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891

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

DIAMOND DRILLING REPORT

VULCAN PROPERTY

VULCAN 4,5,6,7,8,10,11 and REDD 4 to 7 CLAIMS

Fort Steele Mining Division

Dewar-White Creeks Area

NTS 82F/9^W and 82F/16^W

FILMED

Lat: 49° 44' N

Long: 116° 22' W

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

**PART
2 OF 2**

14,198

OWNER
Cominco Ltd.

Kootenay Exploration
1051 Industrial Road #2,
Cranbrook, B.C.
VIC 4K7

Report by: Douglas Anderson

Submitted: December, 1985

TABLE OF CONTENTS

	<u>PAGE</u>
1.00 INTRODUCTION	1
- ACCESS, LOCATION, CLAIM DESCRIPTION, TOPOGRAPHY	
2.00 DIAMOND DRILLING - RESULTS AND CONCLUSIONS. .	1
EXHIBIT "A" - FOR HOLE VU-85-1	3
EXHIBIT "A" - FOR HOLE VU-85-2	4
AFFADAVIT	5
AUTHOR'S QUALIFICATIONS	6
DIAMOND DRILL LOGS	ATTACHED
LOCATION MAP	IN POCKET

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

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VULCAN PROPERTY

VULCAN 4,5,6,7,8,10,11 and REDD 4 to 7 CLAIMS

Fort Steele Mining Division

1.00 INTRODUCTION

The Vulcan-Redd mineral claim block is centered about 30 km northwest of Kimberley, B.C. Major access roads include the main St. Mary logging road and the secondary Redding and Dewar creek logging roads. Two diamond drill holes were drilled within the claim block, one on Vulcan 5 and a second on Redd 6. A total of 575.2 meters were drilled during September, 1985.

The Vulcan-Redd mineral claims are 100% Cominco owned. They cover about 19 kms north-south from just south of Redding creek to Diorite basin in the north. The topography is steep on the property ranging from 1100 meters to 2500 meters. Significant amounts of the claim area have been logged.

The claims cover Aldridge Formation where the exploration potential for lead and zinc sulfides is considered excellent. The claim block has been acquired sequentially from north to south over the last 10 years.

2.00 DIAMOND DRILLING - Results and Conclusions

Drill hole Vu-85-2 drilled on Redd 6 tested a weak electromagnetic conductor of limited strike length. The hole was collared at 1380 meters ASL and drilled on azimuth 292° to a depth of 114 meters. The collar dip was -45° steepening to -53° at 107 meters in this NQ hole.

The hole intersected a thin-bedded sequence of fine-grained, light grey wackes to quartz wackes. The rocks are quite deformed being highly cleaved and altered making recognition of primary depositional features difficult. There are some wavy laminations and numerous lensoid units suggesting active currents. The sediments are all very similar throughout the hole excepting some short sections of a sub-unit of dark grey, finely crenulated wackes to argillites containing white discontinuous lams. From 51.8 meters to 62.2 meters is a silicified zone with six zones of disseminated to massive pyrrhotite from 3 to 18 centimeters thick. Magnetite is scattered through this zone as disseminations and patches. Massive magnetite occurs with pyrrhotite at 61.89 meters. There is only minor chalcopyrite associated with these bands.

There are a few quartz veins and sparse chlorite/feldspar alteration.

All features considered, the section intersected in this short hole indicates it is part of the Lower Creston Formation. The pyrrhotite zones are the cause of the EM conductor. No sulfides of economic interest were intersected.

Included with the drill log are survey results and a listing of analyses completed on portions of the core.

Drill hole Vu-85-1 was drilled on Vulcan 5 to a final depth of 461.2 meters. The hole was a stratigraphic test also designed to test a weak electromagnetic conductor. The hole was collared at 1630 meters ASL, dipping -49° on an azimuth of 110° . The hole was HQ to 310.6 m, then NQ to the bottom at 461.2 meters.

The hole intersected fine-grained wackes to quartz wackes of the Aldridge Formation with interpreted sills of gabbro. Bedding varies from finely laminated argillaceous rocks to medium bedded, more quartzitic units. Metamorphism is greenschist level with local development of intense biotite and or silicification. There are very minor occurrences of graphite along fractures and as narrow 'bedded' seams. The sulfides, most commonly pyrrhotite and pyrite, occur sporadically as fine lams or as cross-cutting veins and fracture fillings. Minor associated sphalerite and galena were noted locally.

The drill log includes surveys done with a Sperry Sun single-shot instrument. All core is currently stored at the Kootenay Exploration facility in Cranbrook, B.C.

The hole did not intersect any sulfides of economic interest. The sulfides and graphite are probably the source of the weak EM response.

EXHIBIT "A"

STATEMENT OF EXPENDITURES

DIAMOND DRILLING - VULCAN 4.5.6.7.8.10.11

Hole Vu-85-1

Fort Steele M.D.

Diamond Drilling - Direct

Longyear Canada Inc., 721 Aldford Ave.,
Annacis Industrial Estate,
New Westminister, B.C. V3M 5P5 \$42,130.78

Diamond Drilling - Indirect

Salaries - P. Klewchuk - 7 days @ \$235/day 1,645.00
D. Anderson - 5 days @ \$250/day 1,250.00

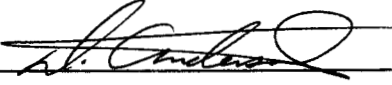
Mobilization - Demobilization

Henderson Heavy Hauling Ltd., Cranbrook, B.C.
Bearcat Contracting Ltd., Fort Steele, B.C. 1,150.00

Other associated costs:

Supplies - core boxes, mud etc.
Trucks - 4x4 transportation 567.42

Total Expenditures = \$46,743.20



D. ANDERSON, Project Geologist

EXHIBIT "A"
STATEMENT OF EXPENDITURES
DIAMOND DRILLING - REDD 4,5,6,7
Hole Vu-85-2
Fort Steele M.D.

Diamond Drilling - Direct

Longyear Canada Inc., 721 Aldford Ave.,
Annacis Industrial Estate,
New Westminister, B.C. V3M 5P5 \$12,697.49

Diamond Drilling - Indirect

Salaries - D. Anderson - 8 days @ \$250/day 2,000.00

Mobilization - Demobilization

Henderson Heavy Hauling Ltd., Cranbrook, B.C. 1,371.00
Bearcat Contracting Ltd., Fort Steele, B.C. 1,316.00
Wright Contracting, Cranbrook, B.C. 798.00

Other associated costs:

Core boxes, mud 617.51
Transporation - 4x4 Truck 5 days @ \$40/day 200.00

Total Expenditures = \$19,000.00


D. ANDERSON, Project Geologist

IN THE MATTER OF THE

B.C. MINERAL ACT

AND

IN THE MATTER OF A GEOLOGICAL PROGRAM
CARRIED OUT ON THE VULCAN MINERAL CLAIMS

CRANBROOK AREA


in the Fort Steele Mining Division of
the Province of British Columbia

More Particularly N.T.S. 82F/9 and 82F/16

A F F I D A V I T

I, D. Anderson, of the City of Cranbrook, in the Province of British Columbia, make Oath and say:

- 1) That I am employed as a Geologist by Cominco Ltd. and as such, have a personal knowledge of the facts to which I hereinafter depose:
- 2) That annexed hereto and marked as Exhibit "A" to this my Affidavit are true copies of expenditures incurred on a drilling program, on the Vulcan and Redd mineral claims.
- 3) That the said expenditures were incurred between the 15th day of September, 1985 and the 29th day of September, 1985 for the purpose of mineral exploration on the above noted claims.



D. ANDERSON, P.Eng.
Project Geologist

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

AUTHOR'S QUALIFICATIONS

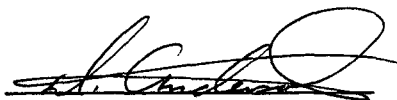
As author of this report I, D. Anderson certify that:

I am employed by Cominco Ltd. as a geologist active in mineral exploration.

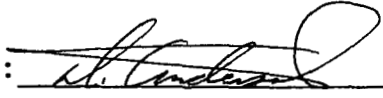
I am a graduate of the University of British Columbia with a degree of Bachelor of Applied Science.

I have been continuously engaged in geology and mineral exploration for 16 years.

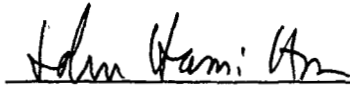
I am a member of the Association of Professional Engineers of British Columbia.



D. ANDERSON, P.Eng.
Project Geologist

Report by: 

D. ANDERSON
Project Geologist

Approved by: 

J.M. HAMILTON
Manager
Exploration

xc: Mining Recorder (2) ✓
Western District, Exploration
Kootenay Exploration, Cranbrook

Drill Hole Record



Property	VULCAN	District	Western	Hole No.	Vu-85-1
Commenced	Sept. 17, 1985	Location	North of Dewar Creek	Tests at	See last page
Completed	Sept. 26, 1985	Core Size	HQ to 310.6 m	Corr. Dip	-49°
Co-ordinates	NQ to 461.2 m		True Brg.	S70°E	Logged by
Objective	To test an EM conductor and evaluate stratigraphy. % Recov.			-95%	Date
					November/85

Claim Vulcan 5
 T Brg. Az 110°
 Collar Dip -49°
 Elev. 1630 m
 Length 461.2 m
 Hole No. Vu-85-1
 Sheet

From Meters	To Meters	Description	Sample No.	Length	Analysis
0.00	5.18	Broken core, some is overburden - gabbro boulders, quartzites, etc.			
5.18	30.94	Mainly thin bedded, altered wacke & quartzitic wacke with narrow zones of med - thick quartzitic wacke or quartz wacke. Pyrrhotite is common in minor amounts - concentrated along laminations, as blebs and near 17.68 m as discontinuous veins. Spotting of biotite + pyrrhotite is common. Alteration is strong with a general mottled + spotted character. Generally siliceous nature due to alteration of all lithologies. Bedding at 55° to c.a.			
30.94	41.50	Generally similar but with occasional thick quartzite, quartzitic wacke or quartz wacke beds - to ~50 cm thick. Mixed bedding thicknesses with zones of lams to thin beds common. Highly siliceous and altered with pyrrhotite and biotite spotting + color mottling (gray-blue-white). Very fine grained tourmaline needles recognized at 37.65m zone $\lambda < 0.5$ cm long.			
41.50	47.85	Thick & med. beds predominate with thin beds & laminations comprising about 10-15% of the interval.			
47.85	54.86	Thin and medium-thick beds of wacke and quartzitic wackes. Numerous white-blue-gray couplet-type pairs - a fairly distinct zone. Siliceous and altered.			
54.86	67.97	Medium-thick beds predominate with minor thin beds of laminations. "White" bands are present here, generally thinner (2-5 mm) than in overlying zone. Still altered - silicified			

211-087

Drill Hole Record



Property	VULCAN	District	Western	Hole No.	Vu-85-1
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates			True Brg.		Logged by
Objective				% Recov.	Date

Claim
 T Brg.
 Collar Dip
 Elev.
 Length
 Hole No.
 Sheet

From Meters	To Meters	Description	Sample No.	Length	Analysis
54.86	67.97	beds. Bedding at 45° to c.a.			
		Con't.			
67.97	78.94	Thin & med. bedded, light-medium gray; alteration at top of the hole evidently due to proximity of gabbro just above hole collar. Depositional load features are present - overprinted by metamorphism & possibly also by tectonism. Moderate to strong foliation overprint becomes evident in lower part of this zone - at a low angle to core axis of 10-15°. Beds display slight offset along this foliation.			
78.94	84.13	Wacke - Quartzitic wacke zone. Medium-dark blue-gray. Distinctive bedding character is lost; a compositional, en-echelon discontinuous-type layering is present, at 20-25° to c.a. A couple of apparently less altered, light gray-white bands at 70-80° to c.a. may be original bedding near 50.60 & 50.90 m.			
84.13	87.33	Altered, foliated thin bedded - laminated zone. Core is broken ^{into} 10-15 cm segments			
87.33	87.63	Fault zone ^{with} quartz vein. Rusty weathered fault gauge. Appears parallel to bedding.			
87.63	100.58	Predominantly medium and thin bedded zone. Beds in upper part of zone are evidently folded. Very low core angle 0-5°. Foliation at ~30° to core axis masks bedding & causes indistinct bedding planes where beds are more evident.			

211-087

Drill Hole Record



Property	VULCAN	District	Western	Hole No.	Vu-85-1
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.		Logged by	
Objective		% Recov.		Date	

Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.
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From Meters	To Meters	Description	Sample No.	Length	Analysis
100.58	103.02	More massive dark blue-gray wacke zone foliated at ~40° to core axis. Bedding is at ~50°. Contact with fine grained gabbro at 45° to core axis.			
103.02	104.55	Fine-grained dull, gray-green intrusive - gabbro dyke possibly. Foliated at ~30° to core axis. Lower contact at 104.55 m is at 50° to core axis, bedding immediately below is at ~80°.			
104.55	150.88	Foliated (at ~45°) (65° between bedding & foliation). Thin to thick beds with foliation locally masking bedding. Quartzitic wacke and wackes with siliceous alteration. Thin & med.-thick beds predominate in the zone, a few cm to ~15 cm thick. Contacts are almost all quite ragged from foliation, Broken ground from 122.83 to about 128.32. Bedding at about 40-70° to core axis.			
150.88	154.23	Zone of predominantly medium-thick blue-gray quartzitic wacke with foliation. Cleavage at 45° to core axis.			
154.23	172.06	Thin & medium bedded quartzitic wacke and wacke. Couplet-style, color-banded bedding character common. Light gray to medium-dark blue-gray color variations. A few narrow zones might be broken out as medium-thick, more siliceous zones. Underlying gabbro with contact parallel to bedding.			
172.06	176.17	Gabbro - probably a small sill. Generally fine grained, foliation at ~45°.			

211-007

Drill Hole Record



Property	VULCAN	District	Western	Hole No.	Vu-85-1
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.		Logged by	
Objective		% Recov.		Date	

Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.
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From Meters	To Meters	Description	Sample No.	Length	Analysis
176.17	182.88	At contact beds are at high angle to contact but may be minor fracturing. Core is broken within a few cm of contact. Thin bedded, generally dark gray, silicified quartzitic wacke. Core is quite broken from 178.0 to 181.05 m. Some quartz veins with pyrite. Zone from 181.05 - 182.58 m - contains quartz veining with pyrrhotite, galena, and sphalerite and locally graphite. Sulfides are disseminated, vein type - generally irregular in character. Graphite parallels quartz vein with pyrrhotite.			
182.22	195.99	Gabbro - Some pyrrhotite veining in this apparent sill. Upper contact is conformable to bedding. Very biotitic near hanging wall. Lower contact is sub-parallel to bedding.			
195.99	209.09	Medium and thin bedded wacke and quartzitic wacke. Medium-dark blue-gray in color, color banded.			
209.09	234.85	Predominantly thin-bedded, color banded, light to light-medium blue-gray to darker blue-gray. A few more medium-thick beds in lower 9.14 - 12.19 m but still very strongly thin-bedded. Gray and brown beds alternate. Planar tops and bottoms to beds. Some alteration. Beds at 70° to core axis. Actually approx. 30 cm thick zone with dark blue-gray argillite, abundant fine grain pyrite, appears to be faulted at upper part of zone; Graphite + chlorite occur along slickensided fracture surfaces throughout the zone but the zone itself is not especially conductive. Graphitic smears on fracture surfaces are quite conductive.			

211-007

Drill Hole Record



Property	VULCAN	District	Western	Hole No.	Vu-85-1
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.
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From Meters	To Meters	Description	Sample No.	Length	Analysis
234.85	249.94	Thin bedded, few medium-thick beds. Quartzitic wacke and wacke, blue gray, light-dark variations locally. Broken core with graphite on slickensided surfaces at 236.83 m. Minor pyrrhotite is common along with chloritic beds < 2 cm thick. Broken core 246.58 - 247.19 m with quartz vein and pyrite fracture surfaces. Bedding at 70° to core axis.			
249.94	250.24	Broken core - may be a fault.			
250.24	259.69	Medium and thin bedded, generally darker blue-gray colored wacke and quartzitic wacke.			
259.69	264.87	Gabbro Fine grained, dull greenish, foliated at 45° to core axis. At 261.82 - 6 cm wide vein at 32° to core axis, chlorite, quartz, white feldspar and minor pyrrhotite.			
264.87	285.60	Medium and thin bedded, quite strongly altered wacke and quartzitic wacke. Mostly medium-dark blue-gray. Some color banding but generally not distinct. Local irregular pyrrhotite veins. Minor graphite at 282.55 m on fracture surface with slickensides. Bedding at 65° to core axis. At 285.60 m - 2-4 cm wide vein of massive pyrrhotite associated with quartz veining and quartz eyes.			

21-447

Drill Hole Record



Property	VULCAN	District	WESTERN	Hole No.	Vu-85-1
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim	T Brg.	Collar Dip	Elev.	Length
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From Meters	To Meters	Description	Sample No.	Length	Analysis
285.60	286.36	Fractured, bleached, altered zone, minor pyrrhotite veining. Light green and mauve coloration.			
286.36	287.58	Biotitic, chloritic, altered zone is compositionally banded parallel to bedding but without distinct bedding planes. Minor arsenopyrite and pyrrhotite present.			
287.58	310.59	Wacke and quartzitic wacke variably colored, also bleached. Mostly thin and medium bedded. Bedding planes not always distinct. Occasional fracture surfaces contain graphite. Core angle is ~70° throughout. * CHANGE TO NQ CORE AT 310.67 m. *			
310.59	427.33	Sediments are thin bedded to laminated. Some biotite altered zones. Quartzitic wacke to wacke - still variably gray or brown in color. Fine biotite spotting common in quartzitic units. (Alteration restricted.) Minor sphalerite at 343.51 m in quartz vein. Lots of tourmaline crystals locally. Bedding overall 70 to 75° to core axis. Minor galena with quartz vein - irregular at 394.26 m. Minor galena with quartz vein at 412.39 m.			
427.33	427.94	Fault zone breccia with greenish altered sediments.			

21-447

Scale
Colour Plot
& Dip

Drill Hole Record



Property	VULCAN	District	Western	Hole No.	Vu-85-1
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim
T Brg.
Collar Dip
Elev.
Length
Hole No.

From	To	Description	Sample No.	Length	Analysis
427.94	439.37	Sediments - quite homogeneous. More medium beds with overall more quartzitic content. Bedding at 75° to core axis. Still brown wackes and gray quartzitic wackes.			
439.37	441.35	Gabbro - Probably a sill - contact parallel to bedding and foliation.			
441.35	446.23	Biotite rich zone. Homogeneous metamorphosed sediments or phase of gabbro (?)			
446.23	461.20	Gabbro - greenish, medium crystalline with mixed zones which are quartz-rich (absorbed metasediments). Gets coarser with depth suggesting this may be upper portion of a thick sill.			
END OF HOLE AT 461.20 meters.					
*Core to be stored at Sullivan Mine					
Sperry-Sun Single Shot survey results:					
		Azimuth	Dip of hole		
	194.5 meters	114.0°	-52.2°		
	310.6 meters	111.5°	-57.3°		
	442.1 meters	104.5°	-60.2°		

Drill Hole Record



Property	VULCAN	District	Western	Hole No.	Vu-85-2
Commenced	Sept. 27, 1985	Location	Vulcan (Redd)	Tests at	107m
Completed	Sept. 28, 1985	Core Size	NQ	Corr. Dip	
Co-ordinates	North of Redding Creek		True Brg.	292° Az	Logged by DA
Objective	To test a weak HLEM conductor		% Recov.		Date September, 1985

Claim	Redd 6
T Brg.	Az 292°
Collar Dip	-45°
Elev.	1380 m
Length	114 m
Hole No.	Vu-85-2
Sheet	

From Meters	To	Description	Sample No.	Length	Analysis
0.00	3.66	Overburden + site fill.			
3.66	7.62	Oxidized to about 6.1 m with seams of oxidation + rubbly core. Interval is 50/50 light greenish-grey, v.f.g., thin bedded, recrystallized quartz wackes interbedded with greenish wackes which are laminated in part but so deformed and altered that detail is obliterated. Scattered pyrrhotite in the argillaceous fractions. The pyrrhotite throughout is variably magnetic or has a fine magnetite dust associated providing a widespread, weakly magnetic character. Bedding at 50-55° to core axis.			
7.62	22.87	Grey sequence of thin-bedded, fine-grained quartz wackes with interbeds of green chlorite. Becoming more light greenish-grey with depth. About 65/35: quartzite to wacke/subwacke. From 12.2m - 13.4m Quartz veins - narrow (< 2cm) quartz veins at low angle to core axis with chlorite walls and quartz-pyrrhotite cores. Recrystallized and altered sediments. The argillaceous interbeds are deformed but bedding overall is maintained at 50° to core axis. To 15.24 m a few quartz veins, some with feldspar (albite?). Scattered pyrrhotite (< 2%) within the argillaceous beds - as lams + patches.			

211-047

Drill Hole Record



PAGE 2

Property	VULCAN	District	Western	Hole No.	Vu-85-2
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates			True Brg.		Logged by
Objective			% Recov.		Date

Claim	
T Brg.	
Collar Dip	
Elev.	
Length	
Hole No.	
Sheet	

From Meters	To	Description	Sample No.	Length	Analysis
22.87	23.78	A sub-unit worth separating as an interbedded but different lithology. Finely crinkled, dark grey wacke with thin white, discontinuous lams. 5% pyrrhotite as patches, streaks, and discontinuous lams. No carbonate			
23.78	31.40	Similar to units above, the dark grey wacke - 60/40: Quartzite to wacke/subwacke. Green, chlorite wackes with patches of pyrrhotite to 0.5 meter long. Some of the argillaceous intervals have wavy contacts but alot of features are tectonized. Some alteration features occur but also some erratic spotting by a bronze to brown biotite. < 2% pyrrhotite overall.			
31.40	33.84	70% dark grey, finely crenulated wacke/subwacke with white siliceous streaks and lams as above. Pyrrhotite to 4% by volume. No carbonate. (These dark wackes/subwackes are very similar to the zone occurring just to the west of the hole.)			
33.84	114.02	Same as units above - Grey and greenish-grey, t.h. (approaching 10cm quite often however) wackes (argillites) and v.f.g. quartz wackes. Some apparent current features but tectonic overprint makes it difficult - some coarser quartzitic wacke lenses and irregular, darker grey pinching + swelling argillite layers - some fine lams in these argillite layers. Scattered pyrrhotite occurrences. Darker argillaceous sections, partly chloritized, persist to about 39.63m.			

211-048

Drill Hole Record



Property	VULCAN	District	Western	Hole No.	Vu-85-2
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim	T Brg.	Collar Dip	Elev.	Length	Scale No.
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From	To	Description	Sample No.	Length	Analysis
33.84	114.02	Gradual transition into a more siliceous zone - quartzites becomes more silicified but the green wackes to argillites are intact to about 51.83m then more intense silicification of all units. Intense zone with best mineralization extending from 51.83m to 62.2m with some scattered alteration to 64.63m but with green argillaceous intervals preserved. Pyrrhotite ± magnetite concentrations occur at: 42.07m - 4 cm zone of pyrrhotite, lesser chalcopyrite in 3 bands within a quartz-rich intervals. 46.50m - 7 cm zone with patchy pyrrhotite + disseminations. Some magnetite in chlorite patches, all isolated in white + grey f.g. quartz. From 46.34 to 65.24m approximately - there are scattered seams, veins, fractures, and disseminations with pyrrhotite + magnetite in low percentage volumes. 52.74m - 3 cm zone with pyrrhotite + magnetite. (plus a 35 cm zone with scattered patches ranging to 10% po + mag.) 55.79m - 18 cm zone with 20% sulfide + magnetite in irregular bands + patches. 56.40m - 2.5 cm semi-massive pyrrhotite + pyrite + magnetite. 61.89m - 6.5 cm of massive magnetite + pyrrhotite - chlorite rims. Bedding parallel.			

21-4437

Drill Hole Record



Property	VULCAN	District	Western	Hole No.	Vu-85-02
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim	Redd 6	T Brg.	Az 292°	Collar Dip	-45°	Elev.	1380 m	Length	114 m	Scale No.
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From	To	Description	Sample No.	Length	Analysis
33.84	114.02	Below the mineralized zone: Predominantly greenish to greenish-grey argillites siltites (wackes) to fine-grained quartz wackes. Occasional interbedded black, fine laminated (now crenulated) subwackes to 10 cm thick. Overall thin-bedded sequence with a few medium beds. Bedding around 73.17 m at 60-65° to core axis. From 73.17 to 84.15 m there are three interbedded, black laminated zones of 35,40 and 65 cm thicknesses. White streaks + lenses within these intervals contain quartz-calcite-pyrrhotite ± magnetite. A few quartz veins with pyrrhotite. One vein from 75.59 - 75.89 m. The green argillaceous beds become more laminated (similar to the black units) with increasing depth in the hole. The quartzites look laminated in places but they are taking more stress with depth. Around 91.46 m - Bedding still at about 60° to core axis. Cleavage - at 30-40° to core axis at approximately 90° to bedding. More biotite spotting of the argillaceous beds at depth as well. Below about 96.04m to 114.02m end - Sequence is getting more argillaceous with more obvious deformation features - intense cleavage + crenulation folding. Towards base of hole actually getting more grey - darker overall with increasing dark grey argillites. Some pyrrhotite patches which are magnetic. At 101.22 - a small shear zone with minor gauge and a small quartz vein at			

21-4437



Drill Hole Record

Property	VULCAN	District	Western	Hole No.	Vu-85-02
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim
T Brg.
Collar Dip
Elev.
Length
Sheet


From Meters	To Meters	Description	Sample No.	Length	Analysis																																																																																																
33.84	114.02	about 40° to core. Oxidized material in the shear plus limonite on fractures and manganese dioxide dendrites within the rocks to 106.7 m.																																																																																																			
		Survey at 107 meters - Dip -53° - Azimuth = 286°																																																																																																			
		At 114.02 meters - END OF HOLE																																																																																																			
<table border="1"> <thead> <tr> <th colspan="2">Geochemical Analyses:</th> <th>Cu</th> <th>Pb</th> <th>Zn</th> <th>Ag</th> <th>Fe</th> <th>As</th> </tr> <tr> <th>From (m)</th> <th>To (m)</th> <th>ppm</th> <th>ppm</th> <th>ppm</th> <th>ppm</th> <th>%</th> <th>ppm</th> </tr> </thead> <tbody> <tr><td>51.70</td><td>52.70</td><td>10</td><td>8</td><td>62</td><td>.2</td><td>4.92</td><td>18</td></tr> <tr><td>54.85</td><td>55.40</td><td>10</td><td>14</td><td>25</td><td>.3</td><td>3.04</td><td>5</td></tr> <tr><td>55.40</td><td>55.70</td><td>64</td><td>94</td><td>74</td><td>1.3</td><td>16.25</td><td>13</td></tr> <tr><td>55.70</td><td>56.70</td><td>17</td><td>33</td><td>25</td><td>.1</td><td>5.56</td><td>14</td></tr> <tr><td>60.10</td><td>61.20</td><td>11</td><td>16</td><td>20</td><td>.1</td><td>3.25</td><td>25</td></tr> <tr><td>61.20</td><td>61.70</td><td>2</td><td>13</td><td>78</td><td>.2</td><td>3.71</td><td>9</td></tr> <tr><td>61.70</td><td>61.95</td><td>15</td><td>10</td><td>125</td><td>.1</td><td>24.14</td><td>17</td></tr> <tr><td>61.70</td><td>62.95</td><td>8</td><td>15</td><td>53</td><td>.1</td><td>4.37</td><td>11</td></tr> <tr><td>62.95</td><td>63.95</td><td>6</td><td>2</td><td>30</td><td>.1</td><td>2.92</td><td>7</td></tr> <tr><td>63.95</td><td>64.95</td><td>10</td><td>8</td><td>32</td><td>.1</td><td>5.58</td><td>2</td></tr> </tbody> </table>						Geochemical Analyses:		Cu	Pb	Zn	Ag	Fe	As	From (m)	To (m)	ppm	ppm	ppm	ppm	%	ppm	51.70	52.70	10	8	62	.2	4.92	18	54.85	55.40	10	14	25	.3	3.04	5	55.40	55.70	64	94	74	1.3	16.25	13	55.70	56.70	17	33	25	.1	5.56	14	60.10	61.20	11	16	20	.1	3.25	25	61.20	61.70	2	13	78	.2	3.71	9	61.70	61.95	15	10	125	.1	24.14	17	61.70	62.95	8	15	53	.1	4.37	11	62.95	63.95	6	2	30	.1	2.92	7	63.95	64.95	10	8	32	.1	5.58	2
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14100
PART 2 OF 2



2 KM



VULCAN
PROPERTY LOCATION MAP
NTS 82 F/9 & 82 F/16

Scale: 1:50,000	Date: NOV. 1985	Plate:
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