

005127

JURRAGH RESOURCES INC. GEOLOGY DEPT.  
 TONNAGE AND GRADE COMPARISON (MINED RESERVES) BY BENCH  
 YEAR END NOV.30 1986 - DEC.31 1987

FMS - Reserves mined during 1987 (comparison between different models)

BENCH	BLAST HOLE CALCULATION					F I Computer Model					FB701a Computer Model					FB701 Computer Model					
	Tonnes Pb+Zn +5%	%Pb.	%Zn.	%COMB.	Ag.g/t	Tonnes Pb+Zn +5%	%Pb.	%Zn.	%COMB.	Ag.g/t	Tonnes Pb+Zn +5%	%Pb.	%Zn.	%COMB.	Ag.g/t	Tonnes Pb+Zn +5%	%Pb.	%Zn.	%COMB.	Ag.g/t	
Zone 1																					
T6A	36 844	3.93	6.10	10.03	58																
T6B	38 578	3.75	6.20	9.95	39	N/A					N/A					N/A					
T6M	51 765	2.75	6.06	8.81	23																
TOTAL	127 187	3.40	6.11	9.51	38																
AY Phase																AY + BZ Phases					
3670	40 472	2.85	4.24	7.09	41	74 500	2.90	4.97	7.87	37	59 620	3.00	4.77	7.77	39	50 300	2.92	4.77	7.70	38	
3630	158 628	2.75	4.53	7.28	27	195 290	3.31	4.61	7.92	40	129 125	3.21	4.79	8.00	35	124 950	3.37	5.09	8.50	36	
3610	149 645	2.65	4.94	7.59	24	201 600	2.82	5.10	7.92	27	119 340	2.83	4.82	7.65	27	100 366	3.11	5.33	8.44	29	
3590	161 092	2.77	4.89	7.66	27	175 800	2.18	4.62	6.80	21	135 420	2.42	4.16	6.58	28	162 020	2.83	4.77	7.60	31	
3570	140 926	2.81	4.51	7.32	29	117 700	3.00	5.02	8.02	40	126 660	2.60	4.00	6.60	26	118 736	2.72	4.22	6.94	29	
3550	336 848	3.26	4.53	7.79	39	278 100	3.44	5.34	8.78	49	247 200	3.31	4.68	7.99	41	226 530	3.54	4.97	8.51	47	
3530	541 456	3.48	5.43	8.91	36	432 100	3.74	5.49	9.23	47	465 690	3.10	5.02	8.12	35	382 380	3.23	5.58	8.81	40	
3510	740 365	3.80	5.53	9.33	45	647 700	3.78	5.33	9.11	47	649 910	3.75	5.34	9.09	46	577 600	3.62	5.63	9.24	48	
3490	633 604	3.98	5.47	9.45	48	471 150	4.01	5.58	9.59	50	484 240	3.99	5.28	9.27	52	427 760	4.04	5.48	9.52	56	
3470	492 267	3.67	5.10	8.77	44	386 200	3.29	4.57	7.86	40	328 530	3.17	4.53	7.70	42	337 660	3.06	4.54	7.61	45	
3450	373 304	3.55	4.83	8.38	40	274 400	3.10	4.62	7.72	43	257 020	3.08	4.41	7.49	38	254 740	2.75	4.36	7.11	35	
3430	190 938	3.43	4.82	8.25	37	188 400	3.70	5.83	9.53	47	167 850	3.86	6.06	9.92	43	177 300	3.52	5.59	9.10	40	
3410	5 333	4.75	5.44	10.19	48	4 200	3.06	4.91	7.97	28	4 020	2.62	3.75	6.37	25	4 100	2.65	3.91	6.56	25	
TOTAL	3 964 878	3.51	5.13	8.64	40	3 447 140	3.45	5.16	8.62	43	3 174 625	3.37	4.95	8.33	41	2 944 430	3.36	5.16	8.52	43	
BZ Phase																					
3590	51 611	3.81	5.85	9.66	48	15 200	1.83	5.13	6.96	26	34 920	4.04	6.37	10.41	55	N/A					
TOTAL	51 611	3.81	5.85	9.66	48	15 200	1.83	5.13	6.96	26	34 920	4.04	6.37	10.41	55						
JB Phase																					
3730	43 478	3.46	4.35	7.81	56	48 300	3.22	4.98	8.20	43											
3710	132 096	2.90	4.32	7.22	39	170 400	2.78	4.43	7.21	37											
3690	53 275	2.94	4.86	7.80	36	107 200	2.47	4.71	7.18	33	N/A					N/A					
3670	35 556	2.47	4.59	7.06	31	32 350	2.19	4.51	6.70	29											
3650	6 400	2.34	4.67	7.01	27	3 750	1.70	3.30	5.00	32											
TOTAL	270 805	2.93	4.47	7.40	40	362 060	2.68	4.58	7.26	36	0	0.00	0.00	0.00	0						
YEAR	4 414 481	3.48	5.13	8.60	40	3 824 340	3.37	5.09	8.45	42	3 209 545	3.34	4.90	8.24	40	2 944 430	3.36	5.16	8.52	43	
TOTAL																					

CURRAGH RESOURCES INC. GEOLOGY DEPT.  
 TONNAGE AND GRADE COMPARISON +5% MINED RESERVES  
 YEAR END NOV.30 1986 - DEC31 1987

F I Computer Model					FB701a Computer Model					Blasthole-average pulp SB's (unadjusted)					Blasthole- reduced pulp SB's (adjusted)*					Blasthole - density 3 tnns/bcy					
BENCH	Tonnes	%Pb.	%Zn.	%COMB.	Ag.	Tonnes	%Pb.	%Zn.	%COMB.	Ag.	Tonnes	%Pb.	%Zn.	%COMB.	Ag.	Tonnes	%Pb.	%Zn.	%COMB.	Ag.	Tonnes	%Pb.	%Zn.	%COMB.	Ag.
	Pb+Zn +5%				(g/t)	Pb+Zn +5%				(g/t)	Pb+Zn +5%				(g/t)	Pb+Zn +5%				(g/t)	Pb+Zn +5%				(g/t)
Zone 1*																									
TGA											36,844	3.93	6.10	10.03	58	36,844	3.93	6.10	10.03	58	36,844	3.93	6.10	10.03	58
TGB	N/A					N/A					38,578	3.75	6.20	9.95	39	38,578	3.75	6.20	9.95	39	38,578	3.75	6.20	9.95	39
TGM											51,765	2.75	6.06	8.81	23	51,765	2.75	6.06	8.81	23	51,765	2.75	6.06	8.81	23
TOTAL											127,187	3.40	6.11	9.51	38	127,187	3.40	6.11	9.51	38	127,187	3.40	6.11	9.51	38
AY Phase																									
3670	74,500	2.90	4.97	7.87	37	59,620	3.00	4.77	7.77	39	40,472	2.85	4.24	7.09	41	38,552	2.83	4.24	7.07	41	43,167	2.74	4.30	7.04	39
3630	195,290	3.31	4.61	7.92	40	129,125	3.21	4.79	8.00	35	158,628	2.75	4.53	7.28	27	151,933	2.75	4.55	7.30	27	170,258	2.74	4.65	7.39	27
3610	201,600	2.82	5.10	7.92	27	119,340	2.83	4.82	7.65	27	149,645	2.65	4.94	7.59	24	140,628	2.65	4.95	7.60	24	146,133	2.64	5.02	7.66	24
3590	160,600	2.18	4.62	6.80	21	135,420	2.42	4.16	6.58	28	161,092	2.77	4.89	7.66	27	152,657	2.77	4.90	7.67	26	163,160	2.75	4.94	7.69	27
3570	117,700	3.00	5.02	8.02	40	126,660	2.60	4.00	6.60	26	140,926	2.81	4.51	7.32	29	132,120	2.80	4.51	7.31	29	132,839	2.79	4.51	7.30	29
3550	278,100	3.44	5.34	8.78	49	247,200	3.31	4.68	7.99	41	336,848	3.26	4.53	7.79	39	317,385	3.25	4.53	7.78	39	321,181	3.22	4.53	7.75	39
3530	432,100	3.74	5.49	9.23	47	465,690	3.10	5.02	8.12	35	541,456	3.48	5.43	8.91	36	507,585	3.47	5.42	8.89	36	508,283	3.46	5.41	8.87	36
3510	647,700	3.78	5.33	9.11	47	649,910	3.75	5.34	9.09	46	740,365	3.80	5.53	9.33	45	692,904	3.80	5.53	9.33	45	697,859	3.79	5.50	9.29	45
3490	471,150	4.01	5.58	9.59	50	484,240	3.99	5.28	9.27	52	633,604	3.98	5.47	9.45	48	593,939	3.97	5.46	9.43	48	600,834	3.94	5.42	9.36	48
3470	386,200	3.29	4.57	7.86	40	328,530	3.17	4.53	7.70	42	492,267	3.67	5.10	8.77	44	462,032	3.66	5.10	8.76	44	473,522	3.64	5.08	8.72	44
3450	274,400	3.10	4.62	7.72	43	257,020	3.08	4.41	7.49	38	373,304	3.55	4.83	8.38	40	349,836	3.55	4.83	8.38	40	353,630	3.54	4.80	8.34	40
3430	188,400	3.70	5.83	9.53	47	167,850	3.86	6.06	9.92	43	190,938	3.43	4.82	8.25	37	193,171	3.45	4.82	8.27	37	192,271	3.44	4.82	8.26	37
3410	4,200	3.06	4.91	7.97	28	4,020	2.62	3.75	6.37	25	4,919	4.61	5.68	10.29	48	4,693	4.63	5.64	10.27	48	5,333	4.75	5.44	10.19	48
TOTAL	3,431,940	3.46	5.16	8.62	43	3,174,625	3.37	4.95	8.33	41	3,964,464	3.51	5.13	8.64	40	3,737,435	3.50	5.13	8.63	40	3,808,470	3.48	5.11	8.59	40
BZ Phase																									
3590	15,200	1.83	5.13	6.96	26	34,920	4.04	6.37	10.41	55	46,505	3.81	5.83	9.64	48	44,583	3.81	5.83	9.64	48	51,611	3.81	5.85	9.66	48
TOTAL	15,200	1.83	5.13	6.96	26	34,920	4.04	6.37	10.41	55	46,505	3.81	5.83	9.64	48	44,583	3.81	5.83	9.64	48	51,611	3.81	5.85	9.66	48
JB Phase																									
3730	48,300	3.22	4.98	8.20	43						39,840	3.70	4.37	8.07	60	37,074	3.70	4.36	8.06	60	36,278	3.70	4.36	8.06	60
3710	170,400	2.78	4.43	7.21	37						156,216	2.90	4.33	7.23	39	146,518	2.89	4.33	7.22	39	152,007	2.88	4.33	7.21	38
3690	107,200	2.47	4.71	7.18	33	N/A					53,275	2.94	4.86	7.80	36	49,943	2.93	4.85	7.78	33	52,444	2.91	4.82	7.73	36
3670	32,350	2.19	4.51	6.70	29						36,336	2.49	4.59	7.08	31	34,182	2.49	4.59	7.08	31	35,556	2.47	4.59	7.06	31
3650*	1,875	1.70	3.30	5.00	32						6,400	2.34	4.67	7.01	27	6,400	2.34	4.67	7.01	27	6,400	2.34	4.67	7.01	27
TOTAL	360,125	2.69	4.59	7.28	36						292,067	2.95	4.47	7.43	40	274,117	2.94	4.47	7.41	39	282,685	2.93	4.47	7.39	39
YEAR	3,807,265	3.37	5.09	8.46	42	N/A					4,430,223	3.43	5.06	8.50	39	4,183,322	3.43	5.06	8.49	39	4,269,953	3.40	5.04	8.44	39
TOTAL																									

\* Zone 1 and 3650 JB tonnage and grade hand calculated using polygonal method assuming average density of 3 tnns/bcy

# Reduced average pulp density by 7% and 3% for massive sulphide and quartzose ore types respectively

CURRAGH RESOURCES INC. GEOLOGY DEPT.  
 VOLUME COMPARISON +5% MINED RESERVES  
 1987 YEAR END - ZONE 3

BENCH	FI Model			FB701a Model			Blasthole - Average pulp SG			Blasthole - Adjusted pulp SG			Blasthole - 3 tnns/bcy density			Digitized
	volume	density	tonnes	volume	density	tonnes	volume	density	tonnes	volume	density	tonnes	volume	density	tonnes	volume #
	bcf*1000	tnns/bcf		bcf*1000	tnns/bcf		bcf*1000	tnns/bcf		bcf*1000	tnns/bcf		bcf*1000	tnns/bcf		bcf*1000
=====																
AY & BZ Phase																
3670	695.00	0.107	74,500	583.36	0.102	59,620	388.50	0.104	40,472	388.50	0.099	38,552	388.50	0.111	43,167	
3630	1,952.50	0.100	195,290	1,256.88	0.103	129,125	1,532.32	0.104	158,628	1,532.32	0.099	151,933	1,532.32	0.111	170,258	
3610	1,975.00	0.102	201,600	1,160.54	0.103	119,340	1,315.20	0.114	149,645	1,315.20	0.107	140,628	1,315.20	0.111	146,133	
3590*	1,757.50	0.100	175,800	1,644.02	0.104	170,340	1,932.90	0.107	207,597	1,932.90	0.102	197,240	1,932.90	0.111	214,771	
3570	1,160.00	0.101	117,700	1,189.71	0.106	126,660	1,195.55	0.118	140,926	1,195.55	0.111	132,120	1,195.55	0.111	132,839	
3550	2,700.00	0.103	278,100	2,333.45	0.106	247,200	2,890.63	0.117	336,848	2,890.63	0.110	317,385	2,890.63	0.111	321,181	
3530	4,165.00	0.104	432,100	4,361.96	0.107	465,690	4,574.55	0.118	541,456	4,574.55	0.111	507,585	4,574.55	0.111	508,283	4,684.30
3510	6,142.50	0.105	647,700	6,084.64	0.107	649,910	6,280.73	0.118	740,365	6,280.73	0.110	692,904	6,280.73	0.111	697,859	6,294.20
3490	4,470.00	0.105	471,150	4,538.73	0.107	484,240	5,407.51	0.117	633,604	5,407.51	0.110	593,939	5,407.51	0.111	600,834	5,500.90
3470	3,732.50	0.103	386,200	3,295.11	0.100	328,530	4,261.70	0.116	492,267	4,261.70	0.108	462,032	4,261.70	0.111	473,522	4,264.80
3450	2,722.50	0.101	274,400	2,378.53	0.108	257,020	3,182.67	0.117	373,304	3,182.67	0.110	349,836	3,182.67	0.111	353,630	3,096.20
3430	1,755.00	0.107	188,400	1,599.83	0.105	167,850	1,730.44	0.110	190,938	1,730.44	0.112	193,171	1,730.44	0.111	192,271	1,669.40
3410	39.00	0.108	4,200	37.60	0.107	4,020	48.00	0.102	4,919	48.00	0.098	4,693	48.00	0.111	5,333	
TOTAL	33,266.50	0.104	3,447,140	30,464.36	0.105	3,209,545	34,740.69	0.115	4,010,969	34,740.69	0.109	3,782,018	34,740.69	0.111	3,860,081	25,509.80
=====																
JB Phase																
3730	452.50	0.107	48,300				326.50	0.133	39,840	326.50	0.114	37,074	326.50	0.111	36,278	
3710	1,690.00	0.101	170,400				1,368.07	0.097	156,216	1,368.07	0.107	146,518	1,368.07	0.111	152,007	
3690	1,125.00	0.095	107,200	N/A			472.00	0.113	53,275	472.00	0.106	49,943	472.00	0.111	52,444	N/A
3670	350.00	0.092	32,350				320.00	0.111	36,336	320.00	0.107	34,182	320.00	0.111	35,556	
3650	25.00	0.075	1,875				57.60	0.111	6,400	57.60	0.111	6,400	57.60	0.111	6,400	
TOTAL	3,642.50	0.099	360,125	N/A			2,544.17	0.106	270,805	2,544.17	0.108	274,117	2,544.17	0.111	282,685	N/A
TOTAL	36,909.00	0.103	3,807,265	N/A			37,284.86	0.115	4,281,774	37,284.86	0.109	4,056,135	37,284.86	0.111	4,142,766	N/A

\* Includes BZ Phase  
 # Digitized volume calculations only available for these benches at this time.

Curragh Resources Inc. Geology Department  
 Primary Crusher Feed By Blast Hole Assay  
 Year End Nov 31 1986 - Dec 31 1987

2.1 Comparison of Blasthole Average Pulp SG Calc. vs Met Balance:

Pit/S.P.	TONNES	%Pb	%Zn	%COMB	Ag g/t
Pit Feed	4,430,223	3.43	5.06	8.49	39
Change in CR SP	29,606	2.30	3.52	5.82	29
Change in LG SP	(166,753)	1.87	2.78	4.65	22
Change in OXIDE SP	(446,345)	3.30	5.22	8.52	42
	=====	=====	=====	=====	=====
Total Indicated to Mill	5,013,715	3.37	5.01	8.38	39

Reconciliation

AY Phase/S.P.	5,013,715	3.37	5.01	8.38	39
Met. Bal.	4,844,036	3.31	4.95	8.26	40
Budget	4,909,105	3.21	4.69	7.90	41

% Variance

Total Blasthole Feed vs.					
Met. Bal.	3.5%	1.8%	1.2%	1.5%	-2.2%
Budget	2.1%	5.0%	6.8%	6.1%	-5.5%

2.2 Comparison of Blasthole Reduced Pulp SG Calc. vs Met Balance:

Pit/S.P.	TONNES	%Pb	%Zn	%COMB	Ag g/t
Pit Feed	4,183,322	3.43	5.06	8.49	39
Change in CR SP	29,606	2.30	3.52	5.82	29
Change in LG SP	(166,753)	1.87	2.78	4.65	22
Change in OXIDE SP	(446,345)	3.30	5.22	8.52	42
	=====	=====	=====	=====	=====
Total Indicated to Mill	4,766,814	3.37	5.00	8.38	39

Reconciliation :

AY Phase/S.P.	4,766,814	3.37	5.00	8.38	39
Met. Bal.	4,844,036	3.31	4.95	8.26	40
Budget	4,909,105	3.21	4.69	7.90	41

% Variance :

Total Blasthole Feed vs.					
Met. Bal.	-1.6%	1.8%	1.1%	1.4%	-2.3%
Budget	-2.9%	5.0%	6.7%	6.0%	-5.5%

2.3 Comparison of Blasthole Density 3 tnns/bcy Calc. vs Met Balance:

Pit Feed	4,269,953	3.40	5.04	8.44	39
Change in CR SP	29,606	2.30	3.52	5.82	29
Change in LG SP	(166,753)	1.87	2.78	4.65	22
Change in OXIDE SP	(446,345)	3.30	5.22	8.52	42
	=====	=====	=====	=====	=====
Total Indicated to Mill	4,853,445	3.34	4.99	8.33	39

Reconciliation

AY Phase/S.P.	4,853,445	3.34	4.99	8.33	39
Met. Bal.	4,844,036	3.31	4.95	8.26	40
Budget	4,909,105	3.21	4.69	7.90	41

% Variance

Total Blasthole Feed vs.					
Met. Bal.	0.2%	0.9%	0.8%	0.8%	-2.3%
Budget	-1.1%	4.0%	6.4%	5.4%	-5.5%

CURRAGH RESOURCES INC.  
GEOLOGY DEPARTMENT MODEL COMPARISONS  
YEAR END DEC 31 1987  
+ 5% Pb+Zn

\*Note: Model Comparisons For AY Phase ONLY

AY Phase	OreTns	%Pb	%Zn	Ag g/t	PbTns	ZnTns	Ag kg
FB701A Model	3,174,625	3.37	4.95	41	106,985	157,144	130,160
FB701A Diluted	3,492,088	3.06	4.50	37	106,985	157,144	130,160
FI Model	3,431,940	3.46	5.16	44	118,745	177,088	151,005
FI Diluted	3,775,134	3.15	4.69	40	118,745	177,088	151,005
Blast Holes #1	3,964,464	3.51	5.13	40	139,153	203,377	158,579
Blast Holes #2	3,737,435	3.50	5.13	40	130,810	191,730	149,497
Blast Holes #3	3,808,470	3.48	5.11	40	132,535	194,613	152,339

Blast Hole #1 vs:	OreTns	%Pb	%Zn	Ag g/t	PbTns	ZnTns	Ag kg
FB701A Model	24.9%	4.2%	3.6%	-2.4%	30.1%	29.4%	21.8%
FB701A Diluted	13.5%	14.6%	14.0%	7.3%	30.1%	29.4%	21.8%
FI Model	15.5%	1.4%	-0.6%	-9.1%	17.2%	14.8%	5.0%
FI Diluted	5.0%	11.6%	9.4%	0.0%	17.2%	14.8%	5.0%

Blast Hole #2 vs:	OreTns	%Pb	%Zn	Ag g/t	PbTns	ZnTns	Ag kg
FB701A Model	17.7%	3.9%	3.6%	-2.4%	22.3%	22.0%	14.9%
FB701A Diluted	7.0%	14.2%	14.0%	7.3%	22.3%	22.0%	14.9%
FI Model	8.9%	1.2%	-0.6%	-9.1%	10.2%	8.3%	-1.0%
FI Diluted	-1.0%	11.3%	9.4%	0.0%	10.2%	8.3%	-1.0%

Blast Hole #3 vs:	OreTns	%Pb	%Zn	Ag g/t	PbTns	ZnTns	Ag kg
FB701A Model	20.0%	3.3%	3.2%	-2.4%	23.9%	23.8%	17.0%
FB701A Diluted	9.1%	13.6%	13.6%	7.3%	23.9%	23.8%	17.0%
FI Model	11.0%	0.6%	-1.0%	-9.1%	11.6%	9.9%	0.9%
FI Diluted	0.9%	10.6%	8.9%	0.0%	11.6%	9.9%	0.9%

Blasthole #1 : Calculation assuming average pulp ore densities  
 Blasthole #2 : Calculation assuming reduced average pulp ore densities  
 7% and 3% reduction in pulp densities for massive sulphide  
 and quartzose ore types respectively  
 Blasthole #3 : Calculation assuming average ore density of 3 tnns/bcy  
 Models diluted 10% with waste of 0% grade