

Suite 4B 384 Eastern Valley Way Roseville NSW 2069 Telephone: 02 9417 3588 Facsimile: 02 9417 8750

COMPASS RESOURCES NL

GUARDIAN RESOURCES PTY. LTD

BROWNS LEASES

MLNs 139-147 and 150-152

ANNUAL REPORT FOR YEAR ENDED 31 DECEMBER 2002

> M.K. Boots March 2003

CONTENTS

		Summary	
		Introduction	Page
		Location and Tenure	Page
		Previous Exploration	Page
		Exploration Completed in 2000	Page
		Metallurgy	Page
		Future Programmes	Page
		Expenditure Statement	Page
Figure	1	Location Plan 1:50,000	

Figure 2 Details of Leases 1:10,000

SUMMARY

Additional drilling was undertaken to ascertain both ore distribution and variations in ore type/composition. Seven cored holes and two reverse circulation percussion holes being completed in this programme. All results were added to the Browns database.

INTRODUCTION

An agreement to acquire the Browns tenements from CRA Exploration was concluded in July 1994, in which Compass Resources NL (75%) and Guardian Resources NL (25%) became the new owners. Following rationalisation of regional tenements, Compass now holds 90% with Guardian Resources Pty. Ltd holding 10%. The Browns sulphide deposit is polymetallic in nature, with lead, copper, cobalt, nickel, zinc and silver all being present in a zoned stratiform deposit.

LOCATION AND TENURE

The tenements are located approximately 80 kilometres south of Darwin and adjoin the original mine sites of the Whites and Intermediate (Rum Jungle) Deposits (Figure 1). Details of the tenements is shown in Figure 2. Access from Darwin is via sealed roads to Batchelor and thence northward to the tenements via the Litchfield Road. Access is also possibly during the dry season by following the old railway line south from Darwin River, then onto local dirt roads.

The tenement details are as follows:

Lease Number	Renewed to	Area #
MLN 139	31 December 2022	16.162 hectares
MLN 140	"	16.162 "
MLN 141	"	16.036 "
MLN 142	"	16.010 "
MLN 143	"	16.162 "
MLN 144	"	16.112 "
MLN 145	"	15.757 "
MLN 146	"	15.454 "
MLN 147	ш	9.611 "
MLN 150	ш	15.934 "
MLN 151	"	14.720 "
MLN 152	"	6.804 "
	Total	174.824 ha

Calculated from imperial unit lease plan.

PREVIOUS EXPLORATION

Several CRA subsidiaries including Territory Enterprises Pty. Limited (TEP) and Australian Mining and Smelting Company Limited (AM&S) have undertaken extensive drill programmes at this Prospect, culminating with the sinking of a 400' shaft, underground drilling from two levels and underground sampling programmes in 1967-1968.

A resource figure of 20m tonnes grading approximately 5.6% Pb, 0.19% Cu, 0.11% Co, 0.14% Ni and 0.3% Zn was reported within the tenement by CRA.

Metallurgical studies and testing had also been undertaken on the sulphide ores, the aim of which was to produce both copper and lead concentrates by flotation methods. The results indicated that it was not possible to produce saleable copper and/or lead float concentrates due to the fine grained nature of the sulphide minerals, resulting in "dirty" concentrates.

In 1990 Troy Resources Ltd., which had an option on the tenements undertook metallurgical studies on drill core after drilling five diamond drill holes. This testwork also failed to find a route to separate copper and lead concentrates, however they did establish that "oil agglomeration" may be a potential flotation method to produce a bulk sulphide concentrate. In 1994 Compass/Guardian completed a 20 hole reverse circulation drill programme, and in 1995 completed 19 diamond drill holes. In 1996 a 117 R/C drill hole programme was undertaken. This work was all done to determine the tenor and limits of the mineralisation in the top 100 metres of the deposit. During 1997, twenty four diamond drill holes including 17 deeper holes were completed, and in 1998 an additional 61 RC drill holes were completed at Browns. Eight holes also being completed along strike at Browns East within EL 4880. In September 1999, a bulk sampling pit was started and metallurgical testwork commenced later that year on sulphide ores removed from that pit. In 2000 a series of 6 diamond drill holes were completed for geotechnical studies and 3 percussion holes were twinned with diamond holes. A series of percussion holes were drilled for magnesite evaluation.

In 2001 two deep diamond drill holes were completed, together with or resource studies.

WORK COMPLETED DURING 2002

Seven precollared diamond drill holes were completed, mostly in the western half of the orebody. These holes were split, with half core being immediately frozen for use in metallurgical variation testwork.

Quarter core was submitted for assay.

Two R/C percussion holes were also attempted, however these were not successful in reaching the target zone.

Hole	Easting	Northing	RL (m)	TD (m)	Azimuth (T)	Declination $^{\circ}$
02BD01	716387.15	8562490.23	569.55	293.00	336	60
02BD02	716487.00	8562568.24	567.00	237.00	333	65
02BD03	716654.96	8562641.73		195.20	333	70
02BD04	716407.02	8562600.92	564.05	182.40	333	65
02BD05	716256.89	8562483.88	568.30	187.00	333	60
02BD06	716207.34	8562446.12	571.10	211.10	336	60
02BD07	716059.46	8562481.39	571.60	178.00	156	60
02BD08	716097.54	8562547.25	570.10	94.00	156	60
02BD09	716252.64	8562650.42	567.65	123.00	156	60

Drill hole details are as follows - reported in AMG co-ordinates (1966 datum)

During the year metallurgical testwork was carried out and results of that work are appendixed.

EXPENDITURE STATEMENT

During the year more than \$2.3 million was spent on the Mining Leases. This amount is made up data compilation, resource and reserve studies, field costs for personnel during trips to the Mining Leases, assays costs, drilling costs and all associated expenses for the project area.

PLANS FOR THE FORTHCOMING YEAR

During 2003, Phelps Dodge Australasia will undertake deep drilling as part of a joint venture agreement With Compass and Guardian.





BROWNS MINING LEASES

Figure 2

Hole 02BD01Local Grid 9005' W 200' S AMG 1966 datum 8562490.23 N 716387.15 EInclination 60°direction 333° magDate commenced 24 June, 2002RL collar 69.55mDate finished 29 June, 2002

R/C collar

From	То	Int	Description
0	3	3	Red brown clays
3	16	13	Browns-khaki clays, weathered amphibolite
16	22	6	Partly weathered grey-green amphibolite
22	55	33	Fresh grey-green calcite amphibolite
55	91	36	Grey-green calcite amphibolite
91	93	2	Finer grained grey shaley rock
93	109	16	Grey green amphibolite
109	141	32	Grey shale - pyritic
141	144	3	Light grey "cherty shale" ?silicified, grey green amphibolite

End of Collar

Diamon	d Drillin	g	
144	150	6	Amphibolite
150	157	7	Pyritic black shale
157	164	7	Andalusite schist, some gn
164	215.8	51.8	Banded grey shales, PbS
215.8	216.4	0.6	Amphibolite/dyke
216.4	220	3.6	Grey black shales
220	224.6	4.6	Massive pale grey "chloritic ss of CRA" with galena
224.6	224.9	0.3	Black shale
224.9	235	10.1	Chloritic SS massive banded, pale green-cream colour
235	250	15	Chloritic black shales, pyrite, chalcopyrite, much graphite
250	268	18	Black shales, mudstones much graphite and various minerals,
			chalcopyrite, gn, pyrite
268	279.2	11.2	Sericite quartz, laminated with pyrite blebs and calcite veining
279.2	284	5.2	Transition zone to carbonate
284	293	9	Dolomite/magnesite

End of Hole

Hole 02BD02 Local Grid 8600 W 100 S Inclination 65° 330° mag Date commenced 29 June, 2002

AMG 1966 datum 8562568.24 N 716487.00 E RL collar 67.0m Date finished 2 July, 2002

R/C collar

From	То	Int	Description
0	4	4	Soils, transported material
4	15	11	Loamy sand and gravel
15	18	3	Weathered shales, limit of weathering
18	67	49	Amphibolite, calcareous, medium grained
67	70	3	Amphibolite, non calcareous, medium grained
70	77	7	Amphibolite, calcareous, medium grained
77	80	3	Amphibolite, non calcareous,
80	110	30	Shale, carbonaceous and pyritic
110	150	40	Shale, sericitic, minor graphite, pyritic

End of Collar

Diamond drilling

150	4 5 0 1	<u> </u>	
150	156.4	6.4	Amphibolite, para - massive locally fractured
156.4	164.3	7.9	Mudstone, schistose, graphitic, chloritic?
164.3	166.7	2.4	Sericite rock - khaki alteration zone
166.7	191.2	24.5	Mudstone, crenulated, collapse breccia, vein gn
191.2	193	0.8	Sericite rock, khaki alteration zone
193	200.2	7.2	Mudstone with calcareous intervals, locally breccia, collapsed
			breccia
200.2	200.5	0.3	Sericite rock, khaki alteration zone
200.5	206	5.5	Mudstone, graphitic, sheared
206	212	6	Mudstone, well laminated less graphitic, locally silty intervals
212	215.5	3.5	Mudstone, sheared, calcite veins and breccia
215.5	220.7	5.2	Transition unit, porphyroclastic texture, mudstone, brecciated
			with calcite veins
220.7	221.2	0.5	Fault zone breccia
221.2	225	3.8	Mudstone with breccia and collapse structure
225	227	2	Transition with carbonate rocks below
227	228	1	Dolomite/magnesite breccia with interbeds of mudstone
228	232	2	Mudstone, silicic, locally graphite sheared minor gn
232	237	5	Dolomite/magnesite

End of Hole

Hole 02BD03 Local Grid 8000 W 100 S Inclination 70° 330° mag Date commenced 2 July, 2002

AMG 1966 datum 8562641.73 N 716654.96 E RL collar 64.05m Date finished 6 July, 2002

R/C collar

From	То	Int	Description
0	5	5	Grey soils (transported)
5	20	15	Weathered amphibolite
20	29	9	Amphibolite, calcareous
29	35	6	Amphibolite, non-calcareous
35	52	17	Shale, pyritic, graphitic
52	59	7	Amphibolite and shale
59	74	15	Shale, pyritic, graphitic
74	76	2	Shale, graphitic
76	78	2	Amphibolite
78	79	1	Shale and amphibolite
79	101	22	Shale, graphitic and pyritic

Diamond Drilling

-			
101.2	112	10.8	Mudstone, well bedded quartzose, pyritic with sandy
			interbeds
112	117	5	Mudstone, crenulated, slumped, locally graphitic
117	119	2	Mudstone, graphitic with quartz/calcite lens
119	121	2	Sericite rock - khaki alteration
121	128	7	Mudstone, crenulated, graphitic, minor gn
128	131	3	Mudstone, less graphitic, less crenulated
131	141	10	Mudstone, crenulated and breccia
141	150	9	Mudstone, less crenulated
150	153	3	Mudstone, increasingly crenulated
153	156	3	Mudstone, less graphitic
156	164	8	Mudstone, good visible chalcopyrite
164	167	3	Dololutite?, calcareous silty dolomite, light grey
167	172	5	Mudstones, calcareous, dark grey
172	195.2	23.2	Dololutite, variously silicic locally stylitic, light grey, tendency
			to dolomites

End of hole

Hole 02BD04 Local Grid 8805 W 100 S AMG 1966 datum 8562600.00 N 716407.02 E Inclination 65° Direction 330° mag RL collar 68.3m Date commenced 6 July, 2002 Date finished 8 July, 2002

R/C collar

From	То	Int	Description
0	20	20	Grey transported material - weathered soils
20	23	3	Weathered amphibolite
23	27	4	Amphibolite
27	31	4	Shale, amphibolite
31	40	9	Shale, pyritic, graphitic
40	47	7	Shale, sericitic, pyritic, very little graphite
47	53	6	Shale, increased graphite with calcite veins
53	54	1	Shale, sericitic, pyritic
54	55	1	Shale, graphitic, pyritic
55	60	5	Shale, sericitic _ graphitic, pyritic

Diamond Drilling

-			
60	62	2	Amphibolite, para - graphitic shears
62	70	8	Amphibolite, para - massive
70	76	6	Mudstone, sericitic, minor graphite, minor pyrite
76	83	6	Mudstone, increasing graphite, increasingly contracted and
			stumped, local breccia.
83	93	10	Mudstone, graphitic, sheared, local khaki (sericite) alteration
93	102	9	Sericite rock - khaki alteration zone with galena
102	106	4	Mudstone, unsheared, black with chalcopyrite
106	111.2	5.2	Sericite rock - khaki alteration zone
111.2	111.4	0.2	Mudstone, sheared with vein chalcopyrite
111.4	121	9.6	Sericite rock - khaki alteration zone
121	125	4	Mudstone, black and sericite rock interbedded
125	131	6	As above, sheared and collapse breccia
131	134	3	"caves" probably old mine workings
134	147	13	Finely interbedded mudstones and sericite schist - contorted
147	163	16	Mudstone, graphitic with quartz calcite veins highly contorted
163	173	10	Mudstone, sericitic, pyritic, massive
173	180	7	Transition - calcite beds/dolomite with quartz veining, pyritic
180	182.4	2.4	Dolomite fine to medium grained, medium grey
End of Hole			

Hole 02BD05 Local Grid 9400 W 48' S AMG 1966 datum 8562483.88 N 716256.89 E Inclination 60° Direction 330° mag RL collar 71.10m Date commenced 9 July, 2002 Date finished 11 July, 2002

R/C collar

From	То	Int	Description
0	2	2	Transported material
2	20	18	Schists after amphibolite
20	26	6	Weathered amphibolite
26	52	26	Amphibolite, calcareous with pyrrhotite (magnetic)
52	58	6	Amphibolite, non calcareous
58	60	2	Amphibolite, calcareous

Diamond Drilling

60	61.9	1.9	Weathered amphibolite, pyrite casts
61.9	62.6	0.7	Shales, sericite
62.6	66.3	3.7	Amphibolite, para
66.3	67.8	1.5	Shales, sericitic
67.8	70.5	2.7	Shales, sericite, graphite
70.5	74.4	3.9	Mudstone, increasing graphite, sericite
74.4	77	2.6	Amphibolite, para
77	80.5	3.5	Mudstone, sericitic, graphitic
80.5	81.8	1.3	Amphibolite, para
81.8	86.3	4.5	Mudstone, graphitic, contorted, collapse breccia
86.3	92	5.7	Interbedded amphibolite and shales, sericitic graphitic
92	101.8	9.8	Shales, sericitic, intraformational breccia
101.8	106	4.2	Mudstone, increased graphitic, parallel to dip, collapse breccia
106	111	5	Mudstone, less collapse breccia, sericitic
111	117.4	6.4	Mudstone, graphitic collapse breccia
117.4	125.1	7.7	Mudstone, sericitic, graphitic, well laminated
125.1	129.7	4.6	Mudstone, collapse breccia, laminations in silty graphite sericite rock
			with galena
129.7	136.9	7.2	Mudstone, sericitic, graphitic, well laminated
136.9	163.5	26.6	Mudstone, variously crenulated, collapse breccia, varying graphite
163.5	165	1.5	Mudstone, less collapsed, more laminated
165	167.5	2.5	Mudstone, collapse breccia, with quartz calcareous veins
167.5	171.2	3.7	Mudstone, well laminated, pyritic
171.2	173.8	2.6	Mudstone, sheared, graphitic
173.8	176.9	3.1	Mudstone, less sheared, less graphite
176.9	183	6.1	Mudstone, sericitic, laminated, pyritic
183	184.4	1.4	Mudstone, collapse breccia, graphitic
184.4	187	2.6	Mudstone, sericitic, laminated, pyritic

End of hole

Hole 02BD06 Local Grid 9600 W 100' S AMG 1966 datum 8562446.12 N 716207.34 E Inclination 60° 333° mag RL collar 71.45m Date commenced 11 July, 2002 Date finished 15 July, 2002

R/C collar

From	То	Int	Description
0	4	4	Soils - laterite and transported material
4	17	13	Soil ex amphibolite
17	25	8	Weathered amphibolite
25	44	19	Amphibolite, calcareous, pyritic, pyrrhotitic
44	53	9	Amphibolite, non calcareous, pyritic
53	60	7	Amphibolite, calcareous, pyrrhotitic

Page 1

Hole 02BD06 Local Grid 9600 W 100' S AMG 19 Inclination 60° 333° mag R Date commenced 11 July, 2002

AMG 1966 datum 8562446.12 N 716207.34 E RL collar 71.45m Date finished 15 July, 2002

Diamond drilling

60	69.3	9.3	Amphibolite, para; medium grained, massive
69.3	72.8	3.5	Amphibolite, para, fine grained, massive
72.8	74.9	2.1	Mudstone, sericite, massive
74.9	78.8	3.9	Amphibolite, para, fine grained with minor interbeds of mudstone,
			sericite
78.8	83	4.2	Mudstone, graphitic, sheared, galena breccia, mineralised
83	83.8	0.8	Amphibolite, para (?), sulphides
83.8	87.1	3.3	Mudstone, sericitic, minor graphite
87.1	90.4	3.3	Mudstone, increased graphite galena
90.4	97.1	6.7	Mudstone, sericitic, locally graphitic, slump breccia, galena
97.1	98.3	1.2	as above, more sheared, more graphite
98.3	101.3	3	Basic volcanic with a mygdules quartz/calcareous
101.3	103.8	2.5	Fault zone, breccia with quartz veining, irregular shaped quartz
			clasts
103.8	105.2	1.4	Transition zone into amphibolite, ortho?
105.2	112.3	7.1	Basic dyke (Zamu dolomite?) with ophitic texture
112.3	119.6	7.3	Mudstone, graphitic, sericitic
119.6	124.6	5	Mudstone, slatey cleavage, interbedded sericite and graphite layers
124.6	126.8	2.2	Amphibolite, ortho (ex dyke) with intense calcite veining
126.8	128.7	1.9	Dolerite dyke, ophitic texture, fine grained
128.7	129.4	0.7	Interbeds of mudstone and dolerite? with quartz veins
129.4	135.2	5.8	Dolerite, fine grained, locally amypleloidal, local pyritic
135.2	152.4	17.2	Mudstones, laminated sericitic
152.4	162.2	9.8	Mudstones, breccia, crenulated, collapse breccia increasing graphite
162.2	166.4	4.2	Mudstone, mainly sericitic, locally graphitic
166.4	173.9	7.5	Mudstone, breccia, crenulated, collapse breccia, increasing graphite
173.9	182.8	8.9	Mudstone, less brecciated, less graphitic
182.8	187.2	4.4	Mudstone, sericitic, less graphite
187.2	190.2	5	Mudstone, increased graphite + crenulated
190.2	194.8	4.6	Mudstone, more sericitic
194.8	196.4	1.6	Mudstone, shear zone with calcite veining
196.4	210	13.6	Mudstone, sericitic, well laminated and pyritic

End of hole

Page 2

Hole 02BD07

Page 1

Local Grid 10000' W 200' N Inclination 60° 153° mag Date commenced 15 July, 2002 AMG 1966 datum 8562481.39 N 716059.46 E RL collar 71.60m Date finished 17 July, 2002

R/C collar

From	То	Int	Description
0	1	1	Gravel - transported
1	12	11	Puggy sandy silt
12	23	11	Sandy Silt
23	32	9	Mix soils and chips/fragments
32	55	23	Sericite rock/schist, silky locally pyritic
55	81	26	Sericite rock, silky structures, locally pyritic

Diamond Drilling

80.9	85.4	4.5	Mudstone, graphitic, sericitic, breccia locally
85.4	85.5	0.1	Quartz vein
85.5	86.5	1	Mudstone, graphitic
86.5	94.4	7.9	Mudstone, more sericitic
94.4	97.3	2.9	Mudstone more graphitic
97.3	101.8	4.5	Sericite - andalusite rock
101.8	105.4	3.6	Laminated sericite rock
105.4	105.9	0.5	Quartz vein - fault zone
105.9	109.8	3.9	Amphibolite?, fine grain altered, locally quartz veined?
109.8	114	4.2	Mudstone, graphitic, breccia, collapse breccia
114	116	2	Sericite (khaki altered) rock with interbeds shale, black
116	129.4	13.4	Sericite rock (khaki altered zone) massive
129.4	130.2	0.8	Mudstone, black, sericite, graphite with galena
130.2	140	9.8	Sericite rock (khaki altered zone) with minor mudstone interbeds
			and blots, possibly remnants pre-alteration
140	143.9	3.9	As above
143.9	153.0	9.1	Sericite Rock, (khaki altered zone) massive
153.0	161.8	8.8	Sericite Rock (khaki altered zone) in minor mudstone interbeds and
			blots, possibly remnants pre-alteration
161.8	164	2.20	As above increasing interbeds
164	178	14.0	As above but less intense alteration, locally laminated

EOH

Hole 02BD08

Page 1

Local Grid 9800' W 350' N Inclination 60° 153° mag Date commenced 17 July, 2002 AMG 1966 datum 8562547.25 N 776097.54 E RL collar 70.10 Date finished 18 July, 2002

R/C collar

From	То	Int	Description
0	3	3	ex lateritic gravel
3	24	21	Silty sands, light khaki colours
24	32	8	Shales, sericite graphite, silky partly weathered
32	38	6	Sericite minor graphite rock, schistose, dark grey
38	44	6	Sericite minor graphite rock, schistose, dark grey, locally pyritic
44	61	17	Sericite minor graphite rock, schistose, dark grey
61	72	11	Sericite minor graphite rock, schistose, dark grey, less schistose,
			possibly "amphibolite" interbeds with minor Po?
72	76	4	Sericite minor graphite rock, silty
76	81	5	Sericite minor graphite rock, silty, cherty/quartzose
81	83	2	Sericite minor graphite rock, silty, cherty/quartzose, minor Po
83	84	1	Sericite minor graphite rock, silty, cherty/quartzose, locally pyritic
84	94	10	Sericite minor graphite rock, silty, cherty/quartzose

EOH

Hole 02BD09

Page 1

Local Grid 9200' W 450' N AMG 1966 datum 8562650.42 N 716252.64 E Inclination 60° 153° mag RL collar 67.65 Date commenced 18 July, 2002 Date finished 19 July, 2002

R/C collar

From	То	Int	Description
0	2	2	Puggy dark grey soil ex black shale
2	11	9	Sandy/silt dark grey, ex black shales
11	12	1	Calcareous/sericitic
12	20	8	Ex black shales
20	23	3	Weathered sericite shale
23	31	8	Dark grey graphite sericite rock with sulphides
31	34	2	Dark grey graphite sericite rock with sulphides with quarts veins
34	46	12	Dark grey graphite sericite rock with sulphides
46	48	2	Dark grey graphite sericite rock with sulphides with quartz veins
48	55	7	Dark grey graphite sericite rock with sulphides
55	68	13	Dark grey graphite sericite shales
68	72	4	Transitioned V "amphibolite calc? or altered Zamu dolerite/calc
72	79	7	Amphibolite, calcareous in disseminated pyrite/po
79	86	7	Amphibolite, calcareous in disseminated pyrite/po, less calc
86	103	17	Amphibolite, calcareous in disseminated pyrite/po increased calc
103	110	7	Amphibolite, calcareous in disseminated pyrite/po in brick red
			mineral in ??? chalcopyrite/pyrite
110	123	13	Amphibolite, moderate calcareous

E.O.H