

**UPDATE ON GRUM RESERVES AND OTHER ACTION ITEMS
FROM SEPTEMBER 28 MEETING**

The preliminary bench composited reserve calculation was completed for the top 20 benches. The results are shown on the attached tables. The quantity of massive sulphide within 6m of the bedrock surface was calculated as an approximation of the quantities of material that might be affected by oxidation. The proportion of the total ore that might be oxidized is limited as shown on the attached tables.

Geologic interpretation is completed for 36 benches. There are 24 benches remaining most of which will be simple as they are in parts of the deposit with little drilling or ore. Digitizing of the interpretation is on going and is the overall rate limiting step at this time. The next major task will be calculation of geologically composited assay intervals.

Review of drill core logs for oxidation features has been started but not yet completed. Quick review of Pb/Zn ratio done for drillholes by Curragh 1987-1991. The intent was to identify high Pb to Zn ratio areas indicative of surface oxidation.

1987 drilling	17 holes	6 show effect mainly above 60m depth but one as deep as 150m
1988 drilling	4 holes	3 with effect
1989 drilling	34 holes	15 show effect at depths as great as 100m, 6 of these not in ore grade sulphides which seems to have higher Pb/Zn ratio - most holes without effect have first sulphide intersection at depths > 75-100m
91 drilling	50 holes	10 show effect, 2 very pronounced and as deep as 60-100m, 7 holes show only top few metres effected rest of material, generally below 50m, was okay.

These results indicate that there is a significant amount of material at Grum which shows the assay signature of oxidized ore. It is generally shallow however further work is needed to determine depth below bedrock interface as this information was not tabulated with the data reviewed. Some oxidation extends to great depth, however this is probably related to local faults.

Samples of drill core from Grum have been collected by Faro Geology, one batch of 20-30 samples was collected for Godfrey McDonald for testwork at Lakefield and has been placed on hold. A second batch of 24 pails was collected for testing at Faro Metallurgy - pails include all rock types by bench, 2-10 kg per bench, down to bench 1222. Trenching to collect sample is underway but halted due to need to drain water.

Grum – G9108 – No Adjustments

Geological in-situ reserves – Benches 1 to 20

CUTOFF +4% Pb+Zn

<u>Bench</u>	<u>Volume</u>	<u>Density</u>	<u>Tonnes</u>	<u>Pb+Zn</u>	<u>Pb%</u>	<u>Zn%</u>	<u>Aq g/t</u>	<u>Au g/t</u>
1330	0	0.00	0	0.00	0.00	0.00	0.0	0
1324	0	0.00	0	0.00	0.00	0.00	0.0	0
1318	0	0.00	0	0.00	0.00	0.00	0.0	0
1312	0	0.00	0	0.00	0.00	0.00	0.0	0
1306	0	0.00	0	0.00	0.00	0.00	0.0	0
1300	0	0.00	0	0.00	0.00	0.00	0.0	0
1294	0	0.00	0	0.00	0.00	0.00	0.0	0
1288	0	0.00	0	0.00	0.00	0.00	0.0	0
1282	2,770	2.96	8,210	4.71	1.63	3.07	32.1	0.436
1276	9,020	2.97	26,790	4.68	1.66	3.02	33.5	0.449
1270	14,570	2.97	43,220	4.75	1.66	3.09	34.3	0.449
1264	20,120	2.91	58,470	4.64	1.49	3.14	32.1	0.425
1258	31,910	2.89	92,110	4.83	1.48	3.35	30.8	0.446
1252	52,030	2.89	150,390	5.36	1.66	3.70	31.9	0.476
1246	83,250	2.94	244,320	6.13	2.03	4.11	36.5	0.485
1240	124,180	2.97	369,130	6.84	2.40	4.43	41.8	0.514
1234	177,590	3.00	533,260	6.80	2.44	4.36	42.3	0.529
1228	221,990	3.04	674,020	7.04	2.56	4.49	43.7	0.542
1222	248,350	3.10	769,590	7.22	2.64	4.58	44.2	0.581
1216	244,880	<u>3.18</u>	778,960	<u>7.34</u>	<u>2.65</u>	<u>4.69</u>	<u>44.5</u>	<u>0.633</u>
Total	1,230,660	3.05	3,748,470	6.82	2.43	4.39	41.9	0.55

Grum – G9110 – No Adjustments

Geological in-situ reserves – Benches 1 to 20

CUTOFF +4% Pb+Zn

<u>Bench</u>	<u>Volume</u>	<u>Density</u>	<u>Tonnes</u>	<u>Pb+Zn</u>	<u>Pb%</u>	<u>Zn%</u>	<u>Aq g/t</u>	<u>Au g/t</u>
1330	0	0.00	0	0.00	0.00	0.00	0.0	0
1324	0	0.00	0	0.00	0.00	0.00	0.0	0
1318	0	0.00	0	0.00	0.00	0.00	0.0	0
1312	0	0.00	0	0.00	0.00	0.00	0.0	0
1306	0	0.00	0	0.00	0.00	0.00	0.0	0
1300	0	0.00	0	0.00	0.00	0.00	0.0	0
1294	0	0.00	0	0.00	0.00	0.00	0.0	0
1288	0	0.00	0	0.00	0.00	0.00	0.0	0
1282	0	0.00	0	0.00	0.00	0.00	0.0	0
1276	3,470	2.97	10,300	4.40	1.58	2.82	29.8	0.451
1270	9,360	2.95	27,580	4.67	1.51	3.16	38.4	0.441
1264	12,480	2.89	36,010	4.34	1.32	3.02	33.3	0.386
1258	23,570	2.86	67,480	4.88	1.57	3.31	31.0	0.482
1252	54,060	2.95	159,480	5.76	1.97	3.79	35.5	0.494
1246	84,910	2.98	253,240	5.95	2.04	3.91	35.9	0.485
1240	92,180	3.01	277,100	6.04	2.14	3.90	36.9	0.486
1234	148,670	3.07	456,300	6.39	2.35	4.04	39.9	0.535
1228	214,170	3.15	673,590	6.84	2.58	4.25	42.9	0.55
1222	242,590	3.18	770,670	6.88	2.50	4.38	41.7	0.578
1216	285,570	3.24	924,990	<u>7.30</u>	<u>2.60</u>	<u>4.70</u>	<u>43.5</u>	<u>0.632</u>
Total	1,171,030	3.12	3,656,740	6.65	2.40	4.25	40.8	0.56

Grum – G9108 – No Adjustments

Mining Reserves QS2 Pit – Benches 1 to 20

CUTOFF +4% Pb+Zn

<u>Bench</u>	<u>Volume</u>	<u>Density</u>	<u>Tonnes</u>	<u>Pb+Zn</u>	<u>Pb%</u>	<u>Zn%</u>	<u>Aq g/t</u>	<u>Au g/t</u>
1330	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1324	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1318	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1312	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1306	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1300	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1294	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1288	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1282	1,390	2.97	4,120	4.67	1.65	3.02	33.5	0.45
1276	4,860	2.97	14,430	4.62	1.57	3.06	36.3	0.45
1270	3,690	2.95	10,870	4.76	1.45	3.30	40.2	0.44
1264	8,260	2.85	23,540	4.59	1.40	3.19	31.4	0.41
1258	19,150	2.86	54,780	4.91	1.54	3.37	27.6	0.49
1252	32,220	2.89	93,020	5.59	1.76	3.84	31.1	0.53
1246	52,860	2.97	156,780	6.44	2.17	4.27	38.7	0.52
1240	75,330	3.05	230,000	7.59	2.67	4.92	46.4	0.57
1234	100,650	3.11	313,240	7.77	2.80	4.97	47.4	0.60
1228	114,410	3.16	361,850	8.15	3.02	5.13	50.0	0.61
1222	130,400	3.19	415,400	8.05	2.93	5.11	48.6	0.64
1216	<u>126,110</u>	<u>3.25</u>	<u>410,240</u>	<u>7.99</u>	<u>2.84</u>	<u>5.15</u>	<u>47.4</u>	<u>0.70</u>
Total	669,330	3.12	2,088,270	7.56	2.70	4.87	45.8	0.61

Grum – G9110 – No Adjustments

Mining Reserves QS2 Pit – Benches 1 to 20

CUTOFF +4% Pb+Zn

<u>Bench</u>	<u>Volume</u>	<u>Density</u>	<u>Tonnes</u>	<u>Pb+Zn</u>	<u>Pb%</u>	<u>Zn%</u>	<u>Aq g/t</u>	<u>Au g/t</u>
1330	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1324	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1318	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1312	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1306	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1300	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1294	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1288	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1282	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1276	1,040	2.97	3,090	4.48	1.48	3.01	35.7	0.45
1270	5,880	2.93	17,250	4.67	1.40	3.27	42.4	0.43
1264	8,740	2.87	25,080	4.32	1.31	3.01	32.4	0.37
1258	21,760	2.86	62,200	4.92	1.60	3.33	30.8	0.49
1252	44,590	2.96	132,170	5.97	2.06	3.90	36.6	0.51
1246	66,990	3.01	201,400	6.21	2.15	4.07	37.8	0.49
1240	67,020	3.04	203,680	6.37	2.25	4.12	39.0	0.51
1234	95,180	3.12	297,080	6.79	2.47	4.32	41.6	0.57
1228	113,750	3.21	365,460	7.55	2.82	4.73	46.1	0.60
1222	128,600	3.23	414,980	7.60	2.67	4.93	44.5	0.64
1216	<u>139,190</u>	<u>3.29</u>	<u>458,180</u>	<u>8.12</u>	<u>2.84</u>	<u>5.28</u>	<u>47.0</u>	<u>0.72</u>
Total	692,740	3.15	2,180,570	7.11	2.52	4.58	42.7	0.60

Grum – G9110 – No Adjustments

QS2 Pit Reserves – All ore types – Benches 1 to 20

CUTOFF +4% Pb+Zn

<u>Bench</u>	<u>Volume</u>	<u>Density</u>	<u>Tonnes</u>	<u>Pb+Zn</u>	<u>Pb%</u>	<u>Zn%</u>	<u>Aq g/t</u>	<u>Au g/t</u>
1330	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1324	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1318	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1312	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1306	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1300	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1294	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1288	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1282	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1276	1,040	2.97	3,090	4.48	1.48	3.01	35.7	0.45
1270	5,880	2.93	17,250	4.67	1.40	3.27	42.4	0.43
1264	8,740	2.87	25,080	4.32	1.31	3.01	32.4	0.37
1258	21,760	2.86	62,200	4.92	1.60	3.33	30.8	0.49
1252	44,590	2.96	132,170	5.97	2.06	3.90	36.6	0.51
1246	66,990	3.01	201,400	6.21	2.15	4.07	37.8	0.49
1240	67,020	3.04	203,680	6.37	2.25	4.12	39.0	0.51
1234	95,180	3.12	297,080	6.79	2.47	4.32	41.6	0.57
1228	113,750	3.21	365,460	7.55	2.82	4.73	46.1	0.60
1222	128,600	3.23	414,980	7.60	2.67	4.93	44.5	0.64
1216	<u>139,190</u>	<u>3.29</u>	<u>458,180</u>	<u>8.12</u>	<u>2.84</u>	<u>5.28</u>	<u>47.0</u>	<u>0.72</u>
Total	692,740	3.15	2,180,570	7.11	2.52	4.58	42.7	0.60

Grum – G9110 – Adjustment for Potential Weathering

QS2 Pit – All ore types within 6m of overburden surface removed

CUTOFF +4% Pb+Zn

<u>Bench</u>	<u>Volume</u>	<u>Density</u>	<u>Tonnes</u>	<u>Pb+Zn</u>	<u>Pb%</u>	<u>Zn%</u>	<u>Aq g/t</u>	<u>Au g/t</u>
1330	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1324	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1318	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1312	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1306	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1300	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1294	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1288	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1282	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1276	80	2.97	240	4.44	1.46	2.98	35.2	0.45
1270	3,280	2.94	9,660	4.66	1.42	3.24	40.7	0.44
1264	6,930	2.88	19,940	4.32	1.30	3.03	34.6	0.32
1258	16,250	2.87	46,580	4.74	1.51	3.23	29.4	0.50
1252	26,780	2.88	77,090	5.58	1.83	3.74	32.0	0.51
1246	51,740	2.98	153,960	6.01	2.05	3.96	36.0	0.48
1240	60,210	3.01	181,340	6.23	2.18	4.05	38.3	0.50
1234	76,250	3.08	234,720	6.76	2.46	4.30	41.5	0.54
1228	89,420	3.13	280,090	7.16	2.63	4.52	44.0	0.59
1222	108,100	3.16	342,060	7.40	2.60	4.80	43.5	0.62
1216	127,960	3.26	417,170	8.06	2.82	5.24	46.7	0.71
Total	567,000	3.11	1,762,850	6.99	2.46	4.53	41.9	0.59

MASSIVE SULPHIDE WITHIN 6m OF OVBD CONTACT

Grum g9110 Mining Reserves QS2 Pit – Benches 1 to 20

CUTOFF +4% Pb+Zn

<u>Bench</u>	<u>Volume</u>	<u>Density</u>	<u>Tonnes</u>	<u>Pb+Zn</u>	<u>Pb%</u>	<u>Zn%</u>	<u>Aq g/t</u>	<u>Au g/t</u>
1330	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1324	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1318	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1312	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1306	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1300	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1294	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1288	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1282	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1276	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1270	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1264	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1258	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1252	0	0.00	0	0.00	0.00	0.00	0.0	0.00
1246	0	0.00	0	0.00	0.00	0.00	0.0	0.00
* 1240	540	4.11	2,200	8.66	4.15	4.52	61.4	0.91
* 1234	3,550	4.10	14,560	9.01	4.11	4.90	58.5	0.88
* 1228	13,800	3.95	54,460	8.21	3.59	4.62	52.2	0.76
* 1222	23,450	3.86	90,550	9.12	3.59	5.54	54.9	0.80
* 1216	30,820	3.98	122,720	9.21	3.51	5.70	55.1	0.85
Total	72,160	3.94	284,490	8.98	3.58	5.39	54.7	0.82

* NOTE CHANGING Pb/Zn Ratio

Grum – G9110 – Adjustment for Potential Weathering

QS2 Pit – Massive Sulphide Reserves within 6m of overburden contact removed

CUTOFF +4% Pb+Zn

<u>Bench</u>	<u>Volume</u>	<u>Density</u>	<u>Tonnes</u>	<u>Pb+Zn</u>	<u>Pb%</u>	<u>Zn%</u>	<u>Aq g/t</u>	<u>Au g/t</u>
1330	0		0	0.00	0.00	0.00	0.0	0.00
1324	0		0	0.00	0.00	0.00	0.0	0.00
1318	0		0	0.00	0.00	0.00	0.0	0.00
1312	0		0	0.00	0.00	0.00	0.0	0.00
1306	0		0	0.00	0.00	0.00	0.0	0.00
1300	0		0	0.00	0.00	0.00	0.0	0.00
1294	0		0	0.00	0.00	0.00	0.0	0.00
1288	0		0	0.00	0.00	0.00	0.0	0.00
1282	0		0	0.00	0.00	0.00	0.0	0.00
1276	1,040	2.97	3,090	4.48	1.48	3.01	35.7	0.45
1270	5,880	2.93	17,250	4.67	1.40	3.27	42.4	0.43
1264	8,740	2.87	25,080	4.32	1.31	3.01	32.4	0.37
1258	21,760	2.86	62,200	4.92	1.60	3.33	30.8	0.49
1252	44,590	2.96	132,170	5.97	2.06	3.90	36.6	0.51
1246	66,990	3.01	201,400	6.21	2.15	4.07	37.8	0.49
1240	66,480	3.03	201,480	6.34	2.23	4.11	38.7	0.50
1234	91,630	3.08	282,520	6.67	2.38	4.29	40.7	0.56
1228	99,950	3.11	311,000	7.43	2.69	4.75	45.0	0.57
1222	105,150	3.09	324,430	7.18	2.41	4.76	41.6	0.60
1216	108,370	3.10	335,460	7.72	2.60	5.12	44.0	0.67
Total	620,580	3.06	1,896,080	6.83	2.36	4.46	40.9	0.56

CURRAGH RESOURCES - GRUM MINE

HISTOGRAM OF LEAD+ZINC BY ORE TYPE

