

NORANDA EXPLORATION COMPANY LTD.

680190

DDH BAR 85-1

Date Collared May 12/85		Date Completed		Core Size HQ		DIP TESTS				PROPERTY Cranbrook JV			PROJECT No 3140		N.T.S. No 82G/5W						
FIELD CO-ORDINATE				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of							
Lot.		Elev.				RECORDED		CORRECTED		RECORDED		CORRECTED		Lot.		Elev.		Dip		MOLE No.	
Dep.		Length		Bearing						Dep.		Length		Bearing							
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS									
0'	72m		Casing																		
0m	21.95m																				
72'	121'5"	23.17	Gabbro Sill			Approx. 40% - 45% mafics															
21.95m	37.02m	to 26.22m 93%	(Hbl; Px partially altered to chlorite). Calcite veinlets. Plag. 55 to 60%. Coarse grained			Fractures @ 30° & 60° to C.A. Slicks show dip slip (reverse)															
		26.22	Calcite vein			At 88'1" Calcite vein @ 20° to core axis Approx 4" wide. Minor fine grained py along veinlets < 1%.															
		to 29.27m 96%				movement 101'6" to 103'5" Rubbly 103'5" to 105'															
		29.27				Rust stained fracture at 0° to C.A.															
		to 38.41m 95%																			
121'5"	37.02m	38.41	'Quartz Wacke'			Fine to medium grained sandstones. Fine component is greater than medium component. Biotite content varies, in massive bedded sst. it is around 5% in thin bedded sst.															
		to 41.46m 97%				biotite is around 15% in interlaminations. Also disseminated pyrite throughout approx. 4 to 5%. Fine grained pyrite apparently															
		41.46m				stratiform. This sequence of rocks consists of Cominco's turbidite division of A1, A2 and A3 interbedded through.															
		to 44.51 93%																			
		44.51																			
		to 47.56m 98%																			
		47.56	37.02m to 49.53			Interbedded A1, A2 and B, thin (10cm) to medium bedded (up to 1m). A1 shows scour marks at base and is usually massive and grades into A2 which has															
		to 50.61 98%																			

NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.			
FIELD CO-ORDINATES						DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES						Sheet of	
Lot.		Elev.		Dip			RECORDED	CORRECTED	RECORDED	CORRECTED	Lot.		Elev.		Dip		HOLE No.	
Dep.		Length		Bearing						Dep.		Length		Bearing				
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
		50.61 to 53.66 89%	Same [redacted] rogue bedding and grades into parallel laminated B horizon.				Blocky throughout with fracures to C.A.											
		53.61 to 56.71 99%	49.53m to 60.27m Turbidites becomes more thickly bedded between erosional scours, usually about 1m. also appearance of fine grained, light grey elongate				@ 10° to 20° Fe stains along fractures.											
		56.71 to 59.76 98%	Same [redacted] elasts up to 3.5cm X 1cm in size. These represent A2 horizon and are parallel to bedding. Also appearance of A2 with thin and															
		59.76 to 62.80 95%	Same [redacted] medium laminations of fine sandstone with vague cross laminations. Also appearance of thin C horizon - (and D) fine silt interbeds or laminations about 10 cm wice showing				Bedding to C.A. 75°											
			Same [redacted] parallel and ripple cross-laminations. A3 and C horizon are less common than A1 and A2.															
			#Note [redacted] At 38.75m to 38.83m thin of soft light green, fine grained chloritic - sericitic silt with 3% disseminated po. May be a tuffite?															
			#Note [redacted] 43.11 to 50.61m have medium grained, chloritized biotite, and hornblend crystals (1mm X 3 mm) oriented parallel to C.A. Also this interval is more heavily fractured than surround															
			Same [redacted] ing core. Also P. occurs as disseminations as high as 10% along the tops of some scours.															

## NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.			
FIELD CO-ORDINATES						DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES						Sheet of	
Lat.		Elev.		Dip			RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.		Elev.		Dip		HOLE No.	
Dep.		Length		Bearing						Dep.		Length		Bearing				
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
60.27	64.73	62.80 to 64.63 93%	'Quartz Wacke' Fine grained, light grey thick bedded with occasional scour marks and rare clasts A horizon A1 & A2 interbeds				Blocky Fractures to C.A. 10° to 20°											
64.73	67.68	64.63 to 67.68 99%	'Quartz Wacke' Medium grained, light grey, thick bedded. Clasts common, current laminations A-2 horizon. Near base have thin bedded, laminated,															
		67.68 to 68.90 71%	Same medium grey siltstones probably C horizon.				Bedding to C.A. @ 80°											
67.68	67.75	68.90 to 71.95 97%	Siltstone Medium grey C top to turbidite.															
67.75	68.27		'Quartz Wacke' Medium grained, light grey. Thin bedded. Occasional clasts and scours. Fines downward to A1 base 25 cm wide.															
68.27	72.20	71.95 to 75.00 97%	'Quartz Wacke' Medium grained, light grey massive bedding near base fines downward for 4 cm to 71.95m.				Bedding to C.A. 75°											
72.20	72.32		Siltstone Medium grey thinly laminated with medium and fine grained sst. Current laminations and rare ripples C horizon turbidite top.				Fractures to C.A. 10° to 15°											
72.32	75.14		'Quartz Wacke' Medium grained, light grey, thick to massively bedded with occasional scour marks. A2 Po disseminations 2%															

**NORANDA EXPLORATION COMPANY LTD.**

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.		
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES					Sheet of		
Lat.		Elev.		Dip		RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.		Elev.		Dip		HOLE No.	
Dep.		Length		Bearing						Dep.		Length		Bearing			
From	To	Recovery	Description			Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS						
75.14	75.36	75.00 to 76.00 100%	Siltstone Medium grey, thin inter-laminations of very fine grained sandstone. Parallel laminations. Distal Turbidite. C or D horizon														
75.36	80.64	78.00 to 81.10 97%	Quartz Wacke Medium grained, light grey thick to massive bedded. Some scours. A1 and A2 beds.														
			76.84 to 77.24m Three large very light grey clasts (up to 8 cm X 2 cm) with 20% disseminated po.														
80.64	80.76		Siltstone Medium grey with thin, parallel laminations of very fine grained sst and siltstone. Distal Turbidite. C or D.														
80.76	84.04	81.10 to 84.15 98%	Quartz Wacke Medium grained thick to massive bedded. Scours and occasion thin current laminations.														
84.04	84.15		Siltstone Medium grey with thin interlaminations of very fine grained sst. Ripple marks. C horizon Minor P. disseminations.														
84.15	85.61		Quartz Wacke Fine grained, light grey, bedding. A1 or A2 horizon														
85.61	85.76	84.15 to 87.20 98%	Mudstone Medium grey with P. disseminations and very thin interlaminations around 10%. Horizon E interturbidite.														

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.		
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of			
Lat.		Elev.		Dip		RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.		Elev.		Dip		HOLE No.	
Dep.		Length		Bearing						Dep.		Length		Bearing			
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
85.76	87.06		'Quartz Wacke' Medium and fine grained, light grey, medium interbeds. Scour A1 and A2 horizons														
87.06	87.26	87.20 to 90.21 100%	Sill Gabbroic/Dioritic? Thin altered sill consists of 40% biotite, 20% Quartz, and 40% plag. Biotite is alteration product of pyroxene and hornblende														
			Same Hornblende crystals were observed in amounts less than 5%.														
87.26	87.63	90.24 to 93.29 88%	Siltstone Medium to light grey with occasional interlaminations of very fine grained sst. and mudstone. Also wavy current laminations. C,D, and E horizons														
87.63	87.91		'Quartz Wacke' Medium and fine grained interbeds of light grey sandstone. Scours, Fining upwards. A horizons. Also thin mudstone tops observed at 88.29m and 88.51m these are E tops about 2 to 3 cm thick.														
			Py disseminated throughout 2%														
87.91	88.09		Siltstone Light to medium grey with interlaminated fine grained sandstone. Wavy current laminations (ripples?) Horizon C.														
88.09	89.92		'Quartz Wacke' Light grey, medium grained and bedded. Scour marks Horizon A. Py along fractures														

NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY		PROJECT No.		N.T.S. No.				
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of				
Lot.		Elev.		Dip		RECORDED		CORRECTED		Lot.		Elev.		Dip		HOLE No.		
Dep.		Length		Bearing						Dep.		Length		Bearing				
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS						
89.92	90.40		Siltstone Medium to light grey with interlaminations of very fine grained sandstone. Vague current laminations near base grading upwards into a 9 cm wide Mudstone. Horizons C and E.			Bedding to C.A. 80°												
			Same Thin laminations of py and disseminations of py, about 3%															
90.40	93.11		'Quartz Wacke' Light grey, medium grained massive to thick bedded. Heavily fractured with pyrite along fractures. Fractures primarily at 0° to 15° to C.A. Also chlorite along fracture surfaces.			Fractures 0° to 15° to C.A.												
93.11	93.29	93.29 to 96.34 68%	Siltstone Medium grey same alteration as above Horizon D			Bedding to C.A. 75° Blocky to Rubbly												
93.29	96.36	96.34 to 99.39 93%	'Quartz Wacke' Light grey, medium and fine grey interbeds. Thick bedded, some inverse grading. Horizons A1 and A2			Bedding to C.A. 70° Blocky to Rubbly												
			Same Alteration same as above but have appearance of very fine grained garnets and minor brecciation at 94.41 m to 96.36 m.			Bedding to C.A. 75°												
			Same At 96.26 to 96.36 m have sub rounded fragments up to 1 cm across in chloritic matrix. No sulfides in breccia															

## NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.			
FIELD CO-ORDINATES						DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES						Sheet of	
Lat.		Elev.		Dip			RECORDED	CORRECTED	RECORDED	CORRECTED	Lot.		Elev.		Dip		HOLE No.	
Dep.		Length		Bearing						Dep.		Length		Bearing				
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
96.36	96.53		Siltstone Medium grey with medium laminations to thin beds and thin pyrite laminations, about 1%. Top 10 cm marked by mudstone.															
			Same Horizon D with E top, Have much less fracturing but have development of biotite and hornblende crystals up to 3 cm long aligned parallel to the C.A. Hornblende and biotite															
			Same crystals are completely chloritized and oriented almost normal to bedding. Hornblende and biotite about 10%															
96.53	97.54		'Quartz Wacke' Light grey, medium grained thick bedded. Fractured at 0° to 20° to C.A. with pyrite along fractures. Chloritized biotite and hornblende															
			Same crystals are less prominent, about 2 to 4% hornblende and biotite.															
97.54	98.60		Siltstone Light grey, poorly laminated, vague current laminations Horizon D? or E?															
			Same Fracturing is minor and chloritized hornblende and biotite aligned parallel to C.A. is prominent. Up to 10% of rock.															
98.60	99.94	99.39 to 102.44 93%	'Quartz Wacke' Light grey, medium grained and bedded. Heavily fractured in last 30 cm with chlorite and pyrite along fractures Unit A															

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.										
FIELD CO-ORDINATES						DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES						Sheet of							
Lat.		Elev.		Dip				RECORDED		CORRECTED		RECORDED		CORRECTED		Lot.		Elev.		Dip		HOLE No.			
Dep.		Length		Bearing												Dep.		Length		Bearing					
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS												
			Same [redacted] Also have fine to medium grained, dark amber coloured sphalerite in this zone. At end of zone have breccia with chloritized																						
			Same [redacted] matrix as seen at 96.26 m				Bedding to C.A. 80°																		
99.94	107.41	102.44 to 105.49 97%	Interbedded Siltstone/sandstone to Light grey thin bedded siltstone and fine grained sandstone some minor current laminations. Also have at least five thin interbeds of				At 105.99 three very thin beds show eye shape indicating.																		
			Same [redacted] mudstone E horizon. Thus have unit of horizons B, C-D with some E tops. Moderately fractured throughout with				recumbent fold. Fractures at 0 to 20° to C.A. & 40° to 50° to C.A.																		
			Same [redacted] Hornblende and biotite crystals (up to 3 mm long) aligned parallel to C.A. These crystals are more abundant in silty sections				Slicks show dip slip movement																		
		108.54 to 111.58 95%	107.69 to 108.88 heavily fractured with slicks on fractures. Little chlorite or sulfides and some clusters of fine grained amber - rust coloured euhedral sphalerite				Bedding to C.A. 60°																		



# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.				
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of					
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lot.		Elev.			
Dep.		Length		Bearing						Dep.		Length		Bearing		HOLE No.			
From	To	Recovery	Description			Structure			% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS						
		126.83 to 129.88 100%	Same to 128.05 Marker			siltstone over 90 cm			Blocky Bedding to C.A. 78°										
129.80	131.30	129.88 to 132.93 97%	Marker to 129.80 m to 130.125 cm - Marker 130.125 to 130.215 cm - psuedo-marker? 130.383 to 130.41 psuedo?			Box 27 Bedding to C.A. 74° 76° 74°													
			130.52 to 130.574 Psuedo?			Blocky													
			130.576 to 130.65 Psuedo?																
			130.804 to 130.954 Marker or psuedo?			74°													
			131.02 to 131.296 psuedo marker?			Blocky													
131.30	133.28	132.93 to 135.98 100%	'Quartz Wacke' to light to medium grey. Top 51 cm are biotite rich up to 20% remainder contains 10% or less. Massive bedded																
133.28	133.92		Siltstone Gradational contact with overlying sandstone. Light grey, thin bedded with po along lamination near base.																
133.92	134.688		Marker(Sundown) Match @ 134.45 m			Box 28 75° Fractures in marker at 30° to C.A. with normal													

NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.					
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES						Sheet of				
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lat.		Elev.		Dip		
Dep.		Length		Bearing						Dep.		Length		Bearing				HOLE No.		
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS								
134.688	134.87		Mudstone/siltstone	D-E turbidite top medium grey.																
134.87	135.98	135.98 to 139.02 97%	'Quartz Wacke'	Fine grained light grey with interlamination of siltstone. Parallel laminations and beds no apparent scours.																
135.98	137.79		'Quartz Wacke'	Medium grained, light grey with scour marks within 30 cm. of base. Top fines up into E top of medium grey mudstone 16 cm. wide																
			Same	136.35 to 136.38 m have very thinly laminated E or D? horizon. Po disseminations and occasional interlamination ≈ 2%.			Bedding to C.A. 77°													
137.79	143.80	139.02 to 142.07 98%	Interbedded sandstone/siltstone	Thin interbedded fine grained, light grey, quartz wacke and siltstone with occasional mudstone top. Base is fine grained 'quartz wacke' 20 cm to 30 cm.																
			Same	grading up into siltstone and fine grained quartz wacke with occasional ripples (10 cm to 1 m) - C and/or D. Some mudstone tops occur 5 cm to 20 cm wide.																
		142.07 to 145.12 98%	Same	Po disseminations and rare interlamination. Red-rust coloured fine grained garnets in basal wackes.			Bedding to C.A. 76°													

## NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.			
FIELD CO-ORDINATES						DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES						Sheet of	
Lot.		Elev.		Dip			RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.		Elev.		Dip		HOLE No.	
Dep.		Length		Bearing						Dep.		Length		Bearing				
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
143.80	155.38	145.12 to 148.17 97%	Same as above But have a loss prominent 'Quartz wacke' base with thicker siltstones and mudstones. Also appearance of interlaminations and				Blocky Bedding to C.A. 70°											
			Same thin beds of thinly laminated E. Mudstones often contain thin interbeds or laminations of siltstone and are up to 1.5 m or more thick.															
			Same Siltstones and very fine sands show rare ripples and convolute bedding. At 144.92 have Bioturbation? alteration?															
			Same Thinly laminated E occurs at the top of mudstone or within it. Mudstone = D. 150.19 - 150.205 Marker															
		148.17 to 151.22 98%	Marker? 151.088 to 151.293 at top of mud. Bar 32 or 33? Po occurs as occasional interlaminations				Blocky bedding to C.A. 82°											
		151.22 to 154.27 99%	Interbedded as before marker in mudstone and siltstone. 151.132 to 155.459 Marker 153.107 to 153.372 Marker				Fractures 0° to 15° for C.A.											
155.38	160.58	154.27 to 157.32 97%	Same as above 'Quartz Wacke' A horizon is more prominent. Get thin (≈10 cm), C Horizon of very fine grained wacke and				Blocky B adding to C.A. 80° Bedding to											
		157.32 to 160.37 100%	Same siltstone with convolute and wavy current laminations				C.A. 69°											

## NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.							
FIELD CO-ORDINATES						DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES						Sheet of				
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lat.		Elev.		Dip		HOLE No.		
Dep.		Length		Bearing										Dep.		Length		Bearing				
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS									
160.58	164.97	160.37 to 163.41 100%	Same as above 'Quartz wacke' now less prominent than mudstone and siltstone.				Blocky Bedding to C.A. 78°															
164.97	168.482	163.41 to 166.46 97%	Siltstone and Mudstone Thin bedded and laminated siltstones and mudstones with appearance of thinly laminated biotite rich layers (D Horizon). Also																			
		166.46 to 169.12 96%	Same thin 'Quartz Wackes' fine grained, light grey with scoured base. Siltstones and mudstones show cross-laminations and convoluted bedding C horizon.				Blocky															
			Same Several thin ACD, CDE, AE sequences. About 10 to 30 cm wide.																			
168.482	173.211	169.12 to 172.56 97%	Marker Bar 36 - 37 Minor quartz vein with pyrite (10 - 20%) and sphalerite (1%).				Bedding to C.A. 84°															
173.24	185.03	172.56 to 175.61 97%	Siltstone and Quartz Wacke Sequence of thin and medium bedded fine grained, light grey 'quartz wacke' and siltstone and mudstone. Thin turbidite.				Bedding to C.A. 81°															
		175.61 to 178.66 100%	Same Sequences of ACD, AC, AE and CD. Thicknesses very from 20 cm to 1.5 m. Also load structures. D thin laminated mudstone.																			
185.03	188.73	178.66 to 181.71 98%	'Quartz Wacke' Light grey medium grained with thin interbeds of very thin bedded siltstone very fine sandstone and mudstone with load casts and minor convoluted bedding.				Blocky Bedding to C.A. 82°															

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.						
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of							
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lat.		Elev.		Dip		HOLE No.	
Dep.		Length		Bearing						Dep.		Length		Bearing							
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS									
		181.71 to 184.76 98%	Same Basal 'Quartz wacke' in this turbidite is 1.70 m wide Massive to thick bedded			Blocky															
188.73	193.15	184.76 to 187.80 98%	Siltstone/sandstone Thin to medium interbeds of light grey fine grained 'quartz wacke' very fine grained 'quartz wacke', siltstone and			Blocky															
		187.80 to 190.85 99%	Same lesser mudstone. 'Quartz wacke' beds up to 40 cm wide. Usually approx. 20 cm. Siltstones have some structures as previous unit			Bedding to C.A. 81°															
		190.85 to 193.90 95%	Same Mudstone medium grey and very thickly laminated or light grey and poorly laminated D and E respectively			Bedding to C.A. 74° Blocky to Rubbly															
			Same Po laminations occur in siltstones and mudstones approx. 3%																		
193.15	201.84	193.90 to 196.95 93%	Sandstone/Siltstone Medium interbeds of medium to fine grained 'quartz wacke' and very fine grained 'quartz wacke' and siltstone. Mudstone (E Horizon tops) thin																		
		196.95 to 200 100%	Same 2 to 3 cm. Predominance of 'quartz wacke' A Horizon and fine grained wacke-siltstone C Horizon. Scours at bases and ripples and load																		
		200 to 203.05 96%	Same structures in C Horizon Horizon C thins and A thickens downward. i.e. Turbidites thicken downward Py along fractures																		

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.						
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of							
Lot.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lat.		Elev.		Dip		HOLE No.	
Dep.		Length		Bearing						Dep.		Length		Bearing							
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS									
201.84	212.09	203.05 to 206.10 100%	'Quartz Wacke' Light grey, medium and fine grained. Thickly to massively bedded. Horizon C with convoluted bedding and			Blocky Bedding to C.A. 81°															
		206.10 to 209.15 94%	Same vague ripple laminations Horizon A 'Quartz Wackes' are amalgamated and are 40 cm to > 100 cm wide. Horizon C interbeds are 10 to 15 cm wide and up to 40 cm.			206.51 to 206.69 Fractured fine wacke altered light grey-green															
		209.15 to 212.20	Same Po disseminations approx. 1% or less occur as grains along laminations.			Blocky Bedding to C.A. 82°															
212.09	222.59	212.20 to 215.25 100%	Same as above But 'Quartz Wackes' are thinner up to 60 cm and grade up into fine, very fine wackes and siltstones (Horizon C) up to 40 cm.			Blocky Bedding to C.A. 77°															
		215.25 to 218.30 100%	Same Occasional mudstone tops (E) 2 cm to 12 cm wide. 'Quartz wackes' are massive with occasional current laminations and graded			Blocky															
		218.30 to 221.35 99%	Same beds. Some bases are inversely graded. These A horizons are prominent and separated by thin beds of C, D and E horizon.			Blocky Bedding to C.A. 80°															
		221.35 to 224.40 98%	Same Occasional cross-laminations, load structures and convolute bedding in C. Rare clasts 1 cm X 3 mm in A. Po, Py, disseminations up to 4%.			Blocky															
222.59	225.56	224.40 to 227.45 89%	Fracture Zone Highly fractured with slicken - sides along fractures indicating dip slip (normal) movement. No sulfides			Rubbly Fractures at 0° to 20° to C.A.															

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.							
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of								
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lat.		Elev.		Dip		HOLE No.		
Dep.		Length		Bearing						Dep.		Length		Bearing								
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS									
		227.45 to 230.50 99%					Bedding to C.A. 76°															
229.40	232.70	230.50 to 233.55 94%	Fracture Zone Heavily fractured chlorite-cericite alteration. Albitization Fractures at 0° to 20° to C.A. Occasional schistosity developed				Rubbly Fractures to C.A. 0° to 20°															
			Same sub-parallel to C.A. Schistosity developed in a fine grained light grey-green sediment or possibly tuffite. Py, Pu, Cpy, gal, sphl. approx. 1 - 2% along fractures and veins.																			
			Same Also albite alterations 236.32 to 236.54 Qtz vein with Po and Py blebs, minor Cpy 236.10 and 236.46 Qtz veins																			
232.70	239.60	233.55 to 236.59 95%	'Quartz Wacke' Thick to massive bedded fine and medium grained wacke with occasional silt and fine sand C horizon D or E is rare and				Blocky Bedding to C.A. 75°															
			Same thin (2 - 3 cm). Scour marks and same grading (upwards) in A. Load structures in C.																			
239.60	242.66	236.59 to 239.60 100%	Sandstone/siltstone Thin and medium interbeds of fine grained quartz wacke and very fine grained quartz wacke and siltstone. Rare mudstone tops 2 to 10 cm wide				Blocky															
		239.60 to 242.68 99%	Same A and C horizons approx. 10 to 25 cm wide. Silt-mudstone occurs as biotite (dark) rich bands and light bands with thin parallel				Bedding to C.A. 80°															

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY		PROJECT No.		N.T.S. No.		
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of		
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		HOLE No.		
Dep.		Length		Bearing						Dep.		Length		Bearing		
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS			
		264.02 to 267.07 95%	Same [redacted] Also have load cast to features. Some clasts up to 3 cm X .5 cm in A horizon.				Blocky									
		267.07 to 270.12 99%	Same [redacted] At 271.29 m have (? bisturbation?) in quartz wacke - alteration?				Blocky Bedding to C.A. 80°									
		270.12 to 273.17 98%	Same [redacted] Between 276.61 m and 279 m have thin bedded, light green, very fine grained silicons sandstone with very				Blocky									
		273.17 to 276.21 100%	Same [redacted] definite ripple cross-laminations > horizon.				Blocky to Rubbly Bedding to C.A. 81°									
276	282.31	276.21 to 279.26 96%	Fracture Zone [redacted] to 278.41 to 276.47 m Fault gauge in thin mudstone interbed.				Rubbly to Blocky Fractures at 0° to 20°									
		279.26 to 282.31 89%	Same [redacted]				to C.A. Bedding to C.A. 82°									
282.31	287.33	282.31 to 285.36 100%	Mudstone/silt-sandstone [redacted] Thin interbeds of thinly laminated and structureless mudstones with siltstone and fine to very fine quartz wacke.				Bedding to C.A. 78°									
		285.36 to 288.41 98%	Same [redacted] Convoluted bedding with Py along laminations approx. 3 to 5%. Minor A horizon 3 cm to 25 cm wide. Represents C,D and E horizon.				Bedding to C.A. 81°									



NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.				
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES						Sheet of			
Lat.		Elev.		Dip		1056'		180°		88°		Lat.		Elev.		Dip		HOLE No.	
Dep.		Length		Bearing								Dep.		Length		Bearing			
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS							
287.33	289.32	288.41 to 291.46 98%	'Quartz Wacke' Medium to Fine grained to Medium interbeds with thin to medium interbeds of siltstone and fine grained 'quartz wacke'			Blocky Bedding to C.A. 80°													
289.32	300.68	291.46 to 294.51 100%	Interbeds 'quartz wacke' interbedded with siltstone and mudstone. Plane parallel laminations with occasional scours and current			Blocky Bedding to C.A. 72°													
		294.51 to 297.56 97%	Same laminations in thin bedded to medium to fine 'quartz wacke' - Distal Turbidites			Blocky Bedding to C.A. 82°													
		297.56 to 300.61 97%	Same Same convoluted bedding to in fine grained 'quartz wackes' and siltstones near bottom 2 m. of base. Py, Po throughout 3 to 5%			Blocky Bedding to C.A. 80°													
300.68	305.37	300.61 to 303.66 97%	'Quartz Wacke' Light grey, massive to thick bedded, medium grained. Mostly non-graded. Occasional current laminations. Vague cross laminations?			Blocky													
		303.66 to 306.71 100%	Same			Blocky to Rubbly. Fractures to C.A. 0° to 15°													
305.37	315.06	306.71 to 309.76 100%	Same as above But thinner 'quartz wacke' to Medium bedded with siltstone tops. Quartz Wackes about 30 cm to 100 cm. with			Blocky Bedding to C.A. 78°													
		309.76 to 312.80 97%	Same Siltstone tops 2 cm to 10 cm wide (up to 23 cm wide) Siltstones have convoluted bedding. Scours and load structures at base of 'Wackes'			Blocky Bedding to C.A. 79°													

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size HQ to		DIP TESTS				PROPERTY		PROJECT No.		N.T.S. No.		
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of		
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		HOLE No.		
Dep.		Length		Bearing						Dep.		Length		Bearing		
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS				
315.06	323.97	312.80 to 314.33 92%	'Quartz Wacke' Light grey, medium grained thick to massive interbes. Occasional thin to very thin interbes of very fine grained 'quartz wacke' and			Blocky Bedding to C.A. 78°										
		314.33 to 315.25 100%	Same siltstone with convolute bedding and vague cross bedding. Silty interbeds are 2 to 10 cm wide and 'quartz wackes' consist of			Blocky										
		315.85 to 318.90 95%	Same amalgamated beds up to 3 m wide. Fewer sulfides than overlying unit. Py, Po approx. 1%			Blocky Bedding to C.A. 79°										
323.97	327.91	318.90 to 321.95 90%	Siltstone/sandstone fine to very fine grained 'quartz wackes' and siltstone, some interlamination of finely laminated very fine grained 'quartz wacke' with abundant			Blocky										
		321.95 to 322.56 100%	Same biotite, D horizon Remainder represents A and C. Interval coarsens at bottom into fine to medium grained 'quartz wackes.			Blocky										
		322.56 to 325 84%	Same Thinly bedded throughout with some scours and load structures. Some pyrite along fractures			Fractured Fractures at 0° to 20° to C.A.										
327.91	334.62	325 to 327.74 90%	'Quartz Wacke' Thick interbeds of light grey, fine and coarse grained sandstones. Scours and very thin beds of siltstone. Unit generally			Bedding to C.A. 79°										
		327.74 to 330.79 96%	Same fines up within individual beds.			Blocky to Rubbly. Fractures 0° to 20° to C.A. Minor chloite and pyrite.										

# NORANDA EXPLORATION COMPANY LTD.

Date Colored		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.	
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of		
Lot.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		HOLE No.		
Dep.		Length		Bearing						Dep.		Length		Bearing		
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS				
334.62	340.59	330.79 to 334.15 100%	Quartz Wacke/Siltstone Medium to thin bedded 'Quartz Wacke' with thin bedded interbeds of very fine grained quartz wacke and siltstone showing			Blocky Bedding to C.A. 75°										
		334.15 to 337.26 100%	Same convoluted bedding and load structures. Also, some clasts in 'Quartz Wackes' up to 3 cm X 1 cm. Units A, C			Blocky Bedding to C.A. 82°										
340.59	346.44	337.26 to 340.24 97%	'Quartz Wacke' Fine and medium grained and medium bedded (30 to 60 cm) with regular siltstone and very fine 'quartz wackes' at the tops (2 cm to 10 cm wide)			Blocky										
		340.24 to 343.29 96%	Same Units A and C Fines fractions of unit have chloritized hornblende and biotite aligned parallel to the C.A.			Blocky Bedding to C.A. 85°										
		343.29 to 346.34 96%	Same			Bedding to C.A. 80°										
346.44	350.34	346.34 to 349.39 98%	Mudstone/Siltstone/Wacke Thin interbeds of Mudstone to siltstone and fine grained quartz wacke. Plane parallel laminations and minor scour marks.			Blocks										
		349.39 to 352.44 100%	Same Some thinly laminated silty and fine grained wacke representing D horizon. Primarily thin bedded A, C, and E.			Bedding to C.A. 77°										
		352.44 to 355.49 99%	Marker Moyie match @ 348.93 m to 348.94m to 349.45m Marker 349.15m Interlaminated biotite rich and poor bands of silty to fine wacke with 2% po dissemination			Bedding to C.A. 78°										

# NORANDA EXPLORATION COMPANY LTD.

Date Colored		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.					
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of						
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lat.		Elev.		Dip		
Dep.		Length		Bearing						Dep.		Length		Bearing						
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width		ASSAYS							
380.51	385.765	379.88 to 382.93 94%	"Quartz Wackes" Amalgamated medium bedded, very fine, fine, medium grained with lesser thin bedded siltstones and mudstones.			Blocky Bedding to C.A. 82°														
		382.93 to 385.67 100%				Fractures to C.A. 0° to 15°														
385.765	387.836	385.67 to 387.20 100%	Hiawath? Marker? Hiawatha Marker? Box 83 - 84			Bedding to C.A. 80°														
387.836	397.073	387.20 to 389.02 86%	Same as 380.51 to 387.765			Blocky Bedding to C.A. 78°														
397.073	399.869	389.02 to 392.07 96%	Marker? Pseudo Faintly colour banded, fine to very fine grained wacke, thinly laminated with 5% disseminated po, py along laminations. Box 86			Blocky Bedding to C.A. 80°														
399.869	414.52	392.07 to 395.12 98%	Mudstone/siltstone/ wacke Thin to medium interbeds of medium and fine grained 'quartz wacke', siltstone, and occasional mudstone. Frequent scour marks,			Blocky														
		395.12 to 398.17 98%	Same and infrequent convoluted bedding. Primarily A - E some A - C - E. E occasionally thinly laminated, fine			Blocky Bedding to C.A. 82°														
		398.17 to 401.22 100%	Same grained wacke with po along laminations (pseudo marker), very thin interbeds to inter laminations																	

DRILL LOG - 81

Date \_\_\_\_\_ Logged By \_\_\_\_\_

## NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.			
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of				
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lat.		Elev.		
Dep.		Length		Bearing						Dep.		Length		Bearing		HOLE No.		
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
350.34	360.39	355.49 to 358.23 94%	'Quartz Wacke' Medium to thick bedded to medium grained, light grey quartz wacke with thin bedded silty to mudstone tops A with thin E top. Occasional fine															
		358.23 to 361.28 96%	Same grained wacke with convoluted bedding C horizon. Upwards grading and non graded beds throughout. Scoured bases.				Blocky to Rubbly Fractures to C.A. 0° to 20°											
360.39	373.37	361.28 to 364.33 100%	Mudstone/Siltstone/Wacke Thin to medium interbeds of upwards graded fine to medium 'quartz wacke' with scoured base and occasional pebble size mudstone clast to				Bedding to C.A. 81°											
		364.33 to 367.58 95%	Same siltstone with wavy laminations to structureless mudstone. Thin - medium bedded A, C - D, and E. Often A - E sequences. Quartz Wackes up to 60 cm				Bedding to C.A. 77°											
		367.58 to 370.58 100%	Same and mudstones up to 35 cm				Blocky											
373.37	380.51	370.58 to 373.63 98%	Same as above But generally finer grained and with medium to coarse grained 'quartz wackes' 10 to 60 cm wide Po disseminations throughout 2 - 3%				Bedding to C.A. 78°											
		373.63 to 376.83 100%	Same 373.70 to 374.20 Po disseminations and inter-laminations up to 1 mm wide (approx. 2%) in laminated silts and sands with				Blocky Fractures to C.A. 0° to 15°											
		376.83 to 379.88 100%	Same convoluted bedding				Bedding to C.A. 77°											

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.			
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES						Sheet of		
Lot.		Elev.		Dip						Lot.		Elev.		Dip		HOLE No.		
Dep.		Length		Bearing						Dep.		Length		Bearing				
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
414.52	415.33	401.22 to 404.27 97%	Siltstone/'Quartz Wacke' Thinly interbedded fine grained 'Quartz wacke' and siltstone. Thinly laminated E.				Bedding to C.A. 78 deg.											
		404.27 to 407.32 94%	414.92 to 415.02 Pseudo-marker thinly laminated, fine grained 'Quartz Wacke' 4-6% disseminated py, po.				Blocky											
415.33	435.724	407.32 to 410.37 96%	'Quartz Wacke' Thick to medium bedded, medium grained 'Quartz Wacke' with thin bedded siltstone-mudstone (E) tops.				Bedding to C.A. 78 deg.											
		410.37 to 413.47 98%	Same Primarily non-graded, some fining up at tops and some inverse grading at scoured bases. Some load structures have very thin dark grey to black interlamination usually in or at				Blocky											
		413.47 to 416.46 100%	424.91 to 435.30 the tops of mud or siltstones. Probably carbon rich layers in E.				Bedding to C.A. 82 deg.											
		416.16 to 419.51 96%	425.91 to 426.45 Medium and fine grained 'Quartz Wackes', light and medium grey. Plane parallel laminations and ripple cross laminations B and C horizons.				Blocky											
		419.51 to 422.26 94%	424.73 to 425.15 Fracture Zone. Minor chlorite alteration.				Rubbly Fractures at 0-20 deg. to C.A.											
435.724	438.59	422.26 to 424.09 81%	Marker, Falls Thin interbeds of light grey siltstone to mudstone and fine grained to very fine grained 'Quartz Wacke'. Most of 'Quartz Wacke' is very thinly laminated.				Fractures at 0 deg. to C.A. Showing approx. 4mm of normal											

## NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.							
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES						Sheet of						
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lat.		Elev.		Dip		HOLE No.		
Dep.		Length		Bearing						Dep.		Length		Bearing								
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS										
		424.09 to 425.61 90%	Same - Laminations marked by very thin dark (carbonaceous?) wisps, also disseminated po along laminations 6-8%. This is probably pseudomarker and E horizon interbedded.			Bedding to C.A. 83 deg.																
		425.61 to 428.66 91%	Same Match for Falls @ 435.67m.			Blocky																
		428.66 to 431.71 97%				Bedding to C.A. 79 deg.																
438.59	440.85	431.71 to 437.80 98%	'Quartz Wacke' Thick bedded, medium and light grey, medium grained and fine grained amalgamated sandstones.			Bedding to C.A. 80 deg.																
		437.80 to 440.85 97%	440.82 to 440.85 Sheared-schistose Chloritic.																			
440.85	441.17	440.85 to 443.90 91%	Slump (olithostromes) square shape clasts of laminated siltstone in a medium grained 'Quartz Wacke' matrix. Kinking in clasts shows slump direction to be downdip.			Blocky																
		443.90 to 446.95 93%	Same			Blocky Bedding to C.A. 77 deg.																
441.17	488.52	446.95 to 450.00 97%	'Quartz Wacke' Medium and thick bedded, medium and fine grained sandstones. Amalgamated with common scours at bases. Thin and medium interbeds of siltstone, mudstone and fine-very fine grained			Blocky to Fractured. Fractures 0-20 deg. to C.A.																

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.			
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of				
Lat.		Elev.		Dip		RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.		Elev.		Dip		HOLE No.		
						1601'	209°			86°								
Dep.		Length		Bearing						Dep.		Length		Bearing				
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width		ASSAYS				
		450.00 to 453.05 100%	Same 'Quartz Wacke'. These interbeds are thinly bedded themselves with plane parallel laminations, Ripple cross laminations and thin interlamination of dark grey-black carbonaceous bands. These are C-D-E tops to turbidites and are separated by 1-2m of Quartz Wacke. Quartz Wacke contains infrequent thin interbeds of mudstone (1-5cm wide) or E top.				Blocky Bedding to C.A. 80%											
		453.05 to 456.10 98%	Same				Blocky											
		456.10 to 459.15 96%	Same				Bedding to C.A. 80 deg.											
		459.15 to 462.20 92%	Same 452.29 to 452.88 Fine grained quartz wacke very thinly laminated - pseudo-marker approx. 8% po.															
		462.20 to 465.24 82%	Same 451.50 to 452.88 Po fine grained disseminations (coarser in pseudo-marker) 6-8%.				Bedding to C.A. 81 deg.											
		465.24 to 467.38 81%	Same 462.02 to 469.74 Fracture Zone. Rubbly to blocky throughout. Some chlorite and pyrite on some fractures and po, gal.				Fractures at 0-20 deg. to C.A. and show 3-4mm of normal movement.											
		467.38 to 439.94 94%	Same 464.84 to 465.25 Thin, sheared, quartz veins with minor chlorite, minor py, po.															
		439.94 to 473.48 100%	Same 483.29 to 483.35 Coarse grained sandstone base of rounded quartz fragments and mudstone matrix. Fragments 30%				Bedding to C.A. 77 deg.											

DRILL LOG - 81

matrix 70%. Matrix is slightly chloritized. Grades upwards into medium grained 'Quartz Wacke'.

Date \_\_\_\_\_ Logged By \_\_\_\_\_



NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.							
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of								
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lat.		Elev.		Dip		HOLE No.		
Dep.		Length		Bearing						Dep.		Length		Bearing								
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS										
		473.48 to 476.52 100%	Same	Pseudomarker? Medium to fine grained Quartz wacke. Thin bedded and thin to very thinly laminated beds			Blocky Bedding to C.A. 81 deg.															
		476.52 to 485.67 100%	Same	with 8-10% po disseminated along laminations. Laminations defined by very thin, very dark wisply layers, prob. carbonaceous.			Blocky Bedding to C.A. 82 deg.															
488.52	500.98	485.67 to 488.72 95%	'Quartz Wacke/Siltstone'	Thin to medium bedded, fine to medium grained quartz wacke, with scours. Light grey. Interbedded with thin bedded siltstone and mudstone, very light grey and medium grey. A and E			Blocky															
		488.72 to 489.63 94%	Same	horizons. Generally finer and thinner bedded (more distal) than overlying unit. Also interlaminations of very definitely laminated, fine to very fine grained wacke. Laminations marked			Blocky Bedding to C.A. 74 deg.															
		489.63 to 492.38 77%	Same	by dark, carbonaceous wisps E D horizon.																		
		492.38 to 495.58 89%		Fracture Zone Heavily fractured with slicken-sides along fractures showing dip slip and oblique movement.			Rubbly Fractures to C.A. 0-20 deg.															
		495.58 to 498.63 93%	Same	Generally normal movement of a few mm. Chloritized. Quartz vein, sheared runs parallel to C.A. Po along			Bedding to C.A. 86 deg.															
		498.63 to 501.83 97%	Same	quartz veinlets. Fracture Zone. Less fractured than above zone. Same features as above fracture zone.			Rubbly to Blocky. Fractures to C.A. 0-20 deg.															

DRILL LOG - 81

Date \_\_\_\_\_ Logged By \_\_\_\_\_

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.						
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of							
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lat.		Elev.		Dip		HOLE No.	
Dep.		Length		Bearing						Dep.		Length		Bearing							
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS									
		501.83 to 504.88 100%	Same 503.06 to 503.78 Some thin quartz veins parallel to sub-parallel (0-20 deg.) to C.A. with chlorite and altered biotite.																		
500.98	501.388	504.88 to 507.93 98%	Marker Siltstone to very fine grained 'Quartz Wacke' occurs in thin bands (1mm - 3cm) that are very thinly laminated. Laminations marked by thin dark coloured wisps. Bands separated by			Blocky Bedding to C.A. 80 deg.															
		507.93 to 510.98 85%	Same light grey fine grained quartz wacke. Marker overlies 43cm of mudstone-siltstone and underlies 'Quartz Wacke' (A horizon)																		
		510.98 to 514.02 78%	Same																		
501.388	513.00	514.02 to 517.07 82%	'Quartz Wacke' Medium grained, light grey amalgamated 'Quartz Wacke'. Thick to medium bedded (40cm to 2m) with thin to medium (5cm to 40cm) beds of siltstone and mudstone that are structureless.			Blocky Bedding to C.A. 77 deg.															
		517.07 to 520.12 98%	Same Wackes show vague current laminations and scours.																		
		520.12 to 523.17 98%	Fracture Zone. Rubbly throughout. Minor slicks, chlorite along fractured and carbonate.			Rubbly Fractures to C.A. 0-20 deg.															
		523.17 to 526.22 87%	Same Fault Gouge of Chlorite with carbonate at 20 deg. to C.A. Also fine grained, tan yellow crystals of dolomite. or aragonite?																		

DRILL LOG - 81

Date \_\_\_\_\_ Logged By \_\_\_\_\_

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.			
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of				
Lot.		Elev.		Dip		RECORDED		CORRECTED		Lot.		Elev.		Dip		HOLE No.		
Dep.		Length		Bearing						Dep.		Length		Bearing				
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
			Same Fracture Zone 515.64 to 516.97 Quartz vein no sulfides, coarse grained biotite, fine grained dolomite along fractures 24 deg.															
			Same to C.A. No Sulfide throughout fracture zone.															
513.00	520.73		Quartz Wacke/Siltstone Medium grained 'Quartz Wacke', non-graded to fining upwards, interbedded with fine grained 'quartz wacke' and siltstone showing ripple cross-laminations and plane-parallel laminations				Bedding to C.A. 75 deg.											
			Same (cond D horizons). Medium bedded (30 to 70cm) throughout.															
520.73	530.99	526.22 to 528.35	Quartz Wacke Medium grained light grey thick bedded, amalgamated beds with thin bedded fine siltstone or mudstone tops. A and E, also one silty medium interbed of C horizon at 525.85 to 526.50.				Bedding to C.A. 79 deg.											
		528.35 to 529.27	Same															
		529.27 to 523.93	Same 524.09 to 533.24 Fracture Zone. Slicks poorly developed, fractures at 0-25 deg. to C.A. Minor chlorite				Fractures to C.A. 0-25 and 60 deg.											
		532.93 to 535.98	Same and pyrite along fractures. Some Quartz healing of frac. Tectonic breccia, in siltstone clasts of siltstone up to 3cm				Bedding to C.A. 88 deg.											
		97%	531.69 to 531.74															

DRILL LOG - 81

x 1cm show some

Date \_\_\_\_\_ Logged By \_\_\_\_\_

NORANDA EXPLORATION COMPANY LTD.

Date Colored		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.							
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES						Sheet of						
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lat.		Elev.		Dip		HOLE No.		
Dep.		Length		Bearing						Dep.		Length		Bearing								
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS									
			Same orientation at 40 deg. to C.A. Chlorite and Quartz with minor po and cpy? Also carbonate along fractures throughout. Po along quartz veinlets. Minor albite alteration in finer																			
			Same components.																			
530.99	546.56		Quartz Wacke/Siltstone Thin to medium interbeds of fine and medium grained 'quartz wackes' and siltstone and mudstone. Beds generally 10cm to 40cm wide and up to 70cm. Wackes contain scours and are upward				Blocky to Rubbly															
			Same graded. Siltstones and mudstones are thinly laminated and often contain a few interlamination of dark (carbonaceous?), very thin laminations. Siltstone and mudstone represents D and				Bedding to C.A. 78 deg.															
			E horizons and the 'quartz wackes are A horizon. Unit represents distal turbidites. Very few disseminate sulfides -1%.																			
			Same 537.18 to 547.40 Fracture Zone. Rubbly to blocky, minor slicks show oblique and dip slip movement. Carbonate and minor chlorite along fractures.																			
		535.98 to 538.72 89%	Same Minor po along quartz veinlets, and minor albite alteration preferential to siltstone and mudstone.				Fractures at 0-25, 45 deg. to C.A.															
			Same																			

NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.		
FIELD CO-ORDINATES				DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of				
Lat.		Elev.			Dip	RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.		Elev.		Dip	HOLE No.		
Dep.		Length		Bearing					Dep.		Length		Bearing				
From	To	Recovery	Description			Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS						
		538.72 to 541.46 94%	Same to 537.63 to 537.83	Tectonic Breccia in fine grained 'quartz wacke'. Clasts up to 4 x 1.5cm. Healed by quartz. Minor chlorite and po and cpy. Fault gouge and breccia. Fracture to C.A. 45 deg.			Blocky										
		541.46 to 544.51 87%	Same to 546.19 to 546.41	Rubbly. Minor fault gouge in 15cm wide rubbly section.			Blocky to Rubbly. Bedding to C.A. 80 deg.										
		544.51 to 547.56 89%	Same to 549.40	Rubbly. Minor fault gouge in 15cm wide rubbly section.			Blocky to Rubbly.										
		547.56 to 550.61 95%	Same to 547.67 to 547.88	Quartz vein at 10 deg. to C.A. with approx. 10% py, +/- cpy and biotite.			Blocky										
546.56	550.57			'Quartz Wacke' Thick to Massive (1-2m) beds of medium to coarse grained sandstone with infrequent thin interbeds (5-10cm) to mudstone and/or siltstone. Amalgamated 'Quartz Wackes' (A horizon) with infrequent E tops.			Blocky										
				Same													
550.57	551.16	550.61 to 553.66 96%	Marker (Park?) to 553.66	Dark and light bands of siltstone. Dark bands are very thinly laminated with dark (carboneous?) wisps. Py interlamination < 1mm and minor disseminations approx. 1%.			Blocky Bedding to C.A. 80 deg.										
				Same													

# NORANDA EXPLORATION COMPANY LTD.

Date Colored		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.						
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES					Sheet of						
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lat.		Elev.		Dip		HOLE No.	
Dep.		Length		Bearing										Dep.		Length		Bearing			
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS									
551.16	555.75	553.66 to 556.71 96%	'Quartz Wacke' Same as at 546.56 to 550.57. Also som albitization. 555.29 to 555.51 Fault gouge Albitized. Minor carbonate, fractures at 20 deg. to C.A.			Blocky Marker															
555.75	559.618	556.71 to 559.76 98%	'Quartz Wacke'/Siltstone/Mudstone Thin to medium interbeds of fine and medium grained 'Quartz Wacke', siltstone, and light grey mudstone. Beds are lcm to 30cm wide. Minor po, py <1%. Primarlily plane			Bedding to C.A. 79 deg.															
		559.76 to 562.80 97%	Same parallel laminations with minor scours and load fractures also one thin to medium grained bed (5cm) shows kinked bedding a slump feature. Distal turbidites A, D, and E?			Blocky															
			Same			Blocky															
558.618	558.896		(Pseudo?) Very thin bedded siltstone to very fine wacke with very thin interlaminations of dark carbonareous wisps and light grey mudstone and minor 'quartz wacke'. Py, po approx. 1%. Albite																		
			Same alteration.																		
558.896	559.08		Mudstone																		
559.08	561.24		'Quartz Wacke' Light grey, medium grained, thick bedded, non-graded.																		

NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.			
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of				
Lat.		Elev.		Dip		RECORDED		CORRECTED		Lot.		Elev.		Dip		HOLE No.		
Dep.		Length		Bearing						Dep.		Length		Bearing				
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
561.24	563.04	562.80 to 565.85 99%	Quartz Wacke/Siltstone/Mudstone Thin interbeds of fine grained 'quartz wacke', siltstone, and mudstone. Also some very thin beds to thick laminations of very thinly laminated siltstone marked by dark (carbonaceous) wisps. (pseudo-marker) to as high as 10% disseminations.															
			'Quartz Wacke' Thin to medium bedded, scoured upwards graded and non graded, minor clasts. Also thin interbeds of siltstone and mudstone. Rare convoluted bedding A. C. D. and E horizons.															
			Same															
563.04	579.40	565.85 to 568.90 93%	Interbeds Same as at 555.75 to 559.681. Po up to 3% in some very thinly laminated fine grained 'quartz wackes'.				Bedding to C.A. 80 deg.											
		568.90 to 571.95 97%	Same 566.63 to 570.51 Fracture Zone. Poor slicks. Fractures at 0-20 deg to C.A. Greenish tan drusy quartz along fractures and minor carbonate. No sulfides.				Blocky to Rubbly											
		571.95 to 575.00 98%	Same 568.34 to 568.90 Quartz vein with chloritized biotite and minor py.				Bedding to C.A. 79 deg.											
579.40	583.35	575.00 to 578.05 97%	'Quartz Wacke' Interbedded fine and medium grained wacke. Thick bedded															

# NORANDA EXPLORATION COMPANY LTD.

Date Collored		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.			
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of				
Lot.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lot.		Elev.		
Dep.		Length		Bearing						Dep.		Length		Bearing		HOLE No.		
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS						
		578.05 to 579.57 87%	Same	579.57 to 590.96 Fracture Zone. Very broken rubbly rock. Fractures to C.A. 0-25 deg. Minor chlorite			Very Rubbly											
		579.57 to 582.32 51%	Same	clay(albite) alteration, fine grained, drusy tan col. crystals, very soft gypsum? Minor pyrite. Some breccia throughout, chlorite matrix.			Very Rubbly											
583.35	592.38	582.32 to 585.52 87%	'Quartz Wacke'	Thin to medium interbeds of fine and medium grained quartz wacke, and siltstone to mudstone.			Very Rubbly											
		585.52 to 587.20 85%	Same	590.75 to 590.96 Tectonic (fault) breccia. aungular clasts of fine 'Wacke' up to 5cm x 2cm aligned parallel			Rubbly to Blocky											
		587.20 to 589.94 69%	Same	to sub-parallel to C.A. Fracture at 20 deg. to C.A. Matrix composed of clay altered chlorite and minor quartz.			Very Rubbly											
592.38	606.01	589.94 to 592.99 95%	'Quartz Wacke'	Medium interbeds of amalgamated fine and medium grained 'wackes' with thin interbeds of plane parallel laminated very fine grained wacke and siltstone. Scours and less			Blocky											
			Same	frequent land casts throughout. Occassional thin mud interbeds. A with D and E tops.														
		592.99 to 596.04 96%	Same	593.04 to 602.21 Fracture Zone. Same features as above fracture zone. 593.04 to 593.46 Fault Breccia. Minor albite alteration.			Fractures to 0-20 deg. to C.A. Blocky to Rubbly											

DRILL LOG - 81

Date \_\_\_\_\_ Logged By \_\_\_\_\_



# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.							
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of								
Lot.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lot.		Elev.		Dip		HOLE No.		
Dep.		Length		Bearing						Dep.		Length		Bearing								
From	To	Recovery	Description			Structure			% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS									
		596.04 to 599.09 83%	Same Clasts of 'quartz wacke' up to 2cm x 1cm with matrix of chlorite and quartz.			Blocky to Rubbly Bedding to C.A. 79 deg.																
606.01	612.732	599.09 to 602.13 83%	Quartz Wacke/Siltstone Medium and fine grained 'Quartz wacke' interbedded with very fine grained 'quartz wacke' and siltstone that shows plane parallel laminations and rare convoluted bedding.			Blocky to Rubbly Bedding to C.A. 79 deg.																
		602.13 to 605.49 89%	Same Rare very thin interbeds of mudstone. Medium interbeds (10cm to 50cm). Minor albitization. A and C to D with rare E tops. Also in frequent interlaminations and veinlets of py and po with rare cpy. approx. 1%			Fractures at 0 deg. to C.A. with minor Qtz. and Py																
		605.49 to 611.59 99%	Same			Bedding to C.A. 79 deg.																
612.732	612.781	611.59 to 614.63 98%	Marker																			
612.781	616.40	614.63 to 617.68 96%	Same Same as 606.01 to 612.732 Fine grained pink garnets occassional in medium 'wackes'.			Blocky																
		617.68 to 620.73 100%	'Quartz Wacke' Thick to massive bedded, amalgomated medium grained. Occassional current laminating and scour. Non graded and upwards graded.			Fractures at 0 deg. to C.A.																
616.40	635.184	620.73 to 623.78 100%	'Quartz Wacke' Medium and fine grained 'quartz wacke' interbedded with plane parallel laminated siltstone and mudstones. A, D, and E sequence. Minor albite alteration.			Bedding to C.A. 76 deg.																

DRILL LOG - 81

Date \_\_\_\_\_ Logged By \_\_\_\_\_

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.						
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES					Sheet of						
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lat.		Elev.		Dip		HOLE No.	
Dep.		Length		Bearing						Dep.		Length		Bearing							
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width		ASSAYS								
		639.02 to 642.09 98%	Same			Blocky Bedding to C.A. 80 deg.															
641.73	657.14	642.09 to 643.29 100%	'Quartz Wacke' Medium to thick interbeds of medium to coarse grained, light grey 'quartz wacke'. Amalgomated wackes with scours, occassional current laminations and siltstone-mudstone (thin																		
		643.29 to 646.45 88%	Same bedded) tops. A with thin E tops (occassional D tops as well).			Bedding to C.A. 76 deg.															
		646.45 to 651.52 89%	Same 644.41 to 651.52 Fracture zone. Blocky to rubbly throughout. Moderate but not strong development of			Blocky to Rubbly. Fractures at 0-30 deg. to C.A.															
		651.52 to 656.40 97%	Same slicks. Chlorite well developed in fracture zones with minor carbonate. Also zones of clay alteration (sausseritized albite?).			Blocky to Rubbly Bedding to C.A. 78 deg.															
		656.40 to 661.59 94%	Same and quartz veining. 646.24 to 646.81 Clay Alteration an Albitization. Clay may be alteration of albite. Py disseminations 1-2%			Blocky Bedding to C.A. 81 deg.															
			Same underlain by Quartz veins. 646.94 to 647.44 Coarse grained wacke leached by quartz, with quartz at 0-10 deg. to C.A. Py along veins with																		
			Same 1% or less Cpy and Sphl. Py disseminated throughout approx. 15%																		

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.						
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of							
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lat.		Elev.		Dip			
						2106'				83°				Lat.		Elev.		Dip			
Dep.		Length		Bearing										Dep.		Length		Bearing			
From		To		Recovery		Description				Structure		% Sulph.	Est. Grade	SAMPLE No.		Width		ASSAYS			
				623.78 to 626.83 99%		Same ; Medium to thin bedded. Minor scours, sharp even contacts. A bases some-times contain fine grained clusters of pink garnets, or medium grained pink garnets. Py along fractures.				Blocky											
				626.83 to 629.88 97%		Same po as disseminations, along fractures and interlamination. Rare cpy that is more commonly associated with discordant features than concordant ones.				Blocky Bedding to C.A. 81 deg.											
						Same				Blocky											
				629.88 to 632.93 93%		Same Get chloritized fine to medium grained hornblende and biotite in finer beds and occassionally in medium grained wackes. Aligned parallel to sub-parallel to C.A.				Blocky											
				632.93 to 635.98 92%		Same 633.34 to 635.98 Albite alteration - preferentially alteration of silt and mudstones. Medium				Blocky											
						Same grained wacke show lesser alteration and irregular, blotchy alteration contact with finer albitized sediments.				Bedding to C.A. 82 deg.											
635.184		635.304		635.98		Marker Albitized.															
635.304		641.73		635.98 to 639.02 92%		Same Same as overlies albitized marker.				Fractures to C.A. 0 deg. to 25 deg.											

## NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.			
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of				
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lot.		Elev.		
Dep.		Length		Bearing						Dep.		Length		Bearing		HOLE No.		
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
			Same	647.93 to 648.31	Coarse grained wacke leached by quartz as before. Veining less pronounced and Py disseminations approx. 25% with minor sphl.													
			Same	648.31 to 648.49	Clay-Albite alteration as before grades down into zone of quartz alteration.													
			Same	648.49 to 648.86	Quartz wacke pervaded by quartz as before 25-35% +/- sphl. +/- gal.													
			Same	648.86 to 648.96	Fault breccia albitized, clay alteration, and some chlorite.													
			Same	650.51 to 651.52	Quartz wacke pervaded by quartz as before. Veinlets and fractures at 0-15 deg. to C.A. with py, +/- sph.													
			Same	653.50 to 653.97	Clay-Albite alteration as before (clay altered from albite). Approx 1-2% disseminated py.													
			Same	653.97 to 654.42	Quartz wacke pervaded by quartz as before. Py 15 to 25% +/- sphl.													

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.							
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES						Sheet of						
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lat.		Elev.		Dip		HOLE No.		
Dep.		Length		Bearing										Dep.		Length		Bearing				
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS									
			Same 650.75 to 650.93 Quartz wacke pervaded by quartz. Py approx. 5-10%, no quartz veins.																			
			Same 655.93 to 656.21 Albite-clay alteration py +1%																			
			Same 656.21 to 657.14 Medium grained 'Quartz wacke' with minor quartz veins at 0-20 deg. to C.A. Py																			
			Same disseminations 5% +/- sphl. some py and minor sphl with veining.																			
657.14	668.77		Interbeds Medium and thin interbeds of medium and fine grained 'quartz wacke', siltstone and mudstone. Scours, plane parallel laminations and minor load structures.																			
			Same 659.08 to 659.81 A with D-E tops. Thin bedded very fine grained 'quartz wacke' and siltstone marked by very thin laminations																			
			Same 661.00 to 661.42 of pyrite. Minor albite alteration. Alteration in medium grained wacke of quartz, chlorite and																			
			Same 661.42 to 662.23 minor carbonate. Py 2-3% with minor galena. Albite-clay alteration. Py 1-2%, +/- galena.																			

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.						
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of							
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lat.		Elev.		Dip		HOLE No.	
Dep.		Length		Bearing						Dep.		Length		Bearing							
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS									
			Same	664.85 to 668.57	Alteration zone. Albite, Quartz, chlorite with 1-5% py and minor galena disseminations.	Blocky															
			Same	668.57 to 669.32	Fractures at 0-30 deg. Albite-clay alteration.	Blocky															
668.79	669.234		Marker		Albitization.	Blocky Bedding to C.A. 82 deg.															
669.234	678.62	661.59 to 666.46 100%	Same	669.32 to 675.58	Same as overlies marker. Alteration spotty chlorite and quartz with thin intervals of albite-clay alteration.	Blocky															
		666.46 to 671.34	Same	674.58 to 672.42	Zone of strong albite-clay alteration, with fractures and quartz veinlets at 0-10	Blocky Bedding to C.A. 78 deg.															
			Same		deg. to C.A. Chlorite and minor carbonate along fractures. Py and along fractures and veinlets with	Blocky															
			Same	672.01 to 672.04	po disseminations in rock <1%. Minor fault gouge and breccia chlorite, clay, and silica, minor slicks py, po <1%.																
		676.22 to 680.79	Same	672.42 to 776.71	Intervals of thin bedded albite-clay alteration with minor disseminated py and po, cpy along quartz veins.	Blocky Bedding to C.A. 82 deg.															

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.												
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of													
Lot.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lat.		Elev.											
Dep.		Length		Bearing						Dep.		Length		Dip		HOLE No.											
From		To		Recovery		Description				Structure		% Sulph.		Est. Grade		SAMPLE No.		Width		ASSAYS							
						Same	676.71 to 677.81	Zone of chlorite-quartz alteration with fractures at 0-10 and 45 deg. with slicks showing dip slip.																			
		680.79				Same	678.72 to 681.16	movement all underlain by albitization about 60cm wide. Zone of albitization and quartz veinlets, minor py and				Blocky bedding to C.A. 72 deg.															
						Same	684.89 to 688.45	some weathered ant albite crystals. Zone of alteration albite-clay quartz, chlorite, few sulfides																			
						Same	689.35 to 690.94	Py, po -1%. Zone of fracturing with minor quartz veins and albitization. Py, po -1%																			
						Same	689.43 to 689.63	Fault gouge clay and chlorite alteration.																			
						Same	689.35 to 691.86	Fracture zone. Fractures at 0-10 deg., and 40 deg. to C.A. Minor quartz veinlets, chlorite, and minor carbonate. Few to no sulfides.				Blocky to Rubbly Fractures to C.A. 0-10, 40 deg.															
						Same						Bedding to C.A. 84 deg.															
678.62	697.55	685.67				'Quartz Wacke'	689.93	Medium bedded (50-100cm), medium grained with thin interbeds of siltstone and mudstone. A with C and E tops.				Blocky															

**NORANDA EXPLORATION COMPANY LTD.**

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.	
FIELD CO-ORDINATES				DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of			
Lat.		Elev.			Dip		RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.		Elev.		Dip	
Dep.		Length		Bearing						Dep.		Length		Bearing		
From	To	Recovery	Description			Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
		689.93 to 694.82 96%	Same 695.98 to 696.34 Minor albite alteration in siltstones.			Blocky Bedding to C.A. 84 deg.										
			Same 697.21 to 697.55 Albite-clay alteration in mudstone and siltstone with weathered albite crystals													
			Same and a thin quartz vein at 25 deg. to C.A. with pyrite and cpy, approx. 35% of vein.													
697.55	708.28	694.82 to 699.85 98%	'Quartz Wacke' Thick to massive bedded medium grained with scours and occassional fine grained tops.			Blocky										
708.28	710.35	699.85 to 707.88 96%	Interbeds Thin bedded medium and fine grained 'Quartz wacke' and siltstone and mudstone. Occassional scours and plane laminations. A with C, D, E, tops.													
		707.88 to 709.91 112%	Same Alteration: Minor albite alteration in siltstones and mudstones.			Blocky Bedding to C.A. 80 deg.										
710.35	717.27	709.91 to 714.94 96%	'Quartz Wacke' Medium bedded, medium grained with thin interbeds of siltstone and mudstone, scours.													
		714.94 to 719.82 101%	Same Minor alteration some albitization, quartz veins with py, po, and chlorite. Disseminated py varies from 1% to 5%.			Blocky Bedding to C.A. 82 deg.										



# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.						
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES						Sheet of					
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lat.		Elev.		Dip		HOLE No.	
Dep.		Length		Bearing						Dep.		Length		Bearing							
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width		ASSAYS								
717.27	725.00	19.82 to 24.70 100%	Interbeds Thin bedded (5-10cm) interbeds of medium and fine grained 'quartz wacke'. Very fine grained 'quartz wacke', siltstone and mudstone. Some mudstones contain up to 15 or 2%			Blocky															
		24.70 to 29.57 97%	Same medium to fine grained rounded quartz clasts - D top? Some scours, mostly sharp contacts, plane parallel and ripple cross laminations.																		
			Same Siltstone mostly thickly laminated. A, C, D, and E sequence. Distal turbidites.			Blocky															
			Same Alteration: Selective albite alteration of finer beds. Some quartz veinlets with po, py, cpy. In medium grained wackes have up to 20% py disseminations. Some carbonate along fractures. Fractures 20 to 30 deg. to C.A.																		
			Same Appearance of occasional thick interbed of medium graind 'quartz wacke'. Also have appearance of rare clasts up to 3.5cm x 0.5 cm. Also very fine grained 'quartz wacke' and																		
			Same siltstones show convoluted bedding, C horizon. Medium grained wackes occasionally showvague cross-bedding, B horizon. Also siltstones and very fine grained wackes show																		
			Same plane parallel laminations. So have A, C, D, E; A, D-E; and A, B, D, E.																		

NORANDA EXPLORATION COMPANY LTD.

Date Colored		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.		
FIELD CO-ORDINATES				DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of				
Lat.		Elev.			Dip		RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.		Elev.		Dip		
Dep.		Length		Bearing		2523'	220°	82°		Dep.		Length		Bearing		HOLE No.	
From	To	Recovery	Description			Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS						
		729.57 to 734.45 101%	Same [redacted] Thus have moderate to distal turbidites. Alteration: Thin to medium beds of medium grained 'quartz wacke' often contain 10-15%			Blocky Bedding to C.A. 78 deg.											
		734.45 to 739.33 88%	Same [redacted] disseminated py, and are commonly overlain by siltstone or mudstone that has minor albite alteration over 2-10cm wide. Common occurrence														
			Same [redacted] of medium grained, pink garnets in A horizon. Fractures at 0-20, 30, 45 deg. to C.A. with carbonate chlorite, and po, cpy (<1%). Also have			Blocky											
			Same [redacted] quartz veinlets at same angle to C.A. with po and cpy (infrequent).														
		739.33 to 743.90 99%	Same [redacted] 737.86 Have fine grained clast (1x0.5cm) surrounded by 30% po grains across thin interbed 3cm wide.														
			Same [redacted] 743.02 Have large (3.5 x 6cm) clast of semi-massive po with minor cpy at base of scour. Also														
		743.02 to 748.93 99%	Same [redacted] have pebble size siltstone clasts.			Blocky Bedding to C.A. 81 deg.											
		748.93 to 753.96 98%	Same [redacted] 744.60 to 744.80 Have laths of chloritized hornblende medium grained, aligned (sub)parallel to C.A.			Bedding to C.A. 83 deg.											

NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.	
FIELD CO-ORDINATES				DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of			
Lat.		Elev.			Dip		RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.		Elev.		Dip	
Dep.		Length		Bearing						Dep.		Length		Bearing		
From	To	Recovery	Description			Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
759.02	771.00	53.96 to 758.84 99%	'Quartz Wacke' Thick bedded, medium grained, mainly non-graded with occassional siltstone mudstone thin bedded tops. A with thin E beds 1-2m thick, tops 2 to 5cm wide.			Blocky										
		58.84 to 763.72 101%	Same 763.47 to 762.88 Quartz vein, minor po, also albite crystals, (sausseritized) albite alteration in			Blocky Bedding to C.A. 80 deg.										
		763.72 to 768.90 87%	Same thin silt-mudstones 20cm below vein.													
762.88	771.00		Interbeds Medium and fine grained 'quartz wacke' interbedded with siltstone and mudstone tops, rare convoluted bedding. Medium and thin bedded, beds 10cm to 80 cm.													
			Same Alteration: Mudstone and siltstone show preferential albite alteration and are usually associated with medium grained 'quartz wacke'													
			Same carrying 10-25% py disseminations with minor po and trace cpy. Also quartz veinlets with po and trace cpy.													
771.00	772.53		Sill Medium grained plagioclase approx. 35%, biotite (and altered hornblende or pyroxene) 40%, quartz 25%. Likely replaced quartz wacke as			Fractures at 20 deg., 80 deg. to C.A. Blocky										

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.			
FIELD CO-ORDINATES						DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES						Sheet of	
Lat.		Elev.		Dip			RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.		Elev.		Dip		HOLE No.	
Dep.		Length		Bearing						Dep.		Length		Bearing				
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
			Same there are some vague sedimentary features, such as scours observed. Loths of plag. aligned sub-parallel to C.A.				Some slicks indicating reverse? movement											
772.53	774.51	768.90 to 773.78 99%	Interbeds Same as above 759.02 to 771m.															
774.51	776.85		'Quartz Wacke' Medium grained, thick bedded with thin mudstone top															
		773.78 to 777.74 100%	Same 775.02 to 776.06 Alteration zone. Pervaded by quartz with Chlorite (5%) and po, cpy (2-5%).				Fractures to C.A. 20, 40 deg.											
776.85	786.45	777.74 to 781.40 73%	Alteration Zone Heavily sheared, Shears at 20 deg. and 45 deg. to C.A. Chlorite approx. 60-80%, quartz 20-40%. Minor po, py associated with quartz. Some slicks. Also carbonated throughout.				Rubbly											
			Same 777.74 A few centimeters of fault gouge.				Rubbly Shears and Fractures											
			Same Zone shows brecciation healed by quartz veins. Also quartz veinlets occur throughout. Alteration weakens downward and grades into medium grained 'quartz wacke'.				to C.A. 0-10, 20, 30, 45 deg.											
			Same 779.12 to 780.21 Very rubbly-gravelly and fault gouge.				Rubbly											

NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.						
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES						Sheet of					
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lat.		Elev.		Dip		HOLE No.	
Dep.		Length		Bearing										Dep.		Length		Bearing			
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS									
		781.40 to 784.84	Same <input type="text"/> Minor py crystals throughout.																		
786.45	790.24	784.84 to 789.33	'Quartz Wacke' <input type="text"/> Medium grained, thick bedded and altered. Blocky.			Bedding to C.A. 84 deg.															
		789.33 to 790.24	Same <input type="text"/> Alteration: Chlorite-albite alteration throughout with quartz veinlets and sweats throughout carrying minor po and trace cpy.			Blocky															
			Same <input type="text"/> Also common medium to fine grained light pink garnets in coarser intervals. And quartz. Albite is in matrix and shows some crystal growth to																		
			Same <input type="text"/> form clast component. Also sericite occurs throughout - associated with albite. Fine grained py disseminations approx. 1% overall. Fractures																		
			Same <input type="text"/> contain carbonate. Fractures and quartz veins to C.A. 0, 20, 30, 45 deg.																		
790.24	811.61	790.24 to 793.29	Interbeds <input type="text"/> Thin to medium bedded medium to very coarse grained 'quartz wacke' and common granule to pebble conglomerate medium (to thick?) interbeds. Some arematrix supported with a			Blocky Bedding to C.A. 82 deg.															

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		M.T.S. No.	
FIELD CO-ORDINATES				DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of			
Lot.		Elev.			Dip	RECORDED	CORRECTED	RECORDED	CORRECTED	Lot.		Elev.		Dip	MOLE No.	
Dep.		Length		Bearing					Dep.		Length		Bearing			
From	To	Recovery	Description			Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
			Same [redacted] matrix supported with a siltstone with altered (biotite quartz) silt clasts near pebble size. Clasts approx. 25-30%. Also have clast supported conglomerate with granule size clasts													
			[redacted] of quartz and siltstone. The matrix supported conglomerates appear as if they are mud flows due to vague convoluted bedding. Mudstone interbeds contain thin siltstone tops.													
			[redacted]													
		793.29 to 796.34 100%	Same [redacted] Alteration: Quartz wackes and conglomerates in grain or clast supported varieties commonly have medium grained light pink garnets			Blocky										
			Same [redacted] from 1-8%. Have common biotite alteration of grains and albite sericite and minor chlorite alteration of matrix with py disseminations of 1%			Bedding to C.A. 81 deg.										
		796.34 to 799.39 103%	Same [redacted] or less. Also have trace cpy in matrix. Sericite up to 5-6% in wackes. In matrix supported conglomerates have approx. 20-25% chlortie in matrix													
			Same [redacted] and siltstone and mudstone clasts relatively unaltered. Occassional angular medstone clast in matrix supported conglomerate and quartz wacke, some													
			Same [redacted] may be slightly tourmalinized. These occur at 791.52 and 793.24.													

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.			
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES					Sheet of			
Lat.		Elev.		Dip						Lat.		Elev.		Dip		HOLE No.		
Dep.		Length		Bearing						Dep.		Length		Bearing				
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
		799.39 to 802.44 98%	Same Also have thin ascicular crystals of tourmaline at 793.31 and 793.45, aligned sub-parallel to C.A.				Blocky Bedding to C.A. 83 deg.											
		802.44 to 805.49 97%	Some 'wackes' contain up to 10% disseminated py, these are thin bedded. Albitization occurs preferentially															
		805.49 to 808.23 98%	in mudstone and occurs primarily as fine to medium grained albite crystals. Some also show strong albiti-				Blocky											
			zation. These interbeds are whitish and clay altered and contain some distinct albite crystals.															
		808.23 to 811.28 98%	Carbonate and quartz occur along veinlets. Veinlets to C.A. 0-10 deg. and 25,40 deg. Fractures at 20-25 and 40 deg.				Blocky Bedding to C.A. 84 deg.											
810.61	816.94	811.28 to 814.33 90%	Fracture Zone Fractures to C.A. 0-20 deg. Quartz-carbonate veins throughout with po and trace cpy, sph. Common clusters of red-pink garnets. Also chlorite along fractures. Disseminated py 1%				Blocky to Rubbly Bedding to C.A. 82 deg.											
		814.33 to 817.38 100%	Same or less. Breccia with chloritized angular fragments up to 10mm x 7mm. Breccia healed by															
		817.38 to 820.43 99%	Same Calcite.				Bedding to C.A. 83 deg. Blocky											

DRILL LOG - 81

Date \_\_\_\_\_ Logged By \_\_\_\_\_

# NORANDA EXPLORATION COMPANY LTD.

Date Colored		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.		
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of			
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lat.		Elev.	
Dep.		Length		Bearing						Dep.		Length		Bearing		HOLE No.	
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
816.94	822.87	820.43 to 823.48 98%	Interbeds Same as above fracture at 811.61 to 816.94. Also have introduction of medium to coarse grained, medium bedded 'lithic wacke'			Blocky bedding to C.A. 80.											
			Same with sub-rounded clasts of quartz, siltstone and mudstone. Alteration: Same as above fracture zone but have greater amounts of														
			Same sericite and biotite approx. 10 to 20%. Albitization of mudstones and siltstones.														
822.87	829.31	823.48 to 826.52 98%	Interbeds Medium to coarse grained, medium bedded, lithic wacke, with lesser quartz 'wacke' and thin to medium interbeds of siltstone			Blocky											
			Same with lenses of mudstone supported granule conglomerate that are albitized, possibly mud flows? Alteration: Same as overlying unit														
		826.52 to 829.57 98%	Same same convoluted bedding in siltstones. (Shows vague convoluted bedding)														
829.31	835.59	829.57 to 832.62 98%	Interbeds Thin bedded fine to medium grained quartz wacke and siltstone with lesser mudstone, well bedded or laminated throughout with sharp			Bedding to C.A. 81 deg.											
			Same contacts. 830.37 to 831.43m. Interval of thin to very thinly bedded, rhythmic succession of siltstone supported granule conglomerate.														



# NORANDA EXPLORATION COMPANY LTD.

Date Collored		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.		
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of			
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		HOLE No.			
Dep.		Length		Bearing						Dep.		Length		Bearing			
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
		832.62 to 835.67 96%	Same	Clasts of siltstone, well rounded, elongate, aligned parallel to bedding. Clasts vary from 35 to 60%. Conglomerate bands have minor scouring at the base and			Blocky										
			Same	a very thin siltstone or mudstone layer at the top. Also disseminations of py and minor thin interlaminaions of py. Py approx. 2% overall.													
		835.67 to 838.72 100%	Same	Alteration: Albitization of finer grained fractions. Wackes contain abundant biotite 15 to 30% & sericite 5 to 10%			Fractures and veins to C.A. 0 deg. to 10 deg.										
			Same	and contain carbonate within the matrix and along fractures. Some quartz flooding with minor chlorite associated with it. Py disseminated throughout, more than overlying			Blocky bedding to C.A. 78 deg.										
			Same	unit, but approx. 1% or less overall. Siltstones, mudstones, and conglomerates commonly contain fine grained asicular crystals of tourmaline aligned													
			Same	Sub-parallel to bedding and C.A. In the bottom 40cm of unit quartz flooding is prominent along with more intense albitization of matrix in the 'quartz wackes'. Medium grained													
			Same	pink garnets are common.													

# NORANDA EXPLORATION COMPANY LTD.

Date Colored		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.						
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of							
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lat.		Elev.		Dip		HOLE No.	
Dep.		Length		Bearing						Dep.		Length		Bearing							
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS									
835.59	864.49	838.72 to 841.77 100%	Interbeds Medium to thick bedded coarse grained quartz wacke (with lesser fine and medium grained fractions) with some interbeds of 'lithic wacke', coarse			Blocky															
		841.77 to 844.82 100%	Same to medium grained with sub-rounded fragments. Common thin to medium bedded interbeds of siltstone-mudstone. A and F with same B and C. B shows																		
		844.82 to 847.87 96%	Same plane parallel lamination in a fine grained 'quartz wacke' and C shows convoluted bedding. Also E (or D) shows plane parallel lamination or is																		
		847.87 to 850.91 100%	Same structureless. Alteration: Same as above but quartz and lithic wackes are more silicious (i.e. more quartz																		
		850.91 to 853.96 97%	flooding) and they have good albite alteration in the matrix and more abundant pink garnets. Quartz-carbonate																		
		853.96 to 857.01 100%	veins contain po with trace gal. and sphl. Garnets become rare around 847.50m			Veins to C.A. 0 to 10 deg.															
		857.01 to 861.89 100%	848.66 to 850.21 Highly altered 'wacke' or (sill?) Remnant bedding. Biotite 45 to 60%. Albite																		
		861.89 to 866.77 99%	25 to 35%, Quartz 15 to 25%. Albite also occurs as anhedral porphyroblasts. Zone																		

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.	
FIELD CO-ORDINATES				DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of			
Lat.		Elev.			Dip		RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.		Elev.		Dip	
Dep.		Length		Bearing						Dep.		Length		Bearing		
From	To	Recovery	Description			Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
			Same [redacted] also has some quartz veining and flooding.			Blocky										
864.49	892.98	866.77 to 871.80 98%	Interbeds [redacted] Thin interbeds of fine and medium grained 'quartz wacke' with Lesser siltstone. Siltstones and fine to very fine grained 'quartz wackes' are			Blocky										
		871.80 to 876.52 99%	Same [redacted] thickly laminated and to have plane parallel laminations. Also have medium bed of rhythmic silt to very fine sand supported granule conglomerate.			Bedding to C.A. 64 deg.										
		876.52 to 881.40 90%	Same [redacted] 872.88 to 892.98 Irregular very thin to thin interbeds of light green siliceous wacke or siltstone with 8 to 10% disseminated													
		881.40 to 885.67 87%	Same [redacted] pyrite. Alteration: Same as overlying unit. Rare garnets. Finer grain with albitization of													
		885.67 to 890.55 100%	Same [redacted] matrix in medium grained 'quartz wacke'. Also quartz 'flooding' in medium grained wackes.			Bedding to C.A. 76 deg.										
		890.55 to 892.88 92%	Same [redacted] Primarily plane parallel laminations with uncommon convolute bedding and rare scours. Disfal turbidite													
		892.88 to 897.26 104%	Same [redacted] B - C - D minor E.													

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.			
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of				
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lot.		Elev.		
Dep.		Length		Bearing						Dep.		Length		Dip		HOLE No.		
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
892.98		897.26 to 901.52 99%	Sill Dieritic Contact is very gradutional from a very silicious fine grained wacke to a fine grained 'mush' of chlorite-albitic fine grained 'wacke'															
		901.52 to 906.55 100%	Same to a fine grained diorite to a medium and coarse grained diorite. Plag. 25 to 35%, Quartz 25 to 35%, hornblende-augite? 30 to 35%															
		906.55 to 911.28 96%	Same Approx. 70cm to 100cm either side of gradutional contact are abundant criss-crossing veins of carbonate which carry some po and cpy.															
		911.28 to 916.16 96%	Same veins are 20 deg., 55 deg., to 70 deg., 85 deg. to C.A. Lessor carbonate and quartz-carbonate veins throughout with minor po, cpy.															
		916.16 to 921.34 96%	Same 910.99 to 911.28 lenses of highly siliceous cherty? sediment very thinly bedded with sericitic				Blocky											
		921.34 to 923.48 96%	Same 911.28 - partings. Gradual decrease in quartz to 10 to 15% and increase in chloritized matrix				Blocky to Rubbly											
		923.48 to 927.44 90%	Same 929.20 - to 45 to 60%. (approximate) Sill fines downward, gradutionally from very coarse to				Blocky											
		927.44 to 928.96 105%	Same meium or coarse grained.				Blocky											

NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.						
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES						Sheet of					
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lat.		Elev.		Dip		HOLE No.	
Dep.		Length		Bearing						Dep.		Length		Bearing							
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS									
		928.96 to 942.07 94%	Same 932.50 to 933.84	Quartz veins with 1 - 2% py and 10 to 15% po.																	
		942.07 to 945.12 95%	Same																		
		945.12 to 949.70 87%																			
		949.70 to 952.13 95%																			
		952.13 to 956.71 102%																			
		956.71 to 958.23 123%	Same 95%																		
		958.23 to 967.68 80%	Same 959.25 to 960.28	Gubbroic-sediment 'mush' as found near contact zones highly altered sediment and sill mixed together. quartz-feldspar-chlorite- hornblade Brecciated and veined with quartz and calcite.																	

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY		PROJECT No.		N.T.S. No.		
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of		
Lot.		Elev.		Dip		RECORDED	CORRECTED	RECORDED	CORRECTED	Lot.		Elev.		Dip		HOLE No.
Dep.		Length		Bearing		972.86m	228 deg.	81.5 deg.		Dep.		Length		Bearing		
From	To	Recovery	Description			Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
			Same Brecciated with angular fragments of chloritized mudstone along fractures at 0 - 10 deg. and 26 deg. to C.A. Fragments are granule			Blocky Fractures to C.A. 40 deg. 25 - 30 deg.										
		967.68 to 969.82 78%	Same to cobble sized. Zone is veined with calcite and lesser quartz with no po and cpy.			Blocky										
		969.82 to 974.70 61%	Same 967.10 to 978.15 Fault Zone Rubbly to Blocky with Fractures at 0 to 10 deg. to C.A. and 25 - 30 deg. to C.A.			Blocky										
			Same Slicks show dip slip movement. Also some carbonate veins and carbonate along fractures. Minor py along fractures.			Fractures 0 - 10 deg. 25 - 30 deg.										
			Same 970.22 Calcite lined fracture with small angular fragments of sill shows approx. 7cm of normal movement.													
		974.70 to 972.27 75%	Same 976.62 to 977.47 Fault breccia angular to sub angular fragments of sill and quartz up to													
		972.27 to 982.93 100%	Same pebble or cobble size calcite with minor quartz along veins with 2 to 5% py. Fragments aligned at 30 deg. and 0 deg. to C.A.			Blocky										
		982.93 to 991.77 99%	Same 998.32 to 1015.28m Fracture zone rubbly throughout. Fractures at 0 to 10 deg., 20 to 25 deg., 45 deg., 70 deg.													

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.							
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of								
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lot.		Elev.		Dip		HOLE No.		
Dep.		Length		Bearing						Dep.		Length		Bearing								
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS									
		991.70 to 996.95 97%	Same Common calcite and quartz veins throughout. Minor po and cpy. Also minor coarse grained py along some fractures.																			
		996.95 to 1000.30 89%	Same 1006.09 to 1008.34 Altered sediment with calcite veins 1006.09 to 1006.16 Sheared, biotite, garnets?				Rubbly to Blocky															
		1000.30 to 1003.35 95%	Same and approx. 25% disseminated py along foliation. (py is thinly laminated). Py and																			
		1003.35 to 1005.52 76%	Same foliation shows contorted bedding. Sediment is slightly recrystallized quartz 'wacke' with				Rubbly															
		1005.52 to 1009.15 80%	Same abundant biotite. Fractures have slicks that indicate dip slip movement																			
		1009.15 to 1011.28 95%	Same 1030.04 to 1030.46 Quartz vein or highly silicified sediment. Appears to be thinly laminated perpendicular				Rubbly															
		1011.28 to 1013.72 84%	Same to the C.A. These are marked by a pronounced parting in this direction, which may be due to shearing.				Rubbly															
		1013.72 to 1015.24 95%	Same 131.98 to 134.30 Fine grained amphibolite approx. 80% amphibole. 10 - 15% Feldspar 5% quartz 5% po disseminations and trace cpy.				Rubbly															

NORANDA EXPLORATION COMPANY LTD.

Date Collored		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.			
FIELD CO-ORDINATES						DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES						Sheet of	
Lat.		Elev.		Dip			RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.		Elev.		Dip		HOLE No.	
Dep.		Length		Bearing						Dep.		Length		Bearing				
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
		1015.24	Same	This slowly grades downward into a medium grained diorite with (pseudo) myrmecitic texture. Quartz 15 - 20%				Rubbly to Blocky										
		1017.38	88%															
		1017.38	Same	Feldspar 15 - 20%, chloritized hornblend 60 - 70%, few sulfides. Also throughout this zone are				Blocky to Rubbly										
		1021.34	66%															
		1021.34	Same	small (-1cm) blotches of dark grey, metallic, fine grained crystals that streak a very dark, reddish brown.				Blocky										
		1026.22	95%															
		1026.22	Same					Blocky										
		1030.49	88%															
		1030.49	Same															
		1034.45	95%															
		1034.45	Alteration Zone	Blotches of biotite within a coarse grained matrix of quartz and feldspar with				Blocky										
1035.28	1047.24	1036.89	111%															
		1036.89	Same	minor chlorite alteration														
		1042.68	85%	Quartz and feldspar form almost a pegmatitic texture. Overall texture looks like leopard skin.														
		1037.07		Matrix changes to a quartz-chlorite mush. The rock is also brecciated.														



## NORANDA EXPLORATION COMPANY LTD.

Date Collored		Date Completed		Core Size		DIP TESTS				PROPERTY		PROJECT No.		N.T.S. No.	
FIELD CO-ORDINATES				DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of		
Lat.		Elev.			Dip		RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.		Elev.		Dip
Dep.		Length		Bearing						Dep.		Length		Bearing	
From	To	Recovery	Description			Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS				
			Same containing fine grained fragments of hornblends throughout. Occassionally fragments are												
			Same very coarse grained. They are rounded to angular. Biotite replaces many of the fragments. The blotches												
			Same of biotite are now foliated at 60 deg. to the C.A. Occassionally there are thin bands with coarse quartz			Foliation to C.A. 60 deg.									
			Same and feldspar as before. Sulfides throughout consist of approx. 1% disseminated py,po with trace cpy												
			Same - 103.24 Thin lamination of sphalerite along a vein? of quartz												
		042.68 to 1047.26	Same Hornblend crystals (laths) are aligned parallel to the foliations.												
		101% 1047.20	Small, thin lens of dark grey, metallic, fine grained mineral with a dark grey-brown streak.			Blocky									
		047.26 to 051.52													
		93%													
1047.24	1056.70	051.52 to 1056.25	Sill Gabbro, medium-coarse grained. Fines to medium grained over 1m above contact with underlying sediments.			Blocky									
		92%													

## NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.			
FIELD CO-ORDINATES						DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES						Sheet of	
Lat.		Elev.		Dip			RECORDED	CORRECTED	RECORDED	CORRECTED	Lot.		Elev.		Dip		HOLE No.	
Dep.		Length		Bearing						Dep.		Length		Bearing				
From	To	Recovery	Description			Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS							
1056.70	1058.09	056.25 to 059.76 70%	Conglomerate Granule sized clasts of quartz, rounded to sub-rounded supported by a silt to mudstone matrix. Sheared with shears at 45 deg. to C.A.			Bedding to C.A. 80 deg.												
			Same Minor scours, also some thin wisps of dark-grey to black material laminated throughout (carbonareous?) upwards grading. Sphalerite disseminations along			Blocky to Rubbly												
			Same quartz vein at 45 deg. to C.A./1057.51 to 1058.09 Fracture Zone with fault gouge, quartz and calcite veining			Rubbly												
			Same and fine grained cubes of py. Possibly some barite? Also contains a 30cm wide vugg.															
1058.09	1060.70		Quartz Wacke Fine grained, thick bedded, with thin interbeds of siltstone and fine grained wacke, and mudstone. Thin interbeds uncommon. Wackes are scoured.															
			Same Quartz veins with po and trace cpy. Quartz veins to C.A. 0 to 10 deg. Mudstone tops are slightly albitized with fine grained crystals of albite.															
1060.70	1061.55		Interbeds Thin bedded interbeds of fine grained quartz wacke and siltstone, and mudstone. Po disseminated throughout 2 to 3%. In the bottom 55cm there are															

NORANDA EXPLORATION COMPANY LTD.

Date Collored		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.						
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES						Sheet of					
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lat.		Elev.		Dip		HOLE No.	
Dep.		Length		Bearing						Dep.		Length		Bearing							
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS									
			Same	several 'wispy', very thin interlamination of po.																	
1061.55	1065.40	1059.75 to 1063.41 86%	Quartz Wacke	Thick bedded, fine to medium grained with rare thin interbeds of siltstone and fine grained wacke. Some albitization of matrix, also some minor chlorite alteration at the base of			Blocky Bedding to C.A. 85 deg.														
			Same	wackes and rare subhedral pink garnets. Minor disseminated py, po <1%																	
1065.40	1071.84		Interbeds	Thin bedded fine grained quartz wacke siltstone and mudstone. Plane parallel laminations.																	
			Same	1066.10 to 1072.20 Alteration: Speckly textured, quartz and chlorite. Apparent																	
			Same	alteration of clasts? Py and Po varies from -1% to 5%. Siltstones commonly biotite, sericite rich.																	
			Same	1067.30 to 1067.60 Fine grained disseminated sphalerite <1% 1071.28 to 1071.75 Py, Po 2 to 5%. Apparent																	
			Same	mud clasts, chlorite altered in silty matrix with some albitization. 'Shot' texture.																	

NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY		PROJECT No.		N.T.S. No.	
FIELD CO-ORDINATES				DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of		
Lat.		Elev.			Dip		RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.		Elev.		Dip
Dep.		Length		Bearing						Dep.		Length		Bearing	
From	To	Recovery	Description			Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS				
			Same	1069.32 to 1078.69	Fracture zone. Rubbly to Blocky throughout. Fractures	Rubbly to Blocky Fractures to C.A. 0 to 20 deg.									
			Same		at 0 to 20 deg. to C.A. with minor chlorite and carbonate										
1071.84	1078.26		Quartz Wacke		Medium to thick bedded, fine grained 'quartz wacke', thinly bedded to thickly laminated with thin bedded interbed of siltstone, thinly laminated	Rubbly to Blocky Bedding to C.A. 81 deg.									
			Same	1075.205 - 1075.315 & 1076.44 - 1077.03	Medium interbed of thinly laminated, biotite rich, siltstone.										
			Same	1071.84 to 1074.47	Po disseminations and very thin interlaminations 2 to 5%.										
			Same		Alteration: Weak some minor garnets in wackes.										
1078.26	1079.94		Quartz Wacke		Thick to massive bedded, medium grained. Alteration: Perruded by quartz, 5 to 10% sericite, 20% biotite, 5%										
					disseminated Po										

## NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.							
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES						Sheet of						
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lat.		Elev.		Dip		HOLE No.		
Dep.		Length		Bearing						Dep.		Length		Bearing								
From	To	Recovery	Description			Structure			% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS									
1079.94	1081.00		Quartz Wacke	Thin to medium bedded, fine to medium grained with thin interbeds of siltstone. Convoluted bedding																		
			Same	Alteration: Quartz pervaded, some chlorite and albite matrix, po 1% or less. Same scours.																		
1081.00	1082.35		Interbeds	Thin interbeds of siltstone and fine grained 'quartz wacke' 1081.70 coarse grained, rounded, clasts or concretions.																		
1082.35	1093.00		Quartz Wacke	Thick to medium bedded fine grained with thin interbeds of siltstone and mudstone. Some scours and rare coarse, rounded, biotitic clasts, scours.			Blocky to Rubbly Bedding to C.A. 84 deg.															
			Same	Alteration: some quartz pervading wackes, also with minor chlorite and garnets, minor albite alteration of some mudstones.																		
			Same	Biotite 10 - 15%, Soricite 5%																		
			Same	1086.55 - Fracture zone. Rubbly to Blocky.																		
			Same	1089.02 Gravelly. Fractures primarily 0 to 10 deg. to C.A. with carbonate. Minor slicks show dip slip movement.																		

## NORANDA EXPLORATION COMPANY LTD.

Date Collored		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.			
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of				
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lat.		Elev.		
Dep.		Length		Bearing						Dep.		Length		Bearing		HOLE No.		
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
1093.00	1093.78		Interbeds Thin bedded interbeds, of fine to medium grained 'quartz wacke' and siltstone to mudstone. Scoured bases. Wackes contain 15-20% medium to coarse grained size clots				Blocky											
			Same of biotite likely altered clasts. Alteration: Minor albite alteration of fine fractions po <1%															
1093.78	1096.72		Conglomerate Thin bedded interbeds of conglomerate with silt to mudstone tops and lesser 'quartz wacke'. Conglomerates contain 15-35% rounded, elongate, clasts of mudstone.				Blocky Bedding to C.A. 84 deg.											
			Same Clasts are medium to coarse grained and commonly altered to biotite. Scoured bases. Up to granule sized clasts.															
			Same 1095.23 - 1096.86 Medium grained 'quartz wackes' are biotite and sericite rich 20-30%. Also															
			po disseminations are 1-3% overall. Bottom 30cm have thin, wispy, interlamination of po and one coarse															
			grained clast of po. Also have po up to 10-15%, and lath shaped, fine grained py clasts oriented sub															
			parallel to C.A. altered hornblende or biotite crystals. Trace cpy															

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY		PROJECT No.		N.T.S. No.	
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of	
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		HOLE No.	
Dep.		Length		Bearing						Dep.		Length		Bearing	
From	To	Recovery	Description			Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS				
			Same Alteration: Minor albitization of finer fraction. Rare medium, grained pink garnets and biotite or hornblende crystals												
			Same aligned sub-parallel to C.A. Biotite alteration of clasts. 1095.23 to 1096.86 Quartz pervaded, chlorite and sericite altered.												
1096.72	1103.71		Quartz Wacke Thick bedded, medium grained with thin interbeds of siltstone and mudstone. Occasional medium grained clots of biotite - altered clasts.												
			Same 1099.91 to 1100.15 Thin laminated siltstone slump. Kink fold of slump indicates movement												
			Same in down dip direction, Scouring is common. Alteration: Medium grained 'Quartz Wacke' is commonly quartz pervaded and contains												
			Same abundant sericite 5-10%. Also rare pink garnets, medium grained.												
1103.71	1105.47		Interbeds Thin bedded interbeds of medium to fine grained 'Quartz Wacke' and siltstone to mudstone. Some wackes contain clots of biotite - altered clasts?												

## NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.	
FIELD CO-ORDINATES				DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of			
Lot.		Elev.			Dip		RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.		Elev.		Dip	
Dep.		Length		Bearing						Dep.		Length		Bearing		
From	To	Recovery	Description			Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
			Same	1104.90 to 1105.18	Thinly laminated silt and mudstone with disseminated po along laminations 1%.	Bedding to C.A. 83 deg.										
			Same		Also one medium grained lath shaped, clast of po and cpy aligned parallel to C.A. - altered hornblende or biotite. Albitized.											
			Same		Alteration: Minor albitization											
1105.47	1112.28		Quartz Wacke	1106.28 to 1106.74	Thick to massive bedded, medium grained with thin interbeds of siltstone. Chlorite - soricite altered											
			Same	1106.74	Coarse grained mudstone clast parallel to bedding.											
			Same	1108.23 to 1112.50	Fracture Zone											
			Same		Heavily fractured rubbly throughout. Fractures at 0-10 deg. to C.A. and 55 and 80 deg. to C.A.											
			Same		Minor slicks indicate dip slip movement											
					Alteration: Minor chlorite; and quartz veins carbonate along fractures.											
1112.28	1114.71		Mudstone		Thick bedded mudstone with 30% fine-medium grained biotite forming a pepper texture - altered clasts also thin interbeds of thinly											



# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY		PROJECT No.		N.T.S. No.		
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of		
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		HOLE No.		
Dep.		Length		Bearing						Dep.		Length		Bearing		
From	To	Recovery	Description			Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
			Same	laminated, biotite rich, fine grained 'quartz wacke'. Mudstone is thickly laminated. Po Disseminations approx. 1%. Albitized												
1114.71	1116.86		Quartz Wacke	Thick bedded, medium and fine grained with minor thin interbeds of mudstone. Alteration: Minor albitization												
1116.86	1124.03		Interbeds	Thin to medium interbeds of fine and medium grained 'quartz wacke', siltstone and mudstone. Mudstone contains biotite altered, medium grained clasts. Also some coarse grained			Blocky to Rubbly Bedding to C.A. 81 deg.									
			Same	biotite altered clasts in 'quartz wacke'. Some po disseminations and wispy, laminations in mudstones. Fine grained biotite commonly disseminated throughout the												
			Same	mudstones.												
			Same	1116.50 to 1129.00m Fracture Zone. Rubbly to Blocky. Minor slicks along bedding planes. Fractures												
			Same	primarily 0-20 deg. to C.A. also 50 deg. to C.A. Carbonate along fractures. Some hairline fractures												
			Same	with minor po, cpy and trace sphalerite. Occasional chlorite and fine grained py along fractures.												

## NORANDA EXPLORATION COMPANY LTD.

Date Colored		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.			
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of				
Lot.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lot.		Elev.		
Dep.		Length		Bearing						Dep.		Length		Bearing		HOLE No.		
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
			Same 1122.00 to 1122.53 Thin bedded mudstone-siltstone and fine grained quartz wacke with po															
			Same 1123.04 to 1123.23 dissemtions 2-5% (up to 25%) and Zns disseminations -1%. Blebs of po, trace cpy, Zns? along hairline fractures.															
			Same 1123.78 to 1124.03 Biotite rich (35-50%) interval at mudstone with thine laminations. po -1%															
			Same 1123.34m Po disseminations 15% in siltstone. Alteration: Chlorite, sericite, garnets															
1124.03	1144.67		Quartz Wacke Medium to thick bedded, medium grained with thin interbeds of mudstone or siltstone. Occassional scours and medium to coarse grained clasts.				Bedding to C.A. 86 deg.											
			Same 1125.08 to 1125.12 Occassional disseminations of po along laminations in mudstone. Mudstone commonly thinly laminated. po disseminations 15%				Blocky Fractures at 0-10 deg. and 30 deg. to C.A.											
			Same 1125.20 trace disseminations of Zns 1140.58 to 1140.83 Zns disseminations <1% and wisps of po and cpy.															
			Same 1141.95 to 1142.23 Disseminated Po approx. 1% and disseminated po along laminations.															

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.			
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of				
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lat.		Elev.		
Dep.		Length		Bearing						Dep.		Length		Bearing		HOLE No.		
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
			Same															
			1129.20 Slump Zn 1136.66 2mm wide lamination of po with 3mm normal offset along															
			Same fracture at 30 deg. to C.A.				Fractures											
			1136.97 Possible ZnS dissemination? very fine grained.				10 deg. 30 deg. to C.A. with											
			1138.08 Thin 2mm wide po lamination with				10mm and 3mm											
			Same 1cm of normal offset				normal offset											
			Po and trace Cpy along hairline fractures. Occasional Po disseminations up to 10% over 2-3cm.															
1144.67	1154.66		Interbeds Thin to thick beds of medium graind 'quartz wacke' with thin and some medium interbeds of siltstone and mudstone. Scours, thin laminations, and rare cross bedding. Mudstones															
			Same commonly contained fine grained biotite. Also occasional disseminations of po in 'quartz wacke' usually approx. 1%															
			Same															
			1120 - Also occasional medium grained clasts of po along bedding of															
			Same 'Quartz Wacke' 1145 to 1152m Fracture Zone Blocky to rubbly some quartz -carbonate veins.															

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.			
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of				
Lat.		Elev.		Dip		RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.		Elev.		Dip		HOLE No.		
Dep.		Length		Bearing						Dep.		Length		Bearing				
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
			Same [ ] Carbonate along fractures. Minor slicks. Some po along hairline fractures. Fractures to C.A. 0-20 deg. and 50 deg. Fault breccia at 1151.89 approx. 3cm wide and 16cm long															
			Same [ ] at 10 deg. to C.A. healed by calcite with minor py along edges															
			Same [ ]															
			Alteration: Minor chlorite-sericite-garnet alteration in fracture zone.				Bedding to C.A. 81 deg.											
1154.66	1160.80		Interbeds [ ] Thin and medium interbeds of fine and medium grained 'quartz wacke', siltstone and mudstone. Po laminations, disseminations, blotches and clasts throughout. Clasts are medium															
			Same [ ] grained and rare. Overall po 1-3% and up to 10-15% over 1 or 2cm. Also irregular hairline fractures with po and cpy. Fractures at 45 deg. to C.A. Po lamination and				Hairline fractures at 45 deg. to C.A. Blocky Fractures at											
			Same [ ] wisps more commonly in silt or mudstones. Po laminations up to 3-4mm wide.				25 deg., 45-50 deg. to C.A.											
			Same [ ] Trace sphalerite disseminations at: 1159.40 - 1159.43 and 1160.82.															
			Alteration: 'Quartz Wackes commonly															

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.			
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of				
Lat.		Elev.		Dip		RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.		Elev.		Dip		HOLE No.		
Dep.		Length		Bearing						Dep.		Length		Bearing				
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
			Same contain 20-30% fine grained biotite or phlogopite, and often is altered with quartz flooding, chlorite, sericite, biotite and garnets. (anhedral, light pink).															
			1160.23 to 1160.30 Coarse grained quartz, albitized matrix, chlorite sericite, and 15-25% py-po disseminations.															
			Same Mudstones and siltstones commonly albitized and have fine grained albite crystals.															
			1154.73 to 1159.41 Occurrence of very coarse grained albite crystals															
			Same 4 x 3cm (grow 11 to C.A.) Slump, convoluted bedding clast.															
1160.80	1167.94		Interbeds Thick and medium bedded, medium grained (to coarse) 'quartz wacke' sometimes graded, rare scours, and siltstone and mudstone commonly with fine grained disseminated biotite.				Blocky to Rubbly Bedding to C.A. 87 deg.											
			Same Some po laminations and wisps and dissemination. Approx. <1% overall. Alteration: Primarily biotite, sericite and quartz in wackes and minor albitization in															
			Same silt or mudstones. Also po along hairline fractures.															
			1166.89 to 1167.34 Siltstone thinly bedded possible marker?				Strain shadows ad 45 deg. to C.A.											
			Same 1167.34 to 1167.94 Mudstone clast 1166.87 coarse grained, black, elongate, rounded. Minor carbonate in some wackes. Carbonate-cholride along fractures.															

NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.		
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of			
Lot.		Elev.		Dip		RECORDED	CORRECTED	RECORDED	CORRECTED	Lot.		Elev.		Dip		HOLE No.	
Dep.		Length		Bearing						Dep.		Length		Bearing			
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
1167.94	1170.65		'Quartz Wacke' Thick bedded, medium grained with thin interbeds of siltstone. Po up to 10% over 3cm overall approx. 1% or less. Alteration: minor quartz flooding, sericite and Same biotite.														
1170.65	1174.44		Interbeds Thin bedded medium and fine grained 'quartz wacke' siltstone, and mudstone. Po laminations and disseminations up to 20% approx. 1-2% overall. Same Alteration: Biotite, sericite, and garnet alteration in wackes (minor). Some hairline fractures with minor po.														
1174.44	1181.24		'Quartz Wacke' Thick bedded, medium, coarse grained with occassional thin interbeds of siltstone and mudstone. Minor po disseminations. Same 1176.01 to 1182.50 Fracture zone block to rubbly. Fractures at 0-20 and 40-50 deg. to C.A. Same 1177.05 to 1177.20 Thin quartz albonate veins. Blotches of po Alteration in fracture zone.														

## NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.			
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of				
Lat.		Elev.		Dip		RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.		Elev.		Dip		HOLE No.		
Dep.		Length		Bearing						Dep.		Length		Bearing				
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS						
			Same	Some quartz flooding with chlorite and garnets associated with fractures. Also 'shot rock' texture with few or no sulfides.			Bedding to C.A. 76 deg. Occasional slick on bedding.											
			Same	Rare po, cpy along fracture or vein. Some biotite development in basal wacke.														
1181.24	1187.01		'Quartz Wacke'	Medium with some thin interbeds of medium to fine grained wacke and thin with some medium interbeds of siltstone-mudstone. <u>Siltstones and mudstones are thinly bedded and</u>			Blocky											
			Same	sometimes show load structures. 'Quartz Wackes' carry disseminations of po up to 2%, overall -1%.			Bedding to C.A. 80 deg.											
			Same	Alteration: Some biotite alteration of 'quartz wackes'. Minor albitization of silt and mudstones.														
			Same	1181.30 to 1182.34 Some very coarse grained growths of albite coming in parallel to C.A.														
			Same	1183.23 Minor quartz vein with po and minor sphl.														
1187.01			'Quartz Wacke/Arenite'	Thick bedded medium grained 'quartz wacke' and medium to coarse grained siliceous wacke (quartz arenite) with thin														

NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.	
FIELD CO-ORDINATES				DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of			
Lat.		Elev.			Dip		RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.		Elev.		Dip	
Dep.		Length		Bearing						Dep.		Length		Bearing		
From	To	Recovery	Description			Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
			Same	irregular interbeds of siltstone. Contacts generally not well defined. Po -1%. Graded upwards. Alteration: Quartz, sericite, minor garnets.												
			Same	1194.08 to 1194.69 Siltstone interbed, minor po laminations and disseminations -1%												
			Same	Quartz flooded in parts with approx. 5-10% sericite and minor garnets.												
1194.75	1196.00		Interbeds	Thin interbeds of mudstone siltstone, and 'quartz wacke'. Plane parallel laminations and convoluted bedding. Po dissemination and blebs common in wackes up to 30% across 2cm.			Blocky Bedding to C.A. 81 deg.									
			Same	Minor po in silt and mudstones. Alteration: Wackes contain abundant biotite up to 30-40% and quartz and sericite near base. Siltstones and mudstone.												
1196.00	1211.11		'Quartz wacke/arenite?'	Thick bedded medium to coarse grained, common upwards grading with indistinct contacts and distinct contacts. Thin interbeds of siltstone or mudstone with regular												
			Same	medium interbeds of thin bedded mudstone and siltstone.												



# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY		PROJECT No.		N.T.S. No.				
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of				
Lot.		Elev.		Dip		RECORDED		CORRECTED		Lot.		Elev.		Dip		HOLE No.		
Dep.		Length		Bearing						Dep.		Length		Bearing				
From	To	Recovery	Description				Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS						
			Same	1197.68 to 1198.06	Medium interbed of thin bedded silt and mudstone with regular 'wispy' laminations of po.													
			Same	1201.97 to 1203.35	Medium to thick interbed of thinly bedded wacke, siltstone-mudstone. Some beds of wacke contain abundant biotite. Also several bands about 2-3cm wide of wacke with po disseminations or laminations													
			Same		containing 15-30% po. Unit has coarse grained base, quartz rich, distant grains of quartz, maybe quartz arenite at about 1209m. Appear to be some lithic fragments (medium grained). Also have thin beds of wacke with quartz eyes and mud matrix.													
			Same		Alteration: Thin bedded wackes contain abundant biotite and distinct albite? crystals. Coarser and thicker bedded wackes are quartz flooded (quartz arenite?) and contain varying amounts of garnet, chlorite, sericite, albite, po, and py. Po and py varies from 1 to 20% and overall is approx. 1% (disseminated).													
			Same	1201.83 to 1209.15	Fracture Zone. Fractures at 25 to 30 deg. to C.A. with carbonate and chlorite along fractures.				Fractures at 25 to 30 and 0-15, 20 deg. to C.A.									

NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.	
FIELD CO-ORDINATES				DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of			
Lot.		Elev.			Dip		RECORDED	CORRECTED	RECORDED	CORRECTED	Lot.		Elev.		Dip	
Dep.		Length		Bearing						Dep.		Length		Bearing		
From	To	Recovery	Description			Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
			Same	Fractures at 0-15 deg., 20 deg. to C.A. commonly chlorite (light green). 1208.62 Hairline fracture at 0 deg. to C.A. with probable fine grain			Blocky to rubbly.									
			Same	tourmaline. Note: albite occurs primarily as distinct fine grained crystals.												
1211.11	1214.18		Mudstone and Siltstone	Thin bedded to thickly laminated. 1211.30 to 1211.55 Thin wisps and disseminations of po with sphl disseminations			Bedding to C.A. 81 deg.									
			Same	-1%. Also po, cpy trace sphl along hairline fractures.			Hairline fractures to C.A. 55 deg.									
			Same	1211.97 Band of 3-4cm with 20% disseminated po. Also 'chloritic-quartz' shot rock												
			Same	texture-Rounded discoloured coarse grained blebs.												
1214.18	1225.32		Same as 1196.00 - 1211.11	But have more frequent (every 2 or 3m) medium interbeds of thinly bedded siltstone and mudstone.			Blocky Bedding to C.A. 81 deg.									
			Same	Alteration: Same as 1196.00 to 1211.11 some hairline fractures with po,cpy. 1217.44 to 1217.51 'Peppered' alteration texture in mudstone.												

## NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.		
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of			
Lat.		Elev.		Dip		RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.		Elev.		Dip		HOLE No.	
Dep.		Length		Bearing						Dep.		Length		Bearing			
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
			Same	1222.51 to 1223.74	Thinly interbedded siltstone and 'quartz wacke' with po disseminations up to 10%												
			Same		Also wisps and very thin laminations. Overall po 2-3%. Some quartz wackes are very thinly laminated with												
			Same		abundant biotite. Also some fractures with quartz and po parallel to sub-parallel to bedding.												
			Same		Note: siliceous (quartz) chlorite, sericite, garnet, (biotite), albite alteration here and in above units closely associated to fracturing.												
			Same		(usually light green-grey)												
1225.32	1232.70		Quartz Wacke		Medium grained, light grey thin to thick bedded with occassional thin interbeds of siltstone or mudstone. Wavy current laminations and plane parallel laminations.	Blocky											
			Same		Alteration: Some quartz flooding, chlorite, sericite, garnet and albite. Py alteration in wackes usually associated with												
			Same		fractures. Also fine grained albite? crystals in mudstone partings.												

# NORANDA EXPLORATION COMPANY LTD.

Date Colored		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.		
FIELD CO-ORDINATES				DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of				
Lot.		Elev.			Dip		RECORDED	CORRECTED	RECORDED	CORRECTED	Lot.		Elev.		Dip		
Dep.		Length		Bearing						Dep.		Length		Bearing			
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS				
			Same 1229.26 to 1232.70 Medium to thick bedded.														
1232.70	1237.09		Quartz Wacke Medium to thick bedded with occasional thin beds and thin laminations. Thin bedded mudstone or siltstone interbeds. Regular (2 to 3m) medium interbeds of thin bedded														
			Same to thickly laminated mudstone, siltstone and sandstone. Some convoluted bedding.														
			Same 1240.00 to 1240.31 Slump convoluted bedding siltstone, and sandstone.														
			Same 1232.73 to 1233.06 Thin bedded siltstone and mudstone with bands of po wisps and disseminations 1 to														
			Same 3cm wide. Po content 10 to 20% with possible disseminations of sphl.														
			Same 1233.06 to 1233.56 Medium to fine grained wacke with garnet, biotite quartz alteration. Po disseminations														
			Same approx. 1-2% overall. 1234.52 to 1234.91 Thin bedded-laminated mudstone and siltstone with														

## NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.			
FIELD CO-ORDINATES						DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES						Sheet of	
Lot.		Elev.		Dip			RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.		Elev.		Dip		HOLE No.	
Dep.		Length		Bearing						Dep.		Length		Bearing				
From	To	Recovery	Description				Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS						
			Same	convolute bedding (slump?) with po wisps and thin laminations and disseminations. Disseminations occur in bands														
			Same	of 1 to 2cm wide po approx 15%. Thin laminations have thin quartz veins running parallel to them and they														
			Same	also have disseminated sphalerite -1% on their underside. Trace sphalerite throughout. Also cpy with po														
1237.09	1248.16		Interbeds	Thin and medium interbeds of medium grained, quartz wacke with thin to medium interbed of siltstone and mudstone.														
			Same	Alteration: same as above but po laminations sometimes are altered by quartz and cholorite.														
			Same	1237.09 to 1237.34 Thin bedded siltstone, mudstone and fine wacke. Po disseminations 1 to 2% with frequent grains grains of sphalerite <1%.														

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY		PROJECT No.		N.T.S. No.		
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of		
Lot		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		HOLE No.		
Dep.		Length		Bearing						Dep.		Length		Bearing		
From	To	Recovery	Description			Structure		% Sulph.	Est. Grade	SAMPLE No.	Width		ASSAYS			
			Same	1238.14 to 1238.71	Biotite, garnet alterations with chlorite quartz fractures in 'quartz wacke'. Fine			Fractures to C.A. 20-25 deg.								
			Same		grained py or po approx. 1-2%.											
			Same	1240.78 to 1241.73	Thinly laminated siltstone and mudstone with some silicification, biotite and			Blocky Bedding to C.A. 70 deg.								
			Same		chlorite alteration. Po rich bands 1-3cm wide with 15 to 30% po disseminations and blebs. Occassional wisps of											
			Same		po. Sphalerite disseminations throughout <1%											
			Same	1242.68 to 1243.42	Thinly laminated siltstone with fine grained wacke top. Have one band approx. 1cm wide of											
			Same		chlorite with blebs of po. Po disseminations throughout approx. 3%. Some convoluted bedding at base.											
			Same	1244.32 to 1244.75	Thin bedded quartz wacke and siltstone with											

## NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.							
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES						Sheet of						
Lot.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lat.		Elev.		Dip		HOLE No.		
Dep.		Length		Bearing										Dep.		Length		Bearing				
From	To	Recovery	Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS									
			Same [ ] quartz-chlorite-garnet alteration along fractures. Also po disseminations along laminations up to 10% across 1cm 2cm?																			
			Same [ ] 1244.75 to 1245.02 Very thin bedded siltstone. Top contains fine grained quartz eyes in mud matrix.																			
			Same [ ] One thin (1cm) band of brecciated chloritied mudstone with minor po and trace Zns. Appears to be related to																			
			Same [ ] fracture. Same very thin laminations of light green chlorite also some chlorite clasts? Disseminated po																			
			Same [ ] throughout approx. 15-20% some up to 35-40% across 2 to 5mm. Trace sphl? grades down into lightly mineralized																			
			Same [ ] siltstone at 1245.02 - 1245.35. 1246.49 to 1246.85 Thin bedded siltstone and quartz wacke. Convolutated bedding. Very fine grained																			
			Same [ ] Po? Py? 1-2%. Some trace sphl. One quartz vein with minor po and trace sphl. Thin bedded quartz wacke and				Bedding to C.A. 65 deg.															
			Same [ ] siltstone with minor po, one band up to 10% po. bleached zone chlorite? albite? 1247.00 to 1247.39																			
			1247.22 to 1247.39																			

# NORANDA EXPLORATION COMPANY LTD.

Date Colored		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.				
FIELD CO-ORDINATES				DEPTH		BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of					
Lat.		Elev.		Dip		RECORDED		CORRECTED		RECORDED		CORRECTED		Lot.		Elev.			
Dep.		Length		Bearing		1251m		243°		71°				Dep.		Length			
From		To		Recovery		Description				Structure		% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS			
				Same		1247.80 to 1248.16 Siltstone-mudstone Band 10cm wide with 5% disseminated po and trace sphl. Also trace													
				Same		stratiform quartz vein with po and sphl?													
1248.16		1258.31				Interbeds Thinly bedded medium beds of quartz wacke with thin and medium interbeds of siltstone-mudstone. Forms a series of upward fine and medium sized beds. Occasional thin interbed													
				Same		of wacke with quartz eyes and mudstone matrix. Last 2m start getting thick, coarse, wackes. Alteration: Minor chlorite-biotite-quartz-garnet													
				Same		alteration associated with fractures.													
				Same		1252.02 to 1252.54 Thin bedded to very thinly laminated fine grained 'quartz wacke' and siltstone-													
				Same		mudstone. Disseminated po throughout 10 to 15%. Some chlorite quartz alteration along fractures. Also some													
				Same		1254.57 to 1255.21 light coloured and chlorite alteration along laminations. Thinly bedded siltstone and mudstone with albite crystals (fine grained) and one													



# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.	
FIELD CO-ORDINATES				DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of			
Lat.		Elev.			Dip	RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.		Elev.		Dip	HOLE No.	
Dep.		Length		Bearing						Dep.		Length		Bearing		
From	To	Recovery	Description			Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
			Same	thin interbed of fine-medium grained 'quartz wacke' with 5-7% disseminated po,py? Siltstones-mudstones contain												
			Same	po disseminated along laminations 1-2% overall. Also thin waffer textured white alteration bounding												
			Same	po lamination. 1255.64 to 1255.79 Thinly laminated mudstone with 'quartz eye' alteration.												
			Same	1257.85 to 1258.14 Finely disseminated po 5-15%, also disseminated along laminations with trace cpy in												
			Same	mudstone and siltstone thinly bedded.												
1258.31	1263.59		Quartz Wacke	Thick to massive bedded with thin bedded siltstone and mudstone tops. Alteration: Quartz, chlorite, sericite, albite, garnet with desseminated py (approx. 2%)												
			Same	occurs throughout. Unit shows some upwards lining and occassional thin interbeds of quartz eye mudstone matrix wacke.												

# NORANDA EXPLORATION COMPANY LTD.

Date Collared		Date Completed		Core Size		DIP TESTS				PROPERTY			PROJECT No.		N.T.S. No.	
FIELD COORDINATES				DEPTH	BEARING		ANGLE		SURVEYED CO-ORDINATES				Sheet of			
Lat.		Elev.			Dip	RECORDED	CORRECTED	RECORDED	CORRECTED	Lat.		Elev.		Dip	HOLE No.	
Dep.		Length		Bearing					Dep.		Length		Bearing			
From	To	Recovery	Description			Structure	% Sulph.	Est. Grade	SAMPLE No.	Width	ASSAYS					
			Same	1261.79 to 1261.95	Mudstone with 'quartz eye' alteration. Also waffer textured (thin) light (white)											
			Same		coloured alteration with concentration of 'quartz eye' alteration.											
1263.59	-----		Interbeds		Thinly bedded and thinly laminated siltstone. Same slump textures at 1264.53 to 1264.63. Po disseminated throughout particularly along laminations up to 25% overall approx. 10%.											
			Same		At 1264.38 have very coarse elongate blebs of po with trace cpy above which are coarse grained blotches of po for approx. 20cm. Also wisps of po, and trace sphl. dissemination.											