Key - AAS = Atomic Absorption Spectrophotometry
XRF = X ray Flourescence
Amdel = commercial laboratory, Adelaide
MRL = Materials Research Lab (Defense Dept.)
BMR = Bureau of Mineral Resources (Canberra)
CRA = Conzinc Riotinto Australia (Labs at Broken Hill)

DIAMANTINA CRUISE, JANUARY - FEBRUARY 1976

Station	Lat. (S)	Long. (E)	Depth (m)	Mn	Fe	Ni	Cu	Co	V	Mo	Cr	Zr	
1	37°56'	114°38'	∿ 4800										unsuccessful, dredge not on bottom
2	40°03	114°10'	∿ 4700	19.3%	6.5%	1.12%	.57%	.07%					Amdel, AAS, recalculated
3	41°53'	113°57'	∿ 4300	25.2	12.3	1.04	.36		.04%			.05%	Monash, XRF
				24.0	11.2	1.05	.50	.08					Amdel, AAS, recalculated
				20.6	11.4	1.13	.28	.06	.04	.04%	.05%		MRL, AAS
4	37°57'	103°09'	∿ 5000	24.2	12.9	0.92	.31		.04			.06	
				25.1	12.5	0.95	.33						
				24.3	13.5	0.97	.34						
				25.6	13.8	1.05	.37						Monash, XRF
				24.1	12.9	0.91	.31						
				25.9	12.1	1.12	.37						
				24.9	13.1	1.05	.36						
				21.7	12.1	0.90	.40	.13					Amdel, AAS, recalculated
				21.4	11.9	0.97	.26	.13	.04	.04	.06		MRL, AAS
						0.95	.38	.14					BMR, AAS
5	37°00'	102°55'	∿ 4700	24.7	12.5	0.96	.36		.04			.05	
				23.7	12.8	0.94	.33						
				25.9	11.5	1.07	.41						
				24.8	11.9	1.01	.39						Monash, XRF
				26.6	11.5	1.28	.49						
				25.3	11.9	0.98	.37						
				25.3	9.7	1.05	.40						
				23.9	11.0	.96	.49	.15					Amdel, AAS, recalculated
				22.1	9.9	.97	.34	.13	.03	.04	.05		MRL, AAS
						1.00	.45	.15					BMR, AAS
6	36°00'	102°00'	∿ 4800	25.5	10.8	1.09	.43		.04			.05	
				22.6	13.9	0.80	.30						
				24.7	11.7	1.01	.39						
				23.8	13.1	0.87	.32						Monash, XRF
				23.8	12.6	0.88	.33						
				24.3	13.5	0.93	.33						
				21.5	11.7	0.84	.42	.15					Amdel, AAS, recalculated
				22.7	11.2	1.01	.31	.15	.04	.04	.05		MRL, AAS
						0.88	.38	.20					BMR, AAS

DIAMANTINA CRUISE, JANUARY - FEBRUARY 1976 (continued)

Station	Lat. (S)	Long. (E)	Depth (m)	Mn	Fe	Ni	Cu	Co	V	Mo	Cr	Zr	
7	$35^{0}54'$	$99^{0}03'$	∿ 4300	25.5%	12.4%	1.13%	.40%		.04%			.06%	
				22.7	14.6	0.83	.29						
				22.7	13.3	0.86	.29						
				24.4	14.1	0.94	.32						
				24.6	13.3	1.01	.34						Monash, XRF
				24.1	13.3	1.00	.31						
				24.2	13.1	1.07	.35						
				23.9	13.0	1.06	.35						
				22.0	12.3	0.88	.37	.18					Amdel, AAS, recalculated
				21.6	11.3	0.94	.28	.16	.03	.02	.04		
				20.6	12.1	1.02	.29	.17	.04	.03	.05		MRL, AAS
				19.8	13.2	1.07	.25	.17	.04	.03	.05		
						0.88	.38	.20					BMR, AAS
8	$34^{0}58'$	$98^{0}58'$	∿ 4350	24.9	12.0	1.00	.35		.04			.05	
				25.3	11.5	1.13	.41						
				24.8	11.8	1.04	.40						
				26.3	11.0	1.10	.45						Monash, XRF
				25.6	11.5	1.05	.39						
				24.0	11.7	1.00	.36						
				24.2	10.8	1.05	.41						
				23.5	10.4	1.00	.49	.19					Amdel, AAS, recalculated
				16.3	13.3	0.90	.27	.13	.04	.03	.06		MRL, AAS
						1.00	.43	.20					BMR, AAS
9	$34^{0}38'$	$101^{0}00'$	∿ 4650	22.5	15.9	0.73	.27		.04			.06	
				24.6	15.0	0.88	.31						
				24.9	14.9	0.89	.32						
				22.7	16.2	0.79	.27						Monash, XRF
				19.8	15.9	0.55	.22						
				20.0	14.8	0.60	.26						
				21.8	14.8	0.79	.28						
				19.1	14.2	0.61	.26	.18					Amdel, AAS, recalculated
				17.2	14.1	0.66	.20	.12	.04	.03	.06		MRL, AAS
						0.90	.38	.23					BMR, AAS

Total: 66 nodules analyzed

DIAMANTINA CRUISE, JULY - AUGUST 1977

Station	Lat. (S)	Long. (E)	Depth (m)	Mn	Fe	Ni	Cu	Co	
1	38°25.8'	118°07.4'	∿ 5300						Dredged in Oct. '77
2	39°56'	118°00'	∿ 4700	15.8%	13.3%	0.45%	.20%	.13%	CRA, AAS (1st. run) nodule rims only
				18.4	12.9	0.58	.22	.14	
				16.6	13.4	0.45	.20	.14	
				15.6	14.0	0.48	.20	.13	CRA, AAS (2nd. run) whole nodule
				19.2	15.5	0.64	.26	.14	AMDEL, AAS, whole nods.
				19.0	16.2	0.60	.26	.14	
3	39°58'	115°56'	∿ 4750	26.2	6.5	0.76	.41	.10	CRA, AAS (1st. run) nodule rims only
				13.6	6.7	0.63	.33	.06	AMDEL, AAS, whole nods.
4	38°09'	115°57'	∿ 4050						Sediment only
5	38°38'	114°00'	∿ 4650	19.6	10.4	0.80	.37	.13	CRA, AAS (1st. run) nodule rims only
				19.4	10.4	0.78	.37	.13	
				19.6	10.4	0.77	.37	.13	
				15.8	10.6	0.62	.30	.10	CRA, AAS (1st. run) whole nodule
				20.8	15.7	0.74	.31	.16	AMDEL, AAS whole nodules
				15.3	15.6	0.43	.23	.12	
				16.8	15.6	0.51	.26	.13	
				18.2	14.5	0.59	.30	.13	
6	38°33'	111°59'	∿ 4600	16.6	14.3	0.35	.16	.18	CRA, AAS (2nd. run) nodule rims only
				16.3	14.2	0.35	.16	.17	
				16.2	14.1	0.35	.15	.17	
				14.0	14.0	0.32	.15	.15	CRA, AAS (2nd. run) whole nodule
				17.5	18.5	0.35	.16	.20	AMDEL, AAS whole nodules
				16.6	18.7	0.32	.15	.20	
				16.1	18.7	0.34	.16	.19	
7	40°00'	112°01'	∿ 4200	16.4	15.6	0.34	.15	.17	CRA, AAS (1st. run) nodule rims only
				15.8	15.4	0.36	.18	.15	
				16.5	15.5	0.35	.15	.16	
				15.2	16.3	0.34	.15	.16	CRA, AAS (2nd. run) whole nodule
				17.6	19.5	0.40	.16	.17	AMDEL, AAS whole nodules
				18.6	19.7	0.45	.19	.18	
				18.1	19.8	0.40	.17	.17	
				18.5	19.9	0.41	.18	.17	
8	41°00'	112°02'	∿ 4500	17.7	6.4	0.79	.42	.07	CRA, AAS (1st. run) nodule rims only
				18.7	9.5	0.83	.46	.09	AMDEL, AAS, whole nods

				18.7	9.5	0.83	.46	.09	AMDEL, AAS, whole nods
9	40°02'	110°04'	∿ 4600	21.3 21.2 20.5	8.1 8.3 7.9	0.98 0.94 0.92	.47 .46 .47	.09 .10 .09	CRA, AAS (1st. run) nodule rims only
				20.3	8.6	0.84	.44	.09	CRA, AAS (2nd. run) whole nodule
				22.7 23.5 23.9 23.2	10.6 10.8 10.6 10.3	1.04 1.03 1.02 1.01	.53 .50 .52 .52	.10 .10 .10 .10	AMDEL, AAS whole nodules
10	38°30'	110°00'	-						Dredge not on bottom (?)
11	36°38'	112°16'	∿ 4100	17.3 16.5	14.1 13.9	0.28 0.25	.12 .11	.55 .46	CRA, AAS (1st. run) nodule rims only
				3.6	7.4	0.24	.04	.08	CRA, AAS (2nd. run) whole nodule
				18.6 18.5	20.0 19.0	0.34 0.33	.14 .11	.40 .41	AMDEL, AAS, whole nods.

Total: 46 nodules analyzed
27 whole nodules

TABLE 1

MISS BOOMERANG CRUISE, SEPTEMBER 1977

Station	Lat. (S)	Long. (E)	Depth (m)		Mn	Fe	Ni	Cu	Co	
1	36°30'	117°00'	> 4800							Sediment only
2	39°13'	116°33'	∿ 4800	C	14.0%	15.8%	0.29%	.15%	.17%	CRA, AAS
				C	18.5	14.2	0.35	.14	.16	
				B	16.3	14.2	0.51	.18	.18	
				A	15.7	14.0	0.49	.17	.19	
3	39°14'	115°04'	> 4800	C	18.4	8.0	0.86	.45	.11	CRA, AAS
4	38°30'	115°03'	∿ 4800	A	13.2	13.9	0.31	.18	.18	CRA, AAS
				A	12.9	14.2	0.31	.18	.17	
				B	14.3	13.4	0.38	.15	.18	
				C	14.5	14.6	0.36	.17	.20	
				C	14.1	13.6	0.38	.18	.19	
5	36°37'	116°11	∿ 5000	B	8.9	15.1	0.22	.33	.13	CRA, AAS
6	36°14.5'	115°34'	∿ 5000							Sediment only
7	35°54'	114°37'	> 5000							Sediment only
8	35°49'	114°39'	> 5000	A	3.7	12.1	0.07	.14	.06	CRA, AAS
9	35°39'	112°34'	∿ 5000	A	4.2	7.9	0.15	.34	.06	CRA, AAS
				A	6.4	9.1	0.17	.10	.08	
				B	4.1	10.4	0.11	.09	.05	
				C	7.2	9.8	0.22	.15	.09	
10	35°11.5'	111°56'	∿ 5000	A	12.8	14.1	0.27	.15	.19	CRA, AAS
				B	12.9	13.8	0.26	.13	.20	
				C	3.0	9.0	0.13	.27	.04	
11	34°51'	109°56'	∿ 4600	C	9.8	11.4	0.24	.12	.12	CRA, AAS
				C	11.5	12.3	0.23	.16	.16	
				A	4.2	8.5	0.10	.07	.07	
				B	9.0	11.3	0.21	.13	.12	
12	35°26'	110°44'	4560	A	14.1	13.2	0.29	.14	.19	CRA, AAS
				B	13.7	13.2	0.27	.13	.19	
				C	14.5	12.1	0.37	.17	.20	
13	35°15'	111°02'	∿ 4800	A	6.6	9.7	0.15	.08	.10	CRA, AAS
				B	9.4	13.0	0.16	.08	.12	
				C	9.3	13.1	0.12	.07	.14	

Total: 29 nodules analyzed

HMAS MORESBY CRUISE, NOVEMBER, 1979

Station	Lat. (S)	Long. (E)	Depth (m)	Mn	Fe	Ni	Cu	Co	
1	38°06.1'	108°48.8'	4750	23.2 21.1	12.4 13.5	1.00 0.84	0.48 0.36	0.15 0.16	BMR, AAS
3	38°01'	101°18'	4600	24.9	10.8	1.11	0.47	0.15	BMR, AAS
5	37°05'	98°26'	4550	24.9 25.8	8.6 9.5	1.12 1.11	0.64 0.56	0.15 0.16	BMR, AAS
6	35°31'	100°19'	4450	21.9	15.6	0.71	0.27	0.23	BMR, AAS
7	37°22.3'	101°15.8'	4600	23.5 23.6	12.8 12.3	0.92 0.60	0.37 0.38	0.17 0.18	BMR, AAS

Total: 8 whole nodules analyzed