

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

DIAMOND DRILLING REPORT

VINE 37 CLAIM

Fort Steele Mining Division

Palmer Bar Creek Area

N.T.S. 82G/5W

Lat: 49° 26' 43"

Long: 115° 54' 42"

OWNER

Cominco Ltd.

Kootenay Exploration
1051 Industrial Road No. 2
Cranbrook, B.C.
VIC 4K7

Work Performed During March-April 1988

Report By:

D.L. Pighin
Geologist

Under the Supervision of

D. Anderson
Project Geologist

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,131

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LOCATION MAP D.D.H. V82-1	In Pocket
GRAPHIC LOG - V82-1	"

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

DIAMOND DRILLING REPORT

VINE 37 MINERAL CLAIM

Fort Steele Mining Division

1.00 GENERAL STATEMENT

This report describes the results of Diamond Drilling on the Vine 37 mineral claim.

Diamond drilling was performed during March 18 to April 15, 1982.

Total expenditures related to the Diamond drilling program amounted to \$100,093.59.

2.00 INTRODUCTION

2.10 Status of Ownership

The Vine 37 mineral claim is 100% Cominco owned.

2.20 Location and Access

The Vine 37 claim is located 11 kilometers SW of Cranbrook, B.C. Access to the claim from Cranbrook, B.C. may be gained via Highway 3/95 and rough bush road to drill site. Relief on the claim ranges from 1000 m to 1200 m.

The Drill hole collar is located on Latitude 49° 26' 43" and Longitude 115° 54' 42".

2.30 General Character of the Area

The relief on the Vine 37 claim is flat to moderately steep. Elevations range between 1000 to 1200 meters. The area was logged off prior to 1920. Natural regeneration has reforested the area to stands of Lodgepole Pine, Ponderosa Pine, Douglas Fir and Larch. In the 1930's gravel benches along Palmer Bar creek were worked rather extensively for Placer gold.

3.00 DIAMOND DRILLING

Diamond drill hole V82-1 was collared off the bottom of a percussion hole 169.0 meters deep. The diamond drill hole was drilled HQ to a depth of 464.0 meters and, thence NQ to the end of the hole at 952.0 meters.

The hole was drilled to test the Middle Aldridge sediments for Pb-Zn mineralization and to provide subsurface geological data.

Numerous irregular hair line Quartz-Calcite-Chlorite fractures that contain weak Pb-Zn mineralization are found in the core. (see attached graphic log) A lesser amount of very thin zones of disseminated sphalerite were recognized in the hole. (see attached graphic log)

Ten sperry sun single shot tests were made, these results are shown on the attached graphic log.

4.00 CONCLUSION

Diamond drill hole V82-1 cored 783 meters of Aldridge sediments. The sediments are a monotonous assemblage of cyclically deposited proximal and distal turbidite beds consisting of quartz wacke, quartzitic wacke and wacke. Three minor faults were intersected by the hole, but bedding to core angles generally remained a constant 75°-80°.

The drill hole did not intersect any economic sulphides.

EXHIBIT "A"

STATEMENT OF EXPENDITURES
DIAMOND DRILLING - VINE 37 CLAIM
FORT STEELE MINING DIVISION

March 18 - April 6 - Up to 699 Meters (1982)

Salaries

D.L. Pighin - Geologist, Field, Planning &
Supervision - 17 days @ \$175/day \$ 2,975.00

Mobilization, Access & Drill Site Construction

Henderson Heavy Hauling (Transporting bulldozer,
& drill) 976.00

Bearcat Contracting Ltd. (Road Access & moving
drill) 1,562.75

Transportation

4x4 $\frac{1}{2}$ ton - 17 days @ \$25/day 425.00

Miscellaneous

Core boxes 602.58

Mud 190.44

Diamond Drilling - Direct

Longyear Canada Inc., 721 Aldford Avenue
Annacis Industrial Estate, New Westminister, B.C.
V3M 5P5 55,365.54

Total Expenditures = \$ 62,097.31

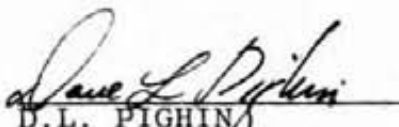

D.L. PIGHIN
Geologist

EXHIBIT "B"

STATEMENT OF EXPENDITURES
DIAMOND DRILLING - VINE 37 CLAIM
FORT STEELE MINING DIVISION

April 7 - April 15 - 700 meters to 952 meters (1982)

Salaries

D.L. Pighin - Geologist, Field, Planning & Supervision - 6 days @ \$175/day	\$ 1,050.00
D.L. Pighin - Geologist, Report and map preparation - 2 days @ \$175/day	350.00

Demobilization

Henderson Heavy Hauling	280.00
Phillmac Enterprises Ltd.	988.00

Transportation

4x4 $\frac{1}{2}$ ton - 6 days @ \$25/day	150.00
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Miscellaneous

Core boxes	296.80
Mud	93.80
Caps for drill hole	93.84

Diamond Drilling - Direct

Longyear Canada Inc., 721 Aldford Avenue Annacis Industrial Estate, New Westminister, B.C. V3M 5P5	<u>34,693.84</u>
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Total Expenditures = \$ 37,996.28


D.L. PIGHIN
Geologist

IN THE MATTER OF THE
B.C. MINERAL ACT
AND
IN THE MATTER OF A DIAMOND DRILL PROGRAMME
CARRIED OUT ON THE VINE 37 MINERAL CLAIM
PALMER BAR CREEK AREA

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

More Particularly N.T.S. 82G/5W

A F F I D A V I T

I, D.L. Pighin, 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" and "B" to this my Affidavit is a true copy of expenditures incurred on a Diamond Drill programme, on the Vine 37 Mineral Claim.
3. That the said expenditures were incurred between the 18th day of March, 1982 and the 15th day of April, 1982 for the purpose of mineral exploration on the above noted claim.


D.L. PIGHIN
Geologist

COMINCO LTD.


EXPLORATION

WESTERN DISTRICT

STATEMENT OF QUALIFICATIONS

D.L. PIGHIN has personally conducted many types of mineral exploration work for Cominco Ltd. over the last sixteen years.

I consider him well qualified to prepare this report.


DOUGLAS ANDERSON, P. Eng.
Project Geologist

Report by: *David L. Pighin*
D.L. PIGHIN
Geologist

Endorsed by: *D. Anderson*
D. ANDERSON, P. Eng.
Project Geologist

Approved for
Release by: *John Hamilton*
J.M. HAMILTON, P. Eng.
Chief Geologist
Kimberley

cc: Mining Recorder (2 copies)
Western District, Exploration
Kootenay Exploration

Scale
Centim. Feet
& Inch

Drill Hole Record



Property VINE District Fort Steele Hole No. DDH V82-1
 Commenced March 21, 1962 Location Vine 37 Claim Tests at 10 tests See text Hor. Comp. 214.0 m
 Completed April 14, 1962 Core Size NQ - Top NQ - Bottom Corr. Dip 81° top - Bottom 67.5° Vert. Comp. 926.0 m
 Co-ordinates Lat: 49° 26' 40" Long: 115° 54' 45" True Brg. 231° az. to 270° az. Logged by D.L. Pighin
 Objective To test Lower-Middle Aldridge contact % Recov. 98 Date

Claim VINE 37
 T Brg. 270° Azimuth
 Collar Dip -90
 Elev. 3030.0 Meters
 Length 926.4 Meters
 Hole No. Sheet

Footage From To	Description	Sample No.	Length	Analysis
0 - 169.2	Casing			
169.2 - 169.6	Quartzitic Wacke; medium bedded, medium grained, parallel laminated wacke tops, contacts sharp and undulating.			
169.6 - 170.3	Quartzitic Wacke; thick bedded, medium grained, parallel laminated wacke top.			
170.3 - 171.3	Quartzitic Wacke; medium bedded, medium grained 15 cm to 20 cm thick parallel laminated wacke tops, contact undulating and sharp. Bedding to core 79°, chloritic hair line fractures and patches.			
171.3 - 171.80	Wacke; medium bedded, thinly spaced parallel laminations, very fine grained, contact sharp and undulating, generally dark gray.			
171.80 - 173.05	Quartzitic Wacke; medium bedded, parallel laminated wacke tops 5 to 10 cm thick, grading upwards from medium to fine grained, contacts sharp and undulating.			
173.05 - 174.43	Quartz Wacke; very thick bedded, parallel laminated wacke tops 15 cm thick, contact sharp and undulating.			

Scale
Centim. Feet
& Inch

Drill Hole Record



Page 2

Property VINE District Hole No. DDH V82-1
 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

Footage From To	Description	Sample No.	Length	Analysis
174.43 - 174.69	Quartzitic Wacke; medium bedded, parallel laminated top. Medium grained fining upwards.			
174.69 - 176.25	Quartz Wacke; very thick bedded, 20 cm parallel to wavy laminated wacke top. Contacts sharp and flat, weakly sericitized.			
176.25 - 179.0	Quartzitic Wacke interbedded Quartz Wacke; medium bedded, 5 to 10 cm parallel to wavy wacke tops. Generally medium grained fining upwards, contacts flat to undulating, commonly sharp, weakly sericitic.			
179.0 - 180.4	Wacke; very thin bedded, parallel laminated, very fine grained, contacts sharp.			
180.4 - 182.1	Quartzitic Wacke interbedded Quartz Wacke; medium bedded, 5 to 10 cm parallel laminated wacke tops, medium grained, contacts sharp and undulating.			
182.1 - 183.23	Quartz Wacke; very thick bedded, thin parallel laminated top. Medium grained, contacts sharp and undulating. Thin irregular quartz - biotite vein, sub parallel to core.			
183.23 - 185.06	Quartzitic Wacke; medium bedded, 5 to 10 cm parallel laminated wacke tops, contacts are mainly sharp and undulating.			

Drill Hole Record



Property	VINE	District	Hole No.	IDH V82-1
Commenced		Location	Tests at	Hor. Comp.
Completed		Core Size	Corr. Dip	Vert. Comp.
Co-ordinates			True Brg.	Logged by
Objective			% Recov.	Date

Footage From	To	Description	Sample No.	Length	Analysis	Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.
210.75	211.0	Wacke; very thin bedded, parallel laminated, very thinly spaced, very fine grained, contact distinct and flat. Numerous pyrrhotite filled irregular fractures cut lamina at low angles, very weak disseminated sphalerite is associated with pyrrhotite fractures.									
211.0	216.82	Quartz Wacke; medium bedded, 5-8 cm parallel laminated wacke tops, contacts undulating and sharp, generally medium grained, cross bedded top at 212.2 m, synsum coasts at 212.2 & 213.30 (sampled for thin sec.) quartz veining 213.0 to 216.82, 20° to core, consist of white bull quartz, 1 cm massive coarsely xls. Biotite - chlorite developed along contact.									
216.82	217.07	Wacke; very thin bedded, parallel black and gray, moderately spaced lamina, very fine grained, contacts undulating distinct.									
217.07	217.3	Quartzitic Wacke; medium bedded, medium grained, contacts flat-sharp, flame structured, rip-up clasts.									
217.3	220.4	Wacke; thin bedded, parallel laminated, very thinly spaced, very fine grained, contacts very sharp-flat, rip-up clasts @ 217.5 and 218.3. Weakly disseminate pyrrhotite through out, rare thin pyrrhotite lamina, 219.8 - 219.9 sphalerite occurs as tiny specks along thin pyrrhotite lamina.									
220.4	222.90	Quartzitic Wacke; medium bedded, parallel laminated wacke top, medium grained, contact distinct and flat.									

211-447

Drill Hole Record



Property	District	Hole No.	IDH V82-1
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Footage From	To	Description	Sample No.	Length	Analysis	Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.
222.90	221.4	Wacke, very thin interbeds of Quartzitic wacke; thin bedded, parallel lamination, thin spaced, generally very fine grained, cross-bedded in part, contacts undulating to flat generally sharp, some flame structures. Bedding to core 80°.									
221.4	222.53	Quartzitic Wacke; thick bedded, parallel laminated wacke top, medium grained, contacts distinct sharp flat.									
222.53	225.0	Quartz Wacke; medium bedded, parallel laminated wacke tops, medium grained, contacts, distinct - undulating, rip-up clasts are common in wacke tops, generally grit sized clasts, some flame structures.									
225.0	225.3	Wacke; very thin bedded, parallel lamination, thin spaced, very fine grained, contact sharp flat, flame structured basal contact.									
225.3	226.2	Quartzitic Wacke; medium bedded, parallel laminated wacke tops; medium grained, contacts undulating - distinct synsum clasts at 226.0 m.									
226.2	226.90	Wacke; very thin bedded, parallel to wavy laminated very fine fine to moderate spacing, very fine grained, contacts sharp flat to undulating.									

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Drill Hole Record



Property	District	Hole No. IDH V82-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Footage From To	Description	Sample No.	Length	Analysis	Claim	True Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
226.00 - 230.6	Quartzitic Wacke; medium bedded, parallel laminated and slump structured wacke tops, medium grained, contacts generally undulating distinct. Rip-up clasts are common through-out section, de-watering structures at 229.50m.										
230.6 - 231.4	Wacke; thin to very thin bedded, parallel laminated thin to very thin spacing. Very fine grained, contacts generally sharp to distinct flat. Abundant gypsum cast between 230.6 and 237.0.										
231.4 - 231.6	Quartzitic Wacke; medium bedded, fine grained, contacts distinct and flat, abundant gypsum clasts.										
231.6 - 232.6	Wacke; thin to very thin bedded, parallel laminated thin to very thin spacing, very fine grained, contacts flat sharp, abundant gypsum casts. Survey tests @ 232.6 Dip -80°, Az 187°										
232.6 - 233.34	Quartz Wacke; medium bedded, no tops, medium grained, contacts distinct and flat.										
233.34 - 234.17	Wacke; thin bedded, very thinly parallel laminated, very fine grained, contacts flat distinct to undulating at base of unit.										
234.17 - 234.57	Quartzitic Wacke; thin bedded, 5 to 8 cm parallel laminated tops, medium grained, contacts sharp flat.										

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Drill Hole Record



Property	District	Hole No. IDH V82-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Footage From To	Description	Sample No.	Length	Analysis	Claim	True Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
234.57 - 235.7	Quartz Wacke; thick bedded, no tops, medium grained, contacts distinct undulating, gypsum casts near tops of beds.										
235.7 - 236.10	Quartzitic Wacke; thin bedded, 5 cm thick parallel laminated wacke tops, fine grained, contacts undulating distinct. Rip clasts and gypsum casts in wacke tops.										
236.10 - 236.45	Wacke; thin bedded, very fine parallel lamination widely spaced, very fine grained.										
236.45 - 239.10	Quartz Wacke; medium bedded, 5 cm fine parallel laminated wacke tops, medium grained, contacts undulating distinct. Fracturing and minor Quartz veining parallel to core strong chlorite alteration along vein contacts.										
239.10 - 239.3	Subwacke; thin bedded, parallel laminated thinly spaced, contacts flat distinct, gypsum clasts.										
239.3 - 239.5	Wacke; medium bedded, thin parallel laminated thinly spaced.										
239.5 - 240.0	Quartz Wacke; thin bedded, 5 to 8 cm parallel laminated wacke tops, medium grained, contact sharp flat.										

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Drill Hole Record



Property	District	Hole No. DDH V82-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Footage From	To	Description	Sample No.	Length	Analysis	Claim	T Brg.	Collar Dip	Ekerr.	Length	Hole No.	Sheet
240.0	240.5	Quartz Wacke; medium bedded, no top, medium grained, contact hardly visible.										
240.5	241.0	Quartzitic Wacke; thin bedded, parallel laminated wacke tops, fine grained, contacts distinct flame structure bases.										
241.0	242.2	Quartz Wacke; thick bedded, no top, medium grained, contacts hardly visible.										
242.2	243.28	Quartz Wacke; thick bedded, 5 cm parallel laminated wacke tops, medium grained, contact transitional hardly visible.										
243.28	244.6	Quartz Wacke; thick bedded, 10 cm parallel laminated wacke tops, medium grained, contacts hardly visible, abundant gypsum casts in wacke top.										
244.6	245.0	Quartz Wacke; medium bedded, no top, medium grained, contacts gradual hardly visible.										
245.0	246.0	Wacke very minor interbeds of Quartz Wacke; thin to very thin bedded, thin parallel laminations, contacts sharp flat. Slump structured from 245.60 - 245.80. Thin beam calcite vein parallel to bedding, @ 245.6 - .5 cm quartz-calcite vein parallel to bedding contains pyrite and rare malerite.										
246.0	246.15	Quartz Wacke; medium bedded, medium grained, contacts sharp flat.										

Drill Hole Record



Property	District	Hole No. DDH V82-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Footage From	To	Description	Sample No.	Length	Analysis	Claim	T Brg.	Collar Dip	Ekerr.	Length	Hole No.	Sheet
246.15	246.6	Wacke; thin bedded, very thinly parallel laminated, wavy laminated in part.										
246.6	247.3	Quartz Wacke; medium bedded, parallel laminated wacke tops contacts hardly visible.										
247.3	249.82	Wacke; thin bedded, thin to very thin parallel laminated at 35° to core, fractures are very thin, show micro offset, mineralized by Quartz, calcite & pyrite. Bedding to core 81°.										
249.82	251.44	Quartzitic Wacke; medium bedded, 5 to 8 cm parallel laminated wacke tops, medium grained, contacts undulating distinct.										
251.44	251.60	Wacke; medium bedded, thinly parallel laminated, contact sharp flat brecciated at base of bed.										
251.60	252.05	Quartzitic Wacke; medium bedded, no top, medium grained contacts, hardly visible.										
252.05	252.23	Wacke; medium bedded, thinly parallel laminated, contact distinct and flat.										
252.23	252.53	Quartz Wacke; medium bedded, thin wacke tops, medium grained, contacts fine distinct.										
252.53	252.71	Wacke; medium bedded, thin parallel laminated, contacts flat-sharp.										

Drill Hole Record



Property	District	Hole No. DDH V82-1	
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
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Footage From To	Description	Sample No.	Length	Analysis
252.71 - 254.30	Quartzitic Wacke; medium bedded, 5 cm parallel laminated wacke tops, medium grained, contact? Baddy broken core.			
254.30 - 254.60	Wacke; medium bedded, very thin parallel laminations, contacts flat distinct. Bedding to 85° to core.			
254.60 - 256.6	Quartzitic Wacke; medium bedded, appears to have wacke tops, baddy broken core.			
256.60 - 257.30	Wacke; thin bedded, very fine parallel lamination, contacts flat distinct, @ 257.0 m 1 cm thick breccia zone parallel to bedding very chloritic contains sphalerite specks, and sphalerite specks in adjacent hairline calcite quartz filled fractures.			
257.30 - 259.96	Quartz Wacke; medium bedded, 5 cm parallel laminated wacke tops, medium grained, contact? Baddy broken core. Fracturing @ 15° to core.			
259.96 - 262.5	Quartzitic Wacke; medium bedded, 5 to 8 cm parallel laminated wacke tops, fine grained, contacts undulating to flat distinct, 1 cm thick breccia zone quartz matrix parallel to bedding at 260.0 m, @ 261.2 micro chlorite filled breccia zone, 5 cm thick parallel to bedding contains tiny specks of sphalerite.			
262.5 - 265.8	Quartzitic Wacke; medium bedded, 5 to 8 cm parallel laminated wacke tops, Generally fine grained, contacts distinct and flat.			

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Drill Hole Record



Property	District	Hole No. DDH V82-1	
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
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Footage From To	Description	Sample No.	Length	Analysis
265.8 - 266.62	Quartz Wacke; medium bedded, 5 cm parallel laminated wacke tops, fine grained, contact? Broken core.			
266.62 - 267.10	Wacke; thin bedded, parallel laminated, thinly spaced, contacts sharp flat. (Bedding to core 81°).			
267.10 - 270.9	Quartz Wacke; medium bedded, 5 to 8 cm parallel laminated wacke tops, medium grained, contacts flat distinct where core is not broken. Fracturing to core 65°.			
270.9 - 271.2	Wacke; thin bedded, thinly parallel laminated, contacts flat distinct, micro-cross bedding near base of unit.			
271.2 - 272.8	Quartzitic Wacke; thin bedded 3-8 cm parallel laminated wacke tops, contacts flat distinct, some weak pink garnet development.			
272.8 - 274.15	Quartzitic Wacke; medium bedded? Baddy broken core, wacke tops appear to be present.			
274.15 - 274.85	Wacke; thin bedded, thin to very thin parallel lamination contacts flat distinct.			
274.85 - 275.05	Wacke; medium bedded, thinly parallel laminated, contacts flat sharp, strongly fractured @ 20° to core, shearing parallel to bedding.			

81-447

Drill Hole Record



Property	District	Hole No. IDH V82-1	
Commenced	Location	Tests at	Hcr. 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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Footage From To	Description	Sample No.	Length	Analysis
275.05 - 276.7	Quartz Wacke; thick bedded, no wacke top, contacts not usable due to broken core.			
276.7 - 279.4	Quartzitic Wacke, medium bedded? wacke top appear to be present. Medium grained, contacts? Section contains abundant 1 to 2 cm thick gouge filled shears which are parallel to bedding.			
279.4 - 280.0	Wacke; thin bedded, thin parallel lamination, contacts flat-distinct.			
280.0 - 280.7	Quartzitic Wacke; medium bedded, highly fractured core, medium grained.			
280.7 - 280.78	Wacke; thin bedded, thin parallel laminated.			
280.78 - 281.54	Wacke; thin bedded, thin to very thin parallel lamination contacts flat-distinct. Shearing parallel to bedding.			
281.54 - 282.74	Quartzitic Wacke; medium bedded, 2-5 cm parallel laminated wacke tops, fine grained, contacts flat distinct.			
282.74 - 283.15	Wacke; very thin bedded, very thin parallel laminated, contacts sharp-distinct, thin calcite and gouge shear zone parallel to bedding.			

Drill Hole Record



Property	District	Hole No. IDH V82-1	
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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Footage From To	Description	Sample No.	Length	Analysis
283.15 - 285.2	Quartz Wacke; medium bedded, no wacke tops, medium grained, contacts? Badly broken core. Fractures to core 80°.			
285.2 - 285.9	Wacke; thin bedded, thinly parallel laminated, contacts flat-distinct. Bedding to core 90°.			
285.9 - 286.4	Wacke; medium bedded, thinly parallel laminated, contacts flat-sharp.			
286.4 - 288.40	Quartz Wacke; medium bedded, 5-8 cm parallel laminated wacke tops, fine grained, contacts flat-distinct. @ 280.0 m - 20 cm zone of pyrrhotite mineralization along irregular hair line fractures.			
288.40 - 288.7	Quartzitic Wacke; thin bedded, thin wacke tops (3 cm thick) fine grained, contacts undulating - distinct.			
288.7 - 289.40	Wacke; medium bedded, thinly parallel laminated, contacts flat to distorted sharp.			
289.40 - 291.0	Quartzitic Wacke; highly fractured, fractures are filled by quartz and rare cases pyrrhotite. Primary structures impossible to define.			

Drill Hole Record

Property	District	Hole No. DDH V82-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Footage	Description	Sample No.	Length	Analysis	Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
From	To										
291.0	292.44										
				Mylonized sediments; fault gouge. F.W. 60° to core H.W. not definable.							
292.44	296.8			Quartzitic Wacke; medium bedded, 2 to 5 cm parallel laminated wacke tops, generally fine grained, contacts, undulating - distinct.							
296.8	299.9			Quartz Wacke; medium bedded, 5 to 8 cm non-laminated wacke tops, generally fine grained, contacts undulating - distinct, garnetiferous concretion @ 198.7.							
299.9	300.9			Quartzitic Wacke; medium bedded, 8 cm wispy laminated wacke tops fine grained, contacts flat-distinct.							
300.9	300.97			Wacke; thin bedded, thinly-parallel laminated, contacts flat-distorted.							
300.97	301.7			Wacke; thin bedded, thin wavy laminations, some very thin quartzitic wacke interbeds, contacts, undulating to flat-distinct. Bedding to core 80°.							
301.7	308.06			Quartzitic Wacke; medium bedded, 5 to 8 cm wacke tops no lamination, medium grained, contacts undulating - distinct. At 309.8 garnetiferous concretion. Survey Test Dip -79.5 - Az. 196°.							
308.06	308.8			Quartzitic Wacke; thin bedded, 2 to 5 cm wacke top generally not laminated, fine grained, contacts gradational - hardly visible.							

Drill Hole Record

Property	District	Hole No. DDH V82-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Footage	Description	Sample No.	Length	Analysis	Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
From	To										
308.8	307.9			Quartzitic Wacke; very thin bedded, 1 to 2 cm parallel laminated wacke tops, contacts flat - hardly visible. Fine grained.							
307.9	309.64			Quartzitic Wacke; medium bedded, 5 to 8 cm non-laminated wacke tops, contacts - undulating distinct. Fine grained, garnetiferous 308.0 - 308.4.							
				308.4 - 308.7 - Abundant tiny irregular pyrrhotite filled fractures. Associated with these fractures are very small (less than .5 cm) calcite - chlorite lense contains very tiny specks of sphalerite.							
309.64	311.51			Quartzitic Wacke; medium bedded, 5 to 8 cm parallel laminated wacke tops, fine grained, contacts, flat-distinct. Some very thin disseminated pyrrhotite laminations.							
311.51	312.77			Quartz Wacke; very thick bedded, 8 cm parallel laminated wacke top, medium grained, contacts flat distinct, weakly sericitic.							
312.77	315.10			Quartzitic Wacke; medium bedded, 2 to 3 cm parallel laminated wacke tops, fine grained, contacts flat-distinct (Bedding to core 82°).							
315.10	316.16			Quartzitic Wacke; thin bedded, 2 to 3 cm parallel laminated wacke tops, fine grained, rare pyrrhotite blebs.							

Drill Hole Record



Property	District	Hole No. DCH V82-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates	True Brg.	Logged by	
Objective	% Recov.	Date	

Footage From	To	Description	Sample No.	Length	Analysis
316.16	316.9	Quartz Wacke; medium bedded, 5 cm wacke tops no structure, fine grained, contacts undulating - distinct.			
316.9	317.6	Quartzitic Wacke; thick bedded, 8 cm parallel laminated wacke top, fine grained, contacts flat-distinct, occasional bleb of pyrrhotite.			
317.6	318.4	Quartzitic Wacke; thin bedded, 2 to 5 cm parallel laminated wacke tops, fine grained, contacts undulating-distinct, hair line fracture contain pyrrhotite @ 318.0.			
318.4	318.9	Quartzitic Wacke; thick bedded, 5 cm parallel laminated wacke top, medium grained, contacts undulating distinct.			
318.9	319.93	Quartzitic Wacke; thin bedded, 3-5 cm parallel laminated wacke tops, fine grained, contacts flat-distinct, irregular hair line fractures contain pyrrhotite.			
319.93	320.5	Quartzitic Wacke; thick bedded, no top fine grained, contacts flat-distinct.			
320.5	322.34	Quartzitic Wacke; medium bedded, 5 to 8 cm parallel laminated wacke tops, fine grained, contacts hardly visible, @ 321.5 thin calcite-pyrite filled fractures parallel parallel to core.			
322.34	324.4	Quartzitic Wacke; thick bedded, 8 cm parallel laminated wacke top, medium grained, contact undulating-distinct.			

211407

Drill Hole Record



Property	District	Hole No. DCH V82-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates	True Brg.	Logged by	
Objective	% Recov.	Date	

Footage From	To	Description	Sample No.	Length	Analysis
324.4	325.0	Wacke; thin bedded, widely spaced parallel lamination, contacts, flat-distinct. 324.5 to 324.7, abundant pyrrhotite filled discontinuous hair line fractures parallel to core.			
325.0	326.15	Quartzitic Wacke; thick bedded, 8 cm parallel laminated wacke top, medium grained, fineing upwards, sericitic, weak pyrrhotite disseminations.			
326.15	327.6	Wacke; thin bedded, wavy discontinuous widely spaced lamination, contacts - hardly visible. thin breccia zone developed along upper contact. Some discontinuous pyrrhotite lamination. Section generally chloritic.			
327.6	330.6	Quartzitic Wacke; medium bedded, 5 to 8 cm parallel and wavy laminated wacke tops, generally fine grained, contacts undulating distinct some flame structures, rare rip-up clast. From 328.2 - 328.8, very chloritic with thin quartz-calcite-chlorite filled fracture parallel to core. These fractures contain pyrrhotite, chalcopyrite and rare specks of sphalerite.			
330.6	331.3	Quartzitic Wacke; thin bedded, 2-3 cm none laminated wacke tops, fine grained, contacts hardly visible.			
331.3	332.0	Quartzitic Wacke; medium bedded, 2 to 4 cm wacke tops, fine grained, contacts undulating - distinct.			

211407

Drill Hole Record



Property	District	Hole No. DDH V82-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Footage From To	Description	Sample No.	Length	Analysis	Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
348.2 - 348.6	Wacke; thin bedded, no distinct lamination, contacts undulating and distinct.										
348.6 - 349.55	Quartzitic Wacke; thin bedded, 1 cm parallel to wavy laminated wacke tops; fine grained, contacts undulating-distinct.										
349.55 - 350.3	Quartz Wacke; thick bedded, 5 cm parallel laminated wacke top, contacts flat-sharp.										
350.3 - 351.2	Quartzitic Wacke thick bedded, 8 cm parallel laminated wacke top, medium grained, contact undulating distinct.										
351.2 - 351.75	Quartzitic Wacke; thin bedded, 1 to 2 cm parallel laminated tops, fine grained, contacts undulating distinct. From 351.45 to 351.65 hairline tension fracture are chloritized contain pyrrhotite, rare specks of sphalerite										
351.75 - 352.03	Wacke; thin bedded, thin parallel lamination, contacts flat-sharp.										
352.03 - 352.13	Wacke; thin bedded, thin parallel lamination, contact sharp-flat.										

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Drill Hole Record



Property	District	Hole No. DDH V82-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Footage From To	Description	Sample No.	Length	Analysis	Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
352.13 - 354.6	Wacke; thin bedded, moderately spaced parallel lamination, rare thin 2-3 cm, quartzitic wacke interbed, contacts generally flat-sharp.										
354.6 - 355.9	Quartz Wacke; very thick bedded, no wacke top, contact not visible. Sericitic.										
355.9 - 358.0	Wacke; thin bedded, thin parallel lamination, contacts flat-distinct. 365.5 to 365.7 slump structure sediments.										
358.0 - 359.5	Quartzitic Wacke; medium bedded, 2-5 cm, non-laminated wacke tops, fine grained, contacts undulating-distinct.										
359.5 - 361.0	Quartz Wacke; thick bedded, 8 cm parallel laminated top, medium grained, contacts hardly visible.										
361.0 - 362.1	Quartz Wacke; medium bedded, 3 to 5 cm parallel laminated tops, fine grained, contacts undulating distinct, patchy chlorite and sericite alteration.										
362.1 - 366.7	Quartz Wacke; very thick bedded, 8 cm parallel to none laminated wacke tops. Fine grained, contacts hardly visible, patchy chlorite and sericite alteration.										
366.7 - 367.06	Wacke; thin bedded, thin parallel laminations, contacts sharp undulating.										

21-407

Drill Hole Record



Property	District	Hole No. DCH V82-1	
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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Footage From To	Description	Sample No.	Length	Analysis
367.08 - 367.8	Quartzitic Wacke; medium bedded, 1-5 cm none laminated wacke tops, medium grained, contacts undulating-distinct.			
367.8 - 368.4	Wacke; thin bedded thin parallel laminations, contacts sharp flat.			
368.4 - 370.1	Quartzitic Wacke; very thick bedded, no wacke tops, medium grained, contacts flat sharp to hardly visible.			
370.1 - 371.2	Quartzitic Wacke; medium bedded, no wacke tops, medium grained contacts - hardly visible.			
371.2 - 372.5	Quartzitic Wacke; thick bedded, 5 cm parallel laminated wacke tops, contacts flat distinct.			
372.5 - 373.0	Wacke; thin bedded, parallel and wavy laminated thin spaced, contacts sharp-undulating.			
373.0 - 375.9	Quartzitic Wacke; thin bedded, 2-3 cm wavy laminated wacke tops, fine grained, contacts undulating-distinct.			
375.9 - 377.0	Quartzitic Wacke; medium bedded, no wacke tops, medium grained, contacts undulating-distinct.			
377.0 - 378.7	Quartzitic Wacke; thin bedded, 2 to 3 cm parallel and wavy wacke tops, fine grained, contacts are sharp and undulating, some flame structures in tops.			

Drill Hole Record



Property	District	Hole No. DCH V82-1	
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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Footage From To	Description	Sample No.	Length	Analysis
378.7 - 379.2	Quartzitic Wacke; medium bedded, 5 cm parallel laminated wacke tops, contacts flat-distinct.			
379.2 - 380.1	Quartzitic Wacke; thin bedded, 2-4 cm parallel laminated wacke tops, fine grained, contacts-undulating-distinct. Bedding to core 80°.			
380.1 - 381.45	Quartzitic Wacke; medium bedded, 5 cm wavy laminated tops, medium grained, contacts sharp-undulating.			
381.45 - 384.35	Quartzitic Wacke; very thick bedded, one unit, 4 cm thick parallel laminated wacke top, very uniformly fine grained, contacts undulating distinct, some patches of weak seritization.			
384.35 - 388.3	Quartzitic Wacke; thick bedded, no wacke tops, fine grained. Contacts hardly visible patches of weak seritization and pink garnet.			
388.3 - 391.8	Wacke; medium bedded, parallel laminated, very fine grained, contacts sharp-flat.			
391.8 - 391.4	Quartzitic Wacke; thin bedded, no wacke tops, fine grained, contacts flat-distinct @ 391.2 - 4 cm zone of oolitic wacke, casts are small and angular and have a preferred orientation of 30° to bedding, clastare dark gray wacke.			

Drill Hole Record

Property	District	Hole No.	DDH V82-1	
Commenced	Location	Tests at	Hor. Comp.	
Completed	Core Size	Corr. Dip	Vert. Comp.	
Co-ordinates	True Brg.	Logged by		
Objective	% Recov.	Date		

Footage From To	Description	Sample No.	Length	Analysis	Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.
391.4 - 391.75	Quartz Wacke; medium bedded, 5 cm wavy laminated wacke top. Contact undulating-distinct.									
391.75 - 392.06	Wacke; thin bedded, thinly parallel laminated, contacts sharp and flat.									
392.06 - 394.25	Quartzitic Wacke; medium bedded, none laminated wacke tops, fine grained graded beds, contacts flat-sharp.									
394.25 - 395.8	Quartzitic Wacke; thin bedded, 3 to 5 cm parallel laminated wacke tops, fine grained, contacts sharp undulating.									
395.8 - 398.6	Quartz Wacke; medium bedded, no wacke tops, fine grained graded beds, contacts distinct-undulating, patch sericitic alteration.									
398.6 - 407.47	Quartz Wacke; very thick bedded, no wacke tops, fine grained, contacts - hardly visible, generally weakly sericitic through-out this section contain a number of small biotite-calcite rich concretions. Note: This may be one continuous quartz wacke bed (channel fill Unit?) 8.87 meters thick.									
407.47 - 408.4	Quartzitic Wacke; thin bedded, parallel to wavy laminated wacke tops, fine grained, contacts undulating-distinct.									

21-407

Drill Hole Record

Property	District	Hole No.	DDH V82-1	
Commenced	Location	Tests at	Hor. Comp.	
Completed	Core Size	Corr. Dip	Vert. Comp.	
Co-ordinates	True Brg.	Logged by		
Objective	% Recov.	Date		

Footage From To	Description	Sample No.	Length	Analysis	Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.
408.4 - 408.6	Quartz Wacke; medium bedded, no wacke top, medium grained, contacts undulating-distinct. Sericitized with subhedral pink garnet.									
408.6 - 409.25	Quartzitic Wacke; thick bedded, no wacke top, fine grained, contacts flat sharp.									
409.25 - 410.5	Quartzitic Wacke; medium bedded, no wacke tops, fine grained, contacts hardly visible. @ 410.10 3 cm zone of conglomeratic wacke, thin tabular angular clasts, long axis 1 cm, preferred orientation parallel to bedding. 409.7 - 410.10 strongly sericitized abundant subhedral pink garnet.									
410.5 - 412.7	Quartzitic Wacke; thin bedded, 2 to 3 cm parallel laminated wacke tops, fine grained, contacts flat-sharp.									
412.7 - 412.9	Quartzitic Wacke; medium bedded, no wacke top, fine grained, contacts undulating-distinct, sericitic with pink subhedral garnet.									
412.9 - 413.22	Wacke; thin bedded, thin parallel laminations. Contacts flat sharp.									
413.22 - 414.2	Quartzitic Wacke; thin bedded, 3 to 5 cm wavy and parallel laminated wacke tops, fine grained, contacts flat to undulating distinct.									

21-4

Drill Hole Record

Property		District	Hole No. IDH V82-1								
Commenced	Location	Tests at	Hor. Comp.								
Completed	Core Size	Corr. Dip	Vert. Comp.								
Co-ordinates		True Brg.	Logged by								
Objective		% Recov.	Date								
Footage From	To	Description	Sample No.	Length	Analysis	Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.
414.2	416.8	Quartz Wacke; thick bedded, 5 cm parallel laminated wacke top, medium grained, contacts hardly visible.									
416.8	418.1	Quartzitic Wacke; medium bedded, no wacke tops, fine grained, contacts undulating-distinct. Sericitic patches with pink subhedral garnet.									
418.1	419.8	Quartzitic Wacke; thin bedded, 2 to 4 cm parallel laminated wacke tops, fine grained, contacts sharp flat. Bedding to core 75°.									
419.8	420.9	Quartzitic Wacke; medium bedded, 8 cm none laminated wacke tops, fine grained, contacts flat-distinct.									
420.9	422.1	Quartzitic Wacke; medium bedded, fine to very finely parallel laminated, fine grained, contacts sharp flat. Est. 2% CaO.									
422.1	424.40	Quartzitic Wacke; medium bedded, 3 to 5 cm parallel laminated wacke tops, fine grained, contacts flat-distinct, rip-up clasts.									
424.40	425.40	Quartzitic Wacke; thin bedded, 2 to 5 cm parallel laminated wacke tops, fine grained, contacts undulating-distinct.									

21-407

Drill Hole Record

Property		District	Hole No. IDH V82-1								
Commenced	Location	Tests at	Hor. Comp.								
Completed	Core Size	Corr. Dip	Vert. Comp.								
Co-ordinates		True Brg.	Logged by								
Objective		% Recov.	Date								
Footage From	To	Description	Sample No.	Length	Analysis	Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.
425.40	426.7	Quartzitic Wacke; medium bedded, 5 to 8 cm parallel laminated wacke top, fine grained, contact sharp-undulating. Chloritization and subhedral pink garnet along hair line fractures.									
426.7	426.9	Wacke; thin bedded, thin wavy lamination, contacts undulating sharp, slump structured in part.									
426.9	428.9	Quartz Wacke; thick bedded, 2 to 5 cm parallel laminated wacke tops, fine grained, contacts flat-distinct, patch sericitic and pink subhedral garnet alteration. Limy gypsum clasts located in wacke tops. * Gypsum clasts sampled for assay.									
428.9	429.3	Quartzitic Wacke; thin bedded, 3 to 5 cm parallel laminated wacke tops. Contact sharp undulating.									
429.3	429.9	Quartzitic Wacke; medium bedded, no wacke tops, medium grained, contact-flat distinct, patchy sericitic alteration.									
429.9	431.35	Quartz Wacke; medium bedded, 2-5 cm parallel laminated wacke tops, medium grained, contacts flat distinct, patch sericitic and pink subhedral garnet alteration.									
431.35	433.7	Wacke; thin bedded, thinly parallel laminated, contacts flat sharp, @ 433.0 micro thrusting along bedding planes, 4 cm of movement up dip. Pyrrhoite occurs in wispy hairline fractures. Subparallel to bedding. Bedding to core 75°.									

21-408

Drill Hole Record



Property	District	Hole No. IIII V82-1	
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.

Footage From	To	Description	Sample No.	Length	Analysis
433.7	434.4	Quartz Wacke; medium bedded, no wacke tops, medium grained, contacts undulating-distinct, weakly sericitic through-out.			
434.4	436.7	Quartz Wacke; medium bedded, wispy-wavy laminated wacke tops, medium grained, contacts undulating distinct, some weak patches of pink garnet and sericite alteration.			
436.7	439.20	Quartz Wacke; thick bedded, no wacke tops, medium grained, contact hardly visible.			
439.20	440.2	Quartzitic Wacke; thin bedded, 2 to 5 cm parallel laminated wacke tops, fine grained, contacts flat-sharp, calcite after sericite through-out. Bedding to core 52°.			
440.2	441.0	Quartz Wacke; medium bedded, no wacke tops, fine grained, contacts flat-distinct.			
441.0	441.35	Quartzitic Wacke; thin bedded, 2 to 5 cm parallel laminated wacke top, fine grained, contacts undulating-distinct, load casts.			
441.35	444.0	Quartzitic Wacke; medium bedded, 2 to 3 cm parallel laminated wacke tops, fine grained, contacts flat distinct. Small patches of sericite and subhedral garnet alteration.			
444.0	445.3	Quartzitic Wacke; thin bedded, 1 to 2 cm parallel to wispy laminated wacke tops, contacts flat distinct.			

Drill Hole Record



Property	District	Hole No. IIII V82-1	
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

Footage From	To	Description	Sample No.	Length	Analysis
445.3	446.20	Quartzitic Wacke; medium bedded, 2 - 5 cm parallel to wavy laminated wacke tops, fine grained, contacts sharp-undulating load casts.			
446.20	447.5	Quartzitic Wacke; very thin bedded, 1 to 2 cm parallel to wavy laminated tops, fine grained, contacts sharp - undulating. Quartzitic wacke bases generally cross bedded lenses probably ripple.			
447.5	449.0	Quartz Wacke; medium bedded, no wacke tops, medium grained, contacts flat-distinct. Slightly chloritic through out. Some patches of sericite and subhedral garnet.			
449.0	449.6	Quartzitic Wacke; medium bedded, generally finely brecciated and chloritic through-out.			
449.6	450.1	Wacke; thin bedded, thinly parallel laminated brecciated through-out. Contacts tectonically distorted.			
450.1	451.3	Quartz Wacke; thick bedded, no wacke tops, medium grained, contacts tectonically distorted, weakly chloritic through-out.			
451.3	453.3	Quartzitic Wacke; medium bedded?, micro brecciated and chloritized through-out.			

Drill Hole Record



Property	District	Hole No. DCH V82-1
Commenced	Location	Tests at
Completed	Core Size	Corr. Dip
Co-ordinates	True Brg.	Logged by
Objective	% Recov.	Date

Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.
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Footage From To	Description	Sample No.	Length	Analysis
453.3 - 457.0	Sheared Sediments; mineralized in part by Quartz and chloritized through-out, fault gouge developed along H.W. of shear zone, shear contact 38° to core.			
457.0 - 459.3	Quartz Wacke; thick bedded, rare wacke top, fine grained, contact flat-distinct, rare rip-up clast at bed top.			
459.3 - 459.7	Wacke; thin bedded, thin parallel laminated, contacts flat to undulating - sharp.			
459.7 - 462.2	Quartz Wacke; thick bedded, 1 to 3 cm wispy laminated wacke tops associated with abundant rip-up clasts. Fine grained, contacts undulating distinct.			
462.2 - 463.8	Quartz Wacke; medium bedded, 1 to 2 cm wispy laminated wacke tops, fine grained, contacts undulating, small patches of sericite and subhedral pink garnet alteration.			
463.8 - 467.2	Quartzitic Wacke; medium bedded, 5 to 8 cm parallel laminated wacke tops, fine grained, contacts mainly flat-distinct 464.0 END OF H.Q.			
467.2 - 468.0	Quartz Wacke; medium bedded, no wacke tops, fine grained, contacts undulating distinct.			
468.0 - 470.8	Quartz Wacke; thick bedded, no wacke tops, medium grained, contacts undulating hardly visible, small patches of weak sericitization and pink subhedral garnet alteration, widely disseminated pyrrhotite.			

Drill Hole Record



Property	District	Hole No. DCH V82-1
Commenced	Location	Tests at
Completed	Core Size	Corr. Dip
Co-ordinates	True Brg.	Logged by
Objective	% Recov.	Date

Claim	T Brg.	Collar Dip	Elev.	Length
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Footage From To	Description	Sample No.	Length	Analysis
470.8 - 471.1	Quartzitic Wacke; very thin bedded, 1 to 2 cm parallel to wavy laminated wacke tops, contacts undulating hardly visible. Small patches of disseminated pyrrhotite and very thin layers of disseminated bedded pyrrhotite.			
471.1 - 472.3	Quartz Wacke; medium bedded, 8 cm parallel laminated wacke tops, fine grained, contacts undulating distinct.			
472.3 - 473.5	Wacke; thin to very thin bedded, thin to very thin parallel lamination. Contacts flat sharp. Thin disseminated pyrrhotite lamina parallel to bedding.			
473.5 - 475.0	Quartz Wacke; medium bedded, no wacke top, fine grained, contacts undulating distinct.			
475.0 - 475.7	Quartzitic Wacke; thin to very thin bedded, 1 to 4 cm parallel laminated wacke tops, fine grained, contacts sharp flat small scale cross bedding @ 475.4 m.			
475.7 - 484.8	Quartz Arenite - Quartz Wacke; very thick bedded may be one unit, no wacke top, coarse to very coarse grained, grades in cycles through-out the unit, from very coarse quartz arenite upwards to coarse quartz wacke without visible contacts. Between cycles, soft sediments slump structures occur at various points with in the unit, and rare rip-up clasts are observed. Contacts are sharp top undulating, base sharp flat. (Turbidite Channel fill structure?) @ 477.0 Bedding 30° to core.			

Scale
Colour Plan
& Data

Drill Hole Record



Property	District	Hole No. DCH VR2-1	
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.

Footage From To	Description	Sample No.	Length	Analysis
503.4 - 503.8	Wacke; thin bedded, thin very thinly parallel laminated, contacts flat-sharp.			
503.8 - 506.8	Quartz Wacke; thick bedded, no wacke tops, medium to coarse grained fining upwards. Contacts - hardly visible (broken core). Quartz veining sub-parallel to core contains patches of massive pyrrhotite.			
506.8 - 508.6	Quartzitic Wacke; thin bedded, 2 to 5 cm wavy laminated wacke tops, medium grained, contacts sharp undulating. @ 508.4 calcite after selenite crystals. Sampled for assay.			
508.6 - 509.1	Quartzitic Wacke; medium bedded, 4 to 8 cm wavy laminated wacke tops, medium grained, contacts sharp-undulating some rip-up clasts.			
509.1 - 512.4	Quartz Wacke; thick bedded, no wacke tops, coarse to medium grained fining upwards. Contacts sharp-undulating (load casted bases) sequence weakly sericitic.			
512.4 - 512.8	Quartzitic Wacke; thin bedded, 2-5 cm wavy laminated wacke tops, fine grained, contacts undulating distinct.			
512.8 - 514.2	Quartzitic Wacke; medium bedded, 1-3 cm wavy laminated wacke tops, coarse grained bases grading up to medium grained, contact distinct undulating, small scale cross bedding @ 513.3, some rip-clasts.			

31-401

Scale
Colour Plan
& Data

Drill Hole Record



Property	District	Hole No. DCH VR2-1	
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.

Footage From To	Description	Sample No.	Length	Analysis
514.2 - 517.5	Quartzitic Wacke; thin bedded, 2 to 5 cm parallel laminated wacke tops, fine grained, contacts flat sharp and undulating distinct. Soft sediments slump from 515.0 - 515.3.			
517.5 - 517.80	Wacke; thin bedded, thin to very thinly parallel laminated, contact sharp-flat. Bedding 80° to core.			
517.80 - 519.1	Quartzitic Wacke; medium bedded, 2 to 5 cm wavy laminated wacke tops, fine grained, contacts undulating-distinct. Some large rip clasts.			
519.1 - 522.3	Quartz Wacke; thick bedded, 2-5 cm non laminated wacke tops, medium grained, contacts undulating-distinct, calcite after selenite xls in wacke tops. Patches of sericite and subhedral pink garnet alteration.			
522.3 - 523.0	Quartzitic Wacke; medium bedded, 2 to 4 cm non laminated wacke tops, fine grained, contacts undulating-distinct.			
523.0 - 523.5	Wacke; thin bedded, very thinly parallel laminated, contacts flat sharp. Calcite after selenite xls in some wacke tops.			
523.5 - 524.3	Quartz Wacke; thick bedded, 3 cm non laminated wacke top, medium grained, contacts hardly visible, weakly sericitic through-out.			

31-401

Drill Hole Record

Property	District	Hole No. DDH V82-1	
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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Footage From To	Description	Sample No.	Length	Analysis
542.7 - 544.4	Quartz Wacke; medium bedded, 4 cm parallel to wavy laminated wacke tops, fine grained, contact undulating-distinct, occasional rip-up clast at bed bases.			
544.4 - 546.2	Quartz Wacke; thick bedded, 3 to 8 cm parallel laminated wacke tops, medium grained, contacts hardly visible, patchy sericitic - pink garnet alteration.			
546.2 - 547.0	Quartzitic Wacke; thin bedded, 2 to 8 cm parallel to wavy laminated wacke tops, fine grained, contact undulating distinct.			
547.0 - 548.2	Quartzitic Wacke; thick bedded, 1 to 2 cm non laminated wacke tops, medium grained, contacts undulating distinct, small patches of sericitic - subhedral pink garnet alteration.			
548.2 - 548.96	Wacke; thin bedded, very thin laminated, contacts sharp flat.			
548.96 - 551.1	Quartzitic Wacke; thin to very thin bedded, 1 to 10 cm parallel laminated wacke tops, contact flat-sharp. Very weakly disseminated pyrrhotite through interval. @ 549.8 tiny hair line fracture contains SPHALERITE. Bedding to core 78°.			
551.1 - 551.7	Calcareous Wacke; medium bedded, very finely parallel laminated, partly crystalline, similar to unit described at 493.5 meters. Sampled @ 551.1.			

91-407

Drill Hole Record

Property	District	Hole No. DDH V82-1	
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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Footage From To	Description	Sample No.	Length	Analysis
551.7 - 552.9	Quartz Wacke; thick bedded, no wacke tops, contacts hardly visible, medium grained.			
552.9 - 554.7	Quartz Wacke; medium bedded, 2 to 3 cm wavy laminated wacke tops, medium grained, contacts undulating - distinct, sericitic - silicified - pink garnet alteration zones.			
554.7 - 557.5	Quartzitic Wacke; thin bedded, 2 to 4 cm wavy to non laminated wacke tops, fine grained, contacts undulating-sharp, flame structure tops common.			
557.5 - 558.3	Wacke; very thin bedded, very thin parallel laminated, contacts flat-sharp. @ 558.4 10 cm thick zone of soft sediment stumping.			
558.3 - 559.6	Quartzitic Wacke; thick bedded, 4 cm non laminated wacke tops, medium grained, contacts undulating.			
559.6 - 559.9	Wacke; very thin bedded, very thinly parallel laminated, contact flat sharp.			
559.9 - 561.0	Quartzitic Wacke; medium bedded, 2 to 4 cm non laminated wacke tops, contact hardly visible, silicified-sericitized-pink garnet alteration patches.			

91-407

Drill Hole Record



Property	District	Hole No. DEH V82-1	
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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Footage From	To	Description	Sample No.	Length	Analysis
561.0	561.8	Quartzitic Wacke; very thin bedded, 1-2 cm wavy laminated wacke tops, fine grained, contacts sharp-undulating, flame structured.			
561.8	562.5	Quartz Wacke; thick bedded, 4 cm non laminated wacke top. Contacts undulating hardly visible.			
562.5	564.3	Quartzitic Wacke; medium bedded, 4 to 6 cm non laminated wacke tops, fine grained, contacts undulating-distinct. @ 564.0 10 cm soft sediment slump zone.			
564.3	565.1	Wacke; very thin bedded, very thin wavy lamination, contacts hardly visible, soft sediment slump zone 10 cm thick very small lenses of disseminated pyrrhotite.			
565.1	565.5	Quartz Wacke; medium bedded, 4 cm non laminated wacke tops, fine grained, contacts undulating distinct, weak pink garnet & sericite alteration.			
565.5	566.9	Quartz Wacke; thick bedded, very finely laminated, no wacke tops, fine grain to partly crystalline, contacts flat-sharp spec. taken for thin section.			
566.9	568.0	Quartzitic Wacke; thin bedded, 1 to 4 cm non laminated and wavy laminated wacke tops, fine grained, contacts commonly flat distinct. Calcite after selenite crystals in some of the wacke tops.			

Drill Hole Record



Property	District	Hole No. DEH V82-1	
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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Footage From	To	Description	Sample No.	Length	Analysis
569.0	569.8	Quartz Wacke; thick bedded, no wacke tops, medium to coarse grained base, contacts flat sharp.			
569.8	570.3	Quartzitic Wacke; medium bedded, wavy to flame structure wacke tops, fine grained. @ 570.3 sand filled dewatering structures, penetrate thin wacke tops.			
570.3	571.3	Quartz Wacke; medium bedded, 3 to 4 cm non laminated wacke tops, medium grained, contacts flat distinct, silicified-sericitic pink garnet alteration zones.			
571.3	572.5	Quartz Wacke; very thick bedded, 3 cm non laminated wacke tops. Coarse grained bases grading upward to medium grained. Contacts flat-sharp. Calcite after selenite xtls in wacke top.			
572.5	574.8	Quartzitic Wacke; medium bedded, 4 to 8 cm parallel and non laminated wacke tops, fine grained, contacts undulating distinct. Calcite after selenite xtls in wacke tops.			
574.8	575.1	Wacke; very thin bedded, thin laminated, contacts sharp but distorted by soft sediment slumping.			
575.1	585.5	Quartz Wacke; medium bedded, 4 to 8 cm mainly non laminated wacke tops, generally medium grained, contacts flat-sharp weakly sericitic with patches of pink subhedral garnet. Calcite after selenite xtls, in some wacke tops.			

Drill Hole Record

Property	District	Hole No. DDH V82-1									
Commenced	Location	Tests at	Hor. Comp.								
Completed	Core Size	Corr. Dip	Vert. Comp.								
Co-ordinates	True Brg.	Logged by									
Objective	% Recov.	Date									
Footage	Description	Sample No.	Length	Analysis	Claim	T Brg.	Collar Dip	Elev.	Length	Circle No.	Sheet
664.8 - 664.73	Quartzitic Wacke; medium bedded, 1 to 2 cm wavy laminated wacke tops, fine grained, contacts undulating.										
664.73 - 665.0	Wacke; medium bedded, finely parallel laminated, contacts flat sharp.										
665.0 - 667.9	Quartz Wacke; thick bedded, 2 to 4 cm non laminated wacke tops, medium grained, contacts flat distinct. Generally sericitic, irregular quartz vein parallel to core. Contains chlorite and large patches of massive pyrrhotite.										
667.9 - 668.0	Quartzitic Wacke; thin to very thin bedded, .5 to 1 cm wavy laminated wacke tops, fine grained, contact sharp undulating.										
668.0 - 669.94	Quartzitic Wacke; medium bedded 5 to 10 cm wavy laminated wacke tops, fine grained, contacts flat distinct. Patches of silicification contain abundant chlorite and pink subhedral garnet.										
669.94 - 670.15	Wacke; thin bedded, thinly parallel laminated contacts flat sharp.										
670.15 - 670.6	Wacke; very thin bedded, thin wavy and wispy laminations, contacts sharp flat.										

21-007

Drill Hole Record

Property	District	Hole No. DDH V82-1									
Commenced	Location	Tests at	Hor. Comp.								
Completed	Core Size	Corr. Dip	Vert. Comp.								
Co-ordinates	True Brg.	Logged by									
Objective	% Recov.	Date									
Footage	Description	Sample No.	Length	Analysis	Claim	T Brg.	Collar Dip	Elev.	Length	Circle No.	Sheet
670.6 - 674.5	Quartzitic Wacke interbedded Wacke; thin bedded, very thinly parallel laminated, quartzitic wacke very fine grained, abundant irregular hair line fractures filled by pyrrhotite.										
674.5 - 676.7	Quartz Wacke; medium bedded, no wacke tops, medium grained, contacts distinct undulating, some rip-up clasts, weakly sericitic through-out. Quartz biotite chlorite vein parallel to core.										
676.7 - 677.1	Quartzitic Wacke; thin bedded, 3 to 4 cm non wacke tops, fine grained, contacts sharp undulating to flame structured.										
677.1 - 677.7	Wacke; thin to very thin bedded, thinly parallel laminated, contacts sharp and flat.										
677.7 - 680.5	Quartz Wacke; very thick bedded, no wacke tops, generally medium grained, contacts hardly visible, sericitic in part, chloritic in part.										
680.5 - 681.2	Quartzitic Wacke; thin bedded, 1 to 2 cm wispy laminated wacke tops, generally fine grained, contacts undulating distinct, some pink subhedral garnet development.										

21-007

Drill Hole Record

Property	District	Hole No. [DH V82-1]	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates	True Brg.	Logged by	
Objective	% Recov.	Date	

Footage From To	Description	Sample No.	Length	Analysis	Claim	T Brg.	Collar Dip	Elev.	Length
681.2 - 682.8	Wacke; thin bedded to very thin bedded, very thin parallel laminations in part and thinly wavy laminated in part, contacts sharp flat, section generally brecciated, shearing at 30° to core.								
682.8 - 684.2	Quartzitic Wacke; thin bedded, 3 to 4 cm wavy to wispy laminated wacke tops, fine grained, contacts flat sharp some thin slump structure zones with fine rip-up clasts. Bedding to core 78°.								
684.2 - 684.6	Wacke; very thin bedded, very thin parallel laminations, contacts flat sharp.								
684.6 - 685.6	Quartz Wacke; medium bedded, 1 to 3 cm wavy laminated wacke tops, fine grained, contacts undulating distinct some sericitic patch with pink subhedral garnet.								
685.6 - 688.0	Quartz Wacke; thick bedded, no wacke tops, medium grained, contacts hardly visible.								
688.0 - 688.7	Wacke; thin bedded, very thin parallel laminated, contacts flat distinct. Section contains 10 cm of calcareous quartz arenite coarse grained, CaO est. 10-15%.								
688.7 - 689.4	Quartz Wacke; thick bedded, no wacke tops, medium grained, contact hardly visible.								

21-447

Drill Hole Record

Property	District	Hole No. [DH V82-1]	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates	True Brg.	Logged by	
Objective	% Recov.	Date	

Footage From To	Description	Sample No.	Length	Analysis	Claim	T Brg.	Collar Dip	Elev.	Length
689.4 - 692.3	Quartz Wacke; medium bedded, 3 to 5 cm wavy laminated wacke tops, medium grained, contacts hardly visible.								
692.3 - 693.8	Quartzitic Wacke; thin bedded to very thin bedded, 1 to 5 cm wispy to parallel laminated wacke tops, fine grained, contacts generally flat distinct.								
693.8 - 695.3	Quartz Wacke; medium bedded, 2 to 8 cm parallel laminated wacke tops, medium grained fining upwards, contact flat distinct, generally sericitic some chlorite and pink garnet.								
695.3 - 696.6	Wacke; thin bedded, thinly parallel laminated in part and thin wispy laminated in part. Contacts generally wavy. Pyrrhotite in wispy lenses and fine disseminations.								
696.6 - 697.2	Quartz Wacke; thick bedded, no tops, medium grained fining upwards, generally chloritic and sericitic, bedded quartz-chlorite 3 mm thick contain sphalerite.								
697.2 - 698.6	Calcareous Wacke; thin bedded, very finely laminated, partly crystalline calcite oriented to bedding. Contacts flat distinct, est. CaO 2% section 20% - disseminated pyrrhotite through-out. Sampled for assay.								
698.6 - 699.7	Quartz Wacke; medium bedded, 3 to 5 cm wavy wispy laminated wacke tops, generally fine grained, contacts undulating distinct. Chloritic patches weak garnet development. At 698.8 coarsely xtlm sphalerite occurrences in thin fracture subparallel to core.								

21-447

Drill Hole Record

Property	District	Hole No. IDH V82-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Footage From To	Description	Sample No.	Length	Analysis					
				Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.
726.2 - 727.4	Quartzitic Wacke; thin bedded, 3 to 8 cm wavy and non laminated wacke tops, fine grained, contacts sharp some undulating some flat.								
727.4 - 729.4	Quartzitic Wacke; medium bedded, no wacke tops, medium grained, contacts hardly visible, patches of chlorite sericite pink garnet alteration.								
729.4 - 731.5	Quartz Wacke; thick bedded, 2 to 6 cm non laminated wacke top, medium grained, contacts undulating distinct, generally sericitic with chlorite and pink garnet patches.								
731.5 - 737.0	Quartzitic Wacke; medium bedded, 2 to 5 cm non laminated wacke tops, fine grained, contacts generally undulating distinct to hardly visible.								
737.0 - 739.3	Wacke; thin bedded, thinly parallel laminated contacts flat sharp, thin disseminated pyrrhotite lamina.								
739.3 - 743.0	Quartzitic Wacke; medium bedded, 3 to 8 cm non laminated wacke tops, generally fine grained, contacts flat distinct to hardly visible. Some small patches of chlorite pink garnet alteration.								
743.0 - 743.6	Quartzitic Wacke; thin bedded, 2 to 6 cm non laminated to parallel laminated in part wacke tops, fine grained, contacts flat distinct.								

811407

Drill Hole Record

Property	District	Hole No. IDH V82-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Footage From To	Description	Sample No.	Length	Analysis					
				Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.
743.6 - 746.4	Calcareous Quartzitic Wacke; no wacke tops, thin to very thinly parallel laminated, fine grained, contacts flat distinct, sericitic through out section, est. CaO 1% with thin zones up to 20%.								
746.4 - 748.4	Quartzitic Wacke; medium bedded, 4 to 8 cm non laminated wacke tops, medium grained, contacts flat distinct to hardly visible, weakly sericitic in patches.								
748.4 - 748.8	Wacke; very thin bedded, generally non laminated, contacts hardly visible.								
748.8 - 756.5	Quartzitic Wacke; medium bedded, 5 to 10 cm wavy laminated wacke tops, medium grained, contacts generally hardly visible.								
756.5 - 758.3	Quartzitic Wacke; thin bedded, 4 to 8 cm generally parallel laminated wacke tops, some wavy laminated and slump structured, generally medium grained, contact commonly flat sharp some undulating, calcite after selenite xls in some wacke tops. Bedding to core 82°.								
758.3 - 761.4	Quartzitic Wacke; medium bedded, 4 to 8 cm wavy laminated wacke tops, medium grained, contacts hardly visible, calcite after selenite in wacke tops.								

811407

Drill Hole Record

Property	District	Hole No. IDH V82-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Footage From To	Description	Sample No.	Length	Analysis				
				Claim	T Brg.	Collar Dip	Elev.	Length
761.4 - 761.8	Quartzitic Wacke; thin bedded, 3 to 5 cm parallel to wavy laminated wacke tops, medium grained, contact flat sharp, abundant calcite after selenite through-out. Sample @ 761.8 (calcite - selenite).							
761.8 - 762.5	Quartzitic Wacke; medium bedded, 5 to 8 cm non laminated wacke tops, medium grained, contacts hardly visible, calcite after selenite in tops, @ 761.4 - Cave consisting of broken and ground calcite pyrite vein material.							
762.5 - 764.7	Quartz Wacke; very thick bedded, no wacke tops, medium grained, contacts hardly visible, weakly sericitic through-out.							
764.7 - 765.7	Quartzitic Wacke; very thin bedded to thin bedded, .5 - 5 cm wavy laminated wacke tops, fine grained, contacts sharp flat, rare subhedral pink garnets.							
765.7 - 767.7	Quartz Wacke; very thick bedded, no wacke tops, generally fine grained, contacts hardly visible, generally sericitic and chloritic through-out. Minor weak garnet development.							
767.7 - 770.6	Quartz Wacke; medium bedded, 3 to 5 cm non laminated wacke tops, medium grained, contacts flat distinct to sharp weakly sericitic through-out.							

21-407

Drill Hole Record

Property	District	Hole No. IDH V82-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Footage From To	Description	Sample No.	Length	Analysis				
				Claim	T Brg.	Collar Dip	Elev.	Length
770.6 - 772.6	Breccia zone @ 45° to core. The upper part of the zone consists of large quartz wacke clasts in a matrix of biotite, chlorite and calcite. The lower part is a crackle breccia matrix consisting of dominately calcite, minor quartz and some pyrite.							
772.6 - 777.2	Quartzitic Wacke; medium bedded, 4 to 20 cm parallel laminated wacke tops, generally medium grained, contacts flat distinct, generally sericitic through-out.							
777.2 - 778.1	Wacke; very thin bedded, wavy to wispy laminated, numerous thin slump structured beds, contacts sharp flat, pyrrhotite disseminations and patches common.							
778.1 - 779.5	Quartz Wacke; thick bedded, 4 to 8 cm non laminated wacke tops, medium grained, contacts hardly visible small rip-up clasts near bed base, calcite after selenite in wacke tops.							
779.5 - 781.9	Quartzitic Wacke; thin bedded, .5 to 4 cm slump structure wacke tops, contacts flat distinct, finely disseminated pyrrhotite common. Bedding to core 75°.							
781.9 - 782.7	Quartz Wacke; thick bedded, no wacke top, medium grained, contacts hardly visible, generally sericitic, some chlorite and pink garnet.							
782.7 - 783.5	Quartz Wacke; medium bedded, 3 to 5 cm wavy laminated tops, fine grained, contacts distinct undulating, sericitic in general with patches of chlorite and pink garnet.							

21-407

Drill Hole Record

Property	District	Hole No. IDH V82-1								
Commenced	Location	Tests at	Hor. Comp.							
Completed	Core Size	Corr. Dip	Vert. Comp.							
Co-ordinates		True Brg.	Logged by							
Objective		% Recov.	Date							
Footage From To	Description	Sample No.	Length	Analysis	Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.
799.0 - 800.7	Quartzitic Wacke; thick bedded, no wacke tops, medium grained, contacts undulating sharp.									
800.7 - 803.5	Quartz Wacke; medium bedded, 1 to 5 cm non laminated wacke tops, fine grained, contacts hardly visible.									
803.5 - 804.3	Quartzitic Wacke; very thin bedded .5 - 2 cm non laminated wacke tops, fine grained, contact flat distinct.									
804.3 - 804.7	Calcareous Quartzitic Wacke; medium bedded, very thinly parallel laminated, contacts flat distinct, est. CaO 1%.									
804.7 - 805.1	Quartzitic Wacke; thin bedded, 1 to 2 cm non laminated wacke tops, fine grained, contacts undulating distinct, small rip clasts in bed tops.									
805.1 - 806.7	Quartz Wacke; medium bedded, 5 to 10 cm wavy to parallel laminated wacke tops, generally fine grained, contacts undulating distinct, chloritic mainly along numerous hair like fractures, some subhedral pink garnet developed.									
806.7 - 808.9	Quartz Wacke; very thick bedded, no tops, fine grained, contacts hardly visible, generally chloritic very thin quartz filled fracture @ 30° to core contain some sphalerite.									

81-407

Drill Hole Record

Property	District	Hole No. IDH V82-1								
Commenced	Location	Tests at	Hor. Comp.							
Completed	Core Size	Corr. Dip	Vert. Comp.							
Co-ordinates		True Brg.	Logged by							
Objective		% Recov.	Date							
Footage From To	Description	Sample No.	Length	Analysis	Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.
808.9 - 810.2	Quartzitic Wacke; medium bedded, 4 to 8 cm parallel laminated and wavy laminated tops, contacts generally hardly visible weakly sericitic, chlorite in patches and along hair line fractures.									
810.2 - 812.5	Quartz Wacke; thick bedded, 4 to 10 cm non laminated wacke tops, generally medium grained, contacts hardly visible, generally sericitic, chloritic along hair line fractures.									
812.5 - 812.9	Quartzitic Wacke; thin bedded, 4 to 5 cm non laminated wacke tops, fine grained, contacts flat sharp.									
812.9 - 813.4	Quartzitic Wacke; thick bedded, 4 cm non laminated wacke tops, contacts hardly visible.									
813.4 - 815.2	Quartzitic Wacke; medium bedded, 4 to 6 cm parallel laminated wacke tops, medium grained, contacts flat distinct, some rip clasts in bed tops.									
815.2 - 815.9	Calcareous Quartzitic Wacke; medium bedded, no tops, finely parallel laminated, fine grained to partly xln, contacts flat sharp, weakly sericitic chloritic in patches, Est. CaO content 1-2%, thin zones up to 20%.									
815.9 - 816.8	Wacke; very thin bedded, parallel laminated, contacts flat sharp.									

81-407

Drill Hole Record



Property	District	Hole No. DEH V82-1								
Commenced	Location	Tests at	Hor. Comp.							
Completed	Core Size	Corr. Dip	Vert. Comp.							
Co-ordinates		True Brg.	Logged by							
Objective		% Recov.	Date							
Footage From To	Description	Sample No.	Length	Analysis	Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.
818.8 - 821.5	Quartz Wacke; medium bedded, 3 to 5 cm non laminated wacke tops, generally medium grained, contacts undulating distinct, weakly sericitic through-out section.									
821.5 - 824.6	Quartz Wacke; thick bedded, 1 to 4 cm non laminated wacke tops, medium grained, contacts hardly visible, weakly sericitic through out.									
824.6 - 827.5	Quartz Wacke; medium bedded, 1 to 8 cm generally non laminated wacke tops, medium grained, contacts undulating distinct to hardly visible, generally sericitic, rare subhedral pink garnets. Bedding to core 77°.									
827.5 - 828.2	Quartzitic Wacke; thin bedded, .5 to 3 cm parallel laminated Wacke tops, fine grained, contacts flat sharp, thin lenses of pyrite along bedding plains, rare rip-clast.									
828.2 - 830.9	Quartz Wacke; thick bedded, .5 to 5 cm non laminated wacke tops, medium to coarse grained fining upwards, contacts hardly visible, generally sericitic through-out.									
830.9 - 835.5	Quartz Wacke; medium bedded, 1 to 8 cm non to wavy laminated wacke tops, medium to coarse grained fining upwards, contacts generally undulating distinct. Generally sericitic through-out section, sporadic patches of pink subhedral garnet.									

Drill Hole Record



Property	District	Hole No. [DEH V82-1]								
Commenced	Location	Tests at	Hor. Comp.							
Completed	Core Size	Corr. Dip	Vert. Comp.							
Co-ordinates		True Brg.	Logged by							
Objective		% Recov.	Date							
Footage From To	Description	Sample No.	Length	Analysis	Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.
835.5 - 839.9	Quartz Wacke interbedded Quartz Arenite; 1 to 5 cm thick non laminated wacke tops, medium to coarse grained fining upwards, contacts undulating distinct generally sericitic some pink garnet.									
839.9 - 840.3	Quartzitic Wacke; slump structured, small scale dewatering structures.									
840.3 - 840.8	Quartz Arenite; thick bedded, no wacke tops, coarse grained, contacts hardly visible.									
840.8 - 841.2	Quartzitic Wacke - Wacke; slump structured, abundant small scale dewatering structures.									
841.2 - 842.2	Quartz Arenite; thick bedded, 5 cm non laminated wacke top, generally coarse grained, contacts undulating distinct, generally sericitic.									
842.2 - 842.5	Quartzitic Wacke - Wacke; slump structured, abundant dewatering structures.									
842.5 - 843.3	Quartz Arenite; medium bedded, 4 to 8 cm wavy laminated wacke tops, coarse grained, contacts undulating distinct, generally sericitic.									
843.3 - 845.7	Quartz Arenite; thick bedded, no wacke tops, coarse to medium grained, contacts undulating distinct to hardly visible; some bases contain abundant fine lithic fragments, generally sericitic.									

Drill Hole Record



Property	District	Hole No. IXH VR2-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Footage From To	Description	Sample No.	Length	Analysis
845.7 - 847.1	Quartz Wacke; very thick bedded, no wacke top, medium to fine grained fining upwards. Contacts hardly visible, generally sericitic, chloritic in patches.			
847.1 - 847.9	Slumped Quartzitic Wacke; some wacke clasts, de-watering sand filled structures common, disseminated pyrrhotite abundant in de-watering structures.			
847.9 - 851.2	Quartz Wacke; thick bedded, 8 to 30 cm slump structured wacke - quartz wacke tops, small irregular shape clasts abundant in some tops, generally medium to coarse grained fining upwards. Contacts generally undulating distinct to hardly visible, beds commonly sericite.			
851.2 - 851.95	Micro slumped Quartzitic Wacke - Wacke bed; very fine grained wacke occurs as very small lenses within a wacke matrix, lenses are generally elongated with irregular wispy contacts. Very finely disseminated pyrrhotite occur within quartzitic wacke lenses.			
851.95 - 852.5	Quartz Wacke; thick bedded, no wacke tops, fine grained sericitic with chlorite patches, contacts flat sharp.			
852.5 - 852.88	Micro slumped Quartzitic Wacke - Wacke; very fine grained, quartz wacke matrix, hosting thin distorted wacke lenses and wispy layers. Very rare specks of pyrrhotite.			

Drill Hole Record



Property	District	Hole No. IXH VR2-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Footage From To	Description	Sample No.	Length	Analysis
852.88 - 852.95	Quartz Wacke; medium bedded, no wacke tops, fine grained, contacts flat distinct, generally sericitic. No mineralization not sampled.			
852.95 - 854.1	Slumped Wacke - Quartzitic Wacke; texture and slumping style as described above, finely disseminated pyrrhotite abundant in thin distorted quartzitic wacke lenses.			
854.1 - 854.9	Quartz Wacke; thin bedded, 1-3 cm wavy laminated wacke tops, fine grained, contacts undulating distinct generally sericitic with chloritic patches.			
854.9 - 855.9	Slumped Wacke - Quartzitic Wacke; micro slumped. Thin discontinuous lenses of very fine grained quartzitic wacke hosted by wacke. Pyrrhotite finely disseminated in quartzitic wacke lenses.			
855.9 - 860.0	Wacke; very thin bedded, very thin parallel laminated, contacts flat sharp. Generally reddish gray in color. Thin white bleached zones parallel to bedding. Very thin chloritic zones parallel to bedding. Bedding to $\approx 85^\circ$. Pyrrhotite as very thin discontinuous lamina and as fine disseminations through-out this bedded sections.			

Drill Hole Record



Property	District	Hole No. IDH V82-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Footage From To	Description	Sample No.	Length	Analysis	Claim	F Brg.	Collar Dip	Elev.	Length
860.0 - 862.25	Wacke; dark gray, very thick bedded, no lamination, lithologically appears very homogeneous, silicified in part. Unit generally crackle brecciated through-out by thin irregular pyrite - quartz filled fractures.								
862.25 - 863.0	Wacke; thin bedded, very thinly parallel laminated, contact flat - distinct, generally dark gray with reddish brown cast.								
863.0 - 864.0	Wacke; thick bedded, no lamination, contacts flat distinct, numerous very small irregular lensoid structures of slightly coarse grained material, generally contain abundant biotite and pyrrhotite.								
864.0 - 864.9	Quartz Wacke; thick bedded, no wacke tops, fine grained, contact hardly visible, weakly sericitic, chloritic along hairline fractures and in patches.								
864.9 - 867.7	Wacke; thin bedded, very thin parallel laminated contact flat distinct, generally dark gray with reddish cast chloritized in thin irregular zones along lamina, silicified in the same manner.								
867.7 - 868.8	Wacke; very thin bedded, very thinly parallel laminated, contacts flat sharp, generally dark gray with reddish tinge, spotty chloritization along thin lamina, very thin silicified lamina.								

Drill Hole Record



Property	District	Hole No. IDH V82-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Footage From To	Description	Sample No.	Length	Analysis	Claim	F Brg.	Collar Dip	Elev.	Length
868.8 - 870.12	Wacke; thick bedded, non laminated, contacts flat distinct, small wispy concretionary zones, contain abundant biotite, pyrrhotite and chlorite, unit is slumped structured at the base, rock is generally dark gray to black in color.								
870.12 - 871.5	Wacke; thin bedded, very finely parallel laminated, contacts flat distinct, mainly dark gray in color.								
871.5 - 873.0	Wacke; very thick bedded, appears to be one bed, contacts not visible, dark gray in color, numerous thin irregularly shaped lenses of biotite alteration accompanied by pyrrhotite. In some cases these lenses have a silicified perimeters.								
873.0 - 873.5	Wacke; brecciated and silicified, crackle breccia, quartz calcite matrix minor pyrite mineralization.								
873.5 - 877.0	Wacke; very thin bedded, very thinly parallel laminated contacts sharp - distorted, soft sediment slumping through-out. 876.4 - 877.0 abundant angular clasts associated with slump sediments, section generally silicified but not totally. Color ranges from dark gray to light gray in silicified areas, reddish biotite through-out.								
877.0 - 877.8	Wacke; brecciated and silicified, crackle breccia matrix consists of quartz and calcite and pyrite clasts silicified.								

Scale
Cover Plot
& Data

Drill Hole Record



Property	District	Hole No. DDH V82-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Footage From To	Description	Sample No.	Length	Analysis	Claim	T Brg.	Collar Dip	Elev.	Length
877.8 - 878.5	Wacke; very thin bedded, very thin parallel laminated, soft sediment slump structure through-out silicified through out, Small angular clasts associated with slumping,								
878.5 - 881.0	Wacke; very thick bedded, generally structureless, dark gray in color, pyrrhotite blebs through out minor thin pyrite filled fractures.								
881.0 - 881.86	Wacke; thick bedded, non laminated, light gray, numerous irregular hair line fractures commonly fill with pyrite.								
881.86 - 882.3	Wacke; brecciated, fine crackle breccia, some pyrite in very thin fractures, slightly chloritic, light gray in color.								
882.3 - 884.2	Wacke; very thin bedded, very thinly parallel laminated contacts sharp distorted, light gray color, soft sedimentary slumping through interval.								
884.2 - 887.4	Wacke brecciated; fine crackle breccia, filled by quartz and fine pyrite, primary structures distorted, contacts etc. generally lite gray in color with reddish tinge (due to fine reddish biotite).								

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Scale
Cover Plot
& Data

Drill Hole Record



Property	District	Hole No. DDH V82-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Footage From To	Description	Sample No.	Length	Analysis	Claim	T Brg.	Collar Dip	Elev.	Length
887.4 - 889.1	Wacke; thick bedded, very thin wispy to wavy lamination in part, in part more laminated, contacts hardly visible generally lite gray with slight greenish tinge. Abundant irregular hair line fracture contain fine pyrite.								
889.1 - 890.4	Wacke; thin bedded, thinly parallel laminated, contacts flat distinct, whitish gray with lite gray banding, some bands of disseminated pyrite, parallel to bedding.								
890.4 - 896.0	Wacke; thin to very thin bedded, 3 to 8 cm (average 5 cm) subwacke tops, fine grained, contacts flat sharp, generally sericitic biotite through out, weakly disseminated pyrite and pyrrhotite through out. Generally reddish gray with white subwacke tops. Bedding to core 80°.								
896.0 - 896.6	Quartzitic Wacke; medium bedded, 4 cm white wacke tops, fine grained, contacts flat sharp, generally sericitic and biotite. Color same as above.								
896.6 - 897.1	Quartzitic Wacke; very thin bedded, 1 cm non laminated white subwacke tops, fine grained, contacts flat sharp. Sericitic and biotitic, color unchanged.								

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Drill Hole Record



Property	District	Hole No. IXXI V82-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

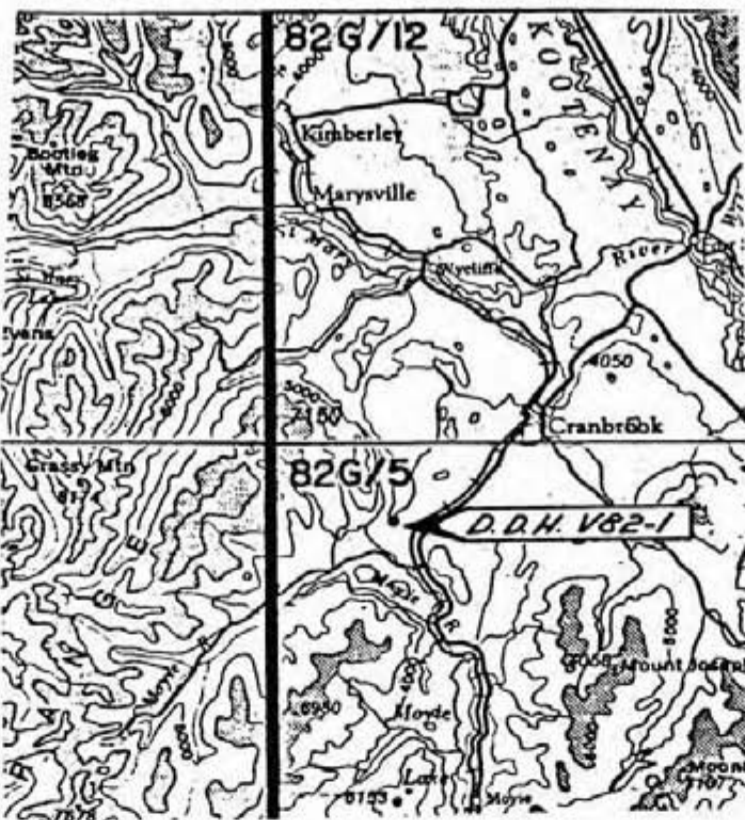
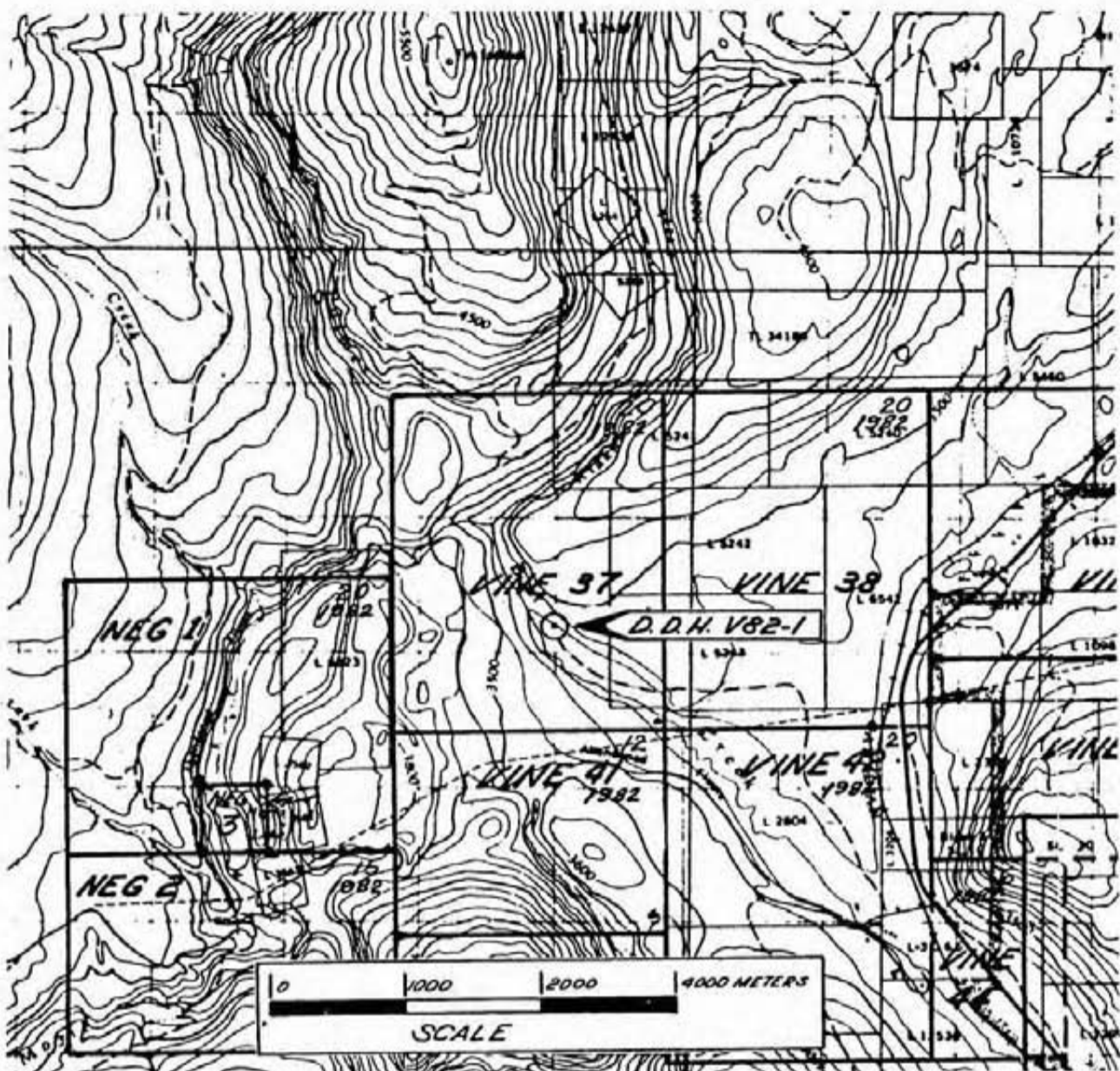
Feetage From To	Description	Sample No.	Length	Analysis	Claim	T Brg.	Collar Dip	Elev.	Length
897.1 - 901.6	Quartzitic Wacke; medium bedded, 1 to 4 cm non laminated white wacke tops, fine grained, contacts sharp flat, sericitic and biotitic, rare small scale cross beds. Thin quartz pyrrhotite vein parallel to core.								
901.6 - 903.1	Quartz Wacke; thick bedded, 1 cm non laminated white wacke tops, medium grained, contacts undulating sharp small scale flame structures, sericitic and biotitic reddish lite gray.								
903.1 - 904.3	Wacke; thin to very thin bedded, .5 to 5 cm non laminated white wacke tops, contacts flat sharp, reddish gray.								
904.3 - 907.1	Wacke; medium bedded, .5 cm - 5 cm non laminated white wacke tops, contacts flat sharp, generally sericitic and biotitic reddish gray.								
907.1 - 910.8	Quartz Wacke; thick bedded, .5 - 1 cm non laminated white subwacke tops, medium to fine grained fine upwards, contacts flat sharp, very sericitic some biotite.								
910.8 - 911.6	Wacke; medium bedded, 4 to 6 cm non laminated white subwacke tops, contacts flat sharp weakly sericitic, fine biotite, reddish gray.								

Drill Hole Record



Property	District	Hole No. IXXI V82-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Feetage From To	Description	Sample No.	Length	Analysis	Claim	T Brg.	Collar Dip	Elev.	Length
911.6 - 913.4	Quartz Wacke; medium bedded, .5 to 1 cm non laminated white subwacke tops, fine grained, contacts flat sharp sericitic and biotitic.								
913.4 - 913.9	Wacke; thin bedded, 2 to 4 cm, parallel and non laminated white subwacke tops, very fine grained, contacts flat sharp.								
913.9 - 925.6	Quartzitic Wacke; medium bedded, 2 to 4 cm, micro cross laminated white subwacke tops, fine grained, contacts flat sharp numerous hairline chloritic fractures, weak sericitation through-out, bedding to core 75°.								
925.6 - 928.6	Quartzitic Wacke; medium bedded, 4 cm parallel wacke tops, medium grained, contacts undulating distinct, generally sericitic and chloritic.								
928.6 - 928.2	Quartzitic Wacke; medium bedded, no tops, generally fine grained, very finely parallel laminated, weakly calcareous, generally sericitic, contacts flat distinct.								
928.2 - 952.4	Wacke interbedded with subwacke; thin bedded, very fine grained, contacts indistinct. Thin subwacke interbeds generally micro cross laminated, generally weakly sericitic through-out.								
CORE STORED AT COMINCO - KIMBERLEY									
RD									



KEY MAP
1:500,000

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11131



Drawn by:	M.W-M.	Traced by:	
Revised by	Date	Revised by	Date

VINE PROPERTY
LOCATION MAP D.D.H. V82-1

Scale: AS SHOWN Date: MARCH 1983 Plate:

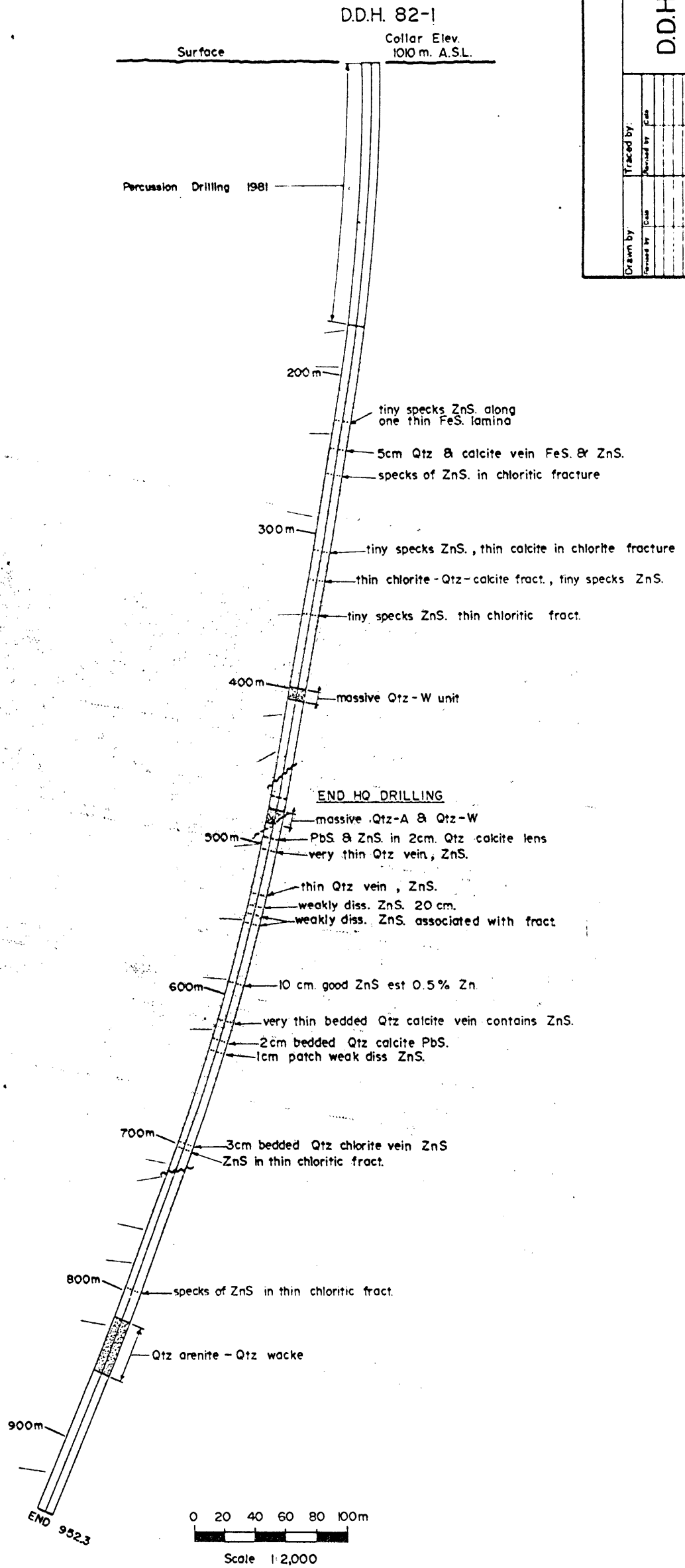
GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,131



D.D.H. 82-1

Scale 1:2000 Date MAR 83 Plate



SPERRY SUN SINGLE SHOT TEST

DEPTH	DEGREE OF DIP	AZIMUTH
Meters		
176.8	-81°	231°
232.6	-80°	236°
304.8	-79.5°	241°
457.9	-79.0°	243.5°
534.7	-75.5°	252°
609.7	-72°	247°
685.9	-70°	257°
762.1	-69°	260°
838.4	-67.5°	263°
914.6	-67.5°	270°

END OF HOLE

LEGEND

- Middle Aldridge Undivided; mainly proximal and distal turbidite sediments; generally thin, medium and thick bedded quartzitic wacke interbedded wacke.
- Quartz Wacke and Quartz Arenite; generally thick to very thick bedded.