

PRELIMINARY

RESOURCES INC.
VANGORDA V8912 RESERVES

007147

OVERBURDEN/WASTE/ORE TONNES FEB 2/90

Reserves Calculated Between :

Top Pit Surface : Start-up of Mining Topographic Surface (V1)
Bottom Pit Surface: VIV December 1989 Vangorda Ultimate Pit Design (V4)

Pb+Zn Cutoff = 3%

No Mining Loss, No Dilution, No Assumptions

Crest m	Toe m	OVB Tonnes	Undiff. OVB / Rock	Phyllite Waste	Sulphide Waste	+3% Ore Tonnes	Total Bench
1182	1176	0					0
1176	1170	4,720					4,720
1170	1164	97,440	32,700	4,000			134,140
1164	1158	336,190	68,220	11,960			416,370
1158	1152	835,610	148,740	45,700			1,030,050
1152	1146	1,203,030	211,090	209,360	35,970	68,680	1,728,130
1146	1140	1,243,190	264,400	445,350	58,700	313,070	2,324,710
1140	1134	887,400	269,230	596,870	126,840	575,470	2,455,810
1134	1128	767,020	211,330	698,580	127,820	513,090	2,317,840
1128	1122	602,890	95,400	686,550	138,870	418,950	1,942,660
1122	1116	438,640	24,440	775,400	146,820	414,800	1,800,100
1116	1110	185,350	38,880	679,830	96,440	515,030	1,515,530
1110	1104	18,370	9,460	655,410	158,440	600,630	1,442,310
1104	1098			503,810	139,310	530,110	1,173,230
1098	1092			479,970	113,210	494,130	1,087,310
1092	1086			370,410	93,070	415,990	879,470
1086	1080			273,320	140,110	425,240	838,670
1080	1074			160,970	94,790	441,560	697,320
1074	1068			123,390	52,590	356,800	532,780
1068	1062			65,980	37,190	288,370	391,540
1062	1056			34,850	52,470	258,820	346,140
1056	1050			3,130	10,380	240	13,750
1050	1044						0
Total:		6,619,850	1,373,890	6,824,840	1,623,020	6,630,980	23,072,580

Overburden Density = 2.1 tnns/cubic metre
Undifferentiated OB/Rock Density = 2.7 tnns/cubic metre
Phyllite Waste Density = 2.7 tnns/cubic metre

PRELIMINARY

**CURRAGH RESOURCES INC.
VANGORDA V8912 RESERVES**

OVERBURDEN / WASTE / ORE TONNES FEB 2 / 90

Reserves Calculated Between :

Top Pit Surface : Start-up of Mining Topographic Surface (V1)
Bottom Pit Surface: VIV December 1989 Vangorda Ultimate Pit Design (V4)

Pb+Zn Cutoff = 4% No Mining Loss, No Dilution, No Adjustments

Crest m	Toe m	OVB Tonnes	Undiff. OVB / Rock	Phyllite Waste	Sulphide Waste	+4% Ore Tonnes	Total Bench
1182	1176						0
1176	1170	4,720					4,720
1170	1164	97,440	32,700	4,000			134,140
1164	1158	336,190	68,220	11,960			416,370
1158	1152	835,610	148,740	45,700			1,030,050
1152	1146	1,203,030	211,090	209,360	48,040	56,610	1,728,130
1146	1140	1,243,190	264,400	445,350	132,760	239,010	2,324,710
1140	1134	887,400	269,230	596,870	175,990	526,320	2,455,810
1134	1128	767,020	211,330	698,580	173,370	467,540	2,317,840
1128	1122	602,890	95,400	686,550	190,280	367,540	1,942,660
1122	1116	438,640	24,440	775,400	201,570	360,050	1,800,100
1116	1110	185,350	38,880	679,830	142,480	468,990	1,515,530
1110	1104	18,370	9,460	655,410	242,100	516,970	1,442,310
1104	1098			503,810	209,410	460,010	1,173,230
1098	1092			479,970	160,160	447,180	1,087,310
1092	1086			370,410	109,110	399,950	879,470
1086	1080			273,320	182,640	382,710	838,670
1080	1074			160,970	124,600	411,750	697,320
1074	1068			123,390	72,100	337,290	532,780
1068	1062			65,980	45,500	280,060	391,540
1062	1056			34,850	65,720	245,570	346,140
1056	1050			3,130	10,510	110	13,750
1050	1044						0

Total: 6,619,850 1,373,890 6,824,840 2,286,340 5,967,660 23,072,580

Overburden Density = 2.1 tnnns/cubic metre
Undifferentiated OB/Rock Density = 2.7 tnnns/cubic metre
Phyllite Waste Density = 2.7 tnnns/cubic metre

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CURRAGH RESOURCES INC.
VANUATU DEPOSIT 12 RESERVES

TENNEY
February 2, 1980

PRELIMINARY

Reserves Calculated Between :

Top Pit Surface (1) Start-up of Mining Topographic Surface (V11)
Bottom Pit Surface (2) 9/10 December 1989 Vanuatu Ultimate Pit Design (V4)

Pb+Zn Cutoff = 3% No mining loss, no dilution, no adjustments.

Pb+Zn Cutoff = 4%

Pb+Zn Cutoff = 5%

Crest #	Toe #	Volume cu. m	Grade at/cu m	Tonnage	Pb+Zn %	Pb %	Zn %	Ag g/mt	Au g/mt
1158	1152	0	0.00						
1152	1144	17,320	3.97	68,480	7.94	3.77	4.39	35.2	1.37
1144	1140	91,390	3.85	313,876	7.79	3.36	4.43	58.1	0.98
1140	1134	358,690	3.84	1,375,470	8.19	3.68	4.59	52.0	0.84
1134	1128	135,410	3.79	513,898	8.85	3.58	4.67	51.7	0.79
1128	1122	113,430	3.69	418,938	8.11	3.51	4.68	52.8	0.76
1122	1116	111,780	3.71	414,888	8.15	3.45	4.78	51.9	0.77
1116	1110	143,320	3.99	515,838	8.29	3.56	4.73	58.4	0.74
1110	1104	175,460	3.42	680,638	7.53	3.17	4.36	45.8	0.74
1104	1098	153,820	3.45	538,118	7.53	3.23	4.38	46.2	0.74
1098	1092	132,240	3.74	494,338	8.97	4.01	4.96	57.6	0.73
1092	1086	183,760	4.81	645,998	9.63	4.28	5.35	59.1	0.70
1086	1080	169,580	3.88	625,248	8.92	3.94	4.98	55.3	0.76
1080	1074	111,180	3.97	441,568	9.23	4.13	5.12	58.9	0.81
1074	1068	99,880	4.81	356,888	9.88	4.11	4.97	59.1	0.84
1068	1062	71,560	4.83	288,578	9.88	4.13	4.87	58.6	0.72
1062	1056	64,820	3.99	238,828	8.48	3.91	4.57	53.8	0.75
1056	1050	48	4.88	248	5.82	2.33	2.69	35.2	1.34
1050	1044	0	0.00						
Totals:		1,744,210	3.78	6,438,788	8.41	3.78	4.71	53.2	0.79

Volume cu. m	Grade at/cu m	Tonnage	Pb+Zn %	Pb %	Zn %	Ag g/mt	Au g/mt
0	0.00						
14,830	4.84	56,610	8.98	4.24	4.66	61.9	1.45
61,486	3.89	239,010	9.13	3.89	3.24	57.9	0.99
136,648	3.85	525,320	8.83	3.78	4.85	54.5	0.83
122,478	3.82	467,548	8.58	3.78	4.72	54.1	0.79
98,478	3.73	367,548	8.77	3.88	4.97	56.6	0.76
96,448	3.73	368,858	8.88	3.76	5.12	55.6	0.76
128,458	3.65	468,998	8.76	3.77	4.99	53.1	0.75
147,658	3.58	516,978	8.19	3.47	4.72	49.7	0.76
138,198	3.53	468,818	8.14	3.58	4.63	58.8	0.79
116,618	3.84	447,188	9.58	4.28	5.27	61.4	0.75
98,668	4.85	399,938	9.88	4.39	5.49	68.6	0.79
97,238	3.94	382,718	9.52	4.18	5.34	58.8	0.74
182,768	4.81	411,738	9.86	4.29	5.37	61.4	0.81
83,368	4.85	337,298	9.39	4.25	5.14	61.1	0.83
69,438	4.83	288,868	9.17	4.28	4.97	59.5	0.71
61,378	4.88	245,578	9.75	4.83	4.72	57.3	0.74
38	3.67	118	7.39	3.54	3.85	43.6	1.81
0	0.00						
Totals:	3.81	5,967,668	8.95	3.94	5.82	58.4	0.79

Volume cu. m	Grade at/cu m	Tonnage	Pb+Zn %	Pb %	Zn %	Ag g/mt	Au g/mt
0	0.00						
12,398	4.87	58,348	9.46	4.33	4.93	65.8	1.52
59,348	3.89	231,898	9.28	3.94	5.34	58.9	0.99
128,588	3.89	499,988	8.86	3.89	4.97	55.8	0.84
112,638	3.85	434,198	8.82	3.93	4.89	53.9	0.81
89,388	3.78	338,188	9.14	3.98	5.16	59.8	0.78
85,988	3.79	325,498	9.34	3.96	5.38	57.9	0.76
112,398	3.73	419,158	9.27	4.88	5.27	56.3	0.77
131,738	3.56	448,588	8.58	3.65	4.95	51.9	0.77
114,968	3.68	414,868	8.57	3.71	4.86	52.6	0.81
185,388	3.93	615,848	9.94	4.47	5.47	64.2	0.76
97,618	4.87	393,868	9.94	4.42	5.32	61.8	0.79
92,388	3.97	345,938	9.75	4.27	5.48	68.2	0.74
99,288	4.82	398,968	9.84	4.35	5.49	62.4	0.81
81,488	4.86	338,218	9.58	4.38	5.28	61.8	0.83
69,828	4.83	278,338	9.28	4.21	4.99	59.7	0.78
61,228	4.88	245,818	8.76	4.83	4.73	57.4	0.74
38	3.67	118	7.39	3.54	3.85	43.6	1.81
0	0.00						
Totals:	3.86	5,489,728	9.24	4.87	5.17	58.2	0.80

Pb+Zn Cutoff = 3-4% No mining loss, no dilution, no adjustments.

Pb+Zn Cutoff = 4-5%

Crest #	Toe #	Volume cu. m	Grade at/cu m	Tonnage	Pb+Zn %	Pb %	Zn %	Ag g/mt	Au g/mt
1158	1152	0	0.0						
1152	1146	3,290	3.7	12,870	3.52	1.57	1.95	23.8	1.81
1146	1140	19,998	3.7	74,868	3.45	1.65	1.88	24.8	0.94
1140	1134	13,360	3.7	49,158	3.45	1.65	1.88	25.3	0.91
1134	1128	12,940	3.5	45,558	3.36	1.49	1.88	26.5	0.79
1128	1122	14,958	3.4	51,418	3.36	1.41	1.95	25.5	0.77
1122	1116	15,368	3.6	54,758	3.42	1.46	1.95	27.7	0.85
1116	1110	14,878	3.1	46,848	3.58	1.57	2.14	23.1	0.67
1110	1104	27,818	3.8	83,668	3.42	1.34	2.08	22.2	0.61
1104	1098	23,438	3.8	78,188	3.49	1.38	2.18	21.1	0.54
1098	1092	15,638	3.8	46,958	3.49	1.47	2.81	21.5	0.57
1092	1086	5,188	3.1	16,848	3.45	1.57	1.88	21.9	0.57
1086	1080	12,358	3.4	42,538	3.45	1.77	1.68	24.6	0.88
1080	1074	8,428	3.5	29,818	3.54	1.96	1.58	25.3	0.98
1074	1068	5,728	3.4	19,518	3.45	1.56	1.89	24.1	0.81
1068	1062	2,138	3.9	8,388	3.22	1.81	1.41	26.3	1.28
1062	1056	3,468	3.8	13,258	3.46	1.76	1.71	26.6	0.97
1056	1050	38	4.3	138	3.81	1.38	1.71	26.4	0.94
1050	1044	0	0.0						
Totals:		199,828	3.33	643,328	3.44	1.82	1.92	24.1	0.76

Volume cu. m	Grade at/cu m	Tonnage	Pb+Zn %	Pb %	Zn %	Ag g/mt	Au g/mt
0	0.00						
1,648	3.81	6,238	4.45	1.93	2.52	38.2	0.86
2,868	3.85	7,928	4.67	2.24	2.43	27.5	0.75
8,868	3.28	26,428	4.49	1.85	2.64	29.1	0.64
9,828	3.48	33,358	4.58	1.95	2.64	31.6	0.48
9,898	3.23	29,368	4.54	1.88	2.74	29.2	0.63
18,468	3.31	34,578	4.49	1.83	2.68	33.8	0.69
16,868	3.18	49,848	4.45	1.82	2.64	26.6	0.83
15,928	3.84	48,398	4.48	1.75	2.73	27.6	0.59
15,238	3.82	45,958	4.37	1.75	2.62	25.8	0.62
11,118	2.89	32,148	4.45	1.82	2.63	24.8	0.61
1,658	2.96	4,898	4.64	1.89	2.75	25.5	0.45
4,938	3.48	16,788	4.58	2.17	2.33	27.4	0.78
3,568	3.59	12,798	4.25	2.35	1.98	28.4	0.83
1,968	3.61	7,888	4.48	1.98	2.58	28.3	1.38
418	4.22	1,738	4.48	2.75	1.66	28.7	1.95
138	3.69	488	4.44	2.88	2.36	24.7	1.21
0	0.00						
Totals:	3.19	357,948	4.47	1.87	2.61	28.2	0.66