



Bergvesenet rapport nr 7191	Intern Journal nr	Internt arkiv nr	Rapport lokalisering	Gradering
Kommer fra ..arkiv	Ekstern rapport nr	Oversendt fra Ni&OI A/S	Fortrolig pga	Fortrolig fra dato:

Tittel

Diamantboring Bruvannsfeltet, Østmalmen 1988

Forfatter

Rui, Ingolf J.

Dato År

23.08 1988

Bedrift (Oppdragsgiver og/eller oppdragstaker)

Prospektering A/S

Kommune Ballangen	Fylke Nordland	Bergdistrikt	1: 50 000 kartblad 1331 1	1: 250 000 kartblad Narvik
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Fagområde

Boring
Avviksmåling
Analyser

Dokument type

Forekomster (forekomst, gruvefelt, undersøkelsesfelt)

Bruvannsfeltet
Råna

Råstoffgruppe

Malm/metall

Råstofftype

Cu, Ni

Sammendrag, innholdsfortegnelse eller innholdsbeskrivelse

Beskriver boring av 9 hull med kjernelogg, avviksmåling og analyser.
dertil forsøk på avviksmåling av 10 eldre hull



Dato 23.08.88	Rapport nr. 2012	Antall sider: Antall bilag: 4	Konfidensielt
Rapport vedr.: Diamantboring Bruvannfeltet, Østmalmen 1988			
Prosjekt Bruvann Nikkel	Oppdragsgiver Nikkel og Olivin A/S		
Forfatter Ingolf J. Rui	Prosjektleder Ingolf J. Rui		
Land/fylke Norge/Nordland	Kommune Ballangen		
Kartbladnavn 1:250 000 Narvik NR 33, 34 - 11	Kartblad 1:50 000 Ofoten 1331I		

Sammendrag: Rapporten presenterer rådato fra diamantboring og andre arbeider i Bruvannfeltet sommeren 1988. Materialet omfatter bilag med koordinatfesting av borhullene, avviksmålinger, kjernelogger og analyseprotokoll.

Emneord	Diamantboring	
	Legeringsmetall	
Fordeling	<input checked="" type="checkbox"/> 2 Nikkel og Olivin A/S	<input type="checkbox"/>
	<input type="checkbox"/> 1 ASPRO arkiv	<input type="checkbox"/>
	<input type="checkbox"/> 1 I.J. Rui	<input type="checkbox"/>

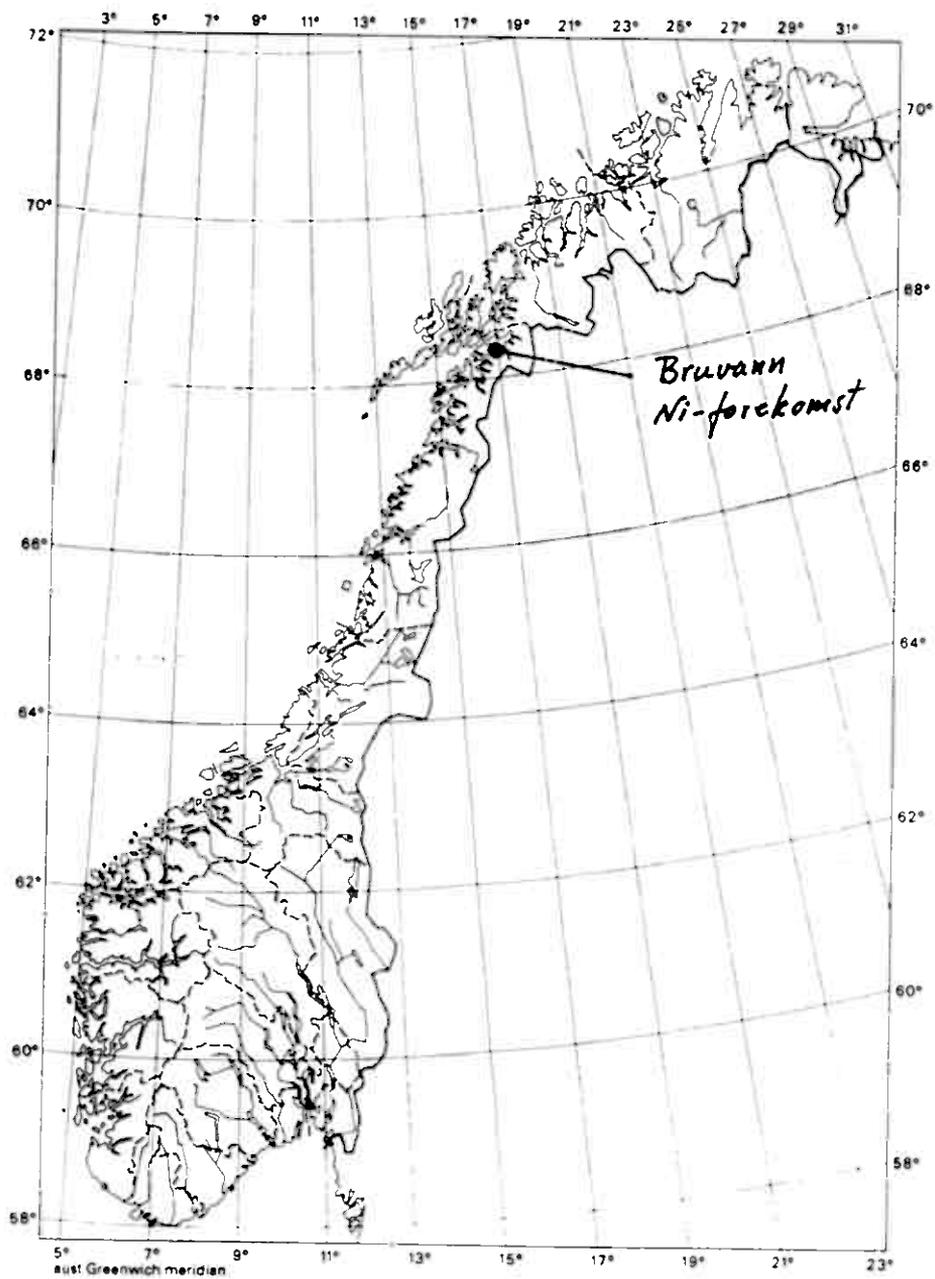


Fig.-01

DIAMANTBORING BRUVANNFELTET, ØSTMALMEN, SOMMEREN 1988.

I alt 9 borhull (698,7 m) er boret i den dagnære delen av malmen, fra profil 25500 til 27500.

Boringen som ble utført av Terra Bor A/S, gikk smertefritt uten særlige avbrudd eller vanskeligheter.

Kjerne logging og uttak av prøver til analyse gikk parallelt med boringen. Analysematerialet gikk dels til Caleb Bretts laboratorium i England, dels til Bergverkselskapet Nord-Norge i Mo i Rana.

Borhullenes plassering i terrenget er stukket ut v.h.a. kompass og målebånd med utgangspunkt i eldre koordinatbestemte borhull/gammelt stikningsnett. Høyden er nivellert inn med kikkert av I.J. Rui og P. Rui med basis i fastmerke som ligger ca. 20-30 m NV for kontorbrakke - 432.030 m.o.h. (topp bolt). Høyden for en del gamle hull i de aktuelle profilene ble også innmålt.

Tilsammen 10 eldre borhull ble avviksmålt innenfor profilene 255 til 290. Ytterligere 5 hull ble forsøkt målt, men viste seg utilgjengelige p.g.a. ras/nedkjørte jordrør. Arbeidet med avviksmålingene ble utført av G. Kompen og P. Rui.

Denne rapporten presenterer kun rådata i form av bilag fra de utførte arbeidene i 1988:

Bilag I

Borhull i Bruvannfeltet, Østmalmen 1988.
Oversikt ved koordinater, lengder etc.

Bilag II

Avviksmåling i Bruvannfeltet m. målebokutskrift.

Bilag III

Kjerne logger med angivelse av prøver uttatt for analyse.

Bilag IV

Analyseprotokoll.

BORHULL I BRUVANNFELTET, ØSTMALMEN 1988

Bh	Ferdig	Lengde	Helning	Koordinater		
				X	Y	Z (m.o.h.)
255/1470	29/6	37.6 m	lodd	1470	2550	400.08
255/1360	2/7	106.1 m	"	1360	2550	421.26
260/1375	6/7	105.2 m	"	1375	2600	422.54
265/1350	12/7	134.0 m	"	1350	2650	433.59
265/1400	14/7	71.3 m	"	1400	2650	424.67
265/1420	16/7	46.8 m	60° N	1420	2650	422.60
270/1417	18/7	40.0 m	60° N	1417	2700	430.61
275/1420	20/7	44.2 m	60° N	1420	2750	440.26
275/1360	25/7	113.5 m	lodd	1360	2750	445.19

Hullenes plassering i terrenget er stukket ut v.h.a. kompass og målebånd med utgangspunkt i eldre koordinatbestemte borhull/gammelt stikningsnett.

Høydene er nivellert inn med kikkert av I.J. Rui og P. Rui med basis i fastmerke som ligger ca. 20-30 m NV for kontorbrakke - 435.030 m.o.h. (topp bolt).

Høydene for en del eldre hull ble også innmålt av rep. for Leonard Nilsen & Sønner.

	Koordinater		
	X	Y	Z
255/125	1250	2550	431.26
255/130	1300	2550	428.27
150/70			431.14
255/140	1400	2550	414.35
255/145	1450	2550	404.29
255/150	1500	2550	391.81

Høydene for eldre hull innmålt av I.J. Rui og P. Rui.

	Koordinater		
	X	Y	Z
260/1300	1300	2600	429.61
260/1350	1350	2600	425.57
260/1400	1400	2600	418.36
260/1450	1450	2600	413.43
265/1450	1450	2650	422.08
270/1400	1400	2700	432.65

AVVIKSMÅLING I BRUVANNSFELTET

I tiden 27/6 til 2/7 1988 ble det avviksmålt gamle borhull i Bruvannsfeltet, Råna i Ballangen.

Målingene ble utført med Eastman singele shot av Gudmund Kompen. Samtelige hull som ble målt har avvik i kvaderant I eller II, og ingen i III og IV. Det mest vanlige avvik ligger mellom N 45 E og S 45 E.

En del hull var det ikke mulig å komme ned i, eller hullet var nedkjørt og dermed utilgjengelig.

Avvik fra dagnivå

Borhull	Avvik ved m.	Y	X
BH 255 - 125 Loddhull	5,3 grader v/180 m	+ 6,31	- 1,94
BH 260 - 125 Loddhull	5 " 200 m	+ 10,60	+ 7,09
BH 260 - 130 Loddhull	2 " 60 m	+ 0,35	- 0,60
BH 260 - 135 Loddhull	2 " 175 m	+ 3,15	+ 2,02
BH 260 - 140 Loddhull	1 " 10 m	+ 0,17	0,00
BH 270 - 120 Loddhull	2,5 " 180 m	+ 2,86	+ 2,86
BH 270 - 140 Loddhull	5,7 " 100 m	+ 4,37	- 4,37
BH 280 - 135 Loddhull	2,7 " 120 m	+ 3,05	+ 3,05
BH 290 - 120 Loddhull	5 " 200 m	+ 7,30	+ 1,58
BH 290 - 130 Loddhull	5 " 200 m	+ 10,11	0,00

Hull som er forsøkt målt, men som vi ikke kom ned i.

BH 150 70 Skråhull
 BH 165 - 125 Loddhull
 BH 270 - 135 Loddhull
 BH 275 - 135 Loddhull
 BH 290 - 135 Loddhull

Stabekk 5/7 1988

Gudmund Kompen.
 Gudmund Kompen

AVVIKSMÅLINGER I BRUVANNFELTET 1988

MALEBOKUTSKRIFT

Borhull Anngit dybde - avlest grader fall og retning.

BH 255 - 125:	10m - 1,5 S,	80m - 3,0 S60E,	180m - 5,3 S85E
	:	:	:
BH 260 - 125:	20m - 2,8 N,		200m - 5,0 N60E
	:	:	:
BH 260 - 130:	20m - Lodd,	60m - 2,0 S30E (kommer ikke	
	:	:	:
BH 260 - 135:	20m - 1,0 N,	100m - 1,0 N60E,	175m - 2,0 N85E
	:	:	:
BH 260 - 140:	10m - 1,0 E (kommer ikke dypere)		
	:	:	:
BH 270 - 120:	20m - 0,2 N45E,	100m - 1,5 N45E,	180m - 2,5 N45E
	:	:	:
BH 270 - 140:	20m - 2,3 S45E,	100m - 5,7 S45E	
	:	:	:
BH 280 - 135:	20m - 1,7 N45E,	80m - 2,2 N45E,	120m - 2,7 N45E
	:	:	:
BH 290 - 120:	20m - Lodd,	100m - 2,0 E,	200m - 5,0 N75E
	:	:	:
BH 290 - 130:	20m - 1,0 E,	100m - 3,0 E,	200m - 5,0 E

Stabekk 5/7 1988

Gudmund Kompen

Gudmund Kompen



Kjerneobservasjoner.

Borhull nr. 255/1470 Profil 2550 Ø
 Koordinator: Y ~ 2550 X ~ 1470
 Påsatt i høyde 400.08 m.
 • i retning Lodd
 • med helning
 Borhullets lengde 37.60 m

Logget av : I.J. Rui

Boret meter	Bergart	Kjerne- mangel	Skifrihet	Bergart- prøve
0.00				
4.55	Jordboring - casing			10-12
24.02	Peridotitt - svak mineralisering til ca. 8 m, noe økende til ca. 10.45 m. Sterk mineralisering til 24.02 m - flekker stikk med cpy.			12-14 14-16 16-18 18-20
24.58	Gneis, svak mineralisering.			20-22 22-24 24-26
36.90	Peridotitt - rel. sterk imp. po/cpy til 30.70 m, svakere ut seksjonen med spredte større aggregater.			26-28 28-30 30-32 32-34
37.60	Granatgneis.			34-36.90
Slutt 29/6-88				(BNN, Åga)



Kjerneobservasjoner.

Borhull nr. 255/1360 Profil 2550 Ø
 Koordinator: Y ~ 2550 X ~ 1360
 Påsatt i høyde 421.26 m.
 • i retning Lodd
 • med helning
 Borhullets lengde 106.10 m Logget av : I.J. Rui

Boret meter	Bergart	Kjerne- mangel	Skifrihet	Anal./ Bergart- prøve
0.00				72.50-74.00
8.00	Jordboring - casing, siste ca. 1.4 m var i fast fjell (peridotitt).			74.00-76.00
21.90	Peridotitt.			76.00-78.00
35.50	Glimmergneis, ofte granatholdig med grå-grønns kalksilikatslirer.			78.00-80.00
38.05	Peridotitt.			80.00-82.00
45.80	Glimmer- og kalksilikat-gneis.			82.00-84.00
55.65	Peridotitt - sterkt breksijert og omvandlet. Forkastning ?			84.00-86.00
78.75	Peridotitt - gradvis økende po fra ca. 70 m, relativt sterk mineralisering fra ca. 72.50.			86.00-88.00
81.15	Knust/omv. grønn masse.			88.00-90.00
99.50	Peridotitt - partivis knust/omv. ved 81.5 og 84.7 m. Javn po imp.			90.00-92.00
106.10	Grå-grønn kalksilikatgneis.			92.00-94.00
Slutt				94.00-96.00
2/7-88.				96.00-98.00
				98.00-99.50
				(BNN, Åga)



Kjerneobservasjoner.

Borhull nr. 260/1375 Profil 2600 Ø
 Koordinator : Y ~ 2600 X ~ 1375
 Påsatt i høyde 422.54 m.
 • i retning Lodd
 • med helning
 Borhullets lengde 105.20 m

Logget av : I.J. Rui

Boret meter	Bergart	Kjerne- mangel	Skifrihet	Anal./ Bergart- prøve
0.00				
12.50	Jordboring - casing			
22.40	Peridotitt - noe mineralisering frem til ca. 17.0 m.			68.0-70.7 70.7-72.0
23.65	Karbonat-bergart, gråhvit.			72.0-74.0
24.75	Div. gneisser - grå, gråbrune og grønne av farge, delvis med grafitt, noe po/cp.			74.0-76.0 76.0-78.0 78.0-80.0
30.90	Peridotitt, rel. sterkt omv. første 0.5 m.			80.0-82.0
37.30	Peridotitt, en del omvandlet med knusnings- soner.			82.0-84.0 84.0-86.0
70.70	Peridotitt, tynne omvandlingssoner. Mine- ralisering fra 37.85-39.00 (nokså god) og fra 50-60 sonevis sterkere po imp. Grad- vis økende mineralisering fra ca. 68 m.			86.0-88.0 88.0-90.0 90.0-92.0 92.0-94.85
85.65	Peridotitt, rel. god mineralisering.			
94.85	Peridotitt, variabel avtakende mineralise- ring.			
105.20	Peridotitt, partivis svak mineralisering. Magnetitt i tynne omv. soner.			
Slutt				
6/7-88				



Kjerneobservasjoner.

Borhull nr. 265/1350 Profil 2650 Ø
 Koordinator: Y ~ 2650 X ~ 1350
 Påsatt i høyde 433.59 m.
 • i retning Lodd
 • med helning
 Borhullets lengde 133.80 m Logget av : I.J. Rui

Boret meter	Bergart	Kjerne- mangel	Skifrihet	Anal./ Bergart- prøve
0.00				
5.20	Jordboring - casing			79.6-82.0
8.83	Lys kv.-rik bergart med grønt mineral - omv. granitt/kvartsdioritt ?			82.0-84.0 84.0-86.0 86.0-88.0 88.0-90.0
26.92	Peridotitt, middels til svak imp. po/cp økende mot slutten.			90.0-92.0 92.0-94.0
32.40	Peridotitt - sporadisk svak po.			94.0-96.0
35.70	Biotittgneis.			
52.90	Peridotitt - partivis lys og mer omv.			(Caleb Brett)
53.36	Biotitt-kloritt bergart, omv.			
54.20	Feltspat - pegmatitt.			
54.45	Glimmerrik bergart, omv.			
59.70	Peridotitt - lys, finkornig.			
63.65	Peridotitt - grovere.			
67.10	Peridotitt - sterkt serpentinisert, grønn.			
90.10	Peridotitt, partivis noe px. Middels - svak po til 77.60, sterkere til 89.90.			
90.35	Tett, mørk og meget hard bergart-gang ?			
91.05	Talkomvandlet bergart.			
92.45	Glimmerrik bergart og peg.			
109.55	Peridotitt - periodevis lys og olivinrik, periodevis mer px. Rel. god mineralisering 92.60-95.65 m.			
109.80	Granatrik stripet bergart.			
133.80	Peridotitt - talkomv. partier, særlig omkr. 127.70-.85, 128.60-.85. Fra 127.85-128.60 gneis og peg.			
Slutt 13/7-88				



Kjerneobservasjoner.

Borhull nr. 265/1400 Profil 2650
 Koordinator: Y ~ 2650 X ~ 1400
 Påsatt i høyde 424.67 m.
 • i retning Lodd
 • med helning
 Borhullets lengde 71.30 m Logget av : I.J. Rui

Boret meter	Bergart	Kjerne- mangel	Skifrihet	Anal./ Bergart- prøve
0.00				
6.40	Jordboring - casing			
10.25	Peridotitt - noe px			32.0-34.0
13.00	Breksijert og omvandlet, særlig første 2 m, senere rester av peridotitt.			34.0-36.0 36.0-38.0 38.0-40.0
24.60	Peridotitt med noe px. Svak po fra ca. 18-20 m.			40.0-42.0 42.0-44.0 44.0-46.0 46.0-48.0
27.30	Serpentinisert, lys grønn.			48.0-50.0
31.38	Biotittgneis, partivis med granat.			50.0-52.0
31.90	Pegmatitt - feltspat.			52.0-54.0 54.0-56.0 56.0-58.0 58.0-60.0
68.85	Peridotitt, jamn middels god po imp., best fra ca. 39-50 m.			60.0-62.0 62.0-64.0 64.0-66.0
70.35	Amfibolitt.			
70.95	Peridotitt, tett og finkornig.			
71.30	Glimmerrik bergart, overgang amfibolitt (kloritt) siste 5 cm.			
Slutt				(Caleb Brett)
14/7-88				

ARKISTO

OTSIKLO:
 Nickel og Olivin
 Ballange, Norge



Kjerneobservasjoner.

Borhull nr. 265/1420 Profil 2650
 Koordinator: Y ~ 2650 X ~ 1420
 Påsatt i høyde 422.60 m.
 • i retning N
 • med helning 60°
 Borhullets lengde 46.80 m

Logget av : I.J. Rui

Boret meter	Bergart	Kjerne- mangel	Skifrihet	Anal./ Bergart- prøve
0.00				
10.00	Jordboring - casing			10.0-12.0
18.50	Peridotitt, noe px. Jamn god po/noe cp.			12.0-14.0 14.0-16.0
22.30	Lysere, tettere anthofyllitt-omv. bergart. Partivis mye kloritt og lys brun biotitt. Svak til umineralisert.			16.0-18.0 18.0-20.0 20.0-22.0
34.40	Peridotitt - jamn god po.			22.0-24.0 24.0-26.0 26.0-28.0 28.0-30.0
34.85	Peridotitt - omv. og knust (sleppemat.), noe sulfider.			30.0-32.0 32.0-34.0
37.00	Peridotitt, noe knust, omv. En del sulfid			34.0-36.0 36.0-38.0
37.55	Klorittisk sleppemateriale.			38.0-40.0
46.80	Peridotitt - en del px. Variabel svak mineralisering, best første 2-3 m.			(Caleb Brett)
Slutt				
18/7-88				



Kjerneobservasjoner.

Borhull nr. 270/1417

Profil 2700

Koordinator: Y ~ 2700

X ~ 1417

Påst i høyde 430.61 m.

• i retning N

• med helning 60°

Borhullets lengde 40.0 m

Logget av : I.J. Rui

Boret meter	Bergart	Kjerne- mangel	Skifrihet	Anal/ Bergart- prøve
0.00				8.7-10.0
6.55	Jordboring - casing			10.0-12.0
8.70	Peridotitt, en del px			12.0-14.0
35.00	Peridotitt, noe px - jamn po imp. hele veien, spor cp. Svakere to siste m.			14.0-16.0 16.0-18.0 18.0-20.0
40.00	Peridotitt, noe px. Sporadisk po.			20.0-22.0 22.0-24.0 24.0-26.0 26.0-28.0 28.0-30.0 30.0-32.0 32.0-34.0
Slutt				(BNN, Åga)
20/7-88				



Kjerneobservasjoner.

Borhull nr. 275/1420 Profil 2750
Koordinator: Y ~ 2750 X ~ 1420
På satt i høyde 440.26 m.
• i retning N
• med helning 60°
Borhullets lengde 44.20 m

Logget av : I.J. Rui

Boret meter	Bergart	Kjerne- mangel	Skifrihet	Anal./ Bergart- prøve
0.00				19.0-21.5
7.15	Jordboring - casing			21.5-23.0
21.50	Peridotitt, rel. svak po - økende fra ca. 12.30. Knusningssone fra 10.0-10.50.			23.0-25.0 25.0-27.0 27.0-29.0
34.35	Peridotitt - rel. god po/cp.			29.0-31.0 31.0-33.0
35.70	Sterkere serpentinisering.			33.0-34.35
44.20	Peridotitt - svak. ujamn po, av og til litt cp.			34.35-36.0 36.0 -38.0 38.0 -40.0
Slutt				
21/7-88				

Kjerneobservasjoner.

Borhull nr. 275/1360 Profil 2750
 Koordinator: Y ~ 2750 X ~ 1360
 Påsatt i høyde 445.19 m.
 • i retning Lodd
 • med helning _____
 Borhullets lengde 113.50 m

Logget av : I.J. Rui

Boret meter	Bergart	Kjerne- mangel	Skiffrighet	Anal. / Bergart prøve
0.00				
10.00	Jordboring - casing			63.0-65.0
18.87	Peridotitt med spredt px, partivis svak po.			65.0-67.0
19.30	Serpentinisert grønn med listeformede mineraler			67.0-69.0
20.80	Peridotitt, middels/svak mineralisering.			69.0-71.0
21.50	Serpentinisert grønn bergart (som ovenfor).			71.0-73.0
28.60	Rel. mørk, homogen og noe fink. bergart. Pyroksenitt ? Svak mineralisering.			73.0-73.9 74.8-77.0
34.70	Peridotitt, svak mineralisering. Økende omv. siste m.			77.0-79.0 79.0-80.2
40.20	Peridotitt, sterkt grønne serpentiniserte partier. Sporadisk svak mineralisering.			80.2-82.0 82.0-84.0
55.50	Peridotitt, sporadisk svak mineralisering - en del px. Økende omv. siste 2-3 m.			84.0-86.0 86.0-88.0
60.60	Grønn, serpentinisert.			88.0-90.0
61.10	Mørk gangbergart.			90.0-92.0
63.30	Peridotitt, svakt omv. En del sleppesoner.			92.0-95.0
73.90	Peridotitt, økende mineralisering - svak til middels frem til 68.75 m, resten god.			95.0-97.0 97.0-99.0
74.90	Diorittisk gangbergart (?) med mye granat.			
79.15	Peridotitt - sterkt ødelagt av tallrike glim- mer/kloritt slepper. Variabel po.			99.0-101.0 101.0-103.0
80.20	Grønnlig klorittisert bergart.			103.0-105.0
92.30	Peridotitt - god mineralisering. Mye slepper 83.95-84.30, 85.40-87.00. Her kan mineralise- ringen være ødelagt lokalt. Svakere po 89.30-90.25, deretter sporadisk po i sterkt omv. peridotitt.			105.0-106.3 106.3-108.0

Boret meter	Bergart	Kjerne- mangel	Skifeighet	Bergart prøve
94.50	Metamorfe sed. inneslutninger - grønn klorit- tisk til 92.60, biotitt-granatskifer til 93.62 og grønn klorittisk igjen.			
96.50	Peridotitt, sterkt omv. og breksijert første 1/2 m. Deretter mer normal med god minerali- sering.			
97.70	Kloritt-biotitt omv. og breksje - svak po.			
98.30	Peridotitt, nokså god po.			
98.70	Omvandling og slepper - svak po.			
105.45	Peridotitt, god mineralisering, gneis fra 103.45-103.60.			
106.30	Økende omv., avtagende mineralisering.			
110.30	Grønn serpentinisert bergart med listeformede krystaller.			
113.50	Peridotitt, sporadisk svak po.			
Slutt 25/7-88				



Laboratory Report

To: Aspro Prospektering AS
Gamle Ringeriks Vei 14
Postb. 83
1321 Stabekk
Norway

Date: 11.08.88

Your Ref:

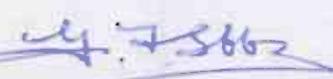
Our Ref: 88G085

Attention of:- I. J. Ruj

CERTIFICATE OF ANALYSIS

Sample No.	Sulphide Nickel %w/w Ni
BH 260/1375 68.00-70.70	0.11
BH 260/1375 70.70-72.00	0.31
BH 260/1375 72.00-74.00	0.59
BH 260/1375 74.00-76.00	0.68
BH 260/1375 76.00-78.00	0.63
BH 260/1375 78.00-80.00	0.64
BH 260/1375 80.00-82.00	0.65
BH 260/1375 82.00-84.00	0.60
BH 260/1375 84.00-86.00	0.49
BH 260/1375 86.00-88.00	0.22
BH 260/1375 88.00-90.00	0.24
BH 260/1375 90.00-92.00	0.23
BH 260/1375 92.00-94.85	0.31
DH 265/135 79.60-82.00	0.34
DH 265/135 82.00-84.00	0.29
DH 265/135 84.00-86.00	0.30
DH 265/135 86.00-88.00	0.34
DH 265/135 88.00-90.00	0.37
DH 265/135 90.00-92.00	0.34
DH 265/135 92.00-94.00	0.49
DH 265/135 94.00-96.00	0.34

For and on behalf of
CALEB BRETT INTERNATIONAL LIMITED


G.T. Ibbs
Technical Manager

GENERAL TERMS AND CONDITIONS OF BUSINESS OF CALEB BRETT INTERNATIONAL LIMITED

1. DEFINITION

In these general terms and conditions where the context so admits:

- 1.1 "Caleb Brett" means Caleb Brett International a Company incorporated under the Companies Acts and having its Registered Office at East Saxen House, 27 Duke Street, Chelmsford, Essex CM1 1HT.
- 1.2 "customer" means the person (as defined) with whom Caleb Brett contracts for the provision of services, employees, materials or equipment.
- 1.3 "person" means any individual, partnership, company, corporation, body or organisation.

2. INTERPRETATION

In these general terms and conditions where the context so admits:

- 2.1 Words importing the masculine include the feminine and neuter and words importing the neuter include the masculine and feminine.
- 2.2 Words importing the singular include the plural and vice versa.

3. PRICE

3.1 Caleb Brett may provide services, employees, materials and equipment to the customer. The customer will pay Caleb Brett for services, employees, materials and equipment supplied according to the rate of fees, outlays and other charges in Caleb Brett's list of prices and charges in use at the time a contract is entered into with the customer with the addition of Value Added Tax or any other taxes imposed on that supply.

3.2 If the performance of a contract with a customer is not completed by twelve months from the time the contract is entered into, Caleb Brett may propose a variation of the rate of fees, outlays and other charges to take effect from and after the expiry of the said twelve months. If Caleb Brett and the customer fail to reach agreement on any such proposal within one month from the making of the proposal, the contract shall terminate.

3.3 If Caleb Brett provides services, employees, materials or equipment, or incurs outlays for which no provision is made in such list of prices and charges the customer shall pay a reasonable price for these items.

3.4 The customer shall pay Caleb Brett undisputed amounts in invoices and notify Caleb Brett of any objections to invoices within thirty days after the receipt by the customer of each invoice. Interest at the rate of two per cent per annum above the minimum lending rate of the National Westminster Bank PLC at the time shall be payable by the customer on undisputed amounts remaining unpaid after thirty days from the first receipt by the customer of an invoice claiming that amount and on unpaid disputed amounts after thirty days from the settlement of the dispute. Interest shall not run before the expiry of the said periods of thirty days.

4. OPERATING CONDITIONS

4.1 When in order to perform its obligations under a contract it is necessary for Caleb Brett's employees, agents, representatives, materials or equipment to go to an offshore base the customer shall, at its expense, transport such employees, agents, representatives, equipment or materials between the local air base (or such other place if specially agreed) ("the home base") and the offshore base. The customer shall be responsible for the supervision, safety, protection and well-being of such employees, agents, representatives, and the supervision, safety and protection of such materials and equipment whilst in transit between the home base and the offshore base or between two or more offshore bases and whilst situated on offshore bases and the customer shall indemnify Caleb Brett and its employees, agents and representatives against any claim, demand, loss, expense or liability (including but not limited to the cost of litigation) in respect of a breach of its obligations arising from such negligence on the part of the person indemnified.

4.2 Whilst employees, agents or representatives of Caleb Brett are on an offshore base or are being transported to or from it by the customer the customer shall, at its expense, provide food and accommodation for such employees, agents or representatives to a standard not less than that which the customer provides, or would provide, for its employees if they were carrying out similar work.

4.3 Whilst on an offshore base the employees, agents or representatives of Caleb Brett shall not be required to work for more than twelve hours in any day unless in exceptional circumstances. This requirement is made in the interest of the accuracy of the work to be performed.

4.4 In the event that the customer shall allow Caleb Brett the use of an employee of the customer that employee shall remain the employee of the customer and shall not become *pro hac vice* the employee of Caleb Brett whether for the purposes of contractual or delictual liability or otherwise.

4.5 Where reasonably practicable the customer shall provide, at its expense, telephone and telex facilities at offshore bases for use by the employees, agents or representatives of Caleb Brett for the purpose of communicating with the offices of Caleb Brett.

4.6 For the purpose of these general terms and conditions "offshore base" includes any offshore installation, ship, hovercraft or place outside the mainland of the United Kingdom including, without prejudice to that generality, bases on the Scottish Islands.

5. COMPLIANCE WITH SAFETY RULES

The customer shall comply with all relevant legislation and safety standards affecting the performance of a contract. In the event of a breach of this clause Caleb Brett shall be entitled to remove its employees, agents or representatives or any materials or equipment from any area affected by the breach until the breach is remedied. The customer shall indemnify Caleb Brett against any claim, demand, loss, expense or liability (including but not limited to the cost of litigation) arising by reason of such breach.

6. LIMITATION OF LIABILITY

6.1 The liability of Caleb Brett and its employees, agents or representatives for claims, other than claims for death or personal injury arising out of contractual, quasi contractual, delictual, quasi delictual or statutory liability of liability arising in any other manner whatever shall be limited in total for any incident to the sum of Fifty Thousand Pounds (£50,000) Sterling.

6.2 This limitation of liability applies whether or not the claim arises from intentional or negligent acts of Caleb Brett, its employees, agents or representatives.

7. INDEMNITY

7.1 The customer shall indemnify, hold harmless and defend Caleb Brett and its employees, agents and representatives from and against any claim, demand, loss, expense or liability (including but not limited to the cost of litigation) in connection with any contract (connection being direct or indirect).

7.1.1 arising by reason of claims by Governmental authorities or others of any actual or asserted failure of the customer to comply with any law, ordinance, regulation, rule or order of any Governmental or Judicial Body.

7.1.2 arising by reason of actual or asserted infringement or improper appropriation or use by the customer of trade secrets, proprietary information, know-how, copyright rights or patented or unpatented inventions or for actual or alleged unauthorised imitation of the work of others, arising out of the use of methods, processes, designs, information or other things originating with the customer, if employees, agents, representatives, vendors or sub-contractors, and furnished or communicated to Caleb Brett or its employees, agents or representatives by the customer or used by Caleb Brett or its employees, agents or representatives in connection with the performance of the contract.

7.1.3 being a claim or demand from, or liability to, or loss or expense by reason of a liability to any person other than the customer ("any person" in this context) for the avoidance of doubt includes but is not limited to employees of Caleb Brett and the customer in respect of personal injury or death, damage to or destruction or loss of property belonging to any person or in any other respect or manner whatever provided neither Caleb Brett, its employees, agents or representatives have been negligent.

7.2 The indemnity in paragraph 7.1.3 shall only apply where the circumstances preclude the application of particular indemnities set out elsewhere in these general terms and conditions.

8. EXTENSION OF BENEFIT

8.1 In so far as paragraphs 4.1, 5, 6, 7 and 11 or any other part of these terms and conditions purport to exclude liability of, or give the benefit of indemnification to anyone other than Caleb Brett, Caleb Brett is or shall be deemed to be acting as agent or Trustee on their behalf for their benefit.

8.2 The invalidity or unenforceability of any particular exclusion or restriction of liability provision or any indemnity provision of these general terms and condition or any thereof shall not affect the validity or enforceability of the remaining provisions or any part thereof.

9. UNUSED SAMPLE PORTIONS

Unused portions of analysis samples are retained by Caleb Brett for one year after completion of the analysis and then disposed of (except those of a dangerous nature where disposal is immediate). The customer may arrange to have such portions retained for a longer period for which facility Caleb Brett will require a storage charge.

10. DURATION OF HIRE CONTRACTS

The hire period for equipment rental commences on the day on which the hired equipment is made available at the relevant Caleb Brett premises in a suitably packaged state for despatch, and terminates on the day of return to the same premises or such other agreed premises.

11. OFF PREMISES SERVICES AND INSTALLATION/COMMISSIONING OF EQUIPMENT

Should the services of Caleb Brett employees, agents or representatives be required at a location other than Caleb Brett's premises ("the foreign location") and/or to install/commission equipment on the customer's site this will be charged at Caleb Brett's normal rates plus travel and living expenses where appropriate. The customer shall be responsible for the supervision, safety and well-being of such employees, agents or representatives whilst they are at the foreign location or on the customer's site and the customer shall indemnify Caleb Brett and its respective employees, agents or representatives against any claim, demand, loss, expense or liability (including but not limited to the cost of litigation) in respect of a breach of its obligations arising from such responsibility under this Clause by the customer irrespective of any contributory negligence.

12. FREIGHT CHARGES

All carriage charges for hired equipment to and from such Caleb Brett premises will be charged to the hirer at cost.

13. INSURANCE

Insurance for the full value of hired equipment to cover loss or damage during the period of hire and while hired equipment is in transit is the responsibility of the hirer. Such insurance should also provide for the loss of rental payment in the event of hired equipment being damaged, destroyed or lost. By prior agreement Caleb Brett can provide suitable insurance cover to be charged "at cost" to the customer.

14. LOSS OR DAMAGE

14.1 **Loss** - Should hired equipment or any part thereof be lost during the period of rental or whilst in transit to and from site location or locations, the customer shall pay the full replacement cost of hired equipment whether or not it is replaced and all loss of profits to Caleb Brett.

14.2 **Damage** - Should hired equipment be damaged whilst in use or in transit as above the customer shall pay the cost of repairs necessary to restore it to its original condition at the beginning of the lease period or for the full replacement cost (even if not replaced) whichever is the lower and all loss of profits to Caleb Brett.

15. SERVICE AND REPAIR

15.1 The customer shall bear the cost of all repairs and maintenance to hired equipment. Such repair and maintenance shall be carried out by Caleb Brett. With the consent of Caleb Brett the customer may carry out such repairs or maintenance or arrange for these to be done by others approved by Caleb Brett. Should hired equipment need emergency repair or maintenance while it is outside the premises of Caleb Brett, the Customer may without the consent of Caleb Brett, arrange for repairs or maintenance to be carried out up to a cost of Fifty Pounds Sterling for each emergency and shall inform Caleb Brett of the instructions for emergency repair or maintenance as soon as reasonably practicable.

15.2 The customer shall allow Caleb Brett reasonable facilities to enable Caleb Brett to carry out such repair and maintenance. On being given reasonable notice the customer shall allow Caleb Brett to inspect the hired equipment.

16. ALTERATION

Any alteration of these general terms and conditions shall not be binding unless it is in writing and signed on behalf of all the parties to the contract.

17. TERMINATION

Caleb Brett may by notice to the customer terminate any contract if the customer is in material breach of the provisions of that contract or if the customer is declared bankrupt or not/or bankrupt or goes into liquidation (other than a members voluntary liquidation for reconstruction or amalgamation purposes) or has a receiver appointed in respect of any of its property or undertaking or generally makes any arrangement or composition with its creditors.

18. FORCE MAJEURE

Neither Caleb Brett nor the customer shall be liable for failure to fulfil any contract if fulfilment is delayed, hindered or prevented by strikes, walk-outs or labour disputes of any kind, acts of God, war, riot, civil disturbances or acts of terrorism. If such delay, hindrance or prevention lasts for more than a continuous period of thirty days, either party may by notice to the other party terminate the contract.

19. NON-ASSIGNATION

The customer shall not be entitled to assign a contract or any part of it or the benefit under it without the consent of Caleb Brett.

20. SECRECY

20.1 All information (other than information generally available to the public) on the properties or activities of the customer shall be held by Caleb Brett, its employees, agents and representatives in strictest confidence.

20.2 All information (other than information generally available to the public) on the properties or activities of Caleb Brett shall be held by the customer, its employees, agents and representatives in strictest confidence.

20.3 The obligations under this clause shall survive the completion or termination of a contract howsoever caused, and, without prejudice to that generality, if caused by or arising from frustration, fundamental breach or material breach.

21. APPLICATION OF CONDITIONS

21.1 These general terms and conditions shall apply to all contracts between Caleb Brett and the customer or any of the customer's affiliates unless and until these general terms and conditions are altered or excluded by express provision in writing signed on behalf of both parties. These general terms and conditions shall supersede all terms and conditions of contract of the customer and unless sooner accepted shall be deemed to be accepted on provision of services, employees, materials or equipment under the contract.

21.2 "Affiliates" for the purpose of this Clause means any holding, subsidiary or associated company of the customer. "Holding and subsidiary company" shall have the meanings set out in Section 154 of the Companies Act 1948 and "associated company" means a company while not being a subsidiary or holding company within the aforesaid meanings is directly connected through a chain of holding and/or subsidiary companies.

22. CHOICE OF LAW

Any contract shall be construed, under and governed by the laws of England.

Caleb Brett



Caleb Brett International Ltd.

Lancots Lane, St. Helens.

Merseyside WA9 3ES.

Tel: St. Helens (0744) 611553 Telex: 627844

TS&S

Laboratory Report

To: Aspro Prospektering AS
Gamle Ringeriks Vei 14
Postb. 83
1321 Stabekk
Norway

Date: 11.08.88

Your Ref:

Our Ref: 88G087

Attention of:- I. J. Rui

CERTIFICATE OF ANALYSIS

Sample No.	Sulphide Nickel %w/w Ni
BH 265/1420 10-12	0.34
BH 265/1420 12-14	0.17
BH 265/1420 14-16	0.36
BH 265/1420 16-18	0.15
BH 265/1420 18-20	0.11
BH 265/1420 20-22	0.28
BH 265/1420 22-24	0.51
BH 265/1420 24-26	0.56
BH 265/1420 26-28	0.58
BH 265/1420 28-30	0.42
BH 265/1420 30-32	0.39
BH 265/1420 32-34	0.49
BH 265/1420 34-36	0.20
BH 265/1420 36-38	0.09
BH 265/1420 38-40	0.09
BH 365/1400 32-34	0.47
BH 365/1400 34-36	0.45
BH 365/1400 36-38	0.50
BH 365/1400 38-40	0.59
BH 365/1400 40-42	0.64
BH 365/1400 42-44	0.40
BH 365/1400 44-46	0.52
BH 365/1400 46-48	0.54
BH 365/1400 48-50	0.63
BH 365/1400 50-52	0.63
BH 365/1400 52-54	0.60
BH 365/1400 54-56	0.65
BH 365/1400 56-58	0.64
BH 365/1400 58-60	0.62
BH 365/1400 60-62	0.21

GENERAL TERMS AND CONDITIONS OF BUSINESS OF CALEB BRETT INTERNATIONAL LIMITED

1. DEFINITION

In these general terms and conditions where the context so admits:

- 1.1 "Caleb Brett" means Caleb Brett International a Company incorporated under the Companies Acts and having its Registered Office at East Saxon House, 27 Duke Street, Chelmsford, Essex CM1 1HT.
- 1.2 "customer" means the person (as defined) with whom Caleb Brett contracts for the provision of services, employees, materials or equipment.
- 1.3 "person" means any individual, partnership, company, corporation, body or organisation.

2. INTERPRETATION

In these general terms and conditions where the context so admits:

- 2.1 Words importing the masculine include the feminine and neuter and words importing the neuter include the masculine and feminine.
- 2.2 Words importing the singular include the plural and vice versa.

3. PRICE

3.1 Caleb Brett may provide services, employees, materials and equipment to the customer. The customer will pay Caleb Brett for services, employees, materials and equipment supplied according to the rate of fees, outlays and other charges in Caleb Brett's list of prices and charges in use at the time a contract is entered into with the customer with the addition of Value Added Tax or any other taxes imposed on that supply.

3.2 If the performance of a contract with a customer is not completed by twelve months from the time the contract is entered into, Caleb Brett may propose a variation of the rate of fees, outlays and other charges to take effect from and after the expiry of the said twelve months. If Caleb Brett and the customer fail to reach agreement on any such proposal within one month from the making of the proposal, the contract shall terminate.

3.3 If Caleb Brett provides services, employees, materials or equipment, or incurs outlays for which no provision is made in such list of prices and charges the customer shall pay a reasonable price for these items.

3.4 The customer shall pay Caleb Brett undisputed amounts in invoices and notify Caleb Brett of any objections to invoices within thirty days after the receipt by the customer of each invoice. Interest at the rate of two per cent per annum above the minimum lending rate of the National Westminster Bank PLC at the time shall be payable by the customer on undisputed amounts remaining unpaid after thirty days from the first receipt by the customer of an invoice claiming that amount and on unpaid disputed amounts after thirty days from the settlement on the dispute. Interest shall not run before the expiry of the said periods of thirty days.

4. OPERATING CONDITIONS

4.1 When in order to perform its obligations under a contract it is necessary for Caleb Brett's employees, agents, representatives, materials or equipment to go to an offshore base the customer shall, at its expense, transport such employees, agents, representatives, equipment or materials between the local air base (or such other place if specially agreed) ("the home base") and the offshore base. The customer shall be responsible for the supervision, safety, protection and well-being of such employees, agents, representatives, and the supervision, safety and protection of such materials and equipment whilst in transit between the home base and the offshore base or between two or more offshore bases and whilst situated on offshore bases and the customer shall indemnify Caleb Brett and its employees, agents and representatives against any claim, demand, loss, expense or liability (including but not limited to the cost of litigation) in respect of a breach of its obligations arising from such responsibility under this Clause by the customer irrespective of any contributory negligence on the part of the person indemnified.

4.2 While employees, agents or representatives of Caleb Brett are on an offshore base, or are being transported to or from it by the customer the customer shall, at its expense, provide food and accommodation for such employees, agents or representatives to a standard not less than that which the customer provides, or would provide, for its employees if they were carrying out similar work.

4.3 While on an offshore base the employees, agents or representatives of Caleb Brett shall not be required to work for more than twelve hours in any day unless in exceptional circumstances. This requirement is made in the interest of the accuracy of the work to be performed.

4.4 In the event that the customer shall allow Caleb Brett the use of an employee of the customer that employee shall remain the employee of the customer and shall not become *pro hac vice* the employee of Caleb Brett whether for the purposes of contractual or delictual liability or otherwise.

4.5 Where reasonably practicable the customer shall provide, at its expense, telephone and telex facilities at offshore bases for use by the employees, agents or representatives of Caleb Brett for the purpose of communicating with the offices of Caleb Brett.

4.6 For the purpose of these general terms and conditions "offshore base" includes any offshore installation, ship, hovercraft or place outside the mainland of the United Kingdom including, without prejudice to that generality, bases on the Scottish Islands.

5. COMPLIANCE WITH SAFETY RULES

The customer shall comply with all relevant legislation and safety standards affecting the performance of a contract. In the event of a breach of this clause Caleb Brett shall be entitled to remove its employees, agents or representatives or any materials or equipment from any area affected by the breach until the breach is remedied. The customer shall indemnify Caleb Brett against any claim, demand, loss expense or liability (including but not limited to the cost of litigation) arising by reason of such breach.

6. LIMITATION OF LIABILITY

6.1 The liability of Caleb Brett and its employees, agents or representatives for claims, other than claims for death or personal injury arising out of contractual, quasi contractual, delictual, quasi delictual or statutory liability arising in any other manner whatever shall be limited in total for any incident to the sum of Fifty Thousand Pounds (£50,000) Sterling.

6.2 This limitation of liability applies whether or not the claim arises from intentional or negligent acts of Caleb Brett, its employees, agents or representatives.

7. INDEMNITY

7.1 The customer shall indemnify, hold harmless and defend Caleb Brett and its employees, agents and representatives from and against any claim, demand, loss, expense or liability (including but not limited to the cost of litigation) in connection with any contract (connection being direct or indirect):

7.1.1 arising by reason of claims by Governmental authorities or others of any actual or asserted failure of the customer to comply with any law, ordinance, regulation, rule or order of any Governmental or Judicial Body;

7.1.2 arising by reason of actual or asserted infringement or improper appropriation or use by the customer of trade secrets, proprietary information, know-how, copyright rights or patented or unpatented inventions or for actual or alleged unauthorised imitation of the work of others, arising out of the use of methods, processes, designs, information or other things originating with the customer, if employees, agents, representatives, vendors or sub-contractors, and furnished or communicated to Caleb Brett or its employees, agents or representatives by the customer or used by Caleb Brett or its employees, agents or representatives in connection with the performance of the contract;

7.1.3 being a claim or demand from, or liability to, or loss or expense by reason of a liability to any person other than the customer ("any person" in this context) for the avoidance of doubt includes but is not limited to employees of Caleb Brett and the customer in respect of personal injury or death, damage to or destruction or loss of property belonging to any person or in any other respect or manner whatever provided neither Caleb Brett, its employees, agents or representatives have been negligent.

7.2 The indemnity in paragraph 7.1.3 shall only apply where the circumstances preclude the application of particular indemnities set out elsewhere in these general terms and conditions.

8. EXTENSION OF BENEFIT

8.1 In so far as paragraphs 4.1, 5, 6, 7 and 11 or any other part of these terms and conditions purport to exclude liability of, or give the benefit of indemnification to anyone other than Caleb Brett, Caleb Brett is or shall be deemed to be acting as agent or Trustee on their behalf for their benefit.

8.2 The invalidity or unenforceability of any particular exclusion or restriction of liability provision or any indemnity provision of these general terms and condition or part thereof shall not affect the validity or enforceability of the remaining provisions or any part thereof.

9. UNUSED SAMPLE PORTIONS

Unused portions of analysis samples are retained by Caleb Brett for one year after completion of the analysis and then disposed of (except those of a dangerous nature where disposal is immediate). The customer may arrange to have such portions retained for a longer period for which facility Caleb Brett will require a storage charge.

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The hire period for equipment rental commences on the day on which the hired equipment is made available at the relevant Caleb Brett premises in a suitably packaged state for despatch, and terminates on the day of return to the same premises or such other agreed premises.

11. OFF PREMISES SERVICES AND INSTALLATION/COMMISSIONING OF EQUIPMENT

Should the services of Caleb Brett employees, agents or representatives be required at a location other than Caleb Brett's premises ("the foreign location") and/or to install/commission equipment on the customer's site this will be charged at Caleb Brett's normal rates plus travel and living expenses where appropriate. The customer shall be responsible for the supervision, safety and well-being of such employees, agents or representatives whilst they are at the foreign location or on the customer's site and the customer shall indemnify Caleb Brett and its respective employees, agents or representatives against any claim, demand, loss, expense or liability (including but not limited to the cost of litigation) in respect of a breach of its obligations arising from such responsibility under this Clause by the customer irrespective of any contributory negligence.

12. FREIGHT CHARGES

All carriage charges for hired equipment to and from such Caleb Brett premises will be charged to the hirer at cost.

13. INSURANCE

Insurance for the full value of hired equipment to cover loss or damage during the period of hire and while hired equipment is in transit is the responsibility of the hirer. Such insurance should also provide for the loss of rental payment in the event of hired equipment being damaged, destroyed or lost. By prior agreement Caleb Brett can provide suitable insurance cover to be charged "at cost" to the customer.

14. LOSS OR DAMAGE

14.1 **Loss** - Should hired equipment or any part thereof be lost during the period of rental or whilst in transit to and from site location or locations, the customer shall pay the full replacement cost of hired equipment whether or not it is replaced and all loss of profits to Caleb Brett.

14.2 **Damage** - Should hired equipment be damaged whilst in use or in transit as above the customer shall pay the cost of repairs necessary to restore it to its original condition at the beginning of the lease period or for the full replacement cost (even if not replaced) whichever is the lower and all loss of profits to Caleb Brett.

15. SERVICE AND REPAIR

15.1 The customer shall bear the cost of all repairs and maintenance to hired equipment. Such repair and maintenance shall be carried out by Caleb Brett. With the consent of Caleb Brett the customer may carry out such repairs or maintenance or arrange for these to be done by others approved by Caleb Brett. Should hired equipment need emergency repair or maintenance while it is outside the premises of Caleb Brett, the Customer may, without the consent of Caleb Brett, arrange for repairs or maintenance to be carried out up to a cost of Fifty Pounds Sterling for each emergency and shall inform Caleb Brett of the instructions for emergency repair or maintenance as soon as reasonably practicable.

15.2 The customer shall allow Caleb Brett reasonable facilities to enable Caleb Brett to carry out such repair and maintenance. On being given reasonable notice the customer shall allow Caleb Brett to inspect the hired equipment.

16. ALTERATION

Any alteration of these general terms and conditions shall not be binding unless it is in writing and signed on behalf of all the parties to the contract.

17. TERMINATION

Caleb Brett may by notice to the customer terminate any contract if the customer is in material breach of the provisions of that contract or if the customer is declared bankrupt or not in liquidation (other than a members voluntary liquidation for reconstruction or amalgamation purposes) or has a receiver appointed in respect of any of its property or undertaking or generally makes any arrangement or composition with its creditors.

18. FORCE MAJEURE

Neither Caleb Brett nor the customer shall be liable for failure to fulfil any contract if fulfilment is delayed, hindered or prevented by strikes, walk-outs or labour disputes of any kind, acts of God, war, riot, civil disturbances or acts of terrorism, if such delay, hindrance or prevention lasts for more than a continuous period of thirty days, either party may by notice to the other party terminate the contract.

19. NON-ASSIGNMENT

The customer shall not be entitled to assign a contract or any part of it or the benefit under it without the consent of Caleb Brett.

20. SECRECY

20.1 All information (other than information generally available to the public) on the properties or activities of the customer shall be held by Caleb Brett, its employees, agents and representatives in strictest confidence.

20.2 All information (other than information generally available to the public) on the properties or activities of Caleb Brett shall be held by the customer, its employees, agents and representatives in strictest confidence.

20.3 The obligations under this clause shall survive the completion or termination of a contract howsoever caused, and, without prejudice to that generality, if caused by or arising from frustration, fundamental breach or material breach.

21. APPLICATION OF CONDITIONS

21.1 These general terms and conditions shall apply to all contracts between Caleb Brett and the customer or any of the customer's affiliates unless and until these general terms and conditions are altered or excluded by express provision in writing signed on behalf of both parties. These general terms and conditions shall supersede all terms and conditions of contract of the customer and unless sooner accepted shall be deemed to be accepted on provision of services, employees, materials or equipment under the contract.

21.2 "Affiliates" for the purpose of this Clause means any holding, subsidiary or associated company of the customer. "Holding and subsidiary company" shall have the meanings set out in Section 154 of the Companies Act 1948 and "associated company" means a company while not being a subsidiary or holding company within the aforesaid meanings is directly connected through a chain of holding and/or subsidiary companies.

22. CHOICE OF LAW

Any contract shall be construed, under and governed by the laws of England.



CERTIFICATE OF ANALYSIS continued

88G087

Sample No.	Sulphide Nickel %w/w Ni
BH 365/1400 62-64	0.38
BH 365/1400 64-66	0.45

265/1400

For and on behalf of
CALEB BRETT INTERNATIONAL LIMITED

G.T. Ibbs

G.T. Ibbs
Technical Manager

ANALYSERAPPORT

PRØVER FRA GRUVEVANN/RÅVA v/1. RUI.

Dato 29 / 8 19 88

Produkt	% Ni	% Pb.	% Cu.	% Zn.	% S.	% Fe.
D. B. H. 255-136 72.50-74.00	0.16					
" " 74.00-76.00	0.13					
" " 76.00-78.00	0.04					
" " 78.00-80.00	0.05					
" " 80.00-82.00	0.14					
" " 82.00-84.00	0.26					
" " 84.00-86.00	0.32					
" " 86.00-88.00	0.66					
" " 88.00-90.00	0.71					
" " 90.00-92.00	0.88					
" " 92.00-94.00	0.78					
" " 94.00-96.00	0.73					
" " 96.00-98.00	0.16					
" " 98.00-99.50	0.66					

} 0.68% Ni

Sign. Torbjørn Sletten

PROVER FRA BRUVANN / RAVF $\frac{1}{I}$ - R.D. $\frac{1}{N}$ I.

D.B.H 255-176	72.50 - 74.00	m	0.16
"	74.00 - 76.00	"	0.13
"	76.00 - 78.00	"	0.04
"	78.00 - 80.00	"	0.05
"	80.00 - 82.00	"	0.14
"	82.00 - 84.00	"	0.26
"	84.00 - 86.00	"	0.32
"	86.00 - 88.00	"	0.66
"	88.00 - 90.00	"	0.71
"	90.00 - 92.00	"	0.88
"	92.00 - 94.00	"	0.78
"	94.00 - 96.00	"	0.73
"	96.00 - 98.00	"	0.16
"	98.00 - 99.50	"	0.66
<hr/>			
D.B.H 255-147	8.00 - 10.00	"	0.65
"	10.00 - 12.00	"	0.79
"	12.00 - 14.00	"	0.94
"	14.00 - 16.00	"	1.06
"	16.00 - 18.00	"	0.98
"	18.00 - 20.00	"	0.93
"	20.00 - 22.00	"	0.77
"	22.00 - 24.00	"	0.86
"	24.00 - 26.00	"	0.90
"	26.00 - 28.00	"	0.92
"	28.00 - 30.00	"	0.94
"	30.00 - 32.00	"	0.20
"	32.00 - 34.00	"	0.12

27.5

x
0.9/0.5

PRØVER FRA BRUVAN/RAMA 1/2 RUI

DBH	270/1417	8.70 - 10.00 m	% Ni
"	"	10.00 - 12.00	0.55
"	"	12.00 - 14.00	0.40
"	"	14.00 - 16.00	0.49
"	"	16.00 - 18.00	0.69
"	"	18.00 - 20.00	0.57
"	"	20.00 - 22.00	0.73
"	"	22.00 - 24.00	0.71
"	"	24.00 - 26.00	0.60
"	"	26.00 - 28.00	0.66
"	"	28.00 - 30.00	0.69
"	"	30.00 - 32.00	0.69
"	"	32.00 - 34.00	0.56
"	"	34.00 - 36.00	0.41
DBH	275/1420	19.00 - 21.50	0.41
"	"	21.50 - 23.00	0.59
"	"	23.00 - 25.00	0.60
"	"	25.00 - 27.00	0.73
"	"	27.00 - 29.00	0.69
"	"	29.00 - 31.00	0.75
"	"	31.00 - 33.00	0.70
"	"	33.00 - 34.35	0.65
"	"	34.35 - 36.00	0.63
"	"	36.00 - 38.00	0.69
"	"	38.00 - 40.00	0.59

100 3/100 - 86

X

ANALYSERAPPORT

PRØVER FRA BRUVANN/RÅNA

Dato 12/9 19 88

Produkt	% Ni	% Pb.	% Cu.	% Zn.	% S.	% Fe.
D.B.H. 275/136 63.00 - 65.00	0.19					
" " 65.00 - 67.00	0.25					
" " 67.00 - 69.00	0.29					
" " 69.00 - 71.00	0.50					
" " 71.00 - 73.00	0.52					
" " 73.00 - 73.90	0.53					
" " 74.80 - 77.00	0.40					
" " 77.00 - 79.00	0.43					
" " 79.00 - 80.20	0.19					
" " 80.20 - 82.00	0.53					
" " 82.00 - 84.00	0.71					
" " 84.00 - 86.00	0.81					
" " 86.00 - 88.00	0.77					
" " 88.00 - 90.00	0.68					
" " 90.00 - 92.00	0.29					
" " 92.00 - 95.00	0.18					
" " 95.00 - 97.00	0.54					
" " 97.00 - 99.00	0.36					
" " 99.00 - 101.00	0.75					
" " 101.00 - 103.00	0.76					
" " 103.00 - 105.00	0.73					
" " 105.00 - 106.30	0.87					
" " 106.30 - 108.00	0.66					

Anm.

Sign. T. Sletten