



42A11SE0058 63.4217 HOYLE

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63.4217

1983 DIAMOND DRILLING PROGRAMME

in

HOYLE TOWNSHIP, ONTARIO

for

Regis Development Corporation

and

Rio Alto Exploration Limited

R. J. Bradshaw, P. Eng.,
Geologist.

OM82-5-C-165

GENERAL

Regis Development Corporation and Rio Alto Exploration Limited jointly hold 16 leased claims in the north-central sector of Hoyle Township.

In 1968, Shield Geophysics completed magnetic and Ronka EM 16 surveys along north picket lines at 400 foot intervals over the entire property. It was proposed to the previous owners that three conductive zones be investigated by drilling (Bradshaw, 1968).

When in January, 1983, officials of Regis/Rio Alto indicated their intention to drill the anomalies, the writer suggested that the Fraser reduction method be applied to the electromagnetic dip angle data to better classify the anomalies. This work was completed on the west half of the property as shown on the accompanying map. The original three anomalies targetted for drilling are apparent on the plan; however, because the northernmost anomaly is hardly recognizable it was considered of very low priority for a drill investigation.

Also indicated by the newly contoured plan, as well as the original profiled plan, was the possibility of shallow overburden in the west half of the property, subsequently confirmed by drilling.

Although the Hoyle Township property is comparatively isolated, requiring over four miles of tractor road from the nearest truck road, the project was completed over a short period from

February 12th to February 25, 1983.

SUMMARY OF DRILLING

The logs of the three holes completed are attached and summarized as follows:

<u>Hole No.</u>	<u>Location</u>	<u>Direction</u>	<u>Dip</u>	<u>Depth</u>	<u>Target</u>
83-1	Line 12 East St. 17+50 North	grid South	50°	557'	A anomaly
83-2	Line 4 East St. 35+30 North	grid South	50°	507'	B anomaly
83-3	Line 8 East St. 16+50 North	grid South	50°	507'	A anomaly
				1571'	

In order to locate the holes it was necessary to re-chain the appropriate picket lines which had originally been established in 1968.

RESULTS OF DRILLING

Hole 83-1

Hole 83-1 reached bedrock at 35 feet. The entire hole was drilled in fine grained sediments consisting of greywacke and argillite. Sulphides including pyrrhotite, pyrite, chalcocpyrite and minor sphalerite, in descending order of abundance, are primarily associated with carbonaceous, carbonatized and sheared argillite in the upper part of the hole. In the lower part of the hole pyrrhotite-pyrite mineralization is associated with quartz-carbonate veins and stringers.

The pyrrhotite mineralization accounts for the magnetic anomaly.

Very low gold values are associated with the better mineralized sections.

Hole 83-2

After reaching bedrock at 28 feet, this hole encountered the greywacke-argillite unit. Apart from some narrow graphitic zones, accounting for the conductive zone and some poorly defined arkose there was no change in the rock type throughout the hole.

Of twelve samples only a trace of gold was recovered in one (2-9), which tends to correspond with the low sulphide concentration as compared to hole 83-1.

Hole 83-3

Although no assays were available, the mineralization in hole 83-1 supported a second test of anomaly A which was undertaken 400 feet west.

The greywacke-argillite unit was encountered throughout the hole but with, however, fewer sulphide zones than encountered in hole 83-1. Minor gold values were obtained from two samples.

CONCLUSIONS

As demonstrated by holes 83-1 and 83-3 the conductivity of anomaly A (1968) is caused by narrow graphitic zones containing minor sulphide mineralization in the upper part of the holes. The

coincident magnetic anomaly is caused by pyrrhotite mineralization, particularly associated with the carbonatized shear zones.

Very low gold values are associated with the sulphide and carbonate mineralized shear zones. As expected, however, these structures are not sufficiently well developed to carry significant gold values.

Similarly narrow graphitic shear zones in hole 83-2 accounts for the conductivity of anomaly B (1968), and the poor mineralization associated with them carried insignificant gold values.

At this time no further work is recommended for the property. Should important exploration events take place in the vicinity of the claim group a review of the property's potential would be appropriate.

Respectfully submitted,
SHIELD GEOPHYSICS LIMITED,



R. J. Bradshaw
R. J. Bradshaw, P. Eng.,
Geologist.

Timmins, Ontario,
March 11, 1983.

Reference

Bradshaw, R. J.
Shield Geophysics Ltd.
1968

Magnetic-Electromagnetic Survey on the
property of Elephant Country Explorers
Limited, Hoyle Township, Ontario.

DIAMOND DRILL RECORD

PROPERTY REGIS DEV. CORP./RID ALTD EXPL. LTD. HOLE NO. 83-1

TOWNSHIP Hoyle Township PAGE NO. 1

LOCATION Line 12 East
(re-chained) Station 17+50 North

CORE LOCATION Ministry storage

STARTED February 12, 1983

DATUM _____

COMPLETED February 15, 1983

BEARING Grid south


DEPTH 557'

ELEVATION _____

DIP 50°

DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	Au oz/ton		
0 - 35	Casing (overburden).					
35 - 557	Greywacke-Argillite: fine to v. f. gr., grey to black, massive to banded at 45° to c.a., some dark soft chloritic bands up to few inches, narrow black carbonaceous beds, finely diss. widespread pyrrhotite.					
42.5-48.0	fracture zone with conf. fine grained felsic intrusive & disseminated (2%) pyrrhotite, 5% qtz-carbonate filling irreg. fractures with 1-2% pyrite-pyrrhotite, some hematite-limonite stain	1-1	5.5	nil		
49.0-50.5	3 qtz-carbonate str. at about 45° to c.a. averaging 1.5" wide, 1-2% po-py grain gradation suggests tops up hole	1-2	1.5	nil		
51						
61.0-63.5	80% qtz-carb veins at 45° with 2% po-py of contacts in chlorite, some sericite	1-3	2.5	nil		
75-76.1	75% qtz-carb, 1-2% po-py	1-4	1.1	nil		

Drilled By Dominik Drilling

Signed  _____

SHIELD GEOPHYSICS LIMITED

DIAMOND DRILL RECORD


PROPERTY _____ HOLE NO. 83-1

TOWNSHIP _____ PAGE NO. 2

LOCATION _____ CORE LOCATION _____ STARTED _____
 _____ DATUM _____ COMPLETED _____
 _____ BEARING _____ DEPTH _____
 ELEVATION _____ DIP _____

DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	Au oz/ton			
107.0-109.0	irreg. qtz-carbonate-sericite						
98	4" qtz-sericite, bedding near 60° to c.a., crosscutting carbonate str. terminate against black argillaceous bands						
137.5	3" qtz-carbonate str. at 70°						
152.0-154.0	shards of argillite up to 1.5" in greywacke						
154.5-157.0	90% qtz-carbonate, 2% po-py near sericitized & chloritic contacts	1-5	2.5	0.002			
157.0-163.8	carbonaceous & weakly sheared black & fine grained with 1% po						
163.8-166.9	strong sheared carbonaceous partially graphitic zone with conf. carb str. @ 70°, 2% diss. po, chalcopryrite, py	1-6	3.1	nil			
166.9-169.1	90% barren white qtz v. with sericitic contact and some pyrite	1-7	2.2	nil			
169.1-171.9	40% qtz-carb str. in carbonaceous shear zone; 1-2% po-py-chalcopryrite, slight sphalerite	1-8	2.8	0.002			

Drilled By _____

Signed  _____

SHIELD GEOPHYSICS LIMITED

DIAMOND DRILL RECORD

PROPERTY _____ HOLE NO. 83-1

TOWNSHIP _____ PAGE NO. 3

LOCATION _____ CORE LOCATION _____ STARTED _____
 _____ DATUM _____ COMPLETED _____
 _____ BEARING _____ DEPTH _____
 ELEVATION _____ DIP _____

DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	Au oz/ton	Ag oz/ton		
171.9-175.7	15% qtz-carb str. with 1% sulphide mineralization as above	1-9	3.8	8.805			
175.7	dominantly massive greywacke						
201	1" qtz-carb str. @ 30°						
233.5-238.8	20% grey to black irreg. qtz-carb str. in fracture zone with 1-2% po-py, sli. cpy	1-10	5.3	0.002	nil		
238.8-243.5	5% grey qtz-carb str. in fracture zone 1% po-py, sli. cpy	1-11	4.7	nil	nil		
243.5-246.3	80% qtz-carb, 1-2% py-po, sli. cpy, some sericite @ 45° to c.a.	1-12	2.8	0.002			
246.3-262.0	slightly fractured with sli. sulphide dissemination						
280-297	shards of argillite up to 2" in greywacke						
306.5	3" barren white qtz str. @ 30°						
307	thinly bedded argillite @ 80° to c.a. odd qtz str., sli. po-py						
317-342	occasional generally conformable carbonate bands up to 3"						

Drilled By _____

Signed  _____
 SHIELD GEOPHYSICS LIMITED

DIAMOND DRILL RECORD

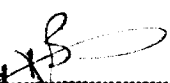
PROPERTY _____ HOLE NO. 83-1

TOWNSHIP _____ PAGE NO. 4

LOCATION _____ CORE LOCATION _____ STARTED _____
 _____ DATUM _____ COMPLETED _____
 _____ BEARING _____ DEPTH _____
 ELEVATION _____ DIP _____

DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	Au oz/ton			
342	beds of greywacke up to 5' have coarse angular talus-like fragments at bottom of bed indicating tops up hole fragments are black carbonaceous argillite						
375.9-378.1	50% carbonate-qtz at 70° with 1% po-py	1-13	2.2	nil			
382-387	ground 5'						
403.5-409.5	60% qtz-carbonate at 45°, 1% po-py, sli. sheared	1-14	6.0	0.002			
406-407	core lost						
409.5-414.5	20% qtz-carb str. at 45°, 1% po-py	1-15	5.0	nil			
414.5-418.9	40% qtz-carb, 1% po-py, sli. sheared	1-16	4.4	nil			
418.9-420.9	40% qtz-carb, 1% po-py, sheared, sli. graphitic	1-17	2.0	nil			
420.9	grey, massive						
459-464	2" barren qtz str. //ing core axis						
471	70% white barren qtz at flat angle to core axis						

Drilled By _____

Signed  _____

SHIELD GEOPHYSICS LIMITED

DIAMOND DRILL RECORD

PROPERTY _____ HOLE NO. 83-1

TOWNSHIP _____ PAGE NO. 5

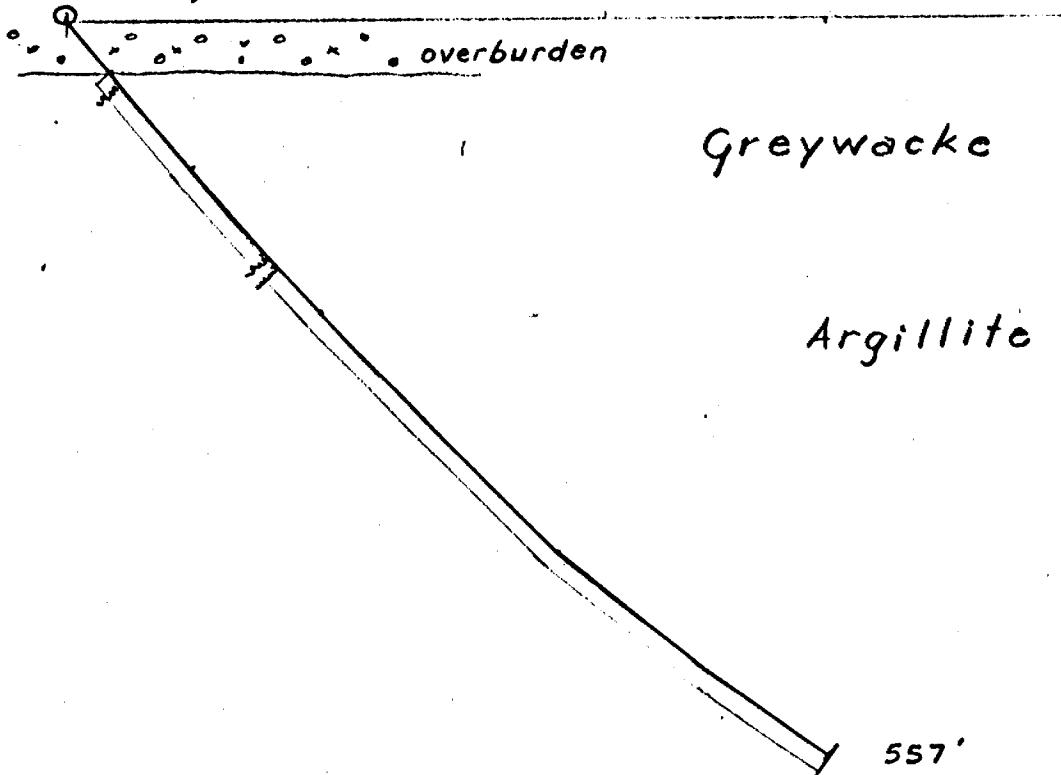
LOCATION _____ CORE LOCATION _____ STARTED _____
 _____ DATUM _____ COMPLETED _____
 _____ BEARING _____ DEPTH _____
 ELEVATION _____ DIP _____

DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	Au oz/ton			
	472.0-477.0 80% qtz, some carbonate	1-18	5.0	nil			
	491.8-493.8 50% irreg barren white qtz						
	497.4 3" irreg. barren white qtz						
	515 1/4" white qtz str. //s core for 5'						
	540-544 10% barren qtz-carb str.						
557	END.						
	Dip Tests						
	200' - 45°						
	557' - 31°						

Drilled By _____

Signed _____
SHIELD GEOPHYSICS LIMITED

Hole B3-1 ; 50°
Line 12 E ; 17+50N



SECTION
HOLE B3-1
1" = 100'



SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0
TELEPHONE: (705) 642-3244
ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 54594

Date: February 28 1983

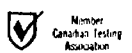
Received Feb. 21/83 18 Samples of split core

Submitted by Shield Geophysics Ltd., Timmins, Ontario Att'n: Mr. R. Bradshaw

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton
1-1	Nil	
1-2	Nil	
1-3	Nil	
1-4	Nil	
1-5	0.002	
1-6	Nil	
1-7	Nil	
1-8	0.002	
1-9	0.005 0.002	
1-10	0.002	Nil
1-11	Nil	Nil
1-12	0.002	
1-13	Nil	
1-14	0.002 0.002	
1-15	Nil	
1-16	Nil	
1-17	Nil	
1-18	Nil	

Per *G. Lebel*
G. Lebel - Manager

ESTABLISHED 1928



DIAMOND DRILL RECORD

PROPERTY REGIS DEV. CORP./RID ALTO EXPL. LTD. HOLE NO. 83-2

TOWNSHIP Hoyle Township PAGE NO. 1

LOCATION Line 4 East
(re-chained) Station 35+30 North

CORE LOCATION Ministry storage

STARTED February 18, 1983

DATUM _____

COMPLETED February 21, 1983

BEARING grid South

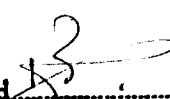
DEPTH 507'

DIP 50°

ELEVATION _____

DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	Au/oz			
0 - 28	Casing (overburden).						
28 - 507	Greywacke-Argillite: grey to black, v. f. gr. banded at 45° to c.a., minor carbonatization marked by carbonate lathes and conformable seaming of up to 1", in upper part several vuggy areas associated with quartz.						
35.0	4" white barren quartz						
32.0	1" irreg. qtz str. //ing core axis						
40.5-43.9	25% qtz in 2 strs., sli. pyrite	2-1	3.4	nil			
56-57	some barren grey qtz, small vugs						
68	3" irreg. grey qtz str.						
74.4-77	grey qtz str. //ing core, upper part is vuggy, sli. pyrite	2-2	2.6	nil			
82	elongated pebbles of felsic rock up to 1"						
89.5-91.1	very vuggy dirty qtz strs. @ 20° to core axis						
98.4-99.7	10" conf. qtz stringer	2-3	1.3	nil			

Drilled By Dominik Drilling

Signed  _____
 SHIELD GEOPHYSICS LIMITED

DIAMOND DRILL RECORD

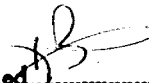
PROPERTY _____ HOLE NO. 83-2

TOWNSHIP _____ PAGE NO. 2

LOCATION _____ CORE LOCATION _____ STARTED _____
 _____ DATUM _____ COMPLETED _____
 _____ BEARING _____ DEPTH _____
 ELEVATION _____ DIP _____

DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	Au/oz			
107.0-109.6	50% qtz str. generally conf., sli. pyrite	2-4	2.6	nil			
121.5	1" qtz str. @ 25° to c.a.						
130	1" qtz str. @ 60° to c.a.						
153-157.5	black somewhat graphitic zone with fine carbonate seaming at 50°						
157	3" black to grey graphitic mud conformable to bedding						
157.2	2" conf. grey qtz						
164, 165	1" barren qtz str.						
170	2" barren qtz str.						
174	1" barren qtz str.						
182	3" barren qtz str.						
183.6-186.0	75% qtz-carb-sericite, sli. pyrite	2-5	2.4	nil			
206-230	some grey arkosic beds						
227-228	barren qtz-carbonate						
270.7-272	50% qtz-carb str.	2-6	1.3	nil			
275	2" qtz-carb str.						

Drilled By _____

Signed  _____

SHIELD GEOPHYSICS LIMITED

DIAMOND DRILL RECORD

PROPERTY _____ HOLE NO. 83-2
 TOWNSHIP _____ PAGE NO. 3

LOCATION _____ CORE LOCATION _____ STARTED _____
 _____ DATUM _____ COMPLETED _____
 _____ BEARING _____ DEPTH _____
 ELEVATION _____ DIP _____

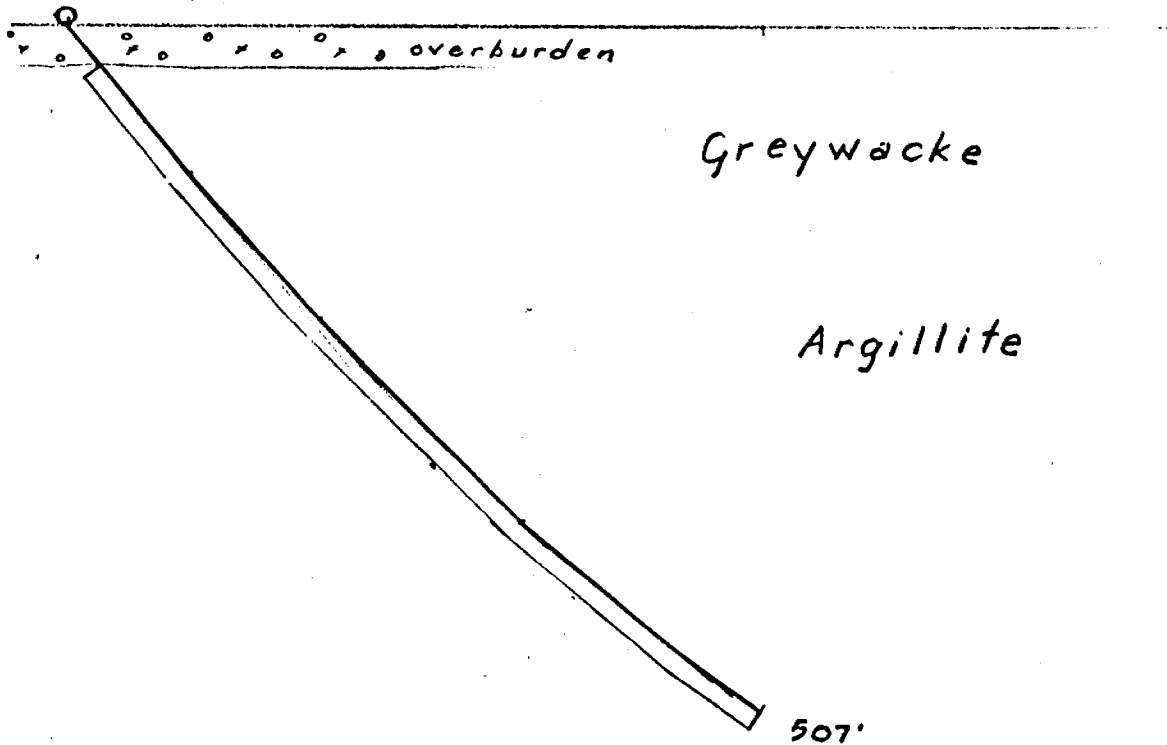
DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	Au/oz	
	296.4-297.9 80% qtz-carbonate, 1% py-po in chloritic wallrock	2-7	1.5	nil	
	300 3" barren grey qtz str.				
	313.7-315.9 90% qtz, some po-py in chloritic inclusions	2-8	2.2	nil	
	321.4-322.4 50% qtz str. with 10% po-cpy bedding at 70°	2-9	1.0	0.002 nil	
	325				
	345 5" qtz str. at 70°				
	348.2 80% qtz-carb str.	2-10	1.2	nil	
	364 5" qtz str.				
	379.3-380.2 irreg. qtz-carb, 1% po-py	2-11	0.9	nil	
	422 irreg. qtz-carb //ing c.a. for 1'				
	425 3" qtz-carb @ 90°				
	478.1-479.2 90% qtz-carb, some sericite, 1% po-py	2-12	1.1	nil	
507	END.				
	Dip Tests				
	200' - 45°				
	500' - 32°				

Drilled By _____

Signed  _____

SHIELD GEOPHYSICS LIMITED

Hole 83-2 ; 50°
Line 4 E ; 35+30N



SECTION
HOLE 83-2
1" = 100'



SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0
TELEPHONE: (705) 642-3244
ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 54614 Date: March 2 1983

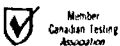
Received Feb. 28/83 12 Samples of split core

Submitted by Shield Geophysics Ltd., Timmins, Ontario Att'n: Mr. R. Bradshaw

SAMPLE NO.	GOLD Oz./ton
2-1	Nil
2-2	Nil
2-3	Nil
2-4	Nil
2-5	Nil
2-6	Nil
2-7	Nil
2-8	Nil
2-9	0.002 Nil
2-10	Nil
2-11	Nil
2-12	Nil

Per *G. Lebel*
G. Lebel - Manager

ESTABLISHED 1928



DIAMOND DRILL RECORD

PROPERTY REGIS DEV. CORP./RIO ALTO EXPL. LTD. HOLE NO. 83-3
 TOWNSHIP Hoyle Township PAGE NO. 1

LOCATION Line 8 East CORE LOCATION Ministry storage STARTED February 23, 1983
(re-chained) Station 16+50 North DATUM _____ COMPLETED February 25, 1983
 BEARING grid South DEPTH 507'
 ELEVATION _____ DIP 50°

DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	Au/oz			
0 - 50	Casing (overburden).						
50 - 507	Greywacke-Argillite: grey to black, f. gr. to v. f. gr. bedded at 45° to c.a., beds of greywacke have shards of argillite up to 2" long; some carbonatized sections associated with weak shearing.						
57.0-58.4	grey carbonate str.						
59.0-60.9	grey carbonate, sli. py	3-1	1.9	0.002 0.002			
67-68.4	grey carbonate, sli. py						
70-107	numerous fine carbonate str. @ 70° to c.a., coincident with disrupted banding						
74-75.5	90% qtz-carb, v. sli. pyrite, grain gradation indicates tops up hole	3-2	1.5	nil			
111-113	50% qtz-carb veining enclosing wrk fragments	3-3	2.0	nil			
113-118	70% irreg. qtz-carb veining, with tourmaline, sli. sericite	3-4	5.0	nil			
118-119.8	60% qtz-carb veining @ 25° to c.a.	3-5	1.8	nil			

Drilled By Dominik

Signed  _____
 SHIELD GEOPHYSICS LIMITED

DIAMOND DRILL RECORD

PROPERTY _____ HOLE NO. 83-3

TOWNSHIP _____ PAGE NO. 2

LOCATION _____ CORE LOCATION _____ STARTED _____


_____ DATUM _____ COMPLETED _____

_____ BEARING _____ DEPTH _____

ELEVATION _____ DIP _____

DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	Au/oz			
122	3" qtz-carb str.						
102	2-2" qtz str.						
175	1" grey felsic pebble						
175-217	arkose beds up to 1' wide with intervening less thick argillite beds @ 70°, pebbles up to ½"						
217-229	narrow black argillaceous beds grade into carbonaceous slate with graphitic partings						
220.8-222.0	2% pyrrhotite, py, cop in carb seams	3-6	1.2	nil			
226-227	3% po-py with carb clots & seams	3-7	1.0	nil			
229-272	greywacke, arkose and argillite beds						
272-280.6	argillaceous with soft narrow graphitic sections & carb seams & clots with po-py						
275.4	3" soft graphite section						
280.6	few vugs filled with pyrite						
280.6-450	greywacke						
290.3	1" qtz str. @ 30°						

Drilled By _____

Signed  _____
SHIELD GEOPHYSICS LIMITED


DIAMOND DRILL RECORD

PROPERTY _____ HOLE NO. 83-3
 TOWNSHIP _____ PAGE NO. 3

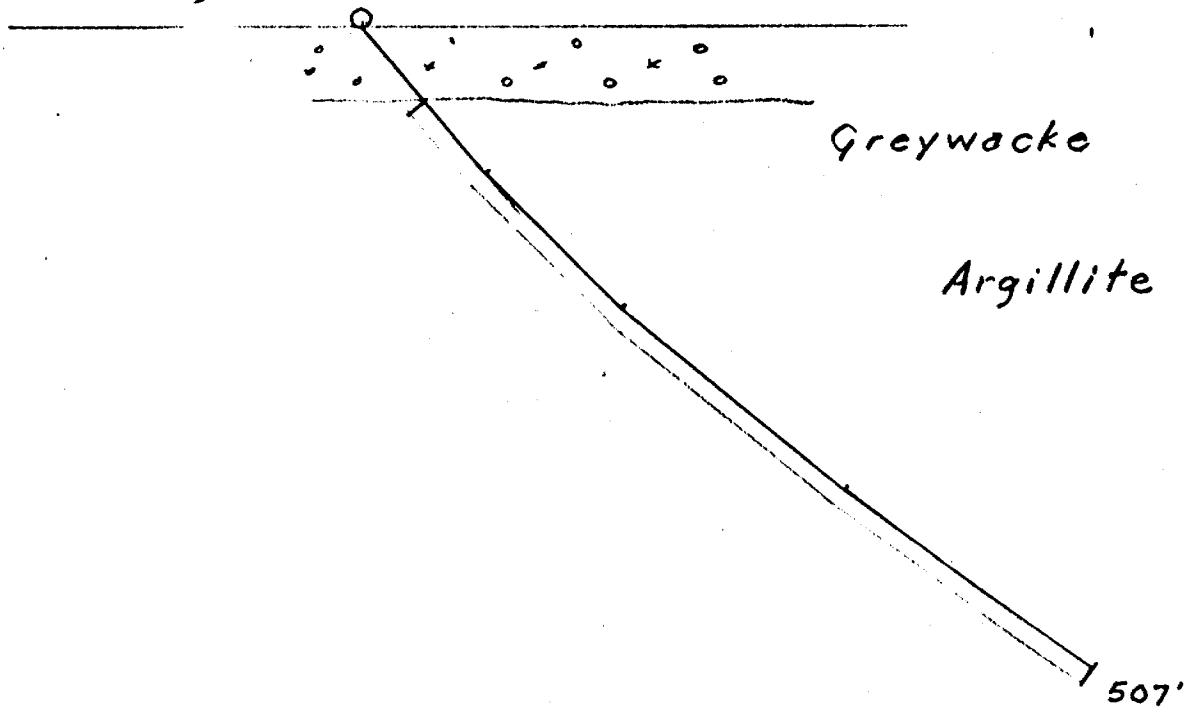
LOCATION _____ CORE LOCATION _____ STARTED _____
 _____ DATUM _____ COMPLETED _____
 _____ BEARING _____ DEPTH _____
 ELEVATION _____ DIP _____

DEPTH FEET	FORMATION	SAMPLE NO.	WIDTH OF SAMPLE	Au/oz		
	339 1" qtz str. @ 40°					
	370.0-374.0 barren white qtz almost //ing core					
	374-376.5 75% barren white qtz approx. lling core	3-8	2.5	0.002 nil		
	392-393.5 some irreg. carb, sli. sulphides					
	406.7 ½" qtz str. @ 45°					
	450 bedding at 50° to c.a.					
	450-476.6 thin black argillaceous bedding					
	463.2 6" black graphitic mud					
	459.1-461.1 grey carb zone, 1-2% pyrite	3-9	2.0	nil		
	476.6-507 mainly greywacke					
507	END.					
	<u>Dip Tests</u>					
	200' - 40°					
	500' - 34°					

Drilled By _____

Signed  _____
 SHIELD GEOPHYSICS LIMITED

Hole 83-3 ; 50°
Line 8 E ; 16+50N



SECTION
HOLE 83-3
1" = 100'



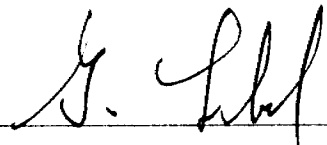
SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0
TELEPHONE: (705) 642-3244
ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 54620 Date: March 7 1983
Received Mar. 1/83 9 Samples of split core
Submitted by Shield Geophysics Ltd., Timmins, Ontario Att'n: Mr. R. Bradshaw

SAMPLE NO.	GOLD Oz./ton
3-1	0.002 0.002
3-2	Nil
3-3	Nil
3-4	Nil
3-5	Nil
3-6	Nil
3-7	Nil
3-8	0.002 Nil
3-9	Nil

Per 
G. Lebel - Manager

ESTABLISHED 1928

1983 March 07

File No. 4330

Regis Development Corporation
600-890 West Pender Street
Vancouver, BC
V6C 1N9

Attention: Mr. King

Dear Sir:

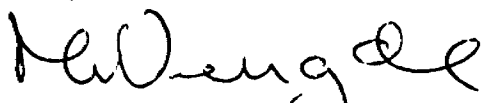
We have assayed the core samples which you delivered to our office on February 28, 1983 and report as follows:

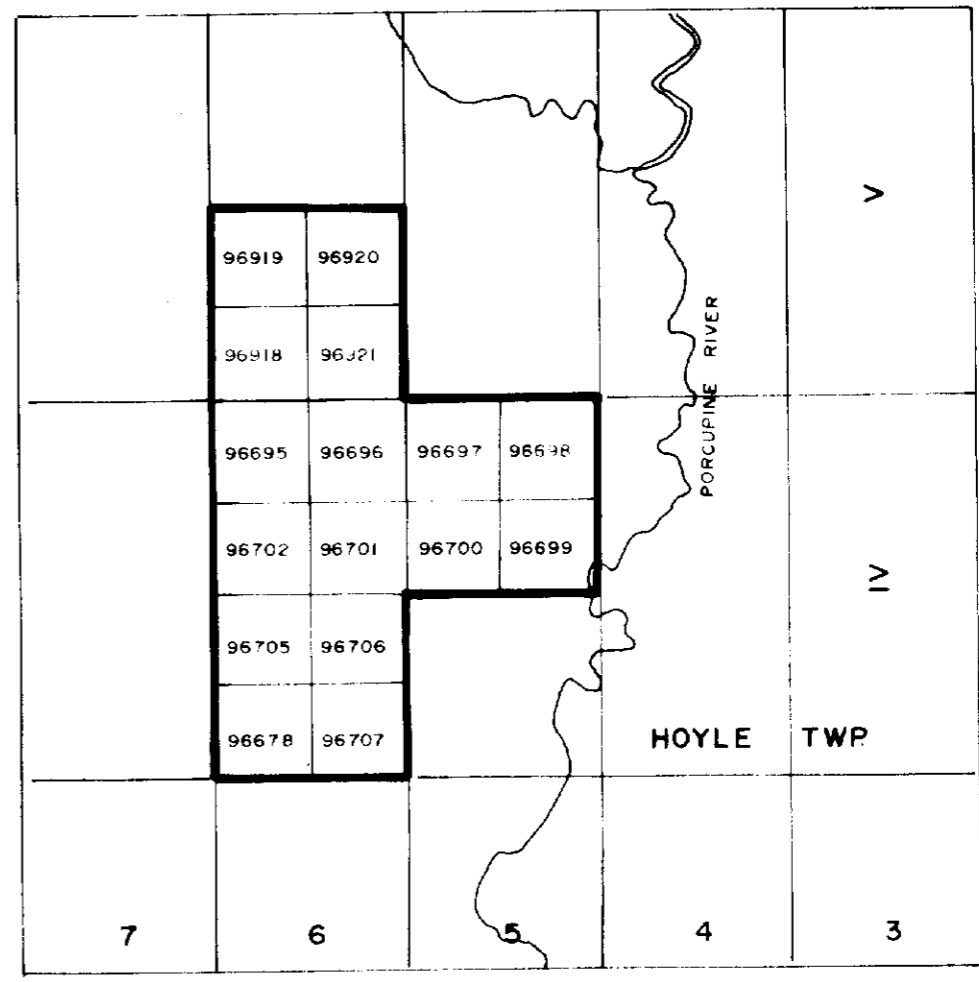
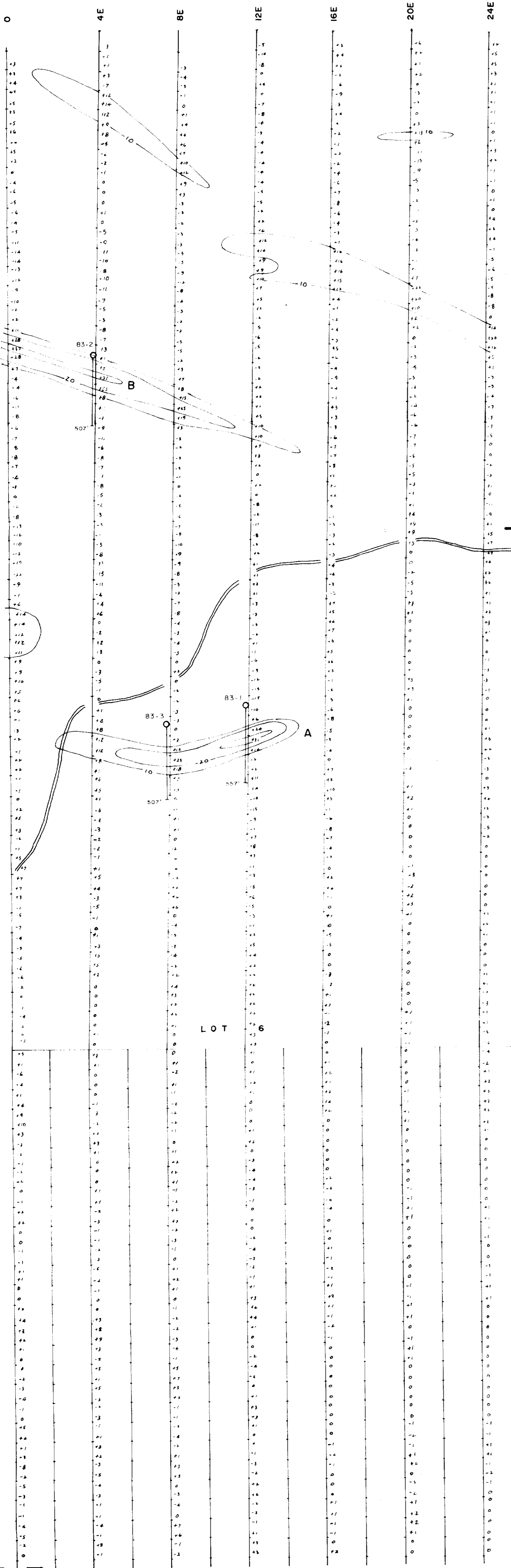
Sample	Au oz/ton	Ag oz/ton	Cu%	Zn%
Hole 1	0.003	0.007	0.01	0.01
Hole 2	0.003	0.016	0.04	<0.01

None of the above values are economic and further work on these samples is not justified.

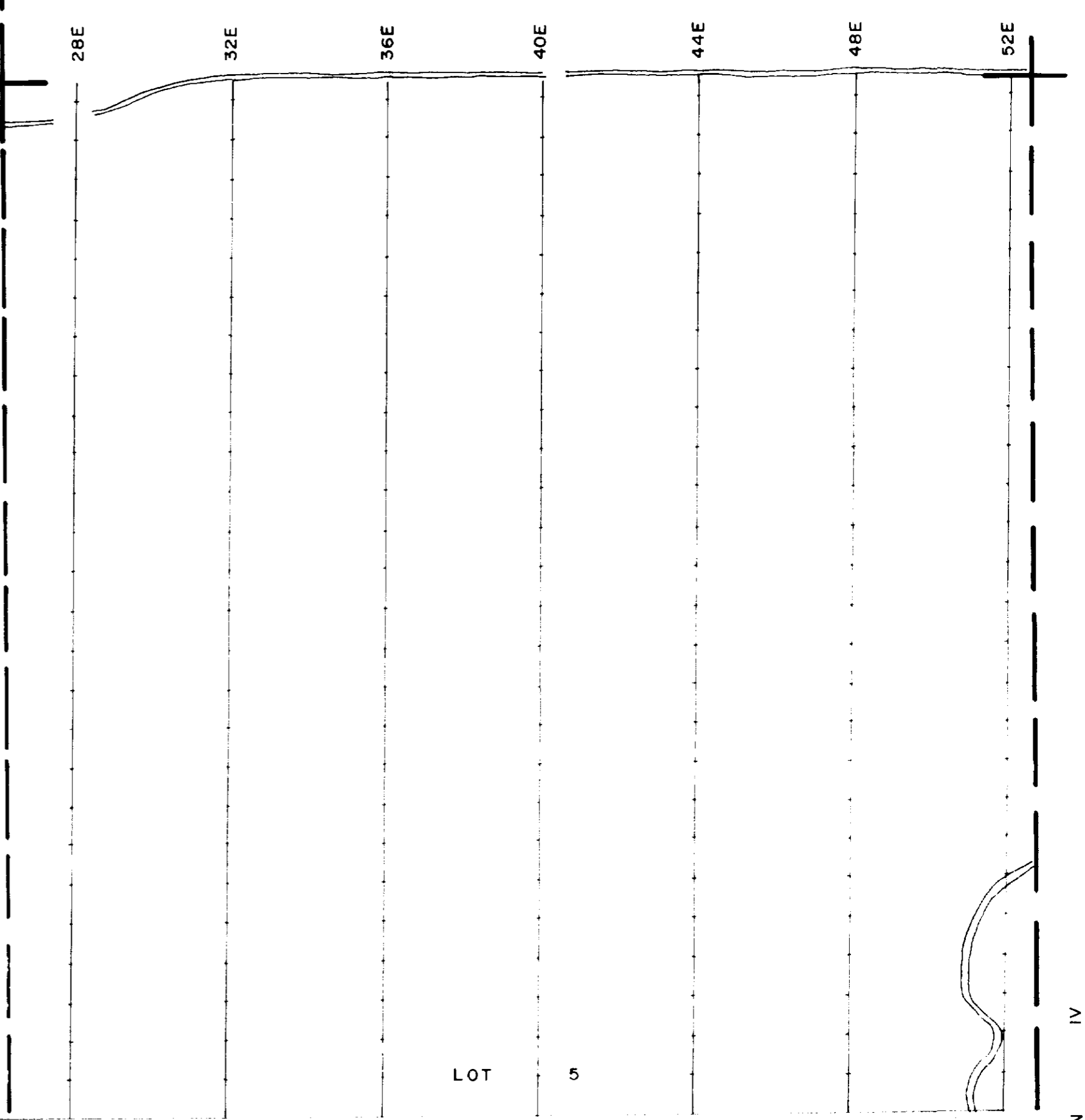
Yours truly,

Bacon, Donaldson & Associates Ltd.


M.J.A. Vreugde, Ph.D., P. Eng.



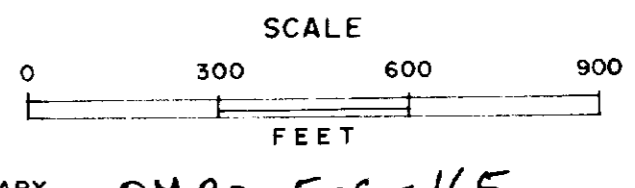
KEY MAP one inch to one half mile



LEGEND

- Measurement station along picket line
- In-phase reading (°) plotted to left
- Quadrature reading (°) plotted to right
- Interpolated in-phase value midway between stations
- Fraser value in units expressed in degrees Unit is the sum of the values of two adjacent stations minus the sum of the next two adjacent stations (Fraser, 1969)
- Contour of 10° Fraser unit
- INSTRUMENT: Ronka EM 16, No. 36
- B3-1 Diamond drill hole projected vertically to surface

ELECTROMAGNETIC SURVEY
 ON THE PROPERTY OF
REGIS DEVELOPMENT CORP.
RIO ALTO EXPLORATIONS LTD.
 HOYLE TOWNSHIP, ONTARIO
 by SHIELD GEOPHYSICS LIMITED



63.4217

Shield
 Map. 1983

JANUARY OM 82-5-C-165

1983

