



Bergvesenet

Postboks 3021, 7002 Trondheim

Rapportarkivet

Bergvesenet rapport nr BV 425	Intern Journal nr	Internt arkiv nr	Rapport lokalisering Oslo	Gradering Åpen
Kommer fra ..arkiv Østlandske	Ekstern rapport nr	Oversendt fra	Fortrolig pga	Fortrolig fra dato:

Tittel

Trenching at Vekslemyr and Takserås area.
Data sent to the Bergmester concerning mutings in the Bamble area 1984

Forfatter Geyti, A	Dato 20.03 1985	Bedrift ARCO Norway mineraler A/S
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Kommune Gjerstad Vegårdshei Nelaug	Fylke Aust-Agder	Bergdistrikt Østlandske	1: 50 000 kartblad 16121 16122 16123	1: 250 000 kartblad Arendal
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Fagområde Geologi Boring	Dokument type Rapport	Forekomster Vekslemyr, Takserås
Råstofftype Malm/metall	Emneord As Py Au	

Sammendrag

On september 1984, a trenching totalling 158 m across strike and 14m along strike was done in an area at Vekslemyr in order to test the extent of a quartz-arsenopyrite-pyrite vein that contains 7 ppm gold. The trenching was done by an earth excavator and a tractor equipped with a compressor. The compressor was used for cleaning the trenches and drilling holes for blasting.

A total of 29 rock samples and 27 soil samples was collected.

The trenched vein is uninteresting unless it significantly, and unexpectedly widens with depth.

Contains:

Geological map, Espelandsmyr area 1:5000.

Geological map, Espelandsmyr - Gjerstad area 1:50 000.

Diamond drillholes, cross sections, 1:5000.

Diamond drill core logs.

Diamond drill hole assay results.

ARCO Norway Mineraler A/S

DATA SENT TO THE BERGMESTER CONCERNING MUTINGS IN
THE BAMBLE AREA 1984

- Vekselmyr trenching. Internal memo with assay results. Sep. 11, 1984
- Geological map, Espelandsmyr area 1:5.000
- Geological map, Espelandsmyr-Gjerstad area, 1:50.000
- Diamond drill holes, cross sections, 1:5.000
- Diamond drill core logs.
- Diamond drill hole assay results.

Oslo, March 20, 1985.
A. Geyti



Date: September 11, 1984
Subject: Trenching at Vekselmyr, Takserås area

From/Location: A. Geyti

To/Location: Bamble File AG

On September 6th and 7th, 1984 trenching totalling 158 m across strike and 14 m along strike was done in an area at Vekselmyr in order to test the extent of a quartz-arsenopyrite-pyrite vein that contains 7 ppm gold. The trenching was done by an earth excavator and a tractor equipped with a compressor. The compressor was used for cleaning the trenches and drilling holes for blasting.

The equipment was rented by Per Jørgen Eskeland, Eskeland Maskinlag, Gjerstad, tlf.: 041-57220. The price for the equipment was 420,- kroner pr. hour.

A total of 29 rock samples and 27 soil samples was collected. The purpose for collecting soil samples was to test the deep soil samples' response to the arsenic-gold mineralization in order to evaluate the use of this method elsewhere in the area.

The trenched area is owned by Olav K. Byholt, Sunde Bru.

Geology

The geology is comprised of two main units, amphibolite and quartz-feldspar-biotite gneiss.

The amphibolite is massive to banded, medium grained and often contains centimeter-large garnets. Locally, stringers or pods of coarse-grained quartz and albite are pronounced. Rarely the amphibolite becomes biotite rich and schistose.

The quartz-feldspar-biotite gneiss is fine grained and contains 5-20% brownish dark biotite, which is weakly banded and garnetiferous. Graphite occurs in amounts up to 10%. Pyrite and pyrrhotite occur disseminated and on micro-joints in amount up to 5%. Trace amounts of chalcopyrite have been noted.

The quartz-feldspar-biotite gneiss weathers more readily than the amphibolite and a general outcrop map thus indicates more amphibolite relative to quartz-feldspar-biotite gneiss than is actually present.

Structures

The strike of the rocks is in general 45-55° with 60-70° dips to SE. Folding was seen in one place at sample location 3319. Here an open

fold is located in intensely chloritized rock that contains 5% pyrite. The axial plane trace strikes 12° , and the fold axis plunges 90° .

Two sets of faults may be active. One set is parallel to Gjerstadvatn. This set of faults is unlikely to be detected in the trenches as they are parallel to them. Another set may be indicated by the escarpment and stream to the west of the occurrence. This direction is roughly north-south.

Lineament measurements indicate a steep plunge of fold-axes.

Mineralization

The gold occurs in a 12 m long and up to 0.5 m wide quartz-arsenopyrite-pyrite vein striking 45° . The vein contains 25% arsenopyrite, 15% pyrite and a green felted mineral which may be chlorite. Arsenopyrite and the green mineral are especially concentrated along the edges of the vein. The quartz is coarse grained, white to bluish. The vein is concordant to bedding.

The quartz-feldspar-biotite gneiss in the vicinity of the mineralized vein is very silicious and may in fact be partly silicified. It is steel-gray and may contain arsenopyrite as well as pyrite and pyrrhotite. Graphite is especially common in this area.

Conclusion

The trenched vein is uninteresting unless it significantly, and unexpectedly, widens with depth. The upside potential lies in a high-grade ore associated with a set of veins similar to the one trenched, or maybe in lower-grade mineralization in the silicified quartz-feldspar-biotite gneiss. This unit is very extensive and is found all the way to Lake Gjerstad. It is rusty and has been sampled.

It is recommended to perform an EM or VLF survey over the known mineralization in order to test the conductivity and possibly find more conductive bodies in the vicinity. Also a deep soil sampling program should be performed in the adjacent bog, Vekselmyr, which may overlie more vein-type mineralization.

A general deep soil survey program should be performed in the Takseråsen area.

AG:jø

[illegible]

Field Number	Sample#	ppm Pb	ppm Au	ppm Pt	ppm Ag	ppm As	ppm Ba	ppm Cu	ppm Pb	ppm Zn
1308401381	2439		0.010		-0.5	18		17	-10	20
1308401382	2440	3.79	5.395	0.069	-0.5	14390		422	-10	43
1308401383	2441		0.050		-0.5	268		272	-10	75
1308401384	2442		-0.005		-0.5	62		42	-10	80
1308401385	2443		0.019		-0.5	188		150	-10	28
1308401386	2444		0.010		-0.5	236		113	-10	28
1308401387	2445		0.019		-0.5	28		78	-10	39
1308401388	2446		0.039		-0.5	20		56	-10	33
1308401389	2447		0.014		-0.5	185		82	-10	34
1308401390	2448		0.010		-0.5	43		92	-10	18
1308401391	2449		0.007		-0.5	36		22	-10	99
1308401392	2450		0.009		-0.5	32		22	-10	84

Field Number	Sample#	ppm Au	ppm Au	ppm Pt	ppm Ag	ppm As	ppm Ba	ppm Cu	ppm Pd	ppm Zn
1318401393	2451		0.012		-0.5	34		79	-10	23
1318401394	2452		0.012		-0.5	119		40	-12	88
1318401395	2453		0.026		-0.5	28		48	-10	63
1318401396	2455		-0.005		-0.5	-10		-10	-12	51
1318401397	2456		0.019		-0.5	60		34	-10	62
1318401398	2457		0.069		-0.5	24		33	-10	45
1318401399	2458		0.009		-0.5	-10		58	-10	79
1318401400	2459		0.009		-0.5	-10		27	-12	85
1318403319	2460		-0.005		-0.5	12		51	92	89
1318403320	2461		0.024		-0.5	18		169	-10	67
1318403321	2462		0.009		-0.5	-10		83	-10	53
1318403322	2463		0.017		-0.5	20		30	-10	105
1318403323	2464		0.014		-0.5	-10		42	-10	54
1318403324	2465		0.014		-0.5	-10		64	-10	38
1318403325	2466		0.015		-0.5	14		81	-10	98
1318403326	2467		-0.005		-0.5	23		-10	-10	103
1318403327	2468		-0.005		-0.5	15		42	-10	94

Rock CHIPS

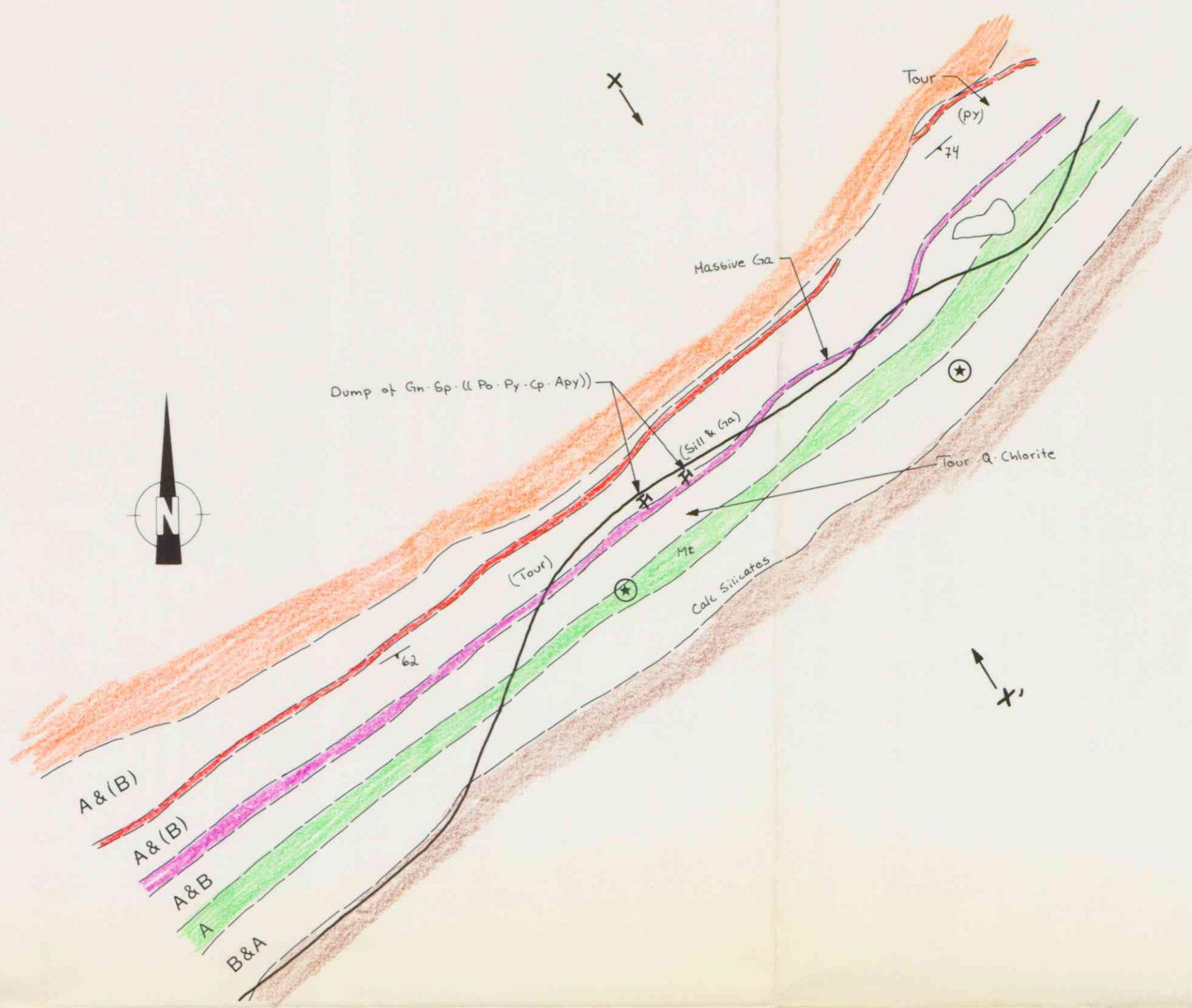
Soil

Project Name Project# Date-Out

Bamble 00230-24 09-Oct-84

Submitted By: L. Bech

Field Number	Sample#	ppm Au	ppm Ag	ppm As	ppm Cu	ppm Pb	ppm Zn
1258401354	2470	-0.005	-0.5	53	16	45	78
1258401355	2471	0.321	-0.5	3581	87	103	80
1258401356	2472	0.226	-0.5	1288	138	92	58
1258401357	2473	0.026	-0.5	236	16	31	41
1258401359	2474	-0.005	-0.5	-10	17	23	64
1258401361	2475	-0.005	-0.5	36	37	25	47
1258401363	2476	0.009	-0.5	-10	42	23	36
1258401364	2477	0.010	-0.5	62	37	17	65
1258401367	2478	-0.005	-0.5	-10	53	14	89
1258401369	2479	-0.005	-0.5	86	22	22	65
1258401370	2480	-0.005	-0.5	-10	22	57	87
1258401372	2482	0.007	-0.5	-10	28	23	52
1258401373	2483	-0.005	-0.5	-10	13	20	34
1258401374	2484	-0.005	-0.5	-10	30	21	60
1258401375	2485	-0.005	-0.5	-10	28	64	95
1258401377	2486	-0.005	-0.5	-10	23	29	30
1258401379	2487	-0.005	-0.5	-10	21	26	49



Legend:

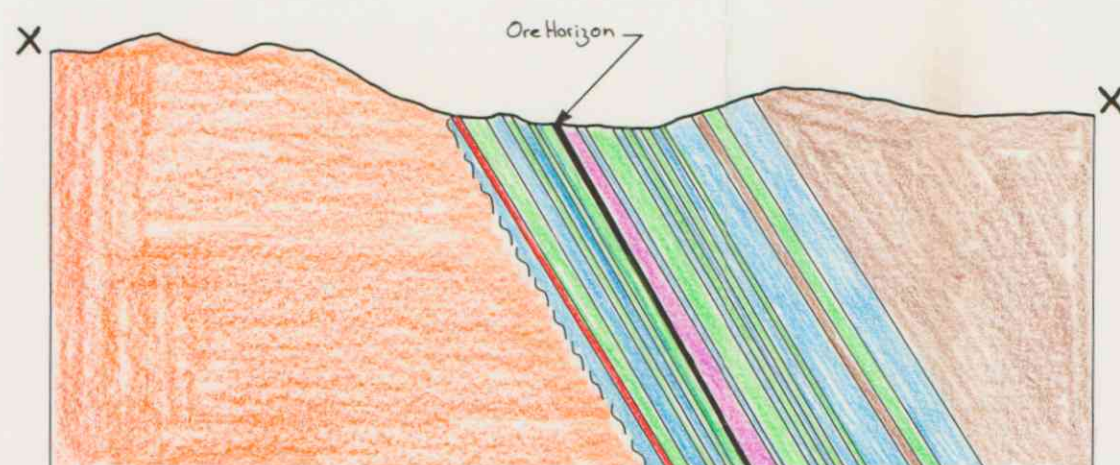
- A Amphibolite
- Felsic gneiss
- Carbonate horizon (dolomite/calc silicates) ORE HORIZON
- B Biotite gneiss
- Quartz rock (chert)
- Augen gneiss

✕ Shaft/trench

★ Drill site

Gn Galena
Sp Sphalerite
Apy Arsenopyrite
Py Pyrite
Cp Chalcopyrite
Po Pyrrhotite
Mt Magnetite
Sill Sillimanite
Tour Tourmaline
Ga Garnet

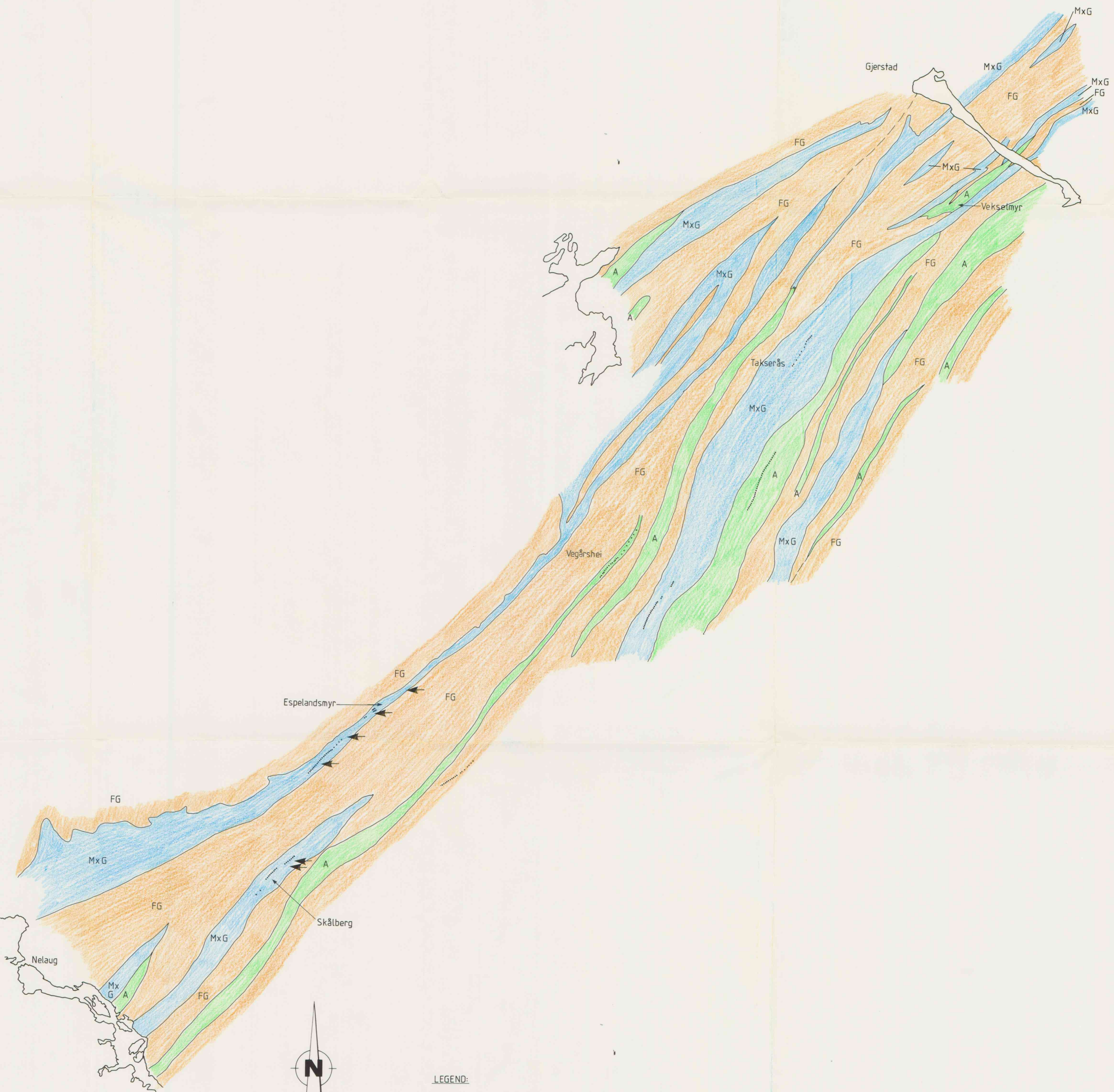
CROSS SECTION



100 metres
0

0 100 metres

 ARCO Norway Inc. Hard Minerals Section				
ESPELANDSMYR Geological Map				
Drawn/traced: LGM / AA		Date: Feb. 85		Centre: Oslo
Report No.	Project No.	Drawing No.	Map Sheet:	Scale: 1:5000

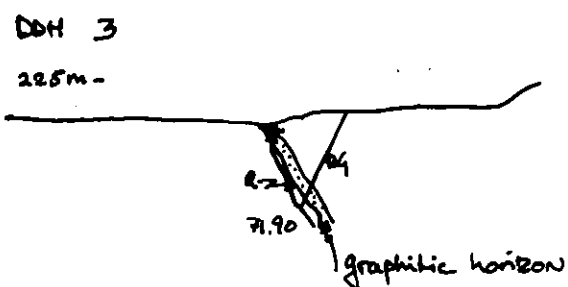
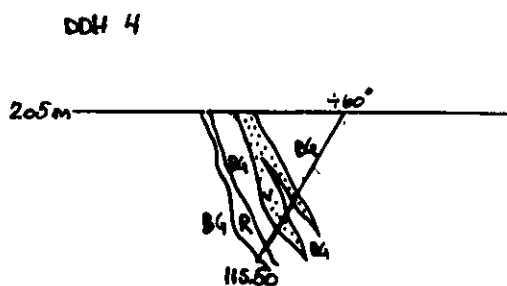
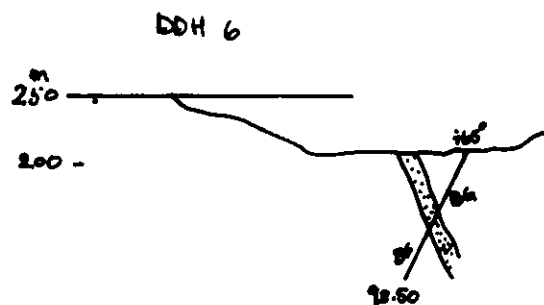
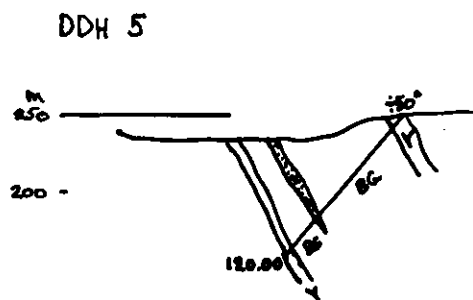


LEGEND:

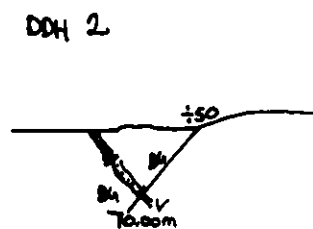
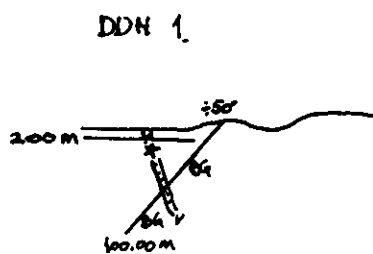
- FG Felsic Gneiss Dominated Trend (felsic gneisses >50%)
- A Amphibolite Dominated Trend (amphibolite >50%)
- MxG Thin Alternating Mixed Gneisses with Exhalative Features
- Medium Strong DIGHEM Anomaly
- ← Drill Site

 ARCO Norway Inc. Hard Minerals Section				
ESPELANDSMYR - GJERSTAD AREA GEOLOGICAL MAP				
Drawn/traced: TB, FB / AA	Date: Mar. 85	Centre: Oslo		
Report No:	Project No:	Drawing No:	Map Sheet:	Scale: 1:50 000

ESPELANDSHYR



EKÅLBERG



EXPLANATION

- "One" horizon
- Biotitic gneiss, felsic gneiss or amphibolite, intermixed
- Quartz rock (Chert)
- Felsic gneiss
- Diphen/VLF conductor



ARCO Norway Inc.
Hard Minerals Section



Diamond Drill Hole Log

DDH No: BAM - 84 - 1

Length: 100 m

Location: SKALBERG

Started: 17/10/84

UTM coordinates: 485265E, 6505245N

Completed: 18/10/84

Sheet: 1612-3

Remarks:

Az 350 °, Incl: - 50 °.

Core size: 3,5 cm

On site geologist: LONE BECH

Sheet 1 of

Explanation:

☐ See legend 1:5000
geological maps



SAMPLES

☐ 8405781 : 3700-3760
5782 : 3760-3850
5783 : 3865-4050

☐ 5794 : 4800-4850
5786 : 4900-5000

☐ 5795 : 5230-5310
5796 : ~4930 (massive pyrite)

☐ { 5784 : 4230-4360
5785 : 4400-4500
Assay (ref: AG)



+ traces
++ common
+++ abundant (>5%)

■ massive (>50%)

ga: galena

sl: sphalerite

cpy: chalcopyrite

po: pyrrhotite

py: pyrite

apy: arsenopyrite

carb: carbonates (specify)

chl: chlorite

gar: garnet

sill: sillimanite

tour: tourmaline

graph: graphite

qtz v: quartz veins

sil: silicification

Otherwise, use standard abbreviations.

Rec: recovery

Angle: angle to hole

Sheet 1 of 4

★ Angle to co-axial



(cm) From	To	% Rec.	Angle	Geology	Sulphides													Explanation
					ga	st	cpy	po	py	apy	carb	chl	gar	sill	four	graph	qtz v	
0	30	100																CR REXX QTE. BIO _{15%} (MUSC)
30	105	7					x						x					CH BAND: - QTE. FS? BIO. (GAR) - REXX QTE - FMGR AMP. FS. QTE. (GAR).
105	200									x								CH BAND: - QTE. FS? BIO - REXX QTE. (PY DISS, PY VTS)
200	300						x		x						x			(PY, CPY, GRAPH DISS)
300	380	50							x			x						CH BAND: - QTE. FS? BIO GNS - REXX QTE. (MINOR ONE-CH BIG GREEN FRAGMENTS)
380	385								xx									QTE BAND W/ PY DISS.
385	600						x		xx			x			x			CH BAND: - QTE. FS? BIO GNS - REXX QTE. (CH GAR. QTE BANDS) 1-2% PY IN BANDS + DISS
500	600								x			x			x			CH BAND: - QTE. FS? BIO GNS - REXX QTE
600	700						x		x			x			x			— " —
700	800						x?	x	xx						xx			— " — MEAN 0.5% + SULFIDES. LOCAL 3%. (GRAPH)
800	900								xx						xx			— " —
900	970								xx						xx			— " — MEAN 1.5% GRAPH & SULFIDES. LOCAL CH-BIG PY-AGGREG'S IN REXX QTE BANDS.
970	1020							xx	xx						x			CR REXX QTE. MGR BIO _{15%} PY. PO 0.5-1.5%.
1020	1100								x						x			FMGR BIO. QTE BANDS GNS
1100	1200								x						x			FOR BIO. QTE GNS. CH-DM REXX QTE. BIO BANDS 10%.
1200	1260								x						x?			FOR BIO. QTE GNS
1260	1330						x?	x	xx						x			CR QTE. BIO GNS & BIO GNS 1% PY. CROSSWUT PY/CP? VTS
1330	1400							xx	xx			x			xx			FOR BIO GNS (CR QTE. BIO BAND) 0.5% PO. PY. GRAPH
1400	1500								x		x	x			xx			FOR BIO GNS (— " —) 0.5% GRAPH, 0.2% PY, CC VT
1500	1600	40							xx		x				x?			FMGR BIO. QTE GNS, 10% CR REXX QTE. BIO BANDS, 0.5% PO, CC VT
1600	1900								x		x				x			FMGR QTE. FS. BIO GNS, QTE. BANDS 15%, MAX 0.5% PO LOCALLY. CC VTS
1700	1760								x	xx					xx			FMGR QTE. FS. BIO GNS, QTE BANDS 15%, GRAPH. PY. (PO) VTS, MAX 0.5%.
1760	1900								x	x?								FMGR BIO. Q. FS GNS, QTE BANDS 15%. MM PO. STRINGERS
1900	1950								x				x					— " —, GAR.
1950	2000	7							x									FMGR BIO. AMP. QTE. FS. GAR, QTE BANDS 10%.

DDH: BAM - 84 - 1

SKÅLSTRECK

ARCO Norway Inc.
Hard Minerals Section

Logged by: LONE BEGM

Sheet 2 of 4

(CM) From	(CM) To	% Rec	Angle	Geology	Sulphides													Explanation
					Py	Si	CPY	PO	PY	APY	Carb	Chl	Grt	Sill	Four	graph	Qtz v	
2000	2200	3						x	xx				xx			x		FMGR QTZ-FS, BIO-QTZ-FS GNS, BIO-AMPH 10%, CGR REXX QTZ-FS 10% PY VTS 0.5%, GAR 1-10%
2200	2300							xx	xx									FMGR QTZ-FS BIO GNS, QTZ BANDS 10%
2300	2400		50°					xx	xx				xx					———— " ———, AMPH w/ GAR 10% PO-PY Diss & VTS 0.5%
2400	2450							x	xx		x							AMPH-QTZ-FS-BIO GNS, MINOR CALCS & CC VTS PY-(PO) VTS 0.2%, LOCAL 1%
2450	2515																	MGR BIO-QTZ-FS GNS
2515	2550							x										MGR REXX QTZ-BIO
2550	2630						x?	xy	xy							xx		FMGR QTZ-FS-(BIO) GNS, GRAPH 2-5% Diss LOCALLY 10%, PY-PO-(CP) 2% VTS & Diss.
2630	2815								x							x		FMGR QTZ-(BIO) ROCK
2815	2885						x?	xx	xx							x		MGR TRECCIE LOOKING WHITE TO BLuish QTZ-GREENISH FS-BIO GNS, PO-PY 0.5-2% (CP-GRAPH)
2895	2910																	FGR QTZ-(FS-MUSC) ROCK
2910	2940						x	xx										———— " ——— (GREY GREENISH), PO-(CP) 3-5% PARTLY AS CH-AGGREGATES
2940	3000						x	x			x							FGR QTZ-(BIO-FS-MUSC) ROCK
3000	3100																	FGR BAND QTZ-CALCS? (BIO-YELLOW MUSC)
3100	3400 3200		10°					x	xx		x							———— " ———, 4 VTS PO Diss, PY VTS, LOCALLY 31.
3400	3500							x	xx		xx							———— " ——— CROSSCUTTING CALCS-CC-PY VTS
3500	3560								xx									———— " ——— CROSSCUTTING MN-PY VTS
3560	3580								xxx		x							FMGR TREHOLITE ROCK, 25% PY Diss, MANY MN-PY (see) VTS
3580	3610								xx									MGR TREHOLITE-FS ROCK, MN-PY VTS
3610	3675							x			x							CGR FS-(QTZ-TREM-(CC-PO) VTS)
3675	3700																	MGR BIO-FS? CALCS ROCK, GREASY
3700	3715								xxx		xx							FMGR ——— " ——— ? + CC, 25% PY AGGREGATES Dissim
3715	3760								x		■							MGR CC-GREEN ANKERITE, (PY VT)
3760	3772							■			■							BLACK ANKERITE-WHITE CC FRAGMENTS IN 50% FMGR PO MATRIX
3772	3800							xxx			■							FMGR CC-GREEN ANKERITE, PO 5-10% Diss
3800	3850							xx			■							———— " ——— + BLACK ANKERITE ON 2% Diss CONCENTRATED IN LENSES

DDH: BAM-84-1

Logged by: LONE BECH

Sheet 3 of 4

ARCO Norway Inc.

Hard Minerals Section

* Angle of bending to core axis



From	To	% Rec.	Angle X	Geology	Sulphides													Explanation
					ga	sl	cpy	po	py	apy	carb	chl	gar	sill	tour	graph	qtz v	
3850	3865	100%										xxx				xxx		FOR CC · GRAPH · SERICITE? SCHIST
3865	4050									xxx						xxx		FOR GRAPH · PY _{2-10%} (CC · SERICITE?) · ((QTE?)) SCHIST
4050	4100																	FOR QTE · ——— " ———
4100	4135					x			xxx									FOR BUD QTE · CALCS · GRAPH · PY · (CP?) STRINGERS 10% (SUBPARALLEL ^{TO} BAND)
4135	4200		15°								xx					xy		FOR QTE ROCK W/ CC · GRAPH STRINGERS
4200	4300								xx		xx					x		AND HGR BLUE QTE · FS · KFS ^{PO} STRINGERS, PY VTS
4300	4390								xx									MGR BLUE QTE · FS · (Bio) ROCK PY VT STRINGERS 1-2%?
4390	4600		25°			xx			xx		x							HGR AMPH, BLUE QTE AGGREG'S, FOLIATED, CROSS CUT. PY · (CP?) VTS 5-5% (HGR, CC)
4600	4800								x				x					FMR AMPH, LOCAL GRSY. (NEAN: TRACE) LOCAL PY VTS AT BOTTOM
4800	4850								xx		xx					xx		CALCITE ALTERED AMPH · PY _{2-5%} VTS, GRAPH 0.5-1%
4850	4905								x		x		x					AMPH (GAR, CC), (PY VTS)
4905	4965								xx		xx							CALCITE ALTERED AMPH, GREASY SCHISTOSE AMPH · CROSS CUT. PY VTS & VTS 10% (GAR FS · (QTE · Bio) BANDS)
4900	5000																	Bio · AMPH, GREASY SCHISTOSE, MN VTS
5000	5105		20°						xx		xx	xx						FMR AMPH, BLUE QTE, PARTLY CHLORITIZED, PY VTS, CC VTS
5135	5185																	GGR FS · (QTE · Bio)
5185	5230								xx		xx	xx						+ CC · EPIDOTE · PY VTS
5230	5310					xx?			xx		x	xx				x		HIGHLY ALTERED SCHISTOSE CHLORITE · Bio AMPH, PY _{2-5%} / CP? VTS, GRAPH · CC VTS. ONE QTE FRAGMENT W/ PO DISSIM.
5310	5330								xx									FMR Bio · QTE · FS GNS, PY VTS
5330	5485								xx		xx							FMR AMPH · GA 5%, PY · CC · EPIDOTE VTS 2%
5486	5540																	GGR FS · KFS · (QTE · Bio)
5540	5700		15°									xx						FMR (BLUE) QTE · FS · AMPH, PARTLY CHLORITIZED? SPHERE?
5700	5800								x		x	xx						——— " ———, SCATTERED EM BIG CHLORITE · PY FRAGMENTS, (PY · CC VT)
5910	5935								xx		xx							FOR QTE · (Bio) ROCK, EPI · CC · PY VTS
5935	6000		12°															BAND QTE · FS · KFS · AMPH, (CC VT)

SKÅLBERG

ARCO Norway Inc.
Hard Minerals Section



Logged by: LONE BECK

Sheet 4 of 11

From	To	% Rec.	Angle	Geology	Sulphides														Explanation
					ga	sl	cpy	po	py	apy	carb	chl	gar	sill	tour	graph	qtz v	sil	
6000	6200	100	15°	X								x							FMR QTZ.FS.KFS.AMPH + IM QTE ROCK, OM KFS.EPI.CE ALTERATION
6200	6300	T		X									?	xix					CHLORITIZED OR TREMOLITE.AMPH W/ IM COR KFS.FS (QTE.BIO) BANDS
6300	6400			X									?	ix					FMR SLIGHTLY CHLORITIZED AMPH (KFS.EPI BAND)
6400	6515			X															MGR QTE.FS.KFS.BIO ROCK
6515	6800		20°	X															FMR BIO.QTZ.FS SCHIST, QTE.FS AS APHANITIC SURGEN, CM MGR BLUE QTE.KFS.(BIO) LENSES 5%.
6800	6900			X															MAIN ROCK AS ABOVE. MGR BLUE QTZ.KFS.(BIO) LENSES 15%.
6900	7000	V	15°	X								x							MGR QTE.FS.BIO GNS W/ COR REXX.FS.KF LENSES 10%, CE TR.
7000	7015			X															FMR AMPH W/ BLUE QTZ.KFS GNS
7016	7100		60°	X															FMR BLUE QTZ.FS.AMP.BIO. (KF.CALES?) GNS
7100	7200			X															SAME ROCK, BLUE QTZ 75%.(CM BANDS OF COR KF.BLUE QTZ.FS. TREM?) 10%
7200	7300			X															SAME ROCK, QTZ 65%. KF.ETC.BANDS 30%.
7300	7400			X															FMR BLUE QTZ.(BIO.FS) 15-20%, MGR KF.BLUE QTZ.BIO 20%, OM AMPH SCHIST- BANDS 6%.
7400	7500			X															SAME ROCKS, KF.ETC.-ROCK = 5%.
7500	7510			X															MGR MAfic BIO SCHIST
7510	7900			X															FMR REXX BLUE QTZ _{80%} .FS.BIO KF.ETC.-ROCK 1-5%
7900	8000			X															FMR BLUE QTZ _{80%} .FS.BIO INCLUDING 30 CM WHITE REXX QTZ.ROCK+AMP!-TRACES
8000	9000			X															FMR BLUE QTZ 75-85%.FS.BIO.(AMP), MGR REXX -- " 90% -- " -- " MGR BLUE QTZ.KF.FS.BIO FMR " " "
9000	10000			X															MINOR FMR AMP.BIO.QTZ.FS.(GA) AS 8000-9000 CM SCATTERED FMR BIO GNS 15-20%, MINOR CARBONIZED AMP.BIO ROCK, CM MGR TREM.CE UTS.



Diamond Drill Hole Log

DDH No: BAM - 84 - 2

Length: 70 m

Location: SKALPERB

Started: 19/10/84

UTM coordinates: 48S125E, 650507 N

Completed: 20/10/84

Sheet: 1612 - 3

Remarks:

Az 314°, Incl: - 50°.

Core size: 3,5 cm

On site geologist: LONE BECH

Sheet 1 of

Explanation:



see legend to
geological map 1:5000



SAMPLES:

8405797 : 4230-4360 cm
5798 : 4400-4500 &
4900-5000 -



2115 : 5724-5734 -
(for W, ref: A6)



a_{TR}



+

++

+++



ga:

sl:

cpy:

po:

py:

apy:

carb:

chl:

gar:

sill:

tour:

graph:

qtz v:

sil:

Trace of a

Transitional boundary

traces

common

abundant (>5%)

massive (>50%)

galena

sphalerite

chalcopryrite

pyrrhotite

pyrite

arsenopyrite

carbonates (specify)

chlorite

garnet

sillimanite

tourmaline

graphite

quartz veins

silicification

Otherwise, use standard abbreviations.

Rec: recovery

Angle: angle to hole

DDH: BAM - 84 - 2 SKALBERG

ARCO Norway Inc.
Hard Minerals Section

Logged by: L GRAHL & L BKH Sheet 1 of 3

C From	To	% Rec.	Angle	Geology	Sulphides												Explanation
					ga	al	cpy	ps	py	apx	carb	chl	gr	sill	tour	graph	
0	125								x								Fmgr amph w/ em qtz veins + minor mt.
125	150																Mgr - cgr blue qtz green fs bio
150	190																Fmgr bio qtz chlorite(?)
190	410		20-30					x!	x!								Fmgr amph w/ a few qtz fs sweets py + mt or po in lower 80cm
410	450								x								py 0.1% diss
450	690		80						x		x	x					Fmgr amph ± bio, ± chl ± mt, ± cc.
690	780										x						Fmgr bio chl qtz fs ± talc schist & mgr rexx fs qtz ± talc ± calcs. Green amphib: sphene: tourmaline vein 1cm at 710 cm depth. cc - vt.
780	1000		50														Fmgr bio qtz fs (mgr). Aphanitic shiren of qtz & fs. (Muscov)
1000	1300		70								x						" " " " (cc vts)
1300	2000		75-80														Same rock. 5-10% kf lenses; ± sill
2000	2400										x						2-5% kf lenses; ± sill, cm scale folding
2400	2715		70								x						Fmgr bio qtz fs gns & schist (trace tremolite) ± sill, bio schist mafic 10%, kf gran lenses 10%.
2715	2810							xx									Cgr lf blue qtz (green fs. qtz/cales. musc) mgr Fe-oxide and po diss 1-2%, most in upper part
2810	2900							xx									Fmgr bio qtz fs schist ± sill, locally mt-rich (tuffitic texture) kf gran lenses 2-5%.
2900	3000		50														Same rock, ± mt, cm thin mafic bio schist bnds
3000	3095	100									x			?			Dark mgr bio qtz fs schist ± sill, qtz fs aggreg, cc vts, cm-scale isoclinal folding
3095	3237													?			Mgr bio qtz amph w/ qtz fs sweets, & sill joints. cm wide bio schist bnds
3237	3380							x	x		x	x	?				Fmgr bio schist gns, minor amph, ± talc, Cgr qtz fs & kf gran stringers 1-10%, sill; qtz (fs) vein 10cm, locally 2% po kpy stringers.
3380	3428		60					x			x	x					Fgr (bio) amph, few mm qtz fs vts. garn, pox
3428	3444								x		x						Cgr qtz fs (bio) 0.5%, irregular contacts, intensive vein?
3444	3700		70								x						Alternating dm bio schist, bio qtz fs gns, mgr qtz fs (bio), blue qtz sweets & qtz fs sweets, po py, ite, locally 5%.
3700	3762								x		xx					xx	qtz bio (fs?) gns w/ blue qtz slm, fgr fine laminar, Pyrr, 0-2% qt diss
3762	3769							xx			x						Cgr qtz fs (bio) w/ po stringers 0-5%

DDH: BAM-84-2 SKÅLBERG

Logged by: L. DECH & L. GRANL Sheet 2 of 3

ARCO Norway Inc.
Hard Minerals Section

From	To	% Rec.	Angle	Geology	Sulphides										Explanation				
					ga	sl	cpy	po	py	apx	carb	chl	gar	sill	hour	graph	qtz v	sil	
3769	3906	-						x			x		x			x			Fgr gts. (fs?) bio gns, minor blue gte lenses X _{TR} , P _{TR} , G _{TR} , M _{TR} in lower part
3906	4000	-						x	x		x					x			cgr gte. fs. bio, locally fgr. P _{TR} , P _{TR} , G _{TR} , G _{TR} vts & gte TR dissim
4000	4230	80°						xx	xx			4							Fugr bio. gte. fs gns, gte. fs bnds 20. gar 2%, graph 0.5-1%, P _{TR} , P _{TR} tr-0.5%.
4230	4300							xx	xx										Same rock w/ 15 cm amph, py 5%, (po) diss + eo vts
4300	4330								xx										Amph dominated, P _{TR} (po) diss 2-5%. & 0.5 cm crosscut vein
4340	4360							xx	xx		xx		x						Fgr. mgr fs. hem. gte rock (cc). cm big xx-fragments w/po diss. P _{TR} , P _{TR} diss generally 1-2%, One fgr cm ga. bnd.
4360	4400								xx										Fugr bio. gte. fs gns, P _{TR} vts
4400	4500							x	xx							x			Fugr bio. gte. (fs) gns. gte. fs sweets. P _{TR} (po, g) 1-2%. diss & thin bnds
4500	4600	70°						x	xx				x			x			Same rock, cm wide amph (ga) bnds, P _{TR} (po, g) diss + vts 0-2%, mean 0.5%.
4600	4700							x	x		x		xx			x			Fugr bio. gte. fs gns (fgr), scattered P _{TR} , P _{TR} (g?) diss & vts 0.2%, cc 4
4700	4800							x	x							xx			Same rock. gt 0.3% diss, P _{TR} , P _{TR} 0.1%.
4800	4900							x	x							x			Bio. gte. fs schist. gte. fs sweets 60%, P _{TR} , P _{TR} (g) 1%. One cm amph bnd
4900	5000							xx	xx				xx			xx			Same rock type + minor gar. Amph bnd 0-30% w/ garior. gte. fs sweets 15%. P _{TR} , P _{TR} (g) 1/5% diss & vts
5000	5065							x	x		x								Fgr bio. gte (fs?) gns w/ cgr g. fs sweets (cc) + P _{TR} , P _{TR} boudgers + trace sphene.
5065	5105								x										Fgr amph ± gte
5105	5110										x								Dark fgr bio. gte (± fs) - cc trace. sphene trace
5110	5330	80°						x	x		x								Fgr amph ± gte ± bio, gte. fs vts 1% locally bio rich.
5330	5370										x				?				Fgr } bio gns mgr }
5370	5452							x	x		x								Mgr amph, partly fragmented by mgr gte. fs. (bio) veins dm wide, foliation defines a fold.
5452	5710								x		x	x	x						Mgr bio gns ± amp, transitional to mgr bio amph ± gte, gar _{TR}
5710	5830							x	x		x	x							Alternating dm wide bio. gte. fs gns + cc _{TR} , P _{TR} , cc rich bio schist, amph ± bio - locally ultramafic. P _{TR} w/ trace.
5830	5900								x										Dm amph mgr alternates w/ minor bio gns/schist, gte. fs bnds 1%, (Mn)

DDH: BAM-84-2 SKÅLBERG

Logged by: L GRAHL & L BECH

Sheet 3 of 3

ARCO Norway Inc.
Hard Minerals Section

From	To	% Rec.	Angle	Geology	Sulphides														Explanation
					ga	sl	cpy	po	py	apy	carb	chl	gar	sill	hour	graph	qtz v	sil	
5900	6000									x									Fugr (bio)-amph, ultramafic at top, mm fs laths, py vtr, qtz fs vt traces
6000	6050									x									Fugr ch. bio altered amph, PYTR
6050	6100								xxxx										Fgr am bnd trem-amph. qtz fs (ga), crosscut cc-epi-(py) vt. Concordant mm py & po bnds (c.o.g.)
6100	6185								xx xx										Same rock ok., fgr sphene dissim. 5cm bluish qtz fs rexx (albite?)
6185	6200								xx		x								Fugr amph (ch/trem), py 1% diss & um bnds, cc vls
6200	6265								x		x								Same rock, bnd, fs py, cc vls
6265	6318																		Mgr rexx fs (kf. qtz) & (thin bio schist bnds)
6318	6400								xx		xx								Fugr bnd (bio-chem. amph. qtz fs. cc rock w/ cc. py vls (sphene. calcs. qtz fs bnd & lenses))
6400	6500								xx		xx								Fugr bio. qtz fs gns & chem. cc schist (local qtz. trem. cc, local fgr soft gray cc + qtz? - rock at bottom)
6500	6760								x		x								Rexx qtz rock & bio, chl, calcs vls diss cc vls, 1 py vt & diffuse bnd
6760	6815										xx					xx			Fgr grey qtz rock, graph: diss & cum zones of fgr soft gray graph & calcs + cc schist, bnd & calcs diss around & white mm. em cc fragments
6815	6977		85°						x		x								Very fgr felsic qtz fs (bio) (calcs). fgr lenses & aphanitic shren of qtz fs (calcs). cc. py vls
6977	7000																		Mgr greenish fs. (light kf. blue qtz) (bio? calcs?) - rock

32



Diamond Drill Hole Log

DDH No: BAM - 84 - 3

Length: 71,90 M

Location: ORMSHAMMER

Started: 24/10/84

UTM coordinates: 485820 E, 6507745 N

Completed: 25/10/84

Sheet: 1612 - 3

Remarks:

Az 310 °, Incl: - 65 °.

Core size: 3,5 cm

On site geologist: LONE BECH

Sheet 1 of

Explanation:



LEGEND: SEE LEGEND
TO GEOLOGICAL MAP
1:5000 (ESPEL - GJERSTAD AREA)

+

traces

++

common

+++

abundant (>5%)



SAMPLES:



massive (>50%)

8405787 : 6400 - 6500 CM
5788 : 6500 - 6600 -
5789 : 6675 - 6710 -
5790 : 7160 - 7190 -

ga:

galena

sl:

sphalerite

cpy:

chalcoppyrite

po:

pyrrhotite

py:

pyrite

apy:

arsenopyrite

carb:

carbonates (specify)

chl:

chlorite

gar:

garnet

sill:

sillimanite

tour:

tourmaline

graph:

graphite

qtz v:

quartz veins

sil:

silicification



Otherwise, use standard abbreviations.

Rec: recovery

Angle: angle to hole



DDH: BAM - 84 - 3

ORMSHAMMER

ARCO Norway Inc.

Hard Minerals Section



Logged by: LONE BECH

Sheet 1 of 2

Cm From	Cm To	% Rec.	Angle	Geology	Sulphides													Explanation
					ge	al	cpy	ss	py	apb	carb	chl	gar	sill	tour	graph	qtz v	
0000	0100	100									x							Cm-dm alternating fine bnd amp (mt) & fgr bnd qtz-bio (st-calc + mt. egr kf-qtz (bio)-bnds 20%. cc-vls TR
0100	0200		5°						x		xx	x						Cm-dm alternating fgr ampbio + mt & fgr qtz-bio-fs gns 25% + mt & egr kf-qtz 5%, trem-chl TR, cc vls 0.3%, pytr
0200	1000		60°					x	x		x	x						Alternating fgr ampb (dominating) + mt & bio gns + mt & kf granitic gns. At bottom - bnds of felsic gns & chert pytr, pytr, cc vls TR, kf-epid stringers, trem, chl TR
1000	1100																	Ugr kfs-qtz (fs) 75% + mt & fgr ampb + mt
1100	1110							xx?	xx?									Fgr bio-qtz-fs gns + mt py/po? 1.5-2%
1110	1310		65°					x	x									Same rock & kfs granitic stringers + bnds, py/po? TR + mt
1310	1400								x		x							Fgr bio-qtz-fs gns, mt, pytr cc vls TR
1400	1425										x							Ugr "ultramafic" ampb (+cc), Mu(?) - vls
1425	1435																	(green ankerite + (gar?) - ampb + mt rock w/ cm chert fragments
1435	1500			x					x		x							Fgr (greenish) ampb + mt & kf gran 5%. Be vls TR, py vls TR
1500	2405		60°															Fgr felsic bio gns & bio gns & ampb & kf gran gns & minor chert bnds, gar 0.5%, + mt, cc vls, chl TR, pytr, local cc ampb, - - - more abundant downwards
2405	2505		25°															Fgr qtz-ab? bio, foliated
2510	2550		65°						x		ax	x	xxx					As 1500-2405 cm
2550	2825								xx				xxx					Fgr ampb, garo-20%, py vls 2%
2825	3000								xx		xx	xxx						Alternating dm fgr ampb ± gar (max 20%) w/ chloritized margin + py diss. & Fgr bio-qtz-fs gns qtz-fs streaks 20% py ± Mn vls, py diss 2%
3000	3100		60°					x	x	xx								Alternating cm-dm bio ampb ± chl, hem & fgr trem-qtz (st) (cc) rock, chert bnds py diss 1%, po-eptr 0.2%
3100	3265																	Alternating ampb ± bnd, bio, qtz, & bnd chl ampb-qtz-fs gns 10%. Small folds
3265	3400								x									Alternating dm bio ampb & bio qtz-fs gns & mgr rct qtz-fs (bio) rock 25%, py TR
3400	3500								x		x	xx						Fgr bio-qtz-fs gns, locally mgr; local chl clay alteration; chert TR; pytr; cc vls TR
3500	3735		70°						xx		x				x			Fgr bio-qtz-fs gns, minor fs-qtz bnds rct, py py vls 1-2%, cc vls, calc TR, gtr
3735	3895								x									Fgr qtz-fs bio (calc?) & fgr ampb 10% mgr rct qtz-fs bnds 5%, local clay alteration

DDH: BAM - 84 - 3 ORMSHAMMETR

ARCO Norway Inc.
Hard Minerals Section

Logged by: LONE BECH

Sheet 2 of 2

				Sulphides														Explanation	
From	To	% Rec.	Angle	Geology	ga	sl	cpy	po	py	epy	carb	chl	gar	sill	tour	graph	qtz v		sil
3825	4220	100	65°						xx		xx	x	xxx						Fingr. amph w/ 0-2% gar ± bio, chl & minor Fingr. bio. qtz. fs. gns, cc vls, py vls qtz. fs. sweets 0-30%
4220	4600								x		x	x	xxx						Alternating fingr. qtz. fs. bio (musc) gns & kf gran sweets 10-15% amph + gar 20-30% & chl. amph; cc vls, py
4600	5000		65°						x		x	x	xxx			x			Alternating bio. qtz. fs. gns amph. gar 0-30% kf gran gns: epi, chl. py tr, (graph tr), cc vls tr
5000	5300		65°								x					x			Alternating fingr. chl. bio. amp. fs. qtz schist gns, gt 0.2% & chl. amph & kf gran sweets & qtz. fs. sweets; cc vls tr
5300	5400								x							xx			Same rock types; 1-2% gt. varnish (+ Mn?) - planes ± striations, py flakes
5400	5460															xx			Fingr. greasy chloritized bio? epi. kf. (fs?) (white clay) w/ network of Mn? gt. varnish vls
5460	5500			x							xx								Fingr. chl. amph w/ fingr. kf. (fs. qtz?) bnds; cc vls common
5500	5600			x							xx	xx				xxx			Same rock etc. + epi, chl. 2-10% fgr gt diss
5600	5700			x												x			Fingr. chl. amph, & gt (locally 1-2%) kf gran stringers 5%, chert bnds 2%
5700	5750		70°						x							x			Fingr. bio. musc. qtz. fs. (kf) schist py 0.2%, graph tr
5750	6000								x		xx	x							Fgr. mgr. "ultramafic" Amph, gar 15-30% chl. kf. qtz. fs. (bio) sweets & fingr. kf. qtz. fs. epi. chl. from cc vls 0.2%, py tr
6000	6200																		Alternating dm. 0.5 m wide: Fingr. chl. amph + gar 10-30%, gt tr & Fingr. chl. bio/amp. musc. kf. fs. qtz schist 0-25% gt diss. & chert bnds 1%, cc vls tr - minor
6200	6370		65°	x x								xx							Alternating chl. amph 60% & chl. amp. kf. qtz. fs. schist & mgr. kf. qtz. fs. chl. bio. musc. schist gt mean 0.5% (locally 1%) py - 0.1% (- 1%)
6370	6400								x							xx			Fingr. chl? bio? qtz. fs. (kf) gns/schist, gt varnish planes 2%
6400	6440			x												xxx			Mgr crushed soft gray gt. clay rock & minor mgr. kf. qtz. fs., gt 5-15% (?)
6440	6500															xx			As 6370 - 6440 Aphanitic qtz bnds 10%, gt varnish 5%
6500	6565															xxx			Same rock, crushed gt varnish 5-15%
6565	6600												xxx			xx			"", more coherent ± gar (max 15%)
6600	6675											xx				xx			Fgr. mgr. chl. Amph & chl. amph. kf. fs. qtz schist, gt minor - tr
6675	6710											xx?				xxx			Fingr. dark gray (chl? amp? bio. qtz. fs.) gt varnish 15-20% schist, crushed
6710	7160		55°						x			xxx				xx			Fingr. chl. amph ± gar 15-20%, gt tr - transition to: chl. amp. bio. qtz. fs. gns - schist, gt diss 1% - locally 3-5%, py tr, chert 5%
6800	6960																		Reex qtz rock (chert)
7160	7190															xxx			Same rock, crushed, gt varnish 5% + clay alteration



Diamond Drill Hole Log

DDH No: BAM - 84 - 4

Length: 115,50 M

Location: ASKEKERR, ESPELANDSMYR

Started: 26/10/84

UTM coordinates: 487235 E, 650916 S N

Completed: 28/10/84

Sheet: 1612-3

Remarks:

Az 313°, Incl: - 60°.

Core size: 3,5 cm

On site geologist: LONE BECH

Sheet 1 of

Explanation:

☐	see geological map legend + 1:5000	traces
		++ common
		+++ abundant (>5%)
☐	SAMPLES :	■ massive (>50%)
	8405791 : 6660-6705	ga: galena
	5792 : 7300-7400	sl: sphalerite
☐	5793 : 7600-7700	cpy: chalcopyrite
		po: pyrrhotite
	2116 : 5240-5248 } w! py: pyrite	
☐	2117 : 10111 - 10118 } ref: apy: arsenopyrite	
		carb: carbonates (specify)
		chl: chlorite
		gar: garnet
☐		sill: sillimanite
		tour: tourmaline
		graph: graphite
☐		qtz v: quartz veins
		sil: silicification

Otherwise, use standard abbreviations.

Rec: recovery

Angle: angle to hole

Sheet 1 of 5

4-MARKER ZONES

[illegible]

DDH: BAM-84-4 AGNEKTEK

Logged by: LONE ROCK

Sheet 2 of 5

ARCO Norway Inc.
Hard Minerals Section

HARDER ZONES

HANGWALL AMPHIBOLITE

From	To	% Rec.	Angle	Geology	Sulphides													Explanation
					ga	al	cpy	po	py	asp	carb	chl	gr	sill	tour	graph	qtz v	
3400	3705							x	xx		x							Fluor (bto amp?) qtz fs gns, dm-5 dm bto chert 15%, One cm-gr bnd at bottom, gar 10-50%, ce vtr, py(p) diss 1%
3705	3735																	Mgr vtr qtz fs (bto) chert
3735	3900							xx	xy									Fluor bluish qtz (eyes) (fs?) bto schist po.py diss 1% (mean 0.3%), & Very fgr brown bio qtz fs gns & mgr ditto solute, po 0.5% diss, mgr chl/hem. qtz fs (cd) py vtr & bio qtz fs gns, mgr qtz fs (bto) chert buds 30-50%, po tr
3900	4000							x	xx			xx						Thin alternating fgr bio qtz fs gns & qtz fs bto gns, bio qtz amphi (± chl), chert 15%, py vtr tr 0.5%, po tr diss
4000	4100							xx			xx	xx						Alternating dm-1/2 in fgr bio qtz fs gns ± bnd (most mafic, least bud) fgr amphi ± bio qtz (mgr qtz ± fs chl amphi ± calcso ce, bio po aggregates) 20% po 0.5-1% (max 5%)
4100	4320							x				xx				x?		Alternating transitional 1/2 m(?) fgr dark bio qtz fs gns & fgr qtz fs amphi ± chl, bio & mgr qtz hem (± fs po) - Sweeds 2% po tr, graph? tr
4320	4350																	Mgr vtr qtz (fs?) bto
4350	4500							>	x		x	xy						Fgr (bto) amphi ± qtz, chl, dm slim chert/bnds few % hem tr de tr py po
4500	4740								xx	x?								Same rock, more bio chl, more bnd, py vtr 0.5% - Aspy tr?
4740	4780									x	xx	x			xx			Same rock, crosscutting fgr tour-de- ± chl/hem - Aspy tr vein w/ green chl/hem alteration envelope.
4780	5000							x	x									Same rock, distinct dm bnd defined by brown mnd, chl/hem? & vtr qtz bnds, py-pote

DDH: BAM-84-4

ARCO Norway Inc.

Hard Minerals Section



Logged by: LONE PERUM

Sheet 3 of 5

From	To	% Rec.	Angle	Geology	Sulphides													Explanation
					ga	sl	cpy	po	py	apy	carb	chl	gar	sill	tour	graph	qtz v	
Can	5100																	Fgr gte. amphib & can thin brown mica schist bnds 10%, P ₂ Te
5100	5200							x	xx							x		(in alternating as above & bio. gte. schist. P ₂ Te, P ₂ Te, CC, H ₂ Te
5200	5300							xx	xx							x		Can-dm alternating as above & mgr. rct. felsic gte. + minor swells po. for diss 0-2%, 90% P ₂ vts 0-3% graph. Te
5300	5385																	Same rock, amphib dominated
5385	5420								xx		xx							Ditto, CC vts 10-20%, P ₂ vts 1-2%
5420	5500						x	x	xx		x				x			Fgr gte. amphib can-min cherts 10%, brown mica schist 10%, P ₂ Te vts (E diss. in chert) (po, cpy) diss, cete, trem. Te
5500	5600								xx (xxx)							x		form. fibrous amphib. py 3% bnds at 80+90 Fgr dark bio. gte. & cherty bio. gte. & minor amp. gte. schist. graph. Te 00-36: P ₂ 1-2%, 35-100: P ₂ vts stockw. 3-5%
5600	5700							x?	xx		xx					x		Fgr dark bio. gte. P ₂ 1-2% diss in upper third. Below this: an altern. bio. gte. & amphib. schist + cc, P ₂ po. int. graph. Te, 1 cc. py vein
5700	5770							x?	xx									Fgr an bnd cherty bio. gte., P ₂ 0.0% vts, po. int. 0.1-0.3% diss
5770	5800																	Fgr bio. gte. amphib & 5 an apheitic gte. bnd
5800	5900																	Same rock grading into bnd for bio. gte. 20-46: Irregular, partly crosscutting an. calcs - cc alterations (?) & an. chert lenses (<10%) P ₂ P ₂ Te/mite, graph/gte? Te-minor 0.2%
5900	6000							xx			x							Fgr bnd amphib & chl dominates & bio. schist bnds & chert bnds 3%, calcs. po. (cc) bnd 1%.
6000	6100								xx							xx		Fgr amphib (gte. bio?) & fgr felsic gte. alternating, P ₂ & graph vts 0.5-1% (P ₂ 1-2%
6100	6155								xx		xx					x?		Fgr bio. gte. fs gte., mgr. gte. lenses & stringers, mgr. lfs eyes 10%, cc vts & edges, P ₂ & graph vts & diss 2%
6155	6200										xxx					xxx		Totally crushed fgr clay. gte. fs. cc. graph. calcs rock, graph 2-5% P ₂ Te
6200	6360								xxx							xxx		Fgr bio. gte. fs gte., mgr. gte. vts & eyes, mgr. graph. py vts, dense horse-tail stockwork, 3-5%
6360	6420							xx	xx							xx		Fgr bnd bio. gte. fs gte., P ₂ vts, P ₂ graph. po. diss 1-2%

GRAPH
↑
CARBONATE ZONE
↑

A SWEATER

Sheet 34 of 45

Hard Minerals Section



From	To	% Rec.	Angle	Geology	Sulphides										qtz v	sil	Explanation
					ga	sl	cpy	po	py	apx	carb	chl	gar	sill			
6420	6900				x?	(xx?)	x	xx									Dm-½ in alternating dolomite & dm/chl amph & bio qns & tourtr po 0-2% diss, po-op vls 0-½%, sltr-2%?, ga tr
6900	7000				x?	x?	x	xx									Fmgr chl/dm amph + gar ± qtz. op tr & fmgr bio qns + gar. ce tr & po ops-1%, graph? - ga? - sl? - op tr
7000	7155				x?		x	xx	xx								Fmgr bio. qtz. fs gns ± amp. chl (dark), py 0.5%. vls & diss, po-graph 0.3-1% diss, op tr. ga tr?
7155	7200																Bnd fmgr cc. gar. calcs/ank. bio. amp qtz. fs, partly fragmented, po diss 2%
7200	7300					x?	x	xx									qtz. fs. bio qns ± bnd, gar 0-10%, cc common
7300	7400				x	>		xx									Alternating felsic qns, bio. chl? amph, cc. calcs (most abundant at depth), locally — — bnds w/ ga 0.5%, sl? tr; po 0.5%
7400	7500							x									Alternating fmgr bnd amph & cc. calcs & bio qns, gar, po tr
7500	7600																Fmgr amph ± chl. dm. cc. gar & minor bio qns & mgr dm. qtz. gar. cc & Rexx qtz vls & bnds 2%, po 2%
7600	7700				x?		(no)	x									Fmgr bnd bio qns ± dm/amph 80% & Fmgr bio amph w/ trem/chl. cc alteration potr, py vt & Rexx qtz. bio bnd, po 1% diss, mean: gar 0-5%, po 0.2%, cl tr
7700	7800						x	xxx									Fgr bio qns, chert bnds 10%, po diss & bnds 0.5-10%, mean 5%, cl tr
7800	7900							xx									Fgr bio qns, po diss 1-2% & Cm bnd. folded/fragmented chert. cc. calcs. gar. chl/dm. bio, po ½% & fgr bio amph. chl!, po 2% diss
7900	8000					x?		x									Fmgr (± bnd) bio. chl. amph & nox bnd qtz. cc. calcs. gar. dm/chl. tour?, potr-1% - mean 0.2%, sl tr,
8000	8300							x									Fgr amph ± bnd, scattered am bnds of cc. calcs. gar ± tour? ± po (0.5%) 5%
8300	8900				x?	x?		x									Fmgr bnd amph ± chl. cc. qtz. gar & cc. amph. gar. calcs w/ potr (42%) - ga? tr sl tr?, crosscutting cc vms.
9000	9400							xx	xx								Fgr bnd amph ± bio. chl. qtz. petr. petr. chert 5% Fgr clark bio. amp. qtz. fs gns, 1dm w/py vts, potr = 0.6%, cherts 5-10%
9400	9500							x									Same rock → felsic bio qns & potr cherts 0-6%
9500	9600							x	xx								felsic bio qns ± clayish? alteration & py vts - stockwork 2% potr
9600	9850									x							Dark fgr bio/amp gns. & minor dm- amph ± chl (chl/calcs - bnds, gar, py vt tr) ↓ qtz-fs sweets = 5%, cherts 2-3%
9850	9910									x							greenish bluish chl/dm? amph ± qtz, py vt tr
9910	10000																Alternating bio qns & fgr bio. amphib ± qtz

DDH: BAM-84-4

Askeljarr

ARCO Norway Inc.

Hard Minerals Section



Logged by: Lone Bech

Sheet 45 of 45

MARKER ZONES

CHERT

FOOTWALL

SILLIMANITE

From	To	% Rec.	Angle	Geology	Sulphides										Explanation				
					ga	sl	cpy	po	py	apy	carb	chl	gar	sill	tour	graph	qtz v	sil	
100	101	100	65						xx				xx			x			Fmgr dark bio-qtz-fs gns, bnd; tga minor bio-amph; py vts 1-2%.
102	103						x	xx	xx							x			Fmgr chert 60% - bio schist, py vts 1%, po-(ep) vts 1%, graph.
103	105		60				x					xx	xx						Fmgr bio-amph ± qtz-gar. w/ fs. qtz sweats 20% + opte & cherts 10%.
105	108							x	x										Alternating dm fmg qtz-bio gns & (bio)-chert & cherty bio-(amp)-schist, py-po TR's
108	110		50						x										Fmgr bio-qtz chert ± bnd, kf TR py TR
110	114		70						x					x					(bio-musc-fs-kf) chert, bnd 3 py TR bnd cherty qtz-bio-misc-(sillimanite) gns
114	115.5								x			xx	x		x				Fmgr chl-amph w/ one or two qtz-tourm vns. Cn qtz-fs-amp sweats. ± gar TR. py TR



Diamond Drill Hole Log

DDH No: BAM - 84 - 5

Length: 12000 M

Location: HAREHOLTA, ESPELANDSMYR

Started: 31/10/84

UTM coordinates: 488265E, 650885N

Completed: 2/11/84

Sheet: 1:50000: 1612-3,

Remarks:

Az 310 °, Incl: - 50 °.

Core size: 3,5 cm

On site geologist: LONE BECH

Sheet 1 of

Explanation:

☐ See legend 1:5000 & geological maps

☐ SAMPLES FOR ASSAY:

8405853 : 3500-3600 CM

5854 : 1670-1700 -

5855 : 9172-9183 -

5856 : 9615-9720 -

5857 : 9735-9785 -

2118 : 6243-6248 -

(AG, for W assay)

+ traces
++ common
+++ abundant (>5%)

■ massive (>50%)

ga: galena

sl: sphalerite

cpy: chalcopryrite

po: pyrrhotite

py: pyrite

apy: arsenopyrite

carb: carbonates (specify)

chl: chlorite

gar: garnet

sill: sillimanite

tour: tourmaline

graph: graphite

qtz v: quartz veins

sil: silicification

Otherwise, use standard abbreviations.

Rec: recovery

Angle: angle to hole

DDH: BAM - 84 - 5

HAREHOLTA, ESPELANDSMYR

ARCO Norway Inc.

Hard Minerals Section



Logged by: A. GEYTI & L. BECH

Sheet 1 of 4

From	To	% Rec.	Angle	Geology	Sulphides													Explanation
					sp	sl	cpy	po	py	apb	carb	chl	gr	sill	hour	graph	py	
0000	0100	100	50°	x x								x	(n)					Epi. gran. gns w/ pink concordant kfs, hairline - 1/2 cm calc vts, esp. common - 20-65. chl tr, cc tr
0100	0200		50°	x x								x	(n)					Same rocks. 144: kf gran gns
0200	0300		60°	x x									(n)					kf gran gns 280-289: vuggy brecciating epi vn
0300	0400		58°	x x							x		(n)					Epi. & kf gran gns, minor gran gns - (gte vt, cc vt)
0400	0500		60°	x x								x	(n)					Epi gran gns & gran gns (gte vts)
0500	0600		50°	x x								x	(n)					Same rocks
0600	0700			x x					x		x	x	(n)					Same rocks (cc tr, py tr)
0700	0800			x x					x			x	(n)					kf gran gns & gran gns (gte vns w/ vuggy zones, epi. chl, brecciating)
0800	0900			x x					x				(n)					Same rocks 15% gte vns
9000	1000		60°	x x							x	x						Same rocks. (cc vt)
1000	1100		60°	x x														Fugr amp. gte fs. (kfs) gns (slight clay-altered), am gte fs. (kfs) - & kf. gte chert & sweets 15%, cc. (gte) vns & slingers & fragment?, Jarosite paint 5% (epi) vts.
1100	1200			x x														Ditto. ± bio, sweets & cherts < 5%, Jarosite gte vts slightly vuggy
1200	1500			x x														Ditto + etc. kf. gte fs. amp 10% w/ transitional boundaries, py 0.5, cc 0.3%.
1600	1600			x x					x x		x x	x x						Ditto. py 0.5-1% diss, cc vt 1-2%
1600	1700			x x					x x		x	x x						Ditto. py 0.3%, cc vts 0.2%.
1700	1800			x					x		x x	x x						Ditto. cc vts 1%, mt tr
1800	2000			x					x		x							Ditto, kf gran slingers tr (kf fs) gte chert 1 bnd, Jarosite paints ± silivation ± py diss around (↑ 1%) mean = tr, cc tr
2000	2200		65°	x				x	x x		x	x x						Fugr bio gns ± amp; chl ± bnd, em-dm kf gran sweets ± chl, py 10%, cc tr 2000-2110: py (po) 1%, 2110-2200: py tr
2200	2400			x					x x		x	x x						Fugr chl. gte fs. (bio/amp?) gns, py 0.5-1% & amp. chl. gte fs ± kf epi gns 30% py tr & em kf gte fs ± epi. py. cc bnds 1%
2400	2600			x					x		x	x x						Fugr amp gns ± bio. chl. epi. kf & Mgr em-dm kf gran gns ± epi. py. cc & cc ± kf vts, mean py tr.
2600	2700			x														Fugr amp gns & rock em bnds of vts (bi. fs) 10%.

DDH: BAM-84-5

HAREHOLTA, EBPELANDSMYK

ARCO Norway Inc.

Hard Minerals Section



Logged by: LONG BECH

Sheet 2 of 4

CM From	CM To	% Rec.	Angle	Geology	Sulphides											SAMPLE	Explanation
					gr	sl	cpy	po	py	apy	carb	chl	gar	sill	tour	graph	
2700	2800										x						Alternating clin fmgv Amph + qtz ± chl & bio gns, qtz fs buds 5%, cc vt TR
2800	2960										x	xx					Fmgv Amph ± chl bio mt, qtz fs sweets 3%, cc vt TR
2960	3025		60°						x		x	xx					Fmgv qtz kf bio mt ± epi/chl cc vt TR) PY TR
3025	3300								x								Fmgv Amph ± bio mt chl & minor amp gns ± bio chl, qtz fs ± kf sweets 1%
3300	3400																Fmgv chl qtz fs (amp/bio) gns, 70 TR CP TR (chl Amph)
3400	3700								xx		xx	xx					3500 Fmgv Amph + chl & kf epi qtz fs (mt) gns 10%, intense network of cc qtz ± py; py locally diss, 3500 - py 2% Amph + chl (bleached), local kf gran epi, local horsetail qtz vns, py diss 1.5-2%, mgr fs qtz kf sweets 10%
3700	3755								xx		x						Amp gns + mt ± chl, 3755-3820: 0.5-1% py diss, Fmgv chl Amph ± mt ± qtz, bud cc vt TR, PY vt TR
3755	3925								x		x						Amph + chl, cc in cm wide
3925	4020		66°								xx	xx					Amph ± chl + mt
4020	4100											xx					
4100	4385			x								xx					Fmgv Amph ± chl, kf epi buds 5%, cc vt TR, horsetail epi vts locally, PY TR
4385	4435			xx								x					Fmgv kf (qtz fs) gns + epi vts
4435	4800			x			x				x	xx					Fmgv Amph ± chl ± mt 4518: 2 cm amp qtz cp vns 4645-4650: Dense fgr aphanitic qtz vns brecciating the rock; at each side ~10 cm w/ 2% py/po? diss, kf epi/chl + mt? in same zone. Cn-dn mgr kf gran ± mt 5-10% CP TR
4800	4900										x	x	x				Fmgv Amp. kf gran gns
4900	5000		66°						x		xx	xx	xx				Ditto. kf gran gns + gar 10%-50%, horsetail cc qtz / qtz chl epi 5%, PY TR
5000	5275								x		xx	xx	x				Alternating Fmgv bud qtz fs chl gar. amp gns + cc vts 2% & minor fmgv Amph ± chl; py 0.2% (+1%)
5275	5295						xx	or	xx				xx				Fmgv bio Amph w/ 15% gar, PY ap 1.5%
5295	5400						x	or	x		xx	xx					Very fgr bio (qtz fs) schist & chl amp schist. Cn chert buds 2%, PY/CP TR, cc vts
5400	5540								x	x							Very fgr grey felsic schist w/ chert buds & lumps. 5425-5455: dense vst fractures, PY TR, 5488: mm buds of Aspy?
5540	5700								xx	x	x		or			x	Fmgv greasy bio gar (amp) chl schist. Dense varnish fractures w/ rns, ± py 0.5-1%, graph? TR / Aspy TR, qtz feat. hermits, cc vt TR
5700	5765								x	x						x	Fmgv grey greasy bio qtz fs (kf) schist. Tusklike pyro. Arash? no?

DDH: BAM - 84 - 5

HAREHOLTA, ESPELANDSMØR

ARCO Norway Inc.

Hard Minerals Section



Logged by: LONE BECK

Sheet 3 of 4

From	To	% Rec.	Angle	Geology	Sulphides											SAMPLER	Explanation
					ga	sl	cpy	po	py	apx	carb	chl	gar	sill	hour	graph	
5765	5800			////												x?	As 5700-5765, very soft clayish schist (+graph?)
5800	5955		65°								x		xxx				Fugr greasy clayish bio. chl. amph schist ± w/20% gar, pyrr, cc vts 2-5%.
5955	6010								x		x					x?	Few dm qtz. kf. fs (bio/amph?) grading into greasy bio. qtz. fs schist, pyrr, graph?
6010	6060			////					x		x?					x?	Totally crushed grey clayish schistose rock, pyrr, graph?, cc common (from drilling mud?)
6060	6100															xx	Bio. qtz. fs schist, greasy, graph 0.5-1.5%.
6100	6200												xxx				Fugr amph & bio. qtz. fs gno, gar 10-30%, qtz. fs bnds 5%.
6200	6820						x	x	xx		x					x?	6243- 6248: UV- reaction Bio gns/schist, py vts & diron, (po. cptr) (1.2%, mean: 0.3%) chert bnds 5%, alternating w/ fugr chl/teu amph (30-30%) gar 10-10%, graph?, cc vtr, qtz. fs sweats & chert 10%.
6820	7000		50°									xx					Fugr amph + chl, qtz bnds & vts 1%
7000	7440								x		x	xx				x?	Fgr amph ± bio. chl. qtz. cc tr 5 cm vtr qtz. fs. amp. cc vms + fragments 2%, py vts & diss. re graph?
7440	7915		65°						x		x	xxx					Fugr amph ± chl, qtz. (fs) bnds 1% (qtz feather vts), py 1.2%, At bottom cc bnds vts Fgr bnd qtz. (fs: bio) grey, py vts 0.5-1%, locally po. cp 2% - mean 0.2%, alternating w/ mgr. bio amph ± chl ± cc 1%
7915	8000						x	x	xx		xx	xx					Fugr amph ± bio. chl. cc scattered em chert, qtz. fs sweats, qtz. fs. amp. cc. gar sweats, qtz. feather vms, pyrr diss. in amph & sweats, cc = 2-5%.
8000	8600		70°						x		xx	x	x				
8600	8700										x						On interbnd chert & amph (1:1), minor bio gns, cc vtr
8700	8880										x		xxx				On interbnd amph & bio gno & chert 10% w/ gar, tr-30% - eyes, cc tr
8880	8968								xx		x		xxx				Ditto chert & qtz. fs sweats 30%, po 2.5%, w/ qtz. amp. gar. po bnds & qtz. fs. (bio), bnd & chert & minor bio gns + gar, po. py 1.5% diss. bnds
8968	9030								xx	xx			x				Fgr bio gno, 5-10% gar, po 1% diron, cc vtr
9030	9065		80°						xx		x		xxx				Mgr qtz. fs sweats → bnd chert (minor bio gno) gar tr, qtr, po/py vt & diron. Upper 1-2 dm: 1-2%, lower part 0.5%.
9065	9170						x	xx	xx		x		x				
9170	9615						(x)	x			xx	xxx	(xx)				bio gns 10% + gar 10% ± po 1%, qtz. fs. sweats 20%, amph ± chl ± cc ± po tr 63%, w/ 0.5 cm po stringers 5-10% in 9172-9183 cm, chert bnds 2%, qtz. fs. cc. chert. gar. amp bnds < 5%.
9615	9720		70°		x	(x)	x	xx			xxx	xx	xxx				On bnd partly spotted textured amp. qtz. fs. cc. oabs. gar 0%, po 1-2%. diss. qtr (bio), gar tr, (slite?)
9720	9735																Grey silty mud (probably drilling mud presence of (sulfate) mud nodules)

DDH: BAM-84-5 HAREHOLTA, ESPELANDSMYR

ARCO Norway Inc.
Hard Minerals Section

Logged by: LONE BECH

Sheet 4 of 4

From	To	% Rec.	Angle	Geology	Sulphides													Explanation
					ga	sl	cpy	po	py	apy	carb	chl	gar	sill	tour	graph	qtz v	
9785	10000		70°					x			xx	xx	x					for amphi ± bio, chl, (qtz-fs) sweats, chert, bio gns, carbonates, bnd combined ~ 5%, po (locally 0.5% in upper part), garte
10000	10100		80°					xx	y		xx	y	yy					Fuigr amphi ± bio, chl, gar 80%, bio gns, cm carbonate bnds 2%, po 1%, diss & vts, py vts 0.2%
10100	10300							xx	y		xx	x	x					In alternating amphi ± bio, chl & bio gns, carb. calcs. gar bnds 1%, po diss locally (~ 1%), mean 0.3%, py vts over 5 cm at 10260
10300	10500										xx							In alternating bio gns 60% & amphi 60% & carb. calcs. gar. bnds 3%, po 0.5%, diss, cherts & qtz-fs sweats 2%
10500	10800		80°					xx	y		xx	x	y					In alternating amphi 60%, bio gns, felsic gns, cm chert 2% & carb 2%, 10680-10700 cm: po 2% diss, py 1% diss & vts, 10700-10800 cm: po 0.5-1%, py 2%, 2 cm garsandst.
10800	11000							x			x							Fuigr bio, qtz-fs gns, — " — sweats 5%, po 2%
11000	11200		65°					xx	xx		x							Fuigr bio, gns, cm amphi bnds 5%, po (py) diss & vts 1%.
11200	11400							x			x							Alternating cm amphi & bio gns, minor po in upper part + as vts
11400	11500										x	x						Bnd fuigr bio, amphi + chl + minor gar, 20% qtz-fs sweat
11500	11600							xx										Fuigr bio gns, minor amphi, po 1.5% diss + graph tx, mean 0.5%.
11600	11800							xx	x		x							Fuigr qtz-fs? bio gns, po + graph 1% diss.
11800	11980		65°					xx										1670-1700: + dense py vts, graph 2-3%.
11980	12000							xx	xx		y							Fuigr qtz-fs? bio gns, po + graph 2 0.5% diss
																		Same rock, graph 2%, py vt common



Diamond Drill Hole Log

DDH No: BAM - 84 - 6

Length: 98,50 m

Location: ETTEDAL, ESPELANDSMYR

Started: 4/11/84

UTM coordinates: 487900E, 650968 N

Completed: 6/11/84

Sheet: 1612-3

Remarks: Carbonate zone: 5250-7000 cm
Graphite zone: 1130-1750 -
Galena common: 6300-6500 -
± sphalerite

Az 320 °, Incl: - 65 °.

Core size: 3,5 cm

On site geologist: LONE BECH

Sheet 1 of

Explanation:

☐	see geological map 1:5000 legend	+	traces
		++	common
		+++	abundant (>5%)
☐	SAMPLES FOR ASSAY	■	massive (>50%)
	8405858 : 6400-6492 cm	ga:	galena
	5859 : 6300-6400 -	sl:	sphalerite
☐	5860 : 5085-5125 & 5145-5162 -	cpy:	chalcopryrite
		po:	pyrrhotite
		py:	pyrite
☐	97,66-97,92 for thinsection & W? (ref. 16.)	apy:	arsenopyrite
		carb:	carbonates (specify)
☐		chl:	chlorite
		gar:	garnet
☐		sill:	sillimanite
		tour:	tourmaline
☐		graph:	graphite
		qtz v:	quartz veins
☐		sil:	silicification

Otherwise, use standard abbreviations.

Rec: recovery

Angle: angle to hole

EHedal

ARCO Norway Inc.
Hard Minerals Section



Logged by: LONE BECH

Sheet 1 of 4

4-MARKER ZONES

CM From	To	% Rec.	Angle	Geology	Sulphides											SAMPLE	Explanation
					ga	sl	cpy	po	py	apy	carb	chl	gar	sll	four		
0000	0735	100															Empty (bag)
0735	0800		55°					x				xxx					Fgr amph + pyrr, gar 0-10%
0800	0900							x			x						Dm alternating qtz-fs? bgn & fmg amph ± bio, chl, pyrr
0900	1000						x				x						Fmg qtz-fs bio gns, dm chert 40%, cu calcs. (ae) bnds 2%, po tr bnds
1000	1030							x						x			Fmg dark bluish gray bio amph? qtz-fs gns, py. graph tr
1130	1200							xx						xx			Same rock, py vts + Mn 2-3%, graph diss 1-2%
1200	1325		60°					xx						xx			Same rock, py ± Mn vts & graph diss 2%
1325	1365							xx?						xx?			Same rock, crushed w/ varnish planes
1365	1430		0														→ soft incoherent grey-white clayish rock Core lost
1430	1625		100					xx				xx		xx			Fmg grey graph. bio. qtz-fs schist, partly clayed, graph. Mn varnish-planes & diss 2- (locally) 10%, py 0.5-1%, minor dm wide gar amph's w/ minor graph. Mn planes.
1625	1750							xx				xxx		xxx			Fmg gar. qtz. graph. bio gns, graph 2-3%, py 1% vts
1750	1800		65°					x						x			Same rock, graph tr, pyrr
1800	2000							(xx)				(xx)		(xx)			Alternating grey bio. qtz-fs schist w/ graph. py. Mn ± 0.5% (locally 1-2%)
																	amph ± gar, qtz-fs sweets & chert 2%.
2000	(3000)		55°														Alternating dm: bio gns/schist ± gar tr & qtz-fs bio gns = 80%, & minor amph ± bio, chl ± gar, cu-dm qtz-fs ± gar sweets
2100	2600							xx	xx			xx		xx			2100-2600: po, py, graph 0.5-1%. 2100-2200: qtz-fs sweets = 40%. 2200-3000: felsic gns dominated 2600-3000: po, py, graph, ae tr's
2600	3000		50°					x	x		x			x			
3000	3140		55°					x	x		x						Alternating cu-dm bio gns, felsic gns, amph & chert, po tr; 3075: py, chert, ae tr
3140	4400		60°					x	x		xx	xx					Fmg amph, scattered qtz-fs sweets 1-3%, ae vts 0.5%, calcareous bnd ± gar 0.5%. increasing towards bottom to 3-5%; 4063: one cu qtz. ae calc. gar fragment, po, pyrr increasing towards bottom to 0.5%, mainly in ae bnds & qtz-fs sweets
			55°					xx	xx								Fmg (cherty) bio gns, ae ±, calc. ± gar bnd few%. po diss 0.5%
4400	4510							xx			xx	xx					
4510	4525																Rexy qtz-fs bio/amm bnd

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DDH: BAM-84-6 ETTE DAL

Logged by: LONE BECH

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ARCO Norway Inc.
Hard Minerals Section



From	To	% Rec.	Angle	Geology	Sulphides										SAMPLE		Explanation	
					ge	sl	cpy	po	py	apy	carb	chl	gar	sill	hour	graph		5085-5125 cm
4525	4600							xx	xx		xx		x					Fugr amphi ± bio. chl, cm calcs. cc. gar. qtz ± po bnd. (At 4577: 5 cm calcs. bnd w/ 1 cm po mineralized grey fragments) po 1%, py ± cc vls 1-2%.
4600	4700							xx	x									Fugr chl. bio. (amp). rock, minor chert & bio gns, po 0.5-1%, Pytr
4700	4900		55°					xx										Fugr cm bnd bio. amp. qtz. fs. gns ± chl w/ po 0.3 - 0.5 %
4900	5055							x				xxx						Fugr gar augen. bio. amp. qtz. fs gns, po 0.2 %.
5055	5085																	Fugr bio. qtz. fs gns
5085	5167							x	xx			xxx	xxx	xxx		5085-5125 cm 5145-5167 cm		Fgr. mgr chl. amp. gar. cc. calcs. blue qtz w/ 5-10 % po diss, minor ep. Alternating w/ fugr bio. amp. chl. cc. po tr - 0.5 %.
5167	5215							xx					xxx					Fugr bio gns, gar 5%, po 0.3 %
5215	5250																	Rexx qtz. (fs. bio)
5250	5400		60°					x		x	xxx		xxx					cm-dm alternating bio. gns ± gar, chert, bio amphi ± gar cc. calcs. gar, po 0.2, Aspytr (upper half in mudst. det.)
5400	5500							xx			xxx		xxx					Same rock po 0.5 - 1 %.
5500	5600							x			xxx		xxx					(Amph > 30 %, po 0.2 %). Same rock
5600	5700							xx			xxx		xxx					cm bnd cc. calcs. gar. amp. (qtz. fs) po 0.5 % - 1 %.
5700	5760							xx			xxx		xxx					Fugr bio. gar. amphi. cc, po 0.5 %.
5760	5780				x			xx										Rexx qtz. fs. bio, po 0.5 % ga tr
5780	6000		65°		x?			x			xxx		xxx					Dm alternating cm bnd as 5250 - 5400
6060	6075																	Fugr cherty bio. amp. qtz. fs gns & amphi, po tr
6075	6200							xx			xxx		xxx					Fugr cc. calcs. gar 25 % qtz. (fs?) amp, po 0.5-1 %, (sl tr?) 6170-6200: amphi
6200	6230							xx			xxx		xxx					Do
6230	6245																	Rexx qtz. (fs) bnd + small fragments of:
6245	6280							x			xx							Fugr chl. amphi w/ minor gar, po tr
6280	6300				x			x			xxx		xxx					Fugr cc. calcs. gar. (qtz. fs. amp) ga tr po tr
6300	6400		50°		xx			xx			xxx		xxx					Fugr cc. qtz. calcs. gar. chl, ga ± po bnds & discs 0.5 %



From	To	% Rec.	Angle	Geology	Sulphides										SAMPLE	Explanation	
					ga	cl	cpy	po	py	apy	carb	chl	gar	sill	four	graph	
6400	6470				xx	n?		xx			xxx		xxx				Fugr cc. qtz. calcs. gar. chl, ga:po bnds & diss. 2%, sl? tr-minor
6470	6492				xx	xx?	x	x			x						Chert fragments w/ ga, sl(?), po tr, cpyr. diss & vts 2-4% in bio amph schist matrix, chert & ga 1%.
6492	6500				xx			xx			x						Chert bnds & fragments in bio. amp-schist, po. ga 2%.
6500	6530				x			x									po. ga tr
6530	6700							xx	x		x						Fugr bio. chl. amph + cc tr-minor, scattered po vts 0.5-1%, py vts tr, chert 1%.
6700	6855						x? or	x?			xx	xxx					Fugr bio. chl. amph + po diss, calcs. qtz-chert. gar. as lenses 5-10% w/po. po 1-2%, py/tp? vts tr
6855	7000							x			xxx		xxx				Fugr calcs. cc. qtz. fo. gar (minor banding) po tr - 0.5%.
7000	7200		60°														Alternating fugr amph, bio gns, minor carb. calcs. gar, po 1-2%, graph. tr. Lowest 1/2 m: po. graph. py diss & vts 2-3%.
7200	7300							xx	xx		(xx)					xx	Fgr dark grey bio. amp? gns, po diss, py, graph, kn vts 2-3%, minor cc bnds & vts. At depth fugr amph dominates, only vts tr.
7300	7400							xx			x						Fugr dark grey bio. amp gns, po 0.5%.
7400	7600							xx			(xx)		x			xx	Dark fgr bio. qtz. fs gns-schist, gar tr po 7400-7500, graph 7500-7600, calcs. cc bnd fac
7600	7700							x					xxx				Same rock, gar 10-30%, po tr
7700	7800							x					xxx				First 10 cm calcs. gar. cc, then as above, gar 10%.
7800	8000		60°								x		x				Bio. qtz. fs schist-gns, gar tr, cc vts tr
8000	8200		65°					x	x				x			x?	Fugr bnd cherty qtz. fs. bio. (gar) gns (amph + chl 5-10%), po tr, py tr, graph? tr
8200	8400							x	x		x	xx					Alternating fugr bio. gns & chl. bio. amph, cur dm qtz. fs sweets 10%, po. cpyr, cc vts tr
8400	8600		65°									xxx	x				Fugr chl/hem. amph + gar tr, minor bio gns
8600	8615												xxx				Fgr chl amph w/gar 10%,
8615	8645								xx						xxx		Irregular on qtz. four. py vns
8645	8700																Fugr dark bio gns w/ white spots (bleached gar?) & scattered on four. bds
8700	8900								x			xx?					Dim on alternating dark bio gns w/ 10% pink spots (gar?) & chl. hem. amph & mm on chert bnd 5-10%, 1 py tr
8900	9000										x						Fgr bio. (chl.) amph, 5 cm qtz. fs. sweets

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Project No.: T6004-00230-33

Project Name Project# Date-Out

Bamble 00230-33 19-Dec-84

Submitted A. Geyte

Field Number	Sample#	ppm Au	ppm Ag	ppm As	ppm Cu	% Fe	ppm Mn	ppm Pb	ppm Zn	
1558405781	3277	-0.005	-0.5	-10	166	3.78	882	61	21	} OOH 1 Skallberg 1
1558405782	3278	-0.005	-0.5	-10	198	6.33	903	12	-10	
1558405783	3280	-0.005	-0.5	-10	224	3.09	451	11	22	
1558405794	3281	-0.005	-0.5	-10	15	10.16	1731	19	113	
1558405786	3282	-0.005	-0.5	-10	18	13.14	1891	29	184	} OOH 2 Skallberg 2
1558405795	3283	-0.005	-0.5	-10	118	6.91	1116	19	44	
1558405797	3284	-0.005	-0.5	-10	56	5.47	877	20	53	
1558405798	3285	0.007	-0.5	-10	41	3.98	786	16	60	
1558405787	3286	-0.005	-0.5	-10	28	4.31	786	30	66	} OOH 3 Vanger / Ormhamner
1558405788	3287	-0.005	-0.5	-10	-10	5.01	796	18	90	
1558405789	3288	-0.005	-0.5	-10	14	7.44	782	25	138	
1558405791	3289	0.010	1.8	52	497	5.03	2388	121	919	
1558405792	3290	-0.005	-0.5	-10	35	4.33	2794	63	377	} OOH 4 Ashland / ORK
1558405793	3291	0.007	-0.5	-10	51	6.83	3248	68	255	

[illegible]

Project Name Project# Date-Out

Sample 00230-32 20-Dec-84

Submitted A. Geyti

Field Number	Sample#	ppm Au	ppm Ag	ppm As	ppm Cu	% Fe	ppm Mn	ppm Pb	ppm W	ppm Zn	
0098402114	3267	-0.005	-0.5	-10	108	3.40	876	106	-10	99	0.006P AT 00M6
0098402115	3268	-0.005	-0.5	-10	29	6.15	1281	56	-10	133	00M2
0098402116	3269	-0.005	-0.5	-10	326	6.70	675	43	-10	136	7
0098402117	3270	-0.005	-0.5	-10	22	4.16	847	136	-10	101	4
0098402118	3272	-0.005	-0.5	-10	70	7.90	1655	40	-10	146	5
0098402119	3273	-0.005	-0.5	40	123	6.86	1972	64	-10	119	6
0098402120	3274	0.034	-0.5	69							
0098402121	3275	1.563	6.1	463							
0098402122	3276	2.018	6.6	4787							

} SIGNATURES