

Exploration Proposals

Anvil District ^{105-K-3}

Tintina OEX Program

016043

EXPLORATION PROPOSALBLIND CREEK - SWIM DEPOSIT AREASummary:

The Swim Deposit was discovered by aeromagnetic survey methods followed up with ground EM and gravity surveys. The main sulphide mass gave coincident magnetic, secondary electromagnetic and gravity response. Further geophysical exploration of the graphitic 'belt' enclosing the Swim deposit is warranted.

Aeromagnetic Results:

An ELSEC aeromagnetic survey run by Kerr Addison in 1963, gave an anomaly of 300 gammas over the Swim Deposit. The 1968 GSC high level (1000 foot) survey showed no response directly over the Swim Deposit. However, the GSC aeromagnetic survey did show two anomalies on strike with the graphitic horizon enclosing the Swim. One, to the southeast is of 140 gammas amplitude, it has been checked by ground follow-up and found to be a greenstone plug. The second anomaly, to the northwest, reaches an amplitude of 80 gammas and is located in an overburden covered region.

This 80 gamma magnetic anomaly was followed up by Kerr Addison in 1968 with a low level (100 foot) ELSEC helicopter borne magnetometer survey. The resulting profile is of 125 gammas relief and appears to reflect a mass some 700 to 900 feet in width dipping in a southwesterly direction. The top of this structure could be at a depth of some 400 feet.

Aero-Electromagnetic Results:

The Dynasty 1965 Aero-EM survey outlined a thick, well conducting sequence of northwesterly striking graphitic schist. Within this belt higher conductivity response is coincident with the Swim Deposit. The Swim Deposit is enclosed on its north and south flanks by graphitic

material.

The west end of the Swim shows maximum in phase response of 21 ppm as well as good conductivity of ratio 21.0/5.5.

In coincidence with the GSC aeromagnetic anomaly to the northwest, a maximum in phase response of 13 ppm is reached with a conductivity of 13.0/2.5

	Aero-Mag		Aero-EM	
	GSC Survey 1000' M.T.C.	Anvil Survey 400' M.T.C.	In phase Response	Conductive Ratio
Faro No.1	Nil gammas	120 gammas	19 ppm	1.9/.9
Faro No.2	Nil	20	41 ppm	4.1/2.6
Vangorda	190	270	149 ppm	14.9/7.0
Swim	Nil	*300	210 ppm	21.0/5.5
*Flown at 100' M.T.C. by Kerr Addison				

Table 1. Airborne Mag-EM maximum response over Anvil area massiv sulphides.

Ground Surveys:

Limited ground survey work has been done over the northwestern Swim claims by Kerr Addison. 2 Lines of Gravity survey produced a weak .6 milligal anomaly in the approximate vicinity of the airborne mag-em anomalies.

Kerr Addison are aware of the Electromagnetic and coincident GSC magnetic anomaly and as a result, express interest in doing further work in that area. It should be mentioned that the aero-EM results over the Swim Claims were made available to Kerr in return for their geophysical results on that property.

Recommendations:

1. Fill in staking between the DY claims and Swim Group should be done in the event of further successful exploration by Kerr on the new target.
2. A definite relationship exists between massive sulphides and their proximity to graphitic schists or phyllite in the Anvil Blind Creek area. To date massive replacement sulphides found within the graphitic belt have been detected by magnetic and gravimetric means. Detailed geophysical study of the graphitic horizon is warranted after possible extensions from the Swim Lake area have been located through stratigraphic correlation studies. Rock-Geochem and Trace Element analysis would aid in this approach.
3. The Swim graphitic schists probably extend west of Blind Creek where they have been faulted to the south, this favourable belt should be further explored by means of stratigraphic correlation with the Swim Lake Section.
4. The Swim Lake Section of graphitic schists, through overthrusting or displacement by large scale regional folding (Karvinen 1970) may possibly be identified with the north Blind Creek (Beta Group) graphitic schist. This area has never been fully explored. Diamond drill core from earlier Frontier and Cominco work should be logged as part of a stratigraphic correlation study.

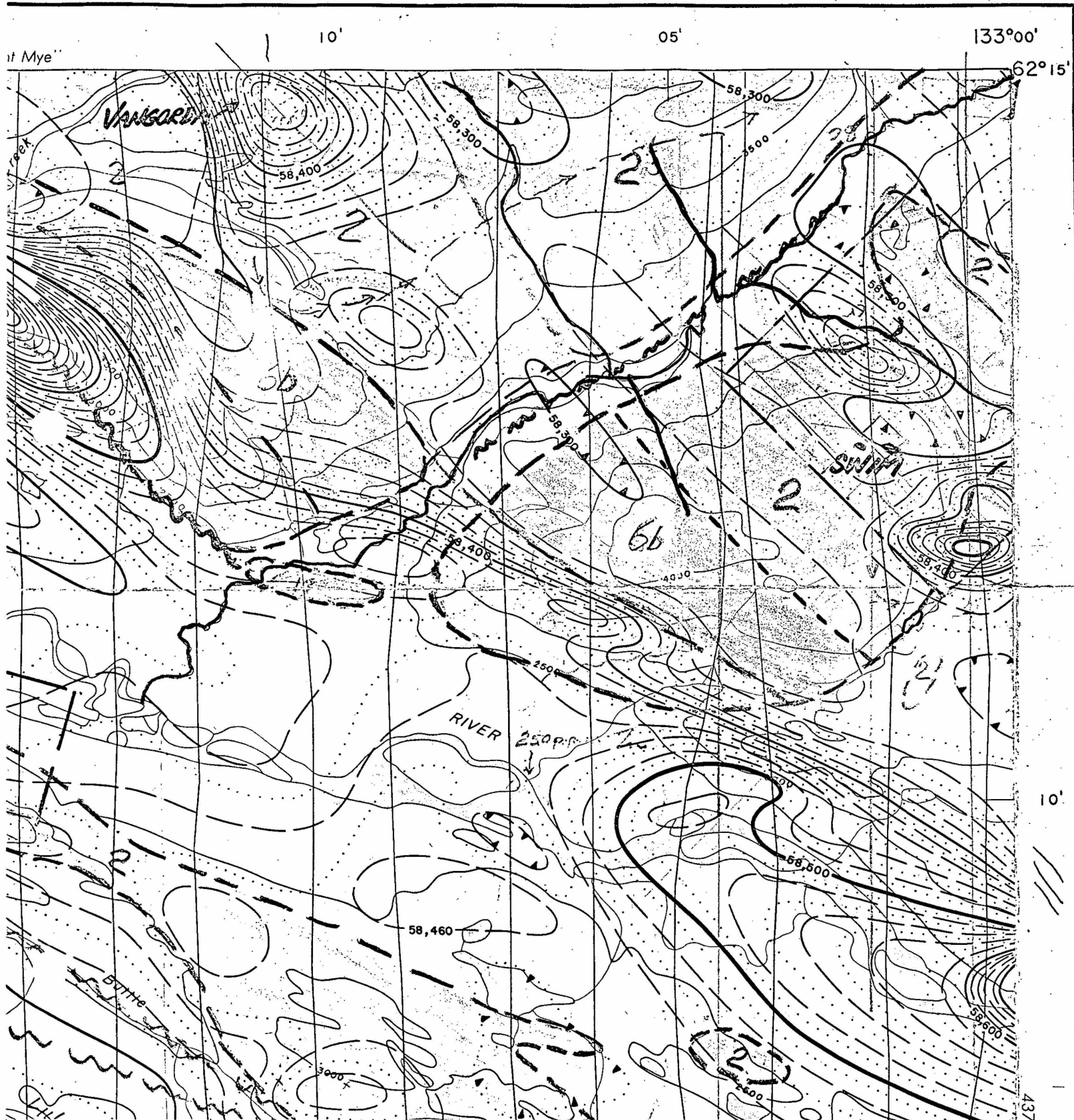
John S. Brock

December 16th, 1970



GOVERNMENT OF CANADA
MINES AND TECHNICAL SERVICES

SHEET 105 $\frac{K}{3}$



October 5th, 1970.

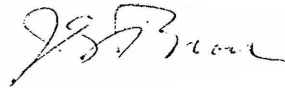
EXPLORATION PROPOSAL

105 K. 6

Anvil Project

Al Kulane reported obtaining soils high in lead and zinc on the north-facing slope south of Shrimp Lake. This area should be investigated with contour soil sampling to re-define these anomalies.

J. S. Brock



TINTINA PROJECT - ANVIL AREA

SUMMARY

The Dynasty organization is more familiar with the geology and mineralization of the Anvil District than any other area in Yukon. This reason, coupled with the fact that any discovery of new ore reserves would be of direct benefit to Dynasty, makes the region a prime target for further exploration.

Financial restrictions necessitate a minimal budget. An effective, low cost exploration program has therefore been designed to develop targets that would later be drilled under a joint venture financing scheme with a suitable joint venture partner.

Initiation of the Tintina - Anvil Area Project is considered to be the first step in a major program designed to allow Dynasty/Atlas a major share of lead-zinc reserves in Western Canada.

EXPLORATION PHILOSOPHY

The 'philosophy of exploration' as construed from a variety of communications between Aho, Jones and Brock would require adherence to the following general outline.

- Dynasty/Atlas acquisition of claims in Anvil Area.
- Joint venturing of selected individual claim groups for financing of diamond drill programs.
- Negotiations with Kerr Addison to take-over or participate in further exploration/acquisition of their Vangorda and Swim Lake holdings.
- Negotiations with Cyprus Mining Corporation to acquire a larger share of Anvil Mining Corporation and therefore

acquire control of mineral exploration procedure as well as all other corporate matters in Anvil.

- Approach all other holders of potential base metal reserves in Yukon for establishment of a consortium of Canadian mining companies interested in the development of a smelter in Yukon.

To ensure that Dynasty/Atlas are successful in the pursuit of this philosophy, exploration must be initiated immediately in the Anvil area and must then continue, controlled only by firmly established corporate goals.

EXPLORATION APPROACH

A detailed report on the exploration approach, "Exploration Approach - Tintina, Anvil Area Project - 1971" (Brock, Feb. 1971) has been prepared. A summary of the main exploration sequence and methods and techniques, as described in this report follows:

1. Detailed studies of existing information to localize favourable phyllite belt:
 - (a) Existing airborne EM (Lockwood A.E.M. 1965),
 - (b) All available diamond drill core,
 - (c) Re-compilation of existing geologic maps,
 - (d) Aerial photo studies of photo linear features.
2. Geochemistry - call on assistance of U.B.C. to provide a graduate student and necessary facilities to conduct rock geochem studies to the phyllite belt in the hopes of localizing a geochemical marker that can be related to location of sulphide occurrences.
3. Geologic investigations - Templeman-Kluit will be contacted for further information on his interpretations regarding the economic relevance of certain geologic features.

4. Airborne Geophysics - once definite boundaries have been put in the favourable phyllite belt, the region would be flown with a more sensitive A.E.M. system that could provide better conductor discrimination.
5. Prospecting - more detailed prospecting of the phyllite belt is required to search for float occurrences, sphalerite in phyllite, gossans and other obvious targets. Some use of the 'K-9 dogs' could be found here.
6. Priority areas for follow-up:
 - (a) N.W. Swim Group.
 - (b) 'Sun' graphite belt south of Shrimp Lake.
 - (c) Blind Creek - Beta Group belt.
 - (d) Moose Creek area.
 - (e) Fill-in work around Lorna, Gran, Roto, Aro claims.
 - (f) Attention will be paid to 'due dates' of other claim groups that may be lapsing in the near future.
7. Staking of all geologic, geochemical, geophysical targets.
8. Ground follow-up on claim groups relying on EM-gravity surveys.
9. Drilling of targets developed on each claim group through joint venture participation.
10. Computer compilation of all available exploration data.

MINERAL CLAIMS - ANVIL AREA

<u>Company</u>	<u>Claim Group</u>	<u>No. of Claims</u>	<u>Area-Sq. Miles</u>	
Kerr- Addison	Vangorda	64	5.2	
	Swim	72	5.8	
	B.S.	24	1.9	
	P.B.	<u>10</u>	<u>.8</u>	
	Total	170	13.7	(14)
Dynasty	Aro	40	3.2	
	Roto	53	4.3	
	Gran	24	1.9	
	Lorna	60	4.8	
	Jean	28	2.2	
	Ho-Ho	<u>35</u>	<u>2.8</u>	
	Total	240	19.2	(19)
Anvil	Faro	220	17.7	
	Gal	268	21.6	
	Sun	115	9.3	
	Tie	24	1.9	
	Dea	55	4.4	
	Dy	124	10.0	
	Sea	130	10.0	
	Pea	44	3.5	
	Lea	20	1.8	
	Nasty	<u>24</u>	<u>1.9</u>	
	Total	1,004	81.1	(80)

Area of unstaked ground in Phyllite belt 140 sq. miles
 Area of staked ground in Phyllite belt 240 sq. miles
 Percent of unstaked ground 37%
 Percent of staked ground 63%

Area of total belt held by Kerr Addison 5%
 Area of total belt held by Dynasty 6%
 Area of total belt held by Anvil 27%
 Area of total belt held by Others 24%

	MAY	JUNE		JULY	AUGUST	
O.E.X.	Core Logging	Geochem studies on core				
		Blind Crk Shrimp belt	Blind Ck Swim belt	Blind Ck Beta belt	N.W. Phyllite sec. Lower Anvil Crk.	Moose Crk belt or Contingent Area
		Geol. Prosp. Geochem 				
		A.E.M. Survey	Staking			
Ho-Ho Claims		Linecutting E.M. Surveys			Contingent	
Lorna Claims			Remove drill E.M. Survey		Gravity	
Aro Claims Gran Claims Jean Claims			Linecutting-E.M. Surveys		Survey	
Roto Claims			E.M. Surveys		Follow-up	
New Claim Groups					Linecutting E.M. & Gravity Surveys	

Table (iii) Schedule of Proposed Exploration
Tintina - Anvil Project

TINTINA PROJECT - ANVIL AREA
EXPLORATION PROGRAM AND BUDGET

<u>Month</u>	<u>Area</u>		<u>Cost</u>	<u>Total Monthly Cost</u>	
Jan.	OEX	Geology	Preliminary studies- Roberts, Dean, Photo interpretation, com- pilation of existing data and review of previous exploration results.	1,200	
					\$ <u>1,200</u>
Feb.	OEX	Geology	Preliminary studies: Salaries Supplies	1,200 200	
	Ho-Ho	Staking	Ho-Ho group 35 claims- Contract	1,300	
	OEX	Geophysics	Preliminary studies- Brock	1,000	\$ <u>3,700</u>
March	OEX	Geology	Preliminary studies	1,400	
	Roto	Geol. Geoph. Geochem.	Assessment Reports	300 ✓	
			Property Maintenance	600 ✓	
	Gran	Geol. Geoph. Geochem	Assessment Reports	300 ✓	
			Property Maintenance	500 ✓	
	Jean	Geol. Geoph. Geochem	Assessment Reports	300 ✓	
			Property Maintenance	500 ✓	
	Lorna	Geol. Geoph. Geochem Drilling	Assessment Reports	600 ✓	
			Property Maintenance	1,200 ✓	\$ <u>5,700</u>
April	OEX	Geology	Logging of available core	1,200	
		Travel		500	
		Camp Costs		400	\$ <u>2,100</u>

<u>Month</u>	<u>Area</u>		<u>Cost</u>	<u>Total Monthly Cost</u>		
May	Ho-Ho	Line-cutting	30 miles 800 ft. spacing	2,250 ✓		
		E.M.	30 miles @\$60/mile	1,800 ✓		
		Camp Costs	15 days, 5 men @ \$10/day	750 ✓		
	OEX	Geology	Blind Creek-Shrimp belt	1,200		
		Prospecting		1,200 ✓		
		Geochem		600 ✓		
		Camp Costs	15 days, 3 men @\$10/day	450	\$ 8,250	
	June	OEX	Geophysics	A.E.M. Survey 800 L/M @\$20/L.M.	16,000	
			Geol.	Blind Creek-Swim Lake	1,200	
			Prosp.	belt and Blind Creek-	1,400	
Geochem			Beta Belt	1,200 ✓		
Camp Costs			30 days, 3 men @\$10/day	900		
		Staking	200 claims @\$50/claim	10,000		
Lorna		Drilling	Removal of drill from site (?)	3,000 ✓		
		Camp Costs		300 ✓ ₆₀₀		
		Geophysics	E.M. Survey (40 L.M.)	2,400 ✓		
Aro Gran Jean		Linecutting	50 miles	3,750 ✓		
	Geoph.	E.M. Surveys	3,000 ✓			
	Camp Costs	30 days, 6 men @\$10/day	1,800 ✓			
Roto	Geoph.	E.M. Surveys- 20 miles	1,200 ✓			
	Camp Costs	2 men 1 week	150 ✓			
	Travel		1,000 ✓	\$ 47,300		

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<u>Month</u>	<u>Area</u>		<u>Cost</u>	<u>Total Monthly Cost</u>	
July	All Prop.	Geoph.	Contingent gravity survey follow-up on selected targets	6,000 ✓	
	New Claim Grps.	Linecutting	Estimated 60 miles	4,500	
		Geoph.	E.M. 60 miles	3,600	
			Camp Costs	1,800	
			Travel	1,000	
	OEX		Geology, Geochem, Property	3,800	
			Travel	600	\$ <u>21,300</u>
Aug.	OEX		As in July	4,200	
	New Claim Groups		Continued ground follow-up survey	3,000	\$ <u>7,200</u>
	Prop.	Diamond Drill.	Under joint venture financing	-	
Sept.			Continued program under joint venture financing	-	
October-December			Final Report Compilation	4,000	\$ <u>4,000</u>
TOTAL FOR YEAR					\$ <u><u>100,750</u></u>

BUDGET NOTES

The Tintina-Anvil Project will be carried out with a budget of \$100,750. Continuation of the project will involve joint venture financing of a diamond drill program. Northern Mineral Grant monies have been applied for; it is conceivable that Dynasty may be re-imbursed a portion of 1971 exploration costs amounting to \$40,000. There is also a chance that 40% of the 1970 exploration costs incurred on the Lorna, Roto, Gran, Jean claims during 1970 could be re-imbursed to Dynasty, this would amount to about \$32,000. With a credit of \$72,000 from the Northern Mineral Assistance Grant, the 1971 Tintina-Anvil program could only cost \$28,000.

Note that administration charges have not been included in the 1971 budget, all figures are direct expenditures.

Aro & Lorna Claims	\$ 67,365
Jean Claims	1,140
Gran Claims	5,500
Roto Claims	<u>6,900</u>
	\$ <u>80,905</u>

Table (iv) 1970 Expenditures - Anvil Area

GENERAL EXPLORATION

A number of broad-range exploration proposals will be kept on file in the event that extra funds are found to carry on with a larger program. A few are mentioned here:

1. K-9 Dog Syndicate - Dynasty's participation in this syndicate of mining companies sponsoring the training of 'sulphide-sniffing' dogs will cost \$1,500 during 1971. The cost has been charged to Vancouver Exploration Office. In all likelihood the dogs will be used for a few weeks on the Tintina-Anvil project, however, no commitment to use of the dogs has been made as the cost per dog to Dynasty for their services is not known at this time.

2. Brodell Prospecting Syndicate - Hugo Brodell, prospector for some years for the Dynasty Group, has been laid off from his retainer-supported position with the company. Dynasty has no direct use for him this year because of the reduced program. Brodell has spent many years prospecting northern B.C. and southern Yukon. He has found numerous 'showings', many of which have not received detailed attention. A 'grubstake' proposition could be offered to Brodell for a cost to Dynasty of \$10,000, Brodell would retain a 15% interest in any discovery brought to Dynasty's attention and subsequently staked.

3. Follow-up on Company Exploration Files - (Originally proposed by G. Pearse). Most recommendations for OEX follow-up are read, some areas may be examined and eventually the report is shelved. When, in the future, interest in an area is renewed perhaps in a wholly new context, the reports may be dug up again but most likely their relevance will go unnoticed.

It would be advantageous to extract follow-up areas recommended in old reports, the pertinent data would be placed on small cards filed N.T.S., with an index map of areas of interest. It often happens that an area gets followed-up and written off by an individual and at a later date someone else with a different approach in the same area finds a mine. There is also the possibility that in some years hence a certain type of known mineralization may be discovered to be an indicator of some other valuable mineral not previously analyzed for. Some examples are lead-silver veins, placer gold and tungsten. No one now thinks of these metals without thinking of porphyry Cu-Mo.

We have to view anomalous areas as being of continuing interest. Kennecott didn't bother following up their mid-1950 geochem expression on Highland Valley!! They were probably lost in the maze of reports and files.

4. Rare Earths Study - Dynasty, along with 20 other Vancouver-based mining companies, has financed the compilation of all known mineral occurrences in B.C. Information was gathered from both Federal and Provincial reports.

Using this valuable data as a guide, a search for rare earths would be initiated. A compilation of all rare earths such as vanadium, cesium, rhenium, gallium would be made, showing what associations could be expected with more common minerals in different geologic environments. Rare earths with good market value would then be sought on properties previously abandoned because of their poorer 'common mineral' market value. The compilation of mineral occurrences in B.C. will provide the list of available properties that can be re-explored for their rare-earth potential.

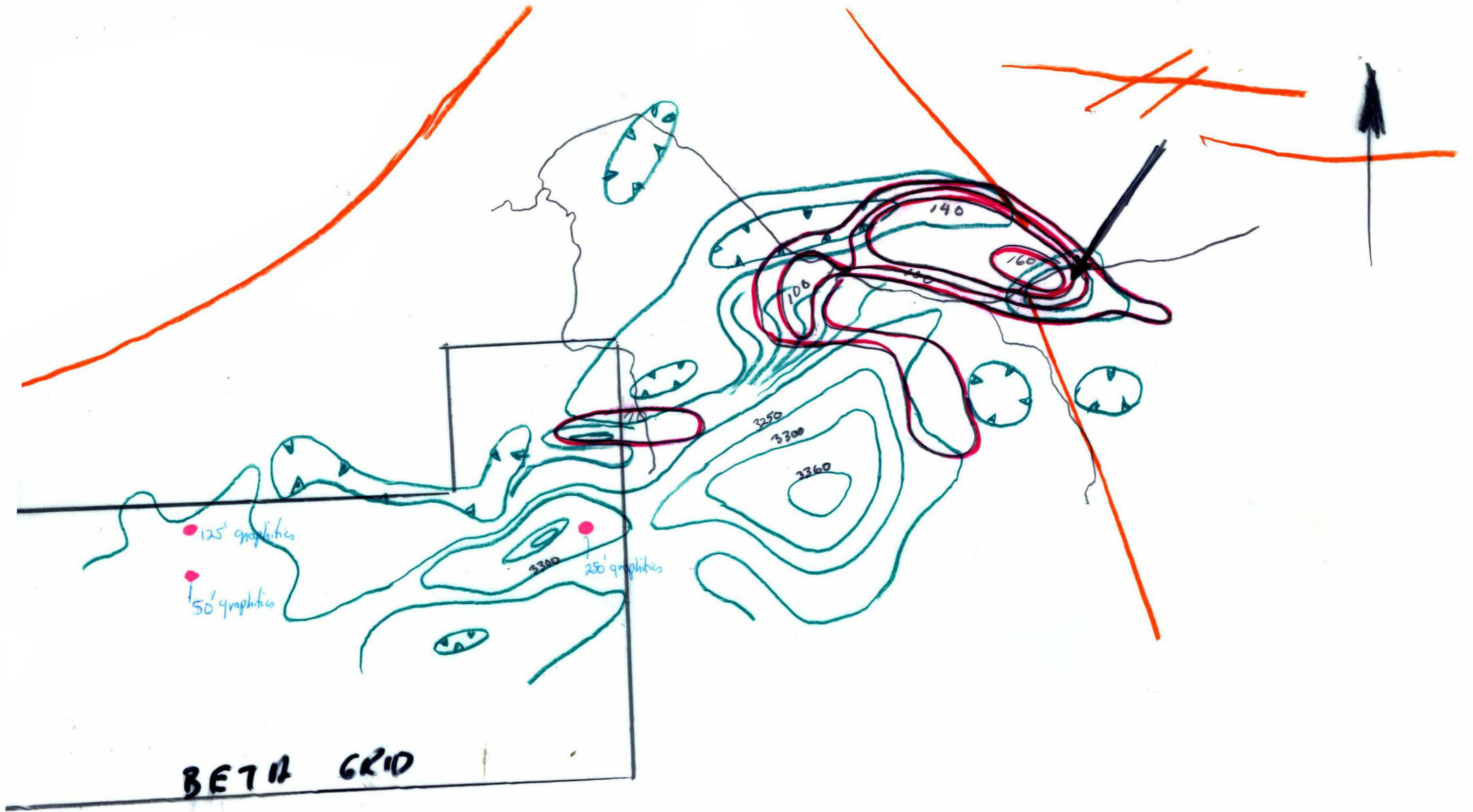
WHITEHORSE BASE

It is hoped that the sale of assets held by Atlas in Yukon will be possible during the first-half of 1971.

A list of 'sale' items has been prepared and circulated to interested buyers.

Atlas assets in Yukon consist of:

	<u>Re-Sale Value</u>
Real Estate	\$ 47,700
Vehicles	37,990
Field Equipment	
(a) Camp Equipment	7,960
(b) Survey Equipment	8,180
Geochem Lab Equipment	10,000
Office Equipment	1,780
Assets to be sold to Dynasty	<u>11,034</u>
	\$124,644



BETA GRID

