochemical Sampling
Locations; Rock drill holes
Scale 1"=40' 043011

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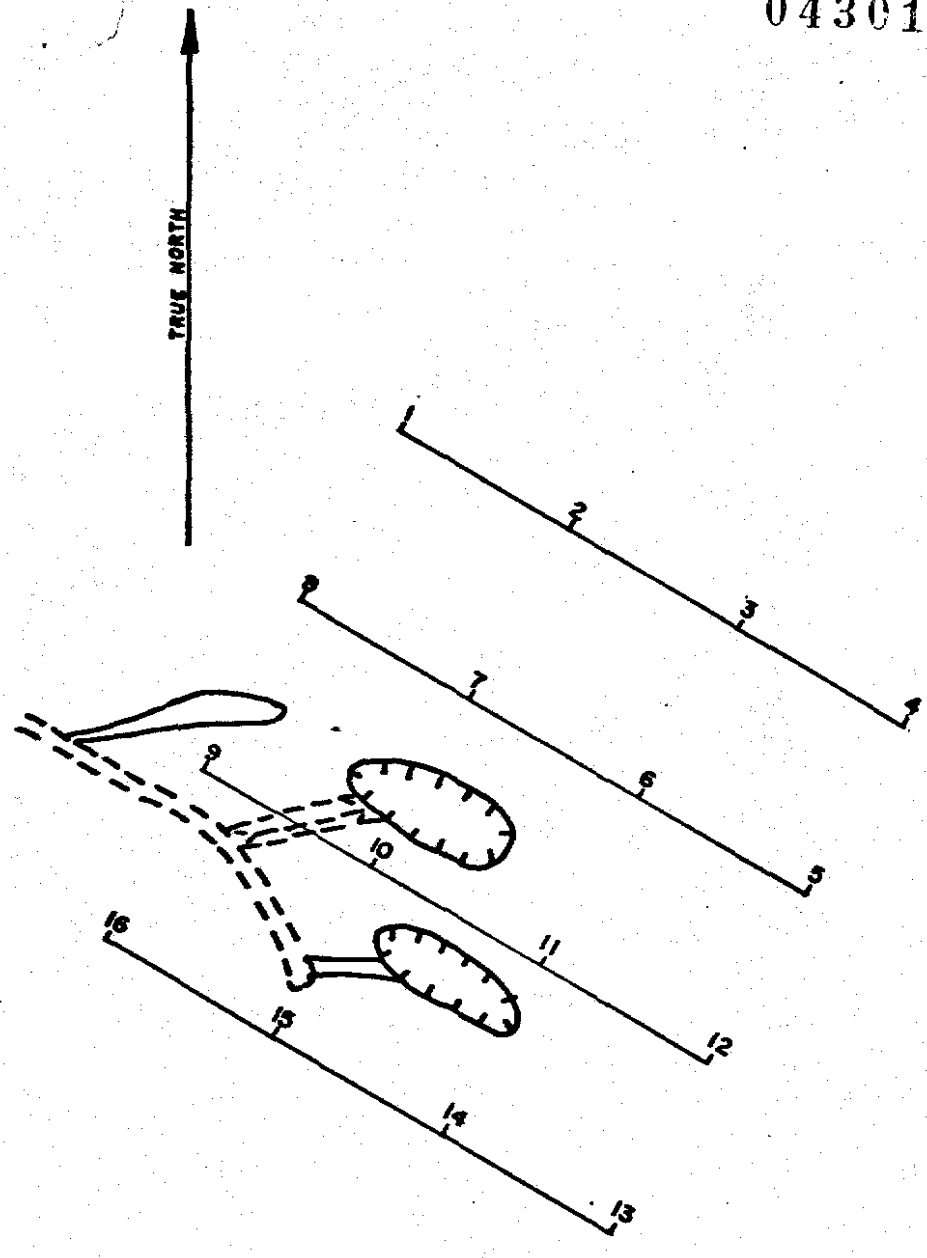
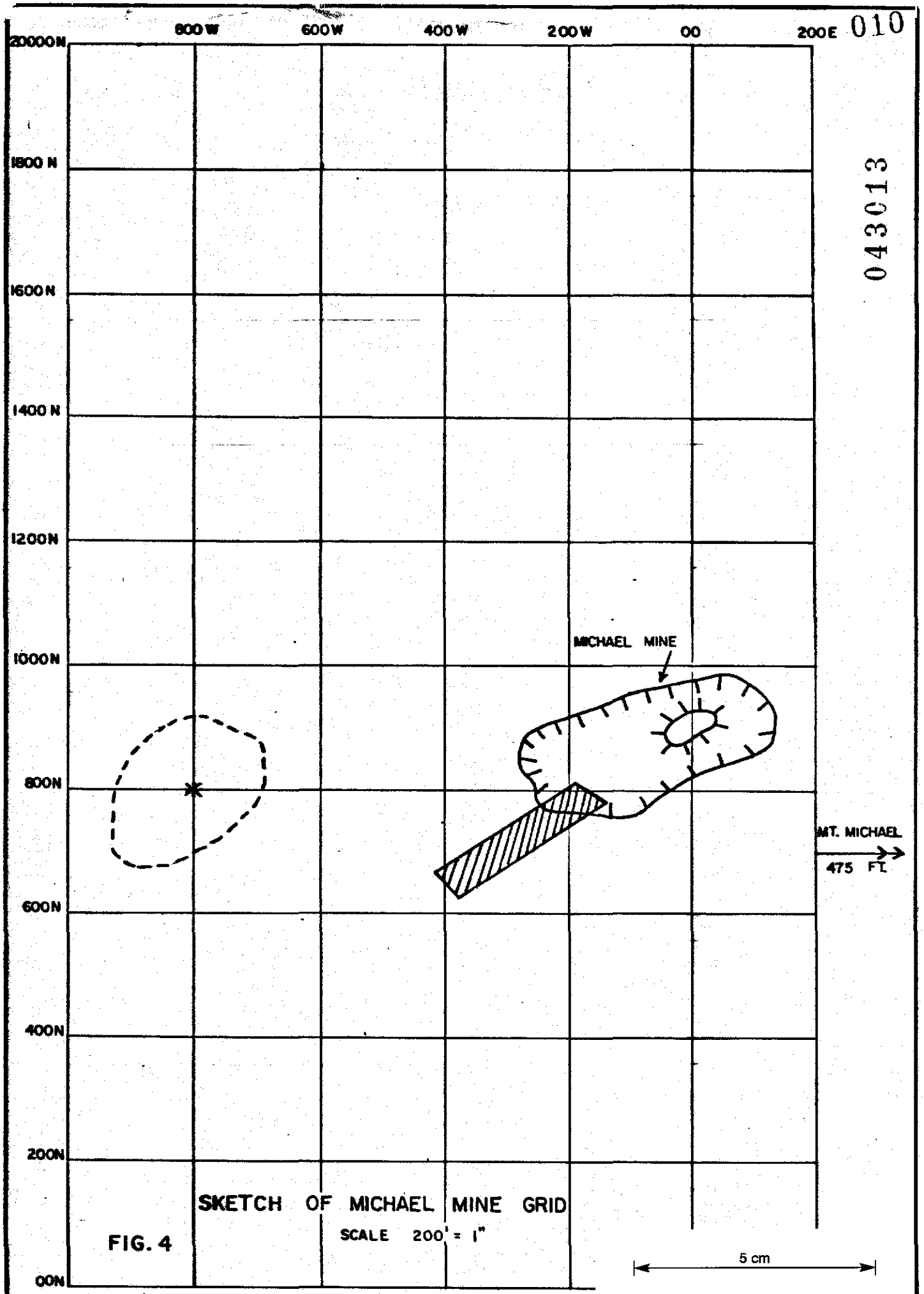


SKETCH OF LIBERATOR MINE GRID

SCALE: 1" = 100'

5 cm

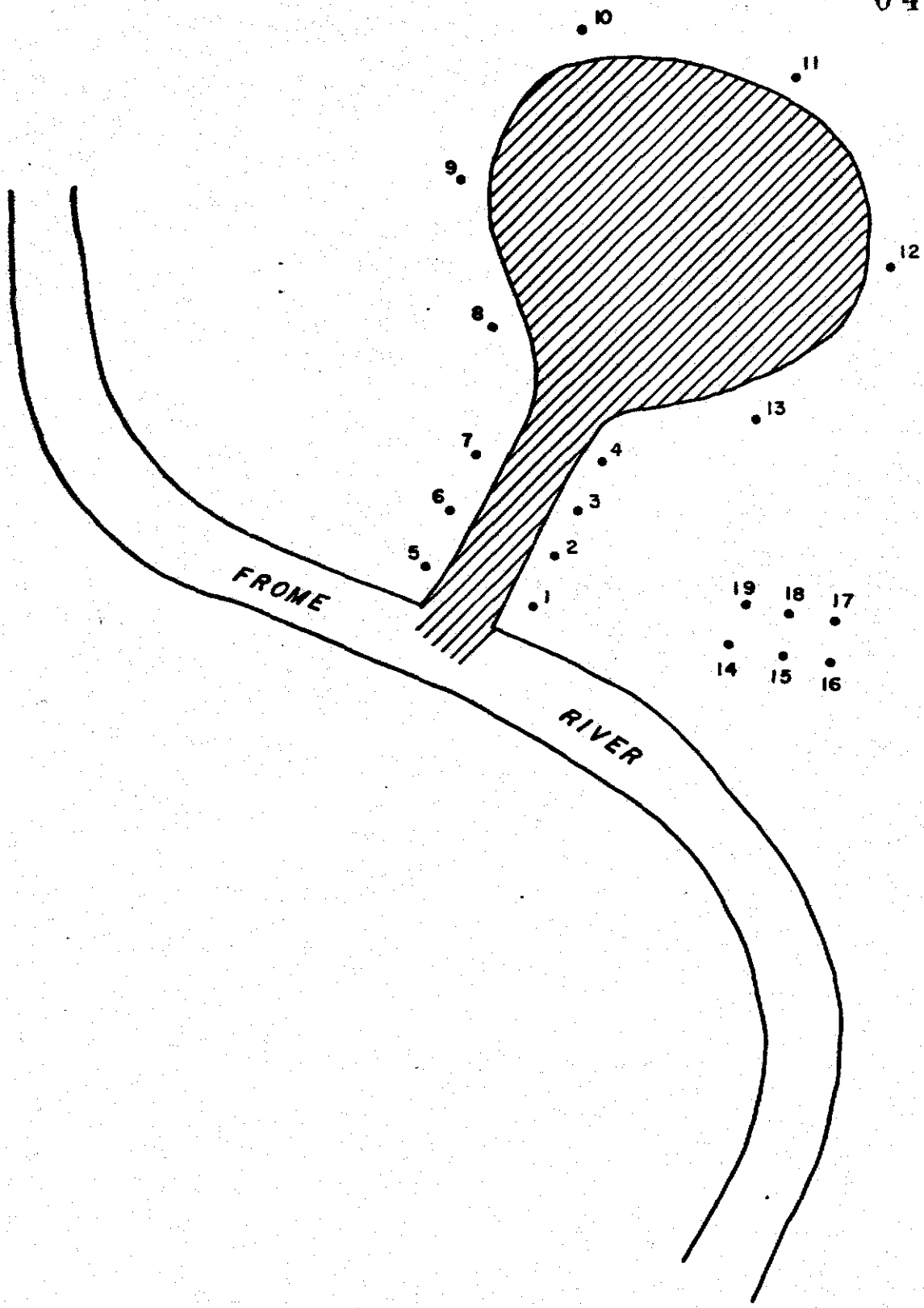
FIG. 3



SKETCH OF MICHAEL MINE GRID

SCALE 200' = 1"

FIG. 4



SAMPLES FROM MULLOCK PILES AND MILL HEAP

FIG. 5 F.B. LODE WELDBOROUGH