



671416

"PHASE III" FOLLOW-UP WORK
ADDITIONS TO GEOLOGICAL, GEOCHEMICAL,
AND GEOPHYSICAL REPORT
(SEPTEMBER 20, 1983)
SKY PROPERTY — TREASURE MOUNTAIN AREA
NTS 29H/6 SIMILKAMEEN MINING DIVISION
LONGITUDE 121°04'W LATITUDE 49°25'N
FOR UNICORN RESOURCES LTD.
NOVEMBER 24, 1983
T. NEALE, B.Sc. T.G. HAWKINS, P.GEOL.



SUMMARY

The Phase III detailed geochemical, geophysical, and geological follow-up program was carried out on the Sky property in the Similkameen Mining Division.

Results of the work on the new grid itself were generally poor, but mineralized zones were found to the east and to the north of the grid that assayed up to 4.08% lead, 14.8% zinc, 5.90 oz/ton silver and 0.04 oz/ton gold in grab samples. Further follow-up work is required in these areas, as well as around the new showing.

A three-week grid extension program involving approximately six line km of VLF-EM, soil geochemistry, and geological mapping along with prospecting and/or trenching is recommended at an estimated cost of \$28,000.



TABLE OF CONTENTS

	page
Summary	i
Introduction	1
Property: Location, Access, Title	2
History	2
Regional Geology	2
Phase III Follow-Up Work	3
VLF-EM Survey	3
Work Done	3
Results	3
Geochemistry	4
Work Done	4
Results	4
Geological Mapping, Trenching, and Sampling	6
Work Done	6
Results	6
Proposed Follow-Up Work Program	9
Plan	9
Budget	10
Schedule	11
Conclusions	12
Recommendations	14
Certificates - T. Neale, B.Sc.	15
T. G. Hawkins, P.Geol.	16
Bibliography	17
	cont.



Table of Contents cont.

Appendix I	Statement of Expenditures List of Personnel
Appendix II	Assay and Geochemical Certificates Rock Sample Summary
Appendix III	Figures 4, 6
Appendix IV	Figure 14
	List of Illustrations
Figure 4	VLF-EM Survey Results and Interpretation
Figure 6	Ag, Zn, Pb Soil Geochemistry Results and Interpretation
Figure 14	Property Geology and Summary
Table VI	Proposed Grid Extension Schedule, Sky Property, Phase IV
Table VII	Phase III Rock Sampling Summary

in main
part



INTRODUCTION

This report is prepared as an addendum to "Geological, Geochemical, Geophysical and Diamond Drilling Report - Skyline, Spike, Sky, Amberty, Sutter, Vigo, Lulu Claims," dated September 20, 1983, by T.G. Hawkins and J.L. LeBel and details the latest work done on the Sky property.

Phase III was a follow-up program designed to extend the existing grid to the north and east, and to test for extensions of soil geochemistry and VLF-EM anomalies discovered during the summer 1983 program. The field work was carried out from October 8 to 22, 1983 on the Sky Property by MPH Consulting Limited for Unicorn Resources Ltd. Work consisted of two km of line-cutting (200 m extensions were added to lines 9+00W to 13+50W inclusive), 2 km of 50 m x 20 m spaced soil geochemistry, two km of 50 m x 20 m VLF-EM, and geological mapping over the new grid area. Seven trenches were dug, blasted, mapped and sampled.



PROPERTY: LOCATION, ACCESS, TITLE

Refer to main report — "Geological, Geochemical, Geophysical and Diamond Drilling Report — Skyline, Spike, Sky, Amberty, Sutter, Vigo, Lulu Claims," pp 3-5.

HISTORY

Refer to main report, pp 6-12.

REGIONAL GEOLOGY

Refer to main report, pp 13-15.



PHASE III FOLLOW-UP WORK

VLF-EM SURVEY (Fig. 4)

Work Done

Two line kilometres of VLF-EM survey were completed using a Geonics EM-16 receiver. Readings were taken every 20 m along lines spaced 50 m apart. When necessary, readings were taken at 10 m intervals to better define anomalies as they were recorded. Readings from both Cutler, Maine and Hawaii were recorded.

Results

The results are plotted on Figure 4. The data are plotted in profile form showing both in-phase and out-of-phase dip angles in percent. Only the Cutler readings are plotted. Only one new conductor was detected. It is located from lines 11+50W to 9+00W. A stream runs very close to the conductor and could be causing it. No direct evidence was seen in the field, but it is possible that the stream is following a fault structure which causes the EM anomaly. This theory is supported by the fact that two mineralized trenches were found beside the stream just beyond the grid area, directly in line with the EM conductor.

GEOCHEMISTRY (Fig. 6)

Work Done

Two kilometres of geochemical soil sampling were completed on the geophysics grid. A total of 91 samples were collected on the 50 m x 20 m grid. All samples were analyzed by atomic adsorption for lead, zinc, and silver. The results are plotted on Figure 6. The values used for contouring the anomalies are the same as in the main report.

Results

East of L12+50W there are only a few isolated anomalous samples. Thick overburden in this area could be "masking" the true geochemical pattern. On L13+00W a zone of very high silver, lead, and zinc values occurs near 2+20N. This is directly in line with "Zone 8," but is also directly downslope from the B-adit dump. It is likely that the anomaly is due mainly to drainage from the dump. Further up L13+00W, near 3+60N, is another zone with high silver and very high lead and zinc values. As this area is out of the direct drainage from the dump, it is much more promising.

The results show that Zone 8 does not extend past L13+00W, and is probably cut off at or near L14+00W. A large fault located during the geological mapping runs approximately NNE through this area and it appears that



the anomaly near L13+00W, 3+60N could be the off-set extension of Zone 8. As the anomaly does not continue across L12+50W it is perhaps again offset to the north by a parallel fault in the vicinity of L12+50W.



GEOLOGICAL MAPPING, TRENCHING AND SAMPLING

(Fig. 14; Insets 1 and 2; Table IV)

Work Done

Field mapping was carried out over the two km grid. Seven trenches were hand-dug and blasted at the sites of highly anomalous soil samples from the summer 1983 geochemical program. This work was completed in order to determine the source of the Zone 8 geochemical anomaly. The two largest trenches were mapped at 1:20 scale (Insets 1 and 2 - Fig. 14) and all were described in note form.

Rock samples were taken at all the mineralized trenches and were assayed for gold, silver, zinc and lead.

Results

Outcrop was sparse, especially in the eastern area. The argillite, volcanic sandstone, and volcanic conglomerate (Units 1, 2, and 3) tend to grade into and out of each other, with quite frequent interbedding or lenses of one within another.

A large fault running NNE/SSW was found at the western edge of the new grid, which, as explained in the geochemistry section, appears to offset the anomalous Zone 8 to the north. Evidence for this is rather weak, though. Virtually every other NW/SE fault mapped on the property has an apparent small right lateral displacement,



and indeed the apparent offset of a cross fault by this fault is a short distance to the right.

Just to the east of the new grid, two old trenches were found, with a significant amount of galena mineralization in their respective dumps. Best assays on high-grade grab samples from the dumps showed 14.8% zinc, 4.1% lead, 5.9 oz/ton silver and 0.007 oz/ton gold. See Table VI, Appendix II for complete results.

Several small outcrops of intrusive rock (diorite, dacite dyke) were located in the NE corner of the grid. These may in part be the cause of the EM conductor in the area. It is also possible that they are related in some way to the sulphide mineralization, as the trench at Dump B appears to be at the contact of argillite and diorite.

The trench at the new showing (approximately 14+70W, 2+05N) cuts a 1.22 metre wide fault zone which separates volcanic sandstone to the south and argillite to the north. Neither of the "country rocks" is significantly mineralized. In the fault zone are many thin quartz ± carbonate veins, massive chunks of galena, and abundant boxwork, which presumably represents weathered pyrite and/or pyrrhotite. Judging by the assay results, sphalerite is probably also present but the weathering is too heavy to see any. Best grab sample assays were 0.03 oz/ton gold, 47.2 oz/ton silver, 13.8% zinc and 21.4% lead. See Table VI for complete results.



The trench at L15W, 2+10N intersected a 0.21 metre wide fault zone in volcanic sandstone. Quartz veins, galena, pyrite, and pyrrhotite are found in the fault zone. This fault zone is taken to be an on-strike extension from the new showing. The width of the fault narrows from 1.22 m at the showing to 0.21 m at the trench (a distance of 30 metres).

No fault zone was intersected in any of the other trenches, although a thin quartz vein was found in Trench L14W, 2+50N. Mineralization in the other trenches consisted of sparse disseminated pyrite and/or pyrrhotite.

An old adit (Adit E) and two old trench dumps (Dumps A and B) were also sampled.

A complete summary of results is presented in Table VI, Appendix II.



PROPOSED FOLLOW-UP WORK PROGRAM

Plan

The "Phase III" follow-up work was designed to provide further drill targets or exhaust the immediate exploration potential. It did not locate any drill targets but it has demonstrated that:

1. There are mineralized fault zones further north (Adit E) and east (Dumps A, B) than previously known;
2. Zone 8 geochemical anomaly does not extend past L13W and may be offset 130 m to the north by a fault;
3. The new showing fault zone is not yet well enough known to warrant drilling.

Therefore it is proposed that the grid geochemistry, geophysics, and mapping be further extended to the east and north of the already explored areas. Prospecting and/or trenching should also be carried out with the aim of locating exactly extensions of the known mineralized areas (new showing, Adit E, Dumps A, B). Once again the objective is to provide further drill targets, locate new areas of exploration interest, or exhaust the immediate exploration potential.

The following budget is designed to consider a "Phase IV" detailed surface exploration program.

BUDGETPhase IV

Mobilization / Demobilization		\$ 1,650
Personnel		
Geologist and Assistant		
21 days @ \$550		11,550
(for completion of grid		
extensions and prospecting)		
Field Expenses		
Camp 21 days @ \$33	\$ 693	
Supplies 42 man days @ \$28	<u>1,176</u>	1,869
Truck Rental 21 days @ \$95		1,995
(plus fuel)		
Trenching Supplies		
Steel	200	
Power and caps	400	
Drill 21 days @ \$25	<u>525</u>	1,125
Analyses		
Assays 25 @ \$35	875	
Geochemical 400 @ \$3.75	<u>1,500</u>	2,375
Geophysical Equipment Rental,		
VLF-EM		600
Supervision, Consulting		
10 days @ \$470		4,700
Report Costs		1,650
Administration @ 10% (\$9,614)		<u>960</u>
	Phase IV, say	<u><u>\$28,000</u></u>

Phase IV work is scheduled to take three weeks of fieldwork and two additional weeks of compilation time.

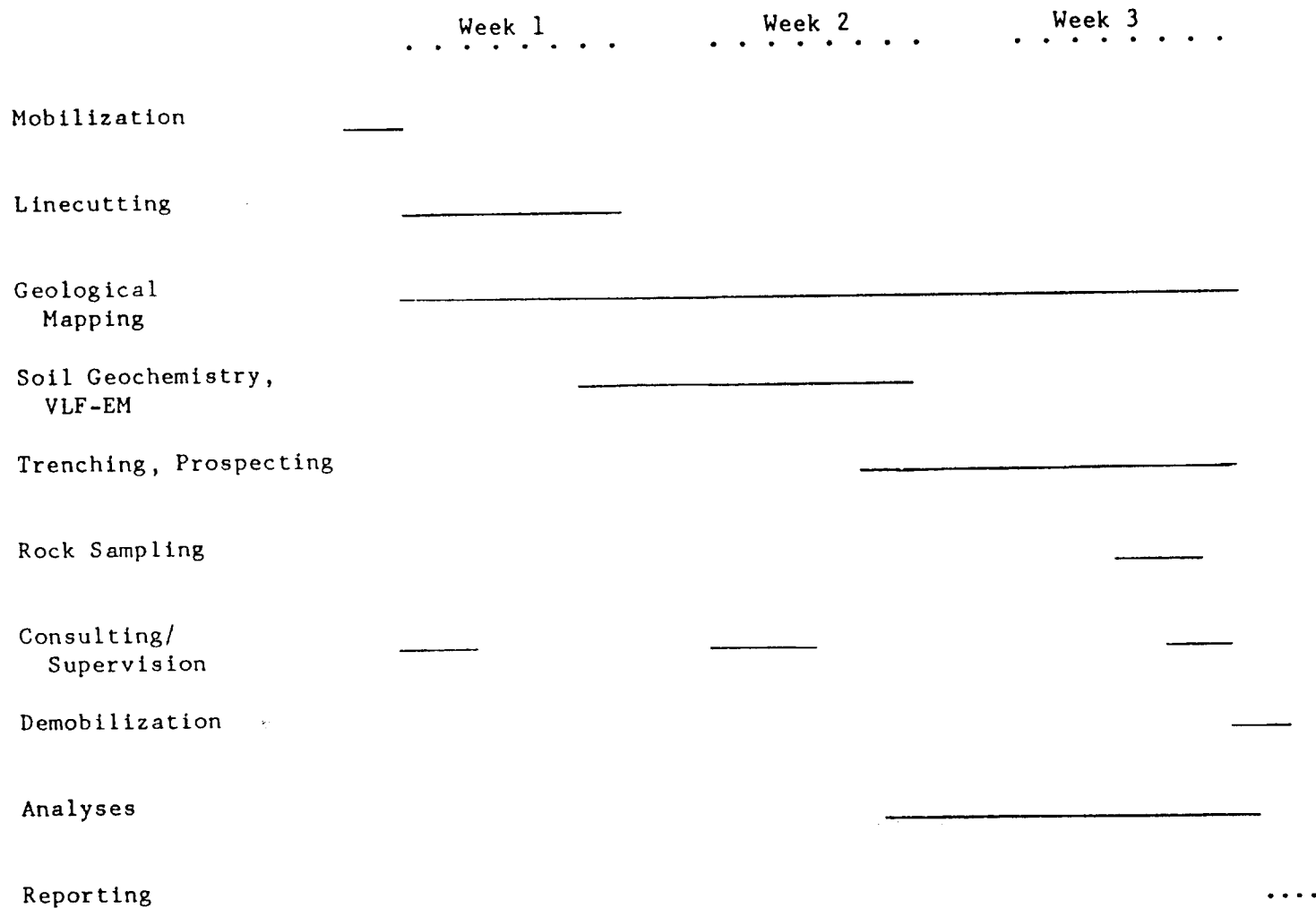


TABLE VI
 PROPOSED GRID EXTENSION SCHEDULED
 SKY PROPERTY, PHASE IV





CONCLUSIONS

1. The fault zone exposed in the new showing was found to narrow drastically in the 30 metres between the showing and trench L15W, 2+10N. No eastward extension from the showing was found. The assay results are very encouraging, but without further work to discover extensions, testing the fault zone with a drill hole would not be advisable.
2. The geological mapping and geochemistry results indicate that the mineralized fault system may be cut off by a cross-cutting fault near L14W and offset approximately 130 metres to the north. The new grid did not extend far enough north to determine whether the anomaly at L13W, 3+60N is again offset to the north by a parallel fault or whether it is simply an isolated "hot spot."
3. A new mineralized fault zone was also discovered at Adit E. It is roughly 15 cm wide and assays from it are not particularly high. As it has been observed that the fault/vein structures in this area typically pinch and swell along strike, and are somewhat "poddy" in distribution of higher grades, it would be worthwhile to do some work to determine whether this structure can be traced east or west to a richer, thicker portion.
4. The most interesting portion of the new grid is the northeastern area. An EM anomaly is located here,



which could be indicating a fault structure. Unfortunately, overburden is deep and outcrop sparse in the area, precluding any direct geological confirmation of a fault. Just to the east of the grid (in line with the EM anomaly), there are the two old dumps (and trenches) which assay as much as 15% zinc and 6 oz/ton silver.



RECOMMENDATIONS

1. Extend the geochemical and EM grid to the east approximately 3 line km to cover the mineralized area at the old dumps and far enough beyond to test for an extension of the mineralized zone and/or the EM conductor noted between lines 11+50W and 9+00W.
2. Extend the geochemical and EM grid to the north approximately 3 line km to test whether the geochemical anomaly at L13W, 3+60N is indeed again offset to the north or whether it is an isolated occurrence.
3. Prospecting and/or trenching to better define whether or not an extension to the new showing fault zone can be found.
4. Prospecting to attempt to find extensions east and/or west of the mineralized fault zone found at Adit E.
5. No drilling can be recommended at this time.
6. The above work is estimated to cost \$28,000 and to take five weeks to complete both field work and reporting.

Respectfully submitted,
MPH CONSULTING LIMITED

T. Neale, B.Sc.